The influence of relationship and fantasy characteristics on sexual fantasy disclosure likelihood.

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Abstract:

Research (e.g., Leitenberg & Henning, 1995) suggests that most people experience sexual fantasies at some point in their lives. What's more, investment in sexual fantasies is high (Lehmiller, 2018), and the majority report desires to enact at least some of their sexual fantasies (Lehmiller, 2018;2020). However, less than a third of participants in Lehmiller's (2018) research reported enactment, despite disclosure largely being positive experiences (Lehmiller, 2020). The disclosure of sexual fantasies can provide several benefits to the relationship, such as higher sexual satisfaction (Anderson, 2011; Frederick et al., 2017) and higher sexual novelty (Frederick et al., 2017). Both factors have been highlighted as positive predictors of relationship satisfaction (Rosa et al., 2019), which is important for relationship maintenance (Weisler & Weigel, 2016). Engagement with sexual fantasies that involved one's current partner provided benefits in the form of higher sexual desire for partners (Birnbaum et al., 2019; Langeslag & Davis, 2022) and greater engagement in relationship promoting behaviours (Birnbaum et al., 2019). Therefore, understanding the factors which may influence whether sexual fantasies are disclosed may provide benefits to relationship maintenance, including in sex and relationship therapy.

The focus of this thesis was to identify factors which influence whether individuals disclose sexual fantasies or not. Due to the absence of current research on sexual fantasy disclosure, a systematic review (Chapter 2/ Appendix 1) was first completed to identify factors which influence other forms of self-disclosure, which may be of relevance to the disclosure of sexual fantasies. In Chapter 3, participants were asked to describe their reasons for either disclosing or not disclosing a sexual fantasy and five categories were generated: sexual gratification, relationship-motivated, partner traits or characteristics, communication patterns, and specific fantasy content. Chapters 4 and 6 then examined whether relationship

characteristics (which were highlighted as a prominent motivator in Chapter 3) could be used to predict sexual fantasy disclosure and disclosure likelihood. Several characteristics were significant predictors, including: relationship duration, intimacy, passion, commitment, sexual idealisation, sexual novelty, need prioritisation, relationship satisfaction, orgasmic satisfaction and orgasmic consistency. These chapters highlighted the influence that an individual's relationship can have over disclosure behaviour. In Chapter 5, the influence of fantasy specific characteristics was examined in relation to their ability to predict disclosure behaviour through scenarios. This Chapter highlighted the influence that the specific fantasy can have over whether sexual fantasies are disclosed or not.

Overall, the findings of this thesis highlight several characteristics at a relational and fantasy level, which can influence sexual fantasy disclosure and highlights several directions for future research. Communication privacy management theory (Petronio, 2002) suggests that many components of an individual's life are considered when determining the potential costs and rewards of disclosure.

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Author's declaration

The research discussed in this thesis was conducted whilst the author was enrolled on a full-time PhD programme at Staffordshire University. The author declares that this work has not been submitted in fulfilment of any other degree qualification at Staffordshire University or any other institution.

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Outputs and research dissemination:

At the time of submission, the following outputs and publications have been produced from the PhD:

Kimberley, M. L. (June 2021) Sexual fantasies: The unspoken conversation [Photograph].

My research in a photograph competition, Staffordshire University, Stoke-on-Trent, United

Kingdom. Viewable at: https://blogs.staffs.ac.uk/research-knowledge-

exchange/2021/06/11/my-research-in-a-photograph/

Kimberley, M. L. (June 2022) *A content analysis of sexual fantasy disclosure reasoning and partner response* [Conference presentation]. Staffordshire University/Keele University joint psychology conference, Keele University, Newcastle, United Kingdom.

Kimberley, M. L. (June 2023) *The influence of relationship characteristics on sexual fantasy disclosure* [Conference presentation]. Staffordshire University/Keele University joint psychology conference, Staffordshire University, Stoke-on-Trent, United Kingdom.

Kimberley, M. L., Jones, S. A., & Elliott, J. M. (2024). A content analysis of reasons for disclosing sexual fantasies and partner responses. *The Journal of Sex Research*, 1-12,

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Chapter 1: Introduction

Research (e.g., Lehmiller & Gormezano, 2022; Leitenberg & Henning, 1995) has reported that sexual fantasies are near universally experienced. The unconscious and personal nature of sexual fantasies means that individuals can fantasise about a diverse range of content (Joyal et al., 2015) and are often highly invested in their fantasies (Lehmiller, 2018), with many wishing to enact their favoured sexual fantasy (Lehmiller, 2020).

Several benefits to the individual and relationship when sexual fantasies are engaged with, disclosed, or reported (Leitenberg & Henning, 1995). Frequent engagement with sexual fantasies can lead to increases in sexual desire (Leitenberg & Henning, 1995), higher sexual functioning (Zimmer et al., 1983), and increased sexual pleasure (Hill, 2008). Fantasising about a romantic partner can provide benefits to the relationship, such as greater engagement in relationship maintenance behaviours (Birnbaum et al., 2019). Where fantasies are disclosed, experiences were largely positive (Lehmiller, 2020) and was associated with increases in sexual satisfaction (Frederick et al., 2017). Despite the potential benefits of disclosure, not all sexual fantasies are disclosed (Anderson, 2011) and little research has been investigated why someone may choose to disclose or not disclose a sexual fantasy. This thesis aimed to identify which factors can predict the likelihood of disclosing a sexual fantasy or not.

1.1: Definitions of sexual fantasy

Leitenberg and Henning (1995) defined a sexual fantasy as any mental imagery occurring during a conscious state, which is perceived as sexually arousing or at least erotic. Whilst historically viewed as anomalous or paraphilic, research has reported that sexual fantasies are near universally experienced (e.g., Lehmiller, 2018; Lehmiller, 2020; Lehmiller & Gormezano, 2022; Leitenberg & Henning, 1995). Other studies placed this occurrence as

being lower, for example in a study of college students Brenot (2012, as cited in Joyal et al., 2015) reported that 71.4% of participants had experienced sexual fantasies. It is worth noting that much of this research has been limited to Western cultures (for a discussion of cultural differences, please see Chapter 1.3.3). Additionally, a distinction must be made between the occurrence of sexual fantasies and the presence of sexual desire, as sexual fantasies can be experienced in the absence of desires for enactment or sexual interest (Cado & Leitenberg, 1990; for further discussion of how sexual fantasies can be interpreted by the individual, please see Chapter 1.4.1)

Fantasies vary in terms of fantasy frequency and how elaborate they are (Leitenberg & Henning, 1995). The research has suggested that many people experience sexual fantasies several times per day (Ellis & Symons, 1990; Jones & Barlow, 1990; Lehmiller, 2018), though this can be influenced by several factors (see Chapter 1.3 for more discussion on these differences). Individuals can become highly invested in their sexual fantasies, with some (10% of men and 20% of women) reporting orgasm from simply thinking about their favourite sexual fantasy, without physical stimulation (Lehmiller, 2018).

1.2: Sexual fantasy content

The private and personal nature of sexual fantasies allows individuals to reflect on any desired content without fear of social, legal, or relational consequences (Leitenberg & Henning, 1995; Wilson, 1997). Wilson (1997) argued that due to their unconscious nature, sexual fantasies provided a more accurate insight into sexual nature than behaviour alone. The content of sexual fantasies can be diverse and variable, although large overlaps in content have been noted (Lehmiller, 2018; 2020). For example, Lehmiller (2018) reported that few participants had not experienced fantasies involving multiple partners, power exchange or the exchange of pain between partners.

Historically, many sexual fantasies (e.g., those relating to sadomasochism or same-sex relationships) have been characterised as paraphilic, for example in the DSM-IV (First, 2014; Woodworth et al., 2013). The definition of what constitutes a paraphilic sexual fantasy or act has evolved over time. The DSM-III originally used the term to describe any sexual interest or arousal related to objects, situations, or non-consenting individuals (as cited in Beech et al., 2016). In the DSM-5 this definition evolved to focus on sexual paraphilias as nonnormophilic interests: "any intense and persistent sexual interest other than sexual interest in genital stimulation or preparatory fondling with phenotypically normal, physically mature, consenting human partners" (DSM 5, pp 685, as cited in Jayal et al. 2015). The focus on the categorisation of sexual interest and sexual fantasies as paraphilic based on perceived normality proves problematic, due to the reliance historical, political, or sociocultural factors (Joyal, 2014). What more, when the prevalence of fantasies was examined, few fantasies were statistically rare (Joyal et al., 2015; Joyal & Carpentier, 2017). In an examination of the prevalence of sexual fantasies, Joyal and colleagues (2015) reported that only two fantasies (sex with a child under twelve years and sex with animals) were rare: defined as occurring in less than two percent of the sample. Moreover, only a further nine were classified as unusual (endorsed by less than 15.9% of participants). Two fantasies were recorded as unusual amongst both genders: urinating on a partner; and being urinated on. For male participants, fantasies involving having sex with two men or more than three men were statistically unusual, though this finding can likely be attributed to the sample being predominantly heterosexual (85.6%). For female participants, an additional five fantasies were categorised as unusual: wearing opposite gender clothing; forcing someone to engage in sexual acts; abusing someone who is drunk, sleeping or unconscious; engaging in sex acts with a prostitute; and engaging in sexual acts with a woman who has small breasts.

These findings suggest that many fantasies (e.g., BDSM, exhibitionism and voyeurism), which are currently (or recently) classified as paraphilic in the DSM, are in fact relatively common amongst the population. In a recent study of over ten thousand Czech participants, Bártová and colleagues (2021) reported that almost one third of participants reported experiencing at least one paraphilic preference, with a further 15.5% of men and 5% of women reported having two or more preferences. Though it is worth noting that Bártová and colleague's research focused on preferences, rather than purely having experienced paraphilic sexual fantasies. In Joyal and Carpentier's (2017) research, nearly half of the sample reported paraphilic sexual interests, whilst Ahlers and colleagues (2011) placed this figure higher, at over sixty percent of participants reporting paraphilic sexual fantasy.

However, it is worth noting that participants who are willing to discuss/describe their sexual fantasies with researchers may differ to those who choose not to take part in such research, thus the actual prevalence of many fantasies could be lower. The assessment of sexual fantasy content is hindered by issues of social desirability, due to its reliance on self-report (Seehuus et al., 2022; Seifert et al., 2017). For example, online studies have been demonstrated to record higher interests in paraphilic fantasies (Joyal & Carpentier, 2017).

Researchers (e.g., Anderson, 2011; Lehmiller, 2018; Wilson & Lang, 1981) have observed large overlaps in the content of sexual fantasies between individuals. This has led to several attempts at categorising the content of sexual fantasies. Table 1 summarises the themes identified in this research and similarities to one of the commonly used categorisations proposed by Lehmiller (2018).

Lehmiller (2018) conducted a large-scale survey of sexual fantasies in the United States, with 4175 participants who varied in age, occupation, sexual orientation, gender, political background, religiosity, and relationship type. Participants were asked to complete both

sexual fantasy indexes (during which they indicated all fantasies that they had experienced) and to describe their favourite sexual fantasy. From this information, seven themes were developed, which were argued to be representative of most sexual fantasies. These are discussed in order of their reported frequency.

The first of these themes was "*multi-partner sex*", which included sexual fantasies in which the individual engaged in sexual acts with two (or more) partners. In Lehmiller's (2018) sample, this was the most prevalent form of sexual fantasy, with 89% of participants fantasising about threesomes and more than a third of participants describing group sex as their favourite fantasy.

The second most reported sexual fantasy theme was "power, control and rough sex", which included fantasies involving the consensual exchange of power or pain. Indeed, it was relatively rare in the sample for participants to have not experienced BDSM-related fantasies (only 4% of women and 7% of men). Moreover, 65% of participants reported fantasies involving inflicting pain on a partner, whilst 60% fantasised about their partner inflicting pain on them.

The third most common fantasy theme was "novelty, adventure and variety", which included fantasies in which the participant engaged in new sexual acts, sexual acts in unique settings or unexpected or spontaneous sexual interactions. This theme included fantasies involving food, sex toys, props, or outdoor/novel locations. One fifth of participants described that their favourite sexual fantasy involved elements of sexual novelty.

Many participants also reported fantasies in the theme "taboo and forbidden sex", which included activities considered taboo by society, religion, or culture. Included here were sexual fantasies which would be illegal or societally frowned upon to act upon, such as non-consensual voyeurism. Fetishism, including sexual fantasies where the central focus is on an

object (e.g., underwear or leather) or a body part/fluid (e.g., feet or urine) would also fall within this theme.

The theme "partner sharing and nonmonogamy" included fantasises about relationships in which partners are free to pursue more than one sexual/romantic relationship at one time. Being in an open relationship was the most experienced (79% of men and 62% of women) in this category. Other fantasies in this category included swinging or cuckolding/cuckqueaning (fantasies where partners watched the individual engage with sexual acts with another person or where they watched their partner engage with other partners).

Fantasies were categorised within the theme "passion and romance", where they placed a strong emphasis on emotional fulfilment and maintaining intimate connections with partners. Such fantasies placed importance on intense sexual attraction or emotional connection with their partner.

The final theme was "erotic flexibility", which included sexual acts involving the flexibility of one's sexual or gender identity. For example, engaging in sexual acts with an individual one would not typically be attracted to (for example a heterosexual man may fantasise about sexual activity with another man) or dressing in clothing perceived as being not typical of their gender.

This thesis utilised Lehmiller's (2018) seven themes to examine both actual and hypothetical sexual fantasy disclosure. These themes were utilised as they are broad and contain overlaps with several other attempts at categorising sexual fantasies (e.g., those of Anderson, 2011; Wilson & Lang, 1981). For example, most categorisations in Table 1 included reference to sexual fantasies involving elements of romance or BDSM, with several also including sexual exploration or multiple partners. Through several studies, Lehmiller (2018; 2020; Lehmiller

& Gormezano, 2022) argued that most people's fantasies tended to include elements of at least one of the developed seven categories.

What's more, Lehmiller's categorisation has several strengths compared to others. Firstly, Lehmiller's categorisation was developed based upon the responses of a large and diverse sample of over 4000 participants from the general population. In comparison, Wilson and Lang's (1981) categorisation was developed from the responses of only ninety participants with a response rate of only thirty percent. Similar numbers of responses were obtained by Birnbaum (2007), who recruited participants directly from universities and community centres. The ability to recruit larger samples in these two studies may have been hindered, in part due to face-to-face recruitment methods rather than online recruitment. In contrast, the use of online recruitment methods by Lehmiller provided advantages considering the private and personal nature of the research topic. It is plausible that considering the personal nature of the topic, the increased anonymity associated with online recruitment may increase participant comfort when responding to an online survey. Indeed, Joyal and Carpentier (2017) reported higher rates of paraphilic sexual fantasies in online samples.

Though it is worth noting that Lehmiller's categorisation is not without its limitations. Firstly, there are several overlaps between categories and most notably between the categories of "multi-partner sex" and "partner sharing and non-monogamy". Both categories can occur in the absence of the other, for example sex with several individuals in the absence of the romantic partner, or fantasies about consensually non-monogamous sexual encounters with one individual. However, they can occur in tandem within a fantasy, such as sex with multiple people and a romantic partner. Furthermore, there is a degree of subjectivity in the categories which leads to difficulties coding. As an example, the category "taboo and forbidden sex" is particularly vulnerable to subjective interpretation, as perceptions of what is deemed "taboo sex" is likely to vary between researchers and between the researcher and

their participants. Similar to the discussion of the difficulties of categorising sexual fantasies as paraphilic, the categorisation of a fantasy as "taboo" or "forbidden" is reliant on determinations of what constitutes "normative" sexual behaviour or desire. As discussed by Joyal (2014), such attempts are vulnerable to historical, political and sociocultural factors. Additionally, with Lehmiller's sample being obtained from the USA, this categorisation may have limited applications outside of the United States.

Though it has its limitations, Lehmiller's categorisation was utilised during this thesis, as it was deemed that the strengths in regard to the development of the categories and the diversity of the sample outweighed the potential coding difficulties and overlap. Though in acknowledgement of these limitations, every attempt was made to draw clear distinctions between categories.

Table 1: Categorisations of sexual fantasy content with a comparison to Lehmiller's (2018) sexual fantasy themes.

Article	Sample	How were categories developed?	Categories proposed	Overlap with Lehmiller (2018)
Lehmiller (2018)	4175 participants in the USA. Participants were diverse in terms of age, occupation, sexual orientation, gender, political background, religiosity and relationship type.	Participants self-described their favourite sexual fantasy and completed sexual fantasy indexes.	Multi-partner sex Power, control and rough sex Novelty, adventure and variety Taboo and forbidden sex Non-monogamy and partner sharing Passion and romance Erotic flexibility	
Anderson (2011)	370 adults (135 men and 235 women) recruited through online methods and from a Midwestern United States College. Participants were predominantly younger (M=21.2 years), Caucasian (87.6%) and heterosexual (93.5%).	Participants were asked to describe their most frequent or reoccurring sexual fantasies.	Power (domination/submission) Water (fantasies involving water) Characters (Generic/made-up person) Real person (any other than partner) Romance Roleplay Toys/ingredients Location Specific sexual act Multiple partners	Both include themes representing BDSM sexual acts, romance, and sex with multiple partners. Themes of water, roleplay, toys/ingredients have overlaps with themes of sexual novelty/taboo and forbidden sex. Major difference is that Anderson (2011) included categories based upon those featuring in the fantasy.
Wilson & Lang (1981)	90 participants living in London, United Kingdom. Stratified sampling used to select participants based on sex and social class.	Information collected on sexual behaviour, libido, and sexual satisfaction. Factor analysis used to identify factors representing sexual fantasies.	Exploratory Intimate Impersonal Sadomasochistic	Both include themes relating to sexual exploration (exploratory vs novelty, adventure, and variety) and BDSM-related fantasies (sadomasochistic vs power, control and rough sex). Themes categorised as "intimate" by Wilson and Lang is represented by Lehmiller's "passion and romance". Major distinction is Wilson and Lang's inclusion of the category "Impersonal". Whilst at times, this may be represented in "multi-partner sex", for example in group settings, there are also be some fantasies, for example anonymous
				encounters featuring only one partner, which would not. Though these could be argued as falling under "novelty, adventure and variety" or "taboo and forbidden sex".

Birnbaum, 2007	Study 1: 176 participants recruited from universities and community centres in Israel. Sample contained more women than men (107 compared to 69) and ranged in age from 19-40 (M=25.5). Study 2: 115 participants recruited from universities and community centres in Israel. Sample contained a slightly higher number of women than men (59 compared to 56). Participants were aged 19-37 (M=26.24). All participants have previously had heterosexual sex.	A sexual fantasy index was constructed based on items previously used. Common factor analysis used to identify common factors. In study 2, participants were provided with a definition of a sexual fantasy taken from Leitenberg & Henning (1995) and asked to describe one of their sexual fantasies.	Unrestricted/emotionless sex Romance Submission Dissociation Dominance	Both include themes relating to BDSM (Birnbaum's submission or dominance and Lehmiller's power, control and rough sex) and romance. Dissociation fantasies involve sex with an imaginary of faceless individual. Whilst unrestricted/emotionless sex refers to fantasies involving multiple partners. Both of these have overlaps with Wilson and Lang's "impersonal" category and are represented in several of Lehmiller's, for example: "multipartner sex", "novelty, adventure and variety" and "taboo and forbidden sex".
Gray et al., 2003	50 undergraduate students at Cardiff University (United Kingdom). Sample was predominantly young (M-19.62 years), Caucasian (94%) and female (32 compared to 18).	A sexual fantasy index was developed to identify the presence of sadomasochistic fantasies in the general population.	Romantic Impersonal Sadistic Masochistic Pre/Tactile courtship disorder Bodily functions	Both include themes involving romance and BDSM. Bodily functions can fall under sexual novelty or taboo sex. Impersonal fantasies can fall under multi-partner sex or taboo sex. Impersonal fantasies also have overlap with categories of Birnbaum, and Wilson and Lang.

1.3: Factors associated with variations in sexual fantasy frequency and content

Comparisons between groups highlighted several factors which influence fantasy content (see Leitenberg & Henning, 1995 for a review). Factors discussed in this section include sex, gender, sexual orientation, and culture.

1.3.1: Sex and gender differences in sexual fantasies

To date, a large volume of research has examined whether there are sex differences in experiences of sexual fantasies. However, much of this research has focused on sexual fantasies amongst cisgendered populations. Nimbi and colleagues (2020a) reported an absence of research examining sexual fantasies in the transgender population, meaning that little is known about experiences of sexual fantasies in this population. Lindley et al., (2022) reported few differences in the experiences of sexual fantasies of non-binary and cisgendered participants. The exception being that when describing their sexual fantasies, non-binary participants more frequently referenced non-normative genitals and less frequently referred to themselves as the focus of the fantasy.

Research focusing on sex differences in experiences of sexual fantasies (Binter et al., 2012; Chi et al., 2012; Hsu et al., 1994; Yule et al., 2017) has highlighted than male participants are more likely than female participants to experience sexual fantasies. In Chi and colleagues' (2012) research, 84.5% of male participants reported having sexual fantasies compared to 36% of female participants. Whilst Yule and colleagues (2017) partially supported these findings, this was only true for asexual participants. Asexual men were significantly more likely to report masturbation and sexual fantasies than Asexual women (75% for men compared to 51% for women). This research reported that male participants experienced sexual fantasies more frequently than female participants (Birnbaum, 2007; Ellis & Symons, 1990; Iwawaki & Wilson, 1983; Jones & Barlow, 1990; Knoth et al., 1988). Jones and Barlow (1990) reported that male participants experienced more fantasies on average per day

compared to female participants (7.2 fantasies compared to 4.5 fantasies). Similarly, Ellis and Symons (1990) reported that male participants scored higher on sexual fantasy frequency than female participants (3.22 for males compared to 1.97 for females).

In a review of the literature, Leitenberg and Henning (1995) reported that male participants experienced a greater diversity of sexual fantasy content. Men more frequently reported sexual fantasies involving multiple concurrent partners(Lehmiller, 2018; Leitenberg & Henning, 1995; Renaud & Byers, 1999). Binter and colleagues (2012) reported than 67% of men fantasised about group sex compared to 42% of women. In this research, men were more likely to fantasise about younger partners (34% compared to 11%) and inexperienced partners (55% compared to 21%). In contrast, female participants were more likely to fantasise about sex with a person of the same sex (38% compared to 11%).

Research (Bogaert et al., 2015; Iwawaki & Wilson, 1983; Lehmiller, 2018; Pelletier & Herold, 1988; Wilson & Lang, 1981; Zurbriggen & Yost, 2004) has reported that male participants were more likely to fantasise about themselves fulfilling an active or dominant role in the fantasy. Chan (2022) reported that male participants are more likely to experience paraphilic sexual fantasies, whilst Birnbaum (2007) reported more unrestricted fantasies in men. In contrast, female participants were more likely to experience emotional or romantic fantasies (Birnbaum, 2007).

The focus of male participants also seemed to vary compared to their female counterparts. Male participants tended to focus on the sexually explicit fantasy components, such as the sex acts or partner attractiveness, whereas female participants tended to focus on emotional or personal fantasy characteristics, such as the context or the emotions (Ellis & Symons, 1990; Zurbriggen & Yost, 2004). When asked to describe the content of their favoured sexual fantasy, the descriptions provided by men tended to be less descriptive than those provided

by women (Lehmiller. 2018). Descriptions provided by men also tended to focus on the fantasised acts (e.g., "threesome") rather than the context (Lehmiller, 2018).

1.3.2: Sexual orientation differences in sexual fantasies.

Sexual orientation was highlighted as a potentially influential characteristic. In a study of Italian participants, Tortora and colleagues (2020) reported the presence of both gender differences and differences by sexual orientation. Heterosexual men reported more emotional/romantic fantasies than their gay counterparts. Similarly, heterosexual women reported fewer transgressive fantasies (e.g., roleplay) and more emotional/romantic fantasies than their lesbian counterparts. These findings are substantiated in a review of the literature on sexual fantasies in gay men and lesbian women (Nimbi et al., 2020b). This review highlighted several consistent findings, including greater engagement with fantasies and greater variation in the content of the sexual fantasies of gay men and lesbian women. Variations were also observed in bisexual populations, with bisexual participants reporting more group sex fantasies than heterosexual or homosexual participants (Schmitt et al, 2003, as cited in Nimbi et al., 2020b). Yule and colleagues (2014; 2017) researched sexual fantasies in asexual participants and observed that between sixty and eighty percent of participants reported having experienced sexual fantasies. Where asexual participants did report sexual fantasies, these often did not include people or where they did, people were not the focus or were faceless (Nimbi et al., 2020a).

1.3.3: Cultural differences in sexual fantasies

It is worth noting that much of the extant research has been conducted in the United States,

Canada or Europe. In their review Lehmiller and Gormezano (2022) acknowledged that there

were cultural differences in experiences of sexual fantasies. In a comparison of American and

Chinese participants, Wu and colleagues (2016) reported that nearly half of Chinese women

sampled had not experienced sexual fantasies. Where sexual fantasies were experienced, the content of these was more modest (for example focusing on hugging/kissing) than those reported by American samples. Iwawaki and Wilson (1983) reported similar findings with British participants reporting sexual fantasies more frequently than their Japanese counterparts. In a study of sexual fantasy behaviour in Egypt, Kasemy and colleagues (2016) reported a higher prevalence of sexual fantasising amongst women when compared to men. This contrasts with much of the literature presented in Chapter 1.3.1, when males were typically highlighted as experiencing more frequent sexual fantasies. However, Critella and Bivona (2008) argued that cultural differences were the result of variations in the willingness to report sexual fantasies considered less acceptable by society. Indeed, cultural variations in sexual norms (e.g., those relating to sexual communication/sexual self-disclosure) have been noted by several researchers (for a review, please see Chapter 2). Alternatively, Joyal (2014) argued that cultural differences were the result of political, historical, and sociocultural factors. However, to date sexual fantasy research in non-Western samples is limited (Lehmiller & Gormezano, 2022), suggesting that further research is required to fully understand sexual fantasies.

1.4: Benefits of sexual fantasies

Sexual fantasies can convey many benefits, both from solely having and interacting with them, but also through the disclosure of and enactment of sexual fantasies. These benefits will firstly be discussed in relation to the individual before discussing the benefits provided to the relationship.

1.4.1: Benefits to the individual

A great deal of research has been conducted into the benefits of fantasising for sexual functioning (for reviews, please see Lehmiller & Gormezano, 2022; or Leitenberg & Henning, 1995). Having and engaging with one's sexual fantasies was linked to higher sexual

functioning (Cado & Leitenberg, 1990; Leitenberg & Henning, 1995; Zimmer et al., 1983), including: greater sexual desire/arousal, increased pleasure from sexual encounters, greater prevalence of orgasms, greater levels of sexual activity and increased sexual satisfaction (Hill, 2008; Leitenberg & Henning, 1995; Wilson & Lang, 1981).

In a study of sexual behaviour and experiences during COVID-19 social lockdowns,

Cascalheira and colleagues (2021) reported a 34.3% increase in sexual fantasising amongst
adults. These increases were frequently reported where participants were living alone/with
family members in comparison to those cohabitating with intimate partners. This suggests
that sexual fantasies provide an opportunity to achieve sexual satisfaction/pleasure in the
absence of opportunities for partnered contact. Furthermore, these increases in fantasising
were associated with increases in solitary sexual acts. Whilst not explored for increases in
fantasising, the author reported that increases in pornography consumption were described by
participants as due to increased boredom or stress. It is possible that engagement with sexual
fantasies served a similar function in alleviating stress or boredom.

However, sexual fantasies are not always positive experiences. Indeed, for some they triggered guilt (Cado & Leitenberg, 1990) or were perceived negatively (Renaud & Byers, 2001). Such experiences were most common where fantasies were perceived as being uncommon (Lehmiller, 2020), as this elicited fears that sexual fantasy revelation would trigger conflict (e.g., arguments) with intimate partners (Anderson, 2011). Similar fears were reported as barriers to the disclosure of both sexual information (for a review, please see Chapter 2) and sexual health information (for a review, please see Appendix 1). When deciding whether to disclose a sexual fantasy or not, there are potential costs which result from such disclosures. In their unpublished doctoral thesis, Anderson (2011) asked participants to indicate the potential rewards or costs which may arise from disclosing sexual fantasies. Prevalent in these responses was the potential for disclosure to trigger conflict,

whether due to partners disapproving of the fantasy or through their partner feeling uncomfortable learning the content of their sexual fantasies (or vice versa). Communicational difficulties were also cited, including beliefs that fantasies were private and the discussion of them embarrassing, which indicates that disclosing may be a negative experience for some. This was also true for those who did not wish to enact their fantasy, due to anticipated enactment pressures following disclosure. These findings highlight that an individual's relationship may play a poignant role in whether they choose to disclose a sexual fantasy or not.

1.4.2: Benefits to the relationship

Having, disclosing, and enacting sexual fantasies may also provide several benefits to the relationship, though it is worth noting that much of the extant research has focused primarily on established monogamous relationships rather than consensually non-monogamous or polyamorous relationships. In several studies (e.g., Anderson, 2011; Lehmiller, 2018; Lehmiller, 2020), partners were mostly described as responding in a positive manner to sexual fantasy disclosures. Additionally, having and engaging with sexual fantasies has been attributed as a relationship maintenance behaviour (Birnbaum et al., 2019). Engaging in sexual fantasies about one's partner was associated with greater levels of sexual desire for partners and greater engagement in relationship promoting behaviours (Birnbaum et al., 2019; Langeslag & Davis, 2022). Birnbaum and colleagues (2019) also reported that engaging in fantasies of a sexual nature provided greater relational benefits than non-sexual fantasies. This was argued to be due to increases in desire following engaging in sexual fantasies about one's partner. Considering that research tends to report declines in sexual desire over the course of the relationship (Birnbaum et al., 2007; Langeslag & Davis, 2022; Moor et al., 2021), this finding may be of great importance for sex/relationship therapy, by suggesting an avenue to increase sexual desire between long-term partners.

Disclosing and enacting sexual fantasies can provide relational benefits in the form of increases in sexual satisfaction (Anderson, 2011; Frederick et al., 2017). Anderson (2011) reported that partner disclosures of sexual fantasies were associated with increased sexual satisfaction. This was consistent with reported positive associations between sexual selfdisclosure and both relationship and sexual satisfaction (for a review see Mallory, 2018). Two explanations are proposed for this finding. Firstly, sexual fantasies can represent an individual's sexual scripts (Gagnon & Simon, 1973; Leitenberg & Henning, 1995). Disclosure may therefore lead to the development of a more pleasurable sexual script in the relationship, which is more representative of individual desires (though sexual fantasies/enactment are not always desired). Similar arguments have been used to explain the relationship between the disclosure of sexual preferences and sexual satisfaction (e.g., Byers & Demmons, 1999; MacNeil & Byers, 2005). The authors argued that disclosing liked/disliked sexual acts increased partner awareness of such preferences and allowed them to prioritise performing liked sexual acts. This led to the development of a more pleasurable sexual script in the relationship (through more liked acts being performed and less disliked acts being performed). Leitenberg and Henning (1995) argued that sexual fantasies are representative of sexual scripts and sexual desires, thus disclosing fantasies may function to increase partner awareness of individual sexual scripts. This may provide an avenue to introduce desired sexual acts (e.g., those which regularly appear in sexual fantasies). Another explanation is that disclosing sexual fantasies increased sexual satisfaction, through introducing sexual novelty to the relationship. Frederick and colleagues (2017) reported that the disclosure of sexual fantasies was associated with greater desires for sexual novelty, more willingness to initiate sexual novelty and more willingness to comply with sexual novelty. This suggests that having sexual fantasies prompts desires for sexual novelty. The disclosure

of said fantasies then serves to initiate the introduction of sexual novelty via enactment.

Increases in sexual novelty have previously been associated with higher sexual satisfaction (Frederick et al., 2017) and relationship satisfaction (Rosa et al., 2019).

The potential for sexual fantasy disclosure to increase sexual satisfaction and relationship satisfaction directly or indirectly (e.g., through increases in sexual novelty or through the development of a more pleasurable sexual script in the relationship) has wider implications for relationship maintenance. Weisler and Weigel (2016) suggested that when satisfied in their relationship, individuals were more motivated to perform relationship maintaining behaviours. Increased satisfaction in relationships has previously been associated with greater relationship happiness (Fisher et al., 2015), greater relationship stability (Sprecher, 2002), higher perceived marital quality (Stanik & Bryant, 2012) and lower perceptions that an alternative partner would be located easily (Stanik & Bryant, 2012). These findings suggest that there is the potential for sexual fantasy disclosure to act as a form of relationship maintenance. However, little research has examined the factors which can predict whether sexual fantasies or not.

1.6: Definitions and theoretical explanations of self-disclosure

Self-disclosure refers to the intentional revelation of personal information to a targeted individual (Cozby, 1973; Jourard & Lasakow, 1958; Mikulincer & Nachshon, 1991). These revelations can occur either in-person (verbally) or communicated through online technology (Nguyen et al., 2012). In intimate relationships, self-disclosures can cover a wide range of topics, including those of a sexual nature (Rehman et al., 2011). Whilst research on some forms of disclosure (e.g., HIV disclosure or the disclosure of sexual preferences) is prevalent, examinations of why individuals either disclose or do not disclose sexual fantasies are limited.

Communication privacy management theory (Petronio, 2002) and social penetration theory (Altman & Taylor, 1973) both provide theoretical underpinnings which inform current understanding of how/why an individual decides whether to disclose information to a partner.

1.6.1: Communication privacy management theory

Communication Privacy Management theory (CPM) was first proposed by Petronio (2002), as a theory to help understand the tension experienced by individuals when deciding whether to disclose private information (e.g., sexual fantasies or sexual preferences). Petronio argued that individuals actively work to control access to private information, due to their perceived ownership of this information. Rules are developed for when or if information is shared with partners or social network members. Petronio argued that the disclosure of information inherently triggers both costs and rewards for the individual. When deciding whether to disclose, a cost-reward analysis is conducted to determine whether potential rewards are greater than potential costs. Where information is private or personal, a greater number of perceived rewards are required before disclosures are initiated (Petronio, 2002).

CPM has been applied to the disclosure of sexual information, including sexting (Kahlow & Jenkins, 2022), sexual self-disclosure (Coffelt & Hess, 2014), topic avoidance (Anderson et al., 2011) and sexual communication amongst young adults (Faulker & Lannutti, 2010). The private and personal nature of sexual disclosures means there are considerable potential risks and rewards to the discloser (Faulkner & Lannutti, 2010). Disclosing personal information can trigger consequences, including negative partner responses (distrust, anger, or fear), stigma, or relational consequences). Conversely, individuals can experience positive consequences of disclosing, such as better sex, positive changes to sexual experiences, better sexual communication, sexual rewards, and sexual satisfaction (Faulkner & Lannutti, 2010). This can make disclosing difficult, and individuals must first consider whether they are more likely to experience rewards, consequences, or a mixed response (Petronio, 2002). Higher

likelihoods of self-disclosures are generally reported when individuals anticipate a positive partner response (for a systematic review, please see Chapters 2 and Appendix 1). Equally disclosure is often avoided where disclosure outcomes were perceived as likely to be negative (e.g., violence, stigma, or relationship dissolution).

The nature of sexual fantasies (private, personal, and high investment) often makes disclosing sexual fantasies difficult. Similar costs and rewards associated with sexual self-disclosure have been cited for sexual fantasy disclosure (Anderson, 2011). Perceived costs included negative partner reactions, topic awkwardness, the private nature of sexual fantasies, fear of embarrassment, and a fear of judgement (including being labelled as abnormal). Reported perceived rewards included fantasy fulfilment, strengthening bonds between partners, improved sex life, improved communication between partners and to learn about a partner's sexual preferences (through a partner reciprocating disclosures).

According to CPM, the disclosure of highly specific sexual fantasies may be avoided due to higher perceptions of disclosure costs (e.g., stigma, relational threats) and limited disclosure rewards (e.g., enactment or increases in sexual pleasure). Anderson (2011) also noted that participants expressed greater discomfort when disclosing highly specific sexual fantasies or when they were in newer relationships. The avoidance of disclosure for highly specific fantasies may be argued to be due to such fantasies being perceived as difficult to enact. The absence of enactment opportunities (where desirable) would then reduce the number of disclosure rewards in relation to disclosure costs (e.g., conflict or relationship dissolution), and as such reduced the likelihood of disclosing. In newer relationships, the absence of disclosure may be the result of having insufficient points of comparison (previous disclosure experiences) and thus the individual being unable to reduce anticipated costs by comparing to previous disclosure experiences which were positive. Individuals may avoid disclosing certain topics to protect the relationship from harm, to avoid negative emotional experiences

for both the discloser and their partner, or due to a lack of relationship closeness required to facilitate disclosure (Anderson et al. 2011). However, outside of the context of Anderson's (2011) unpublished doctoral thesis, sexual fantasy disclosure has not been examined. Thus, it is not possible to ascertain whether these findings would be consistent in a different sample.

1.6.2: Social penetration theory

Social Penetration Theory (SPT) (Altman & Taylor, 1973) outlines this process by which individuals engage in the self-disclosures within intimate relationships. SPT suggests that relationship development is systematic and predictable whereby individuals undergo similar processes in all relationships. Through the course of a relationship, intimacy and self-disclosure interact in several ways (Altman & Taylor, 1973). Firstly, through the disclosure of personal information intimacy begins to develop between partners. The development of this intimacy acts to further increase the number (and breadth) of disclosures in the relationship. Increases in intimacy (through self-disclosures) also act to increase the number (and breadth) of self-disclosures received from romantic partners. Such reciprocal disclosures act to further increase intimacy and self-disclosure in the relationship. As intimacy develops, couples not only use current disclosure costs and rewards to determine whether to disclose information, but also future disclosure costs/rewards (Altman & Taylor, 1973; Masaviru et al., 2015).

LittleJohn & Foss (2010) extend SPT through proposing four stages of romantic relationship disclosure behaviour. In the initial *orientation* stage of romantic relationship development, intimacy between partners is low and relationships are often viewed as superficial. In this stage, potential partners focus primarily on small or simple (low risk) disclosures to begin to increase intimacy between themselves and their partner (without being exposed a large amount of disclosure costs). As intimacy begins to develop, partners then progress to the *exploratory affective exchange*. In this stage, partners begin to reveal personal attributes to

their partner further increasing intimacy between partners. Although such disclosures are often limited to moderate topics (due to insufficient perceptions of experiencing disclosure rewards to allow for the disclosure of more sensitive information). Partners then progress to the *affective exchange* stage, where they are capable of disclosing both private and personal topics to their partner. In the final *affective exchange* stage, intimacy between partners is high allowing for an increased level of comfort sharing personal thoughts, beliefs and values.

Partners also possess the ability to predict their partners response to disclosures (LittleJohn & Foss, 2010). Towards the end of a relationship, individuals progress to a fifth "depenetration" stage (Tolstedt & Stokes, 1984). This stage is characterised by decreases in self-disclosure breadth and depth due to an increase in perceived costs. This can ultimately result in relationship dissolution (Tolstedt & Stokes, 1984).

1.6.3: Application of CPM and SPT in the thesis

Both CPM and SPT may provide some explanation of the process of disclosing a sexual fantasy. SPT would argue that as the relationship progresses and intimacy develops, the number of topics which partners feel comfortable disclosing increases. As such, SPT suggests that there should reach a point in the relationship, whereby a high level of intimacy has been reached in the relationship and partners feel comfortable disclosing regardless of the topic. However, considering that Anderson (2011) reported that some fantasies are more likely to be disclosed than others (e.g., those that are less specific), this suggests that there may not be a set point in the relationship where all fantasies can be disclosed. In contrast, CPM argued that disclosure is the result of an individual evaluating their own privacy rules and considering whether disclosure is likely to result in more costs (e.g., conflict) or more rewards (e.g., the enactment of a fantasy). Only where anticipated disclosure rewards outweigh the costs will an individual disclose a sexual fantasy to their partner. CPM has previously been applied to sexual fantasy disclosure in the form of Anderson's (2011) unpublished doctoral thesis,

though further examination has not since taken place. The findings of this thesis will be examined through the lens of both CPM and SPT, to decipher which theoretical model provides the greatest explanation of why sexual fantasies are either disclosed or not disclosed in the context of an intimate relationship. Considering that not all sexual fantasies are disclosed, it is anticipated that CPM will provide a more adequate explanation for sexual fantasy disclosure.

1.7: Objectives and summary of thesis

Sexual fantasies are experienced near universally with varying frequency (Lehmiller, 2018; Lehmiller, 2020; Leitenberg & Henning, 1995). Many individuals wish to enact their sexual fantasies and often experiences of disclosure are largely positive (Lehmiller, 2020). Such disclosures illicit several benefits for an intimate relationship, however, not all sexual fantasies are disclosed (Frederick et al., 2017). The existent literature is bereft of research that explores the processes involved in sexual fantasy disclosure or the predictors of whether disclosure occurs.

The present Ph.D. programme aims to develop an understanding of some of the factors which influence the disclosure of sexual fantasies. Of particular interest is how disclosure likelihood is influenced by the fantasy (as the disclosure topic) and the intimate relationship (as the location of the disclosure). For the purpose of this thesis, the definition of sexual fantasy provided by Leitenberg and Henning (1995) will be used, where sexual fantasies are considered as any mental imagery during a conscious state, which is perceived as at least erotic. A relationship is considered to be intimate, where it contains two or more people who are consensually engaged in a sexual and/or romantic relationship. Whilst it is acknowledged that sexual fantasies can be disclosed outside of the context of an intimate relationship (e.g., to friends or online), this falls outside of the scope of this thesis.

Due to the absence of research examining sexual fantasy disclosure, a systematic review was conducted with a broader scope to examine which factors influence whether individuals engage in self-disclosure in intimate relationships. The findings of this review are discussed in Chapter 2 (sexual self-disclosure) and Appendix 1 (sexual health disclosures). These reviews helped to inform the scope and direction of the PhD programme by identifying relevant factors for future examination.

To identify which factors are also relevant for the disclosure of sexual fantasies, in Chapter 3, participants were asked to describe their reasons for either disclosing or not disclosing a prominent sexual fantasy. Descriptive content analysis was then used to categorise these responses. Chapter 3 discusses the reasons provided by participants for either disclosing or not disclosing sexual fantasies and the response (or anticipated response) of their partner. Of particular relevance for this thesis, is that an individual's relationship and the specific content of their fantasy influenced whether sexual fantasies are disclosed or not.

Chapter 4 describes a study which aimed to examine whether a model consisting of relationship characteristics can be used to predict both actual disclosure behaviour and hypothetical likelihoods of disclosing future sexual fantasies. Of particular interest for future studies was the finding that whilst several relationship characteristics can predict sexual fantasy disclosure, the predictive ability of many varied with fantasy content.

This led to Chapter 5, which firstly developed and piloted several scenarios, which outlined hypothetical sexual fantasies for use in the research conducted as part of this thesis. These scenarios aimed to eliminate any potential variations in sexual fantasy content. Chapter 5 aimed to examine how the perceived (as perceptions of many, e.g., extremity, can vary between participants) characteristics influenced whether they were likely to disclose the

sexual fantasy or not. Several characteristics significantly predicted whether participants were likely to disclose sexual fantasies and also the perceived relational threat of disclosing.

In Chapter 6, a model containing relationship characteristics was again used to predict hypothetical sexual fantasy disclosure, but this time using the scenarios developed and piloted in chapter 5. Several relationship characteristics again were significantly predictive of disclosure, but several notable differences were observed between the studies conducted in Chapters 4 and 6. Potential causes of this are discussed.

Finally, in Chapter 7 overarching findings from four empirical studies are discussed in-depth and in relation to theories of disclosure. Limitations of the current research and directions for future research are discussed.

Chapter 2: A systematic review of the factors influencing engagement in sexual and non-sexual self-disclosure.

2.1: Chapter overview

Chapter 1 highlighted the near universally experienced and diverse nature of sexual fantasies (Lehmiller, 2018). This chapter demonstrated how sexual fantasies can provide benefits to both the individual and their relationship. Similarly, of the introductory chapter discussed the role of self-disclosure (including sexual self-disclosure and sexual fantasy disclosure) as a relationship maintenance behaviour (Le et al., 2010).

It was initially planned that a systematic review would be conducted to examine the factors which influence the disclosure of sexual fantasies to intimate partners. However, after conducting preliminary searches it became clear that very little research to date has examined sexual fantasy disclosure. As such, when developing the review question, a widened scope was adopted. This chapter describes the findings of a large systematic review (312 included articles) conducted according to PRISMA guidelines (Page et al., 2021). The included articles were then divided into two reviews to reflect trends in the research, with the first focusing on factors influencing sexual and non-sexual self-disclosure (Chapter 2) and the second focusing on the factors influencing sexual health disclosures (Appendix 1). The insight gained from these sub-reviews was used to inform the research design and focus of the empirical studies described in Chapters 3-6.

2.2: Introduction

Self-disclosure (SD) has been described variously as the process of making oneself known to others (Jourard & Lasakow, 1958), the revelation of personal information (Mikulincer & Nachshon, 1991), and the voluntary verbal communication of personal information to a specific person (Cozby, 1973). Disclosures can occur in person or may occur over distance using communication technology (Nguyen et al., 2012). Altman and Taylor (1973) describe SD in terms of frequency (how often a person chooses to disclose), breadth (the range or diversity of topics disclosed), and depth (the intimacy of personal information revealed). Rehman et al. (2011) highlighted that in intimate relationships, partners engaged in both non-sexual self-disclosures (NSSD) and sexual self-disclosures (SSD).

SSD has been argued to be crucial for the development and maintenance of intimate relationships, through increases in relationship and sexual satisfaction (Brown & Weigel, 2018; Byers & Demmons, 1999; MacNeil & Byers, 2005; Rehman et al., 2011; Sprecher & Hendrick, 2004). Higher engagement in SSD benefitted relationships through increases in intimacy and satisfaction (MacNeil & Byers, 2005). SSD also enabled the development of mutually favourable sexual scripts, through learning about partner preferences (Byers & Demmons, 1999).

Le et al. (2010) highlighted that greater disclosure rates were associated with lower rates of relationship dissolution. SD can act as a form of relationship maintenance behaviour, through increasing both sexual and relationships satisfaction (Rusbult, 1983). This in turn can lead partners to hold more positive perceptions of their relationship, with associations recorded between higher SD and higher ratings of relationship happiness (Fisher et al., 2015), relationship stability (Sprecher, 2002) and perceived marital quality (Stanik & Bryant, 2012).

Given increasing divorce rates in the United Kingdom (Office for National Statistics, 2022), SD's role in relationship maintenance may have important real-world implications.

Existing systematic reviews of SD have primarily focused on sexual health related self-disclosures, such as HIV (Adeoye-Agboola et al., 2016; Mekonnen et al., 2019; Nasarruddin et al., 2017; Yehualashet et al., 2020). To date, a systematic review of factors associated with sexual or non-sexual SD has not been conducted. This systematic review focuses on better understanding the factors associated with SD in intimate relationships. Through this gained insight into relational SD, a greater understanding of potential disclosure barriers can be achieved. This may allow for the development of interventions to promote SD in intimate relationships. Such increased SDs would have several considerable benefits, such as reduced relationship dissolution rates, increased relationship maintenance behaviours, and increased positive relationship traits.

2.3: Methodology

2.3.1: Method

The present systematic review was conducted according to PRISMA guidelines (Page et al., 2021). This review aimed to identify factors which influence SD in intimate relationships.

2.3.2: Terminology

SD is the intentional revelation of personal information to a targeted individual (Cozby, 1973; Jourard & Lasakow, 1958; Mikulincer & Nachshon, 1991). This review limited targets of disclosure to intimate (sexual and/or romantic) partners. This process can occur through various methods, such as in person or online (Nguyen et al., 2012). For this review, an intimate relationship is defined as comprising of two or more individuals, who are currently engaged in a consensual relationship of a romantic and/or sexual nature.

2.3.3: Inclusion Criteria

Included articles were limited to those which examined SD, as previously defined. Articles violating this criterion include those addressing accidental or non-targeted disclosures (e.g., recorded publicly on online dating profiles). Articles discussing condom negotiation also violated this criterion as participants were navigating the use of condoms in sexual encounters, rather than directly revealing personal information.

Articles were limited to those examining factors which influenced SD. Disclosure targets were limited to intimate partners, as previously defined. Where articles assessed disclosures to multiple people (e.g., intimate partners as well as another disclosure target) information specific to intimate partners was extracted for inclusion, where possible.

Articles were required to include original findings, excluding previous reviews. Secondary analyses of datasets were included, where the purpose of analysis differed to the original. No limitations were placed on article methodology for inclusion. Articles were limited to those published/translated into English. Articles were limited to those published prior to the date of retrieval (November 13th, 2020).

2.3.4: Information sources

Database searches of PsycInfo, Pubmed, SCOPUS and Taylor and Francis were conducted using the following search terms: ("Self-disclosure" OR "Communicat*") AND ("Romantic" OR "Sexual" OR "Intimate" OR "Relationship" OR "Partner"). All articles published prior to the date of retrieval (November 13th, 2020) were considered for inclusion.

2.3.5: Study selection

Identified articles were exported to Zotero reference manager and were screened by the primary researcher (MLK) for inclusion using titles and abstracts. Articles clearly violating inclusion criteria were rejected. For the remaining articles, full-text articles were screened

against inclusion criteria. All included articles were extracted using a piloted extraction form. This pilot form was developed by the primary researcher (MLK) using a relevant article. Relevant information was extracted from this article, and this was used to develop the questions included in the extraction form. The initial extraction form was then piloted on a further four articles of varying methodologies to check that the questions still enabled full extraction of relevant information regardless of methodology and study design.

The piloted extraction form was used by the primary reviewer (MLK) to extract all relevant information. A second reviewer (ZJP) repeated the process for a randomly generated selection (10%). Inter-rater reliability was calculated for article inclusion using Cohen's Kappa, with the acceptable level set at 0.61. The Cohen's Kappa value was 0.84, with a percentage agreement of 95.76%.

2.3.6: Screening

The process of including/excluding articles is outlined in Figure 2. Database searches returned 25200 records, including 10939 duplicates. 10260 articles were excluded at the title stage and 3284 excluded at the abstract stage. 674 full-text articles were accessed, of which 304 met inclusion criteria. Reference lists of included articles were screened, leading to the inclusion of an additional 8 articles. Due to time limitations in the PhD programme, calls for grey literature were not advertised and as such no grey literature was included in the review. In total, 312 articles were included. As the number of articles relating specifically to sexual health disclosures is disproportionately large, these have been omitted from this review and are considered in a separate review which can be found in Appendix 1. This review therefore includes 116 articles relating to non-sexual (43) and sexual (73) disclosures (excluding sexual health disclosures) in intimate relationships.

Figure 2: PRISMA flowchart

PRISMA 2020 flow diagram for new systematic reviews which included searches of databases, registers and other sources Identification of studies via databases and registers Identification of studies via other methods Records identified from: Records removed before PsycInfo (n = 1340) Pubmed (n = 5834) SCOPUS (n = 11376) screening: Duplicate records removed (n = 10939) Records identified from: Citation searching (n = 29) Taylor & Francis (n = 6650) Records screened (n = 14261) Records excluded** (n = 13547) Reports sought for retrieval (n = 29) Reports sought for retrieval (n = 714) Reports not retrieved (n = 3) Reports not retrieved (n = 40) Reports excluded: 370 Reports assessed for eligibility (n = 26) Reports excluded: Reports assessed for eligibility (n = 674) SD not examined (n = 1) Target other than intimate Self-disclosure not examined (n = 177) Factors associated with SD not examined (n = 81) partner (n = 13) Factors associated with SD not examined (n = 4) Disclosure targets other than intimate partner (n = 87) Lacked original data (n = 18) Not in English (n = 7) Studies meeting inclusion criteria (n = 312): Articles included within this article (n=116)
Articles excluded due to focus on sexual health disclosures (n= 196)

Note: The template for this flowchart is presented in an article by Page et al. (2020)

2.3.7: Quality assurance

Research quality was assessed by the primary researcher (MLK), using the Critical Appraisal Skills Programme (CASP) (Critical Appraisal Skills Programme, 2018). All items were assessed using a yes/no response. Quality was assigned using the percentage of responses where yes was selected, with articles rated as either low (<33%), moderate (33%-65.9%) or high quality (>66%). This approach was selected due to differing item numbers between CASP rating systems. The process was repeated by a second reviewer (JME) for a randomly selected sample of articles (10%). Percentage agreement for this sample was calculated as 78.13%.

2.4: Results

2.4.1: Summary of articles

This review presents the findings of 116 articles, which examined factors associated with either sexual (73) or non-sexual self-disclosure (43). These included articles are presented in Table 2. The findings from the 196 articles examining health-related disclosures will be discussed in Appendix 1. To address the review question, the results section will be organised by factor. Throughout the review, both sexual (SSD) and non-sexual (NSSD) self-disclosure will be referred to. The acronym SD will be used to refer to both forms of disclosure.

Table 2: Included studies focusing on sexual and non-sexual self-disclosures.

Study:	Disclosure type:	Population:	Measures:	Results:
Abbey et al., 2007	Non-sexual self-disclosure.	64 participants with obsessive compulsive symptoms recruited from a conference in Tennessee, USA. Aged 18-63 (M=39). 39 were female and 25 were male. 58.7% single.	OCI-R. The centre for epidemiological studies-depression scale. Relationship assessment scale. Self-disclosure index. Personal assessment of intimacy in relationships. Relationship expectation questionnaire	Obsessive compulsive symptoms negative correlated with SD. Worry about disclosing associated with poorer disclosure.
Adams-Clark et al., 2019	Sexual self- disclosure	582 participants residing in Oregon, USA. Recruited using Amazon Mechanical Turk. 56.5% female. 82% heterosexual. 90% white. Aged 18-35 (M=27.4)	Prior sexual trauma (4 items from brief betrayal trauma survey). Sex-based harassment (modified version of shortened sexual experiences questionnaire). General dissociative tendencies (Wessex dissociation scale). Sexual dissociative scale (sexual dissociation scale). Sexual communication (sexual communication scale).	Higher harassment scores predicted lower sexual communication
Anderson et al., 2011		104 participants recruited from a Midwestern University, USA. 149 men and 55 women. 149 Aged 18-26 years (M=20.10). 140 Average relationship duration 12.39 months.	Participants were asked to record topics they considered taboo to discuss in their current relationship and then were asked why they would avoid discussing the topic of past sexual experience.	185 topics identified as taboo, including: previous relationships (37.8%); past sexual experiences (14.6%); conflict-inducing topics, such as smoking, religion and politics (15.7%); relationship norms such as sexual exploration, public displays of affection, extra relationship activities (13%); state of the relationship (10.8%). Motivations for avoiding disclosure of previous sexual experiences included: desires for privacy, insecurity around sexual identity, fears of triggering relational conflict, and fear of upsetting their partner.
Antill & Cotton, 1987	Self-disclosure (frequency)	108 married couples recruited via an omnibus survey. 14% had a university degree, 23% working towards a tertiary qualification. 12% technical qualification. Remainder had not continued education past high school. 90% of males and 52% of females were employed. 19-65. Means (male 37.1, female 34.6). Married 2 months to 42 years with average of 11. 0-7 children with average of 2.		High partner self-disclosure associated with higher own disclosure. Males disclosure correlated to length of relationship, number of children. Female SD correlated to age, relationship duration and children. Significant deceases in SD from 3 children onwards. Femininity associated with increased disclosure. Husbands disclosure dependent on own masculinity, partner femininity and masculinity. Wife disclosure dependent on husbands femininity. Androgenous group disclosed most and elicited most disclosure. Marital happiness was related to amount of disclosure.

Avery, 1980	Intervention to promote self-disclosure	29 couples. Control group: age 18-23 (M 19.8) Experimental group: age 18-24 (M 20.1)	20-minute audiotape- what would you change about your partner. Self-feeling awareness scale. Acceptance of others scale.	Experimental group had significantly greater SD than lecture group at post-test and follow up. Significant decline from post-test to follow up for experimental group. Increased ability to respond to partner disclosures.
Babin, 2013	Sexual self-disclosure.	207 participants were recruited from a Northeastern university, USA.	Sexual communication apprehension (adapted from several previous scales). Sexual self-esteem (Snell and Papin 1989). Communication during sexual encounters (Brogan et al 2009). Index of sexual satisfaction.	Sexual communication apprehension negatively related to communication during sex. Sexual self-esteem positively related to communication.
Balderrama- Durbin et al., 2013	Self-disclosure amongst active service members.	76 active USA service members aged 21-42 (M=27.9). 92% male. 66% Caucasian, 14% African American, 11% Hispanic.	The PTSD-checklist- Military version. Multidimensional scale of perceived social support. The combat disclosure scale. Marital satisfaction inventory. Exposure to combat scale.	PTSD negatively related to disclosure. Partner support positively related to disclosure. Relationship distress negatively associated with disclosure.
Balzarini et al., 2017	Sexual self-disclosure.	1308 participants recruited primarily from the USA. Participants were aged 18-78 (M=35.26). 72.8% had at least 2 partners. 58.6% female, 36.8% male, 1% transgender, 3.5% other. 51.2% bisexual or pansexual, 39% heterosexual, 2.8% lesbian or gay, 7% other.	Questions about primary or secondary partner. Relationship duration, if considered primary partner, cohabitation, demographics, relationship acceptance from social network, secrecy about relationship, investment model scale, satisfaction with relationship, perceived quality of alternatives, commitment, communication about several topics, time spent on sexual activity.	Greater communication with primary versus secondary partners
Benoit & Koken, 2012	sexual orientation	33 Black MSMW recruited from New York City, USA. 21-60 (M 42), 84% heterosexual or	Semi-structured interview- perspectives of how substance use has influenced same-sex behaviour. Reasons for concealing or disclosing to female main partner.	Disclosure avoided to: avoid upsetting partner, avoid potential rejection, avoid being labelled as gay, avoid social repercussions. Participants feared experiencing stigma and wished to maintain their relationship. Feared the consequences of disclosure. Bisexual partners were seen as less likely to reject them, which prompted disclosure. Reasons for disclosure: importance of honesty, desire for acceptance, reciprocity.
Burke et al., 1976	Self-disclosure amongst husband- wife dyads.	189 husband wife pairs. Husbands employed as professional engineers, industrial accountant or chartered accountants. 28% of wives were employed.	If disclosed problems, reasons for/against disclosure (open response). Importance of communication/frequency (Levinger 1964). Marital satisfaction (Locke and Wallace 1959). Job satisfaction (12 items). Life satisfaction (4 items). Wellbeing (Gurin et al., 1960).	Own disclosure behaviour positively associated with high partner disclosure, wife employment, being female, high perceived importance of communication. Disclosure negatively associated with age and marital duration. Participants disclosed to unburden themselves, to increase spousal awareness/understanding, to seek advice, and due to established communication norms. May avoid disclosing due to fear of worrying partner, perceived

				partner disinterest, perception that spouse possessed adequate knowledge, desires to maintain work/home balance.
Byers & Demmons, 1999	Sexual self- disclosure (sexual preferences).	99 students recruited from a Canadian University. 52 women and 47 men. Relationship duration between 3 and 36 months (average 13.1). Average of 3.4 partners. Average age of 19.3. 85% in an exclusive relationship. Tended to be satisfied with relationship.	Background (age, gender, dating status, sexual experience, frequency of kissing, hugging, cuddling and sexual behaviour). Exchanges questionnaire (perceived costs and benefits and exchanges in relationships). Global measure of sexual satisfaction. Global measure of relationship satisfaction. Global measure of sexual communication satisfaction. Communication questionnaire (SD about sexual and nonsexual topics). Sexual self-disclosure (12 items). Sexual opinion survey (erotophilia and erotophobia).	Participants disclosed more about sexual likes than dislikes (echoed for reports of partner disclosures). Women reported disclosing more than men about both sexual and non-sexual topics. Participants reported greater disclosure of non-sexual topics than sexual topics. Participants who had been in a relationship longer, had more sexual partners, were in an exclusive relationship, reported more frequent affection, were more satisfied with the relationship, reported more frequent non-sexual self-disclosures, reported more extensive sexual self-disclosures by partner, were more likely to disclosure more about sexual topics. Only nonsexual self-disclosure and partner sexual disclosures uniquely related to sexual disclosures. Erotophilia/erotophobia did not significantly predict sexual self-disclosures.
Carter et al., 2019	Avoidance of sexual pain disclosure.	382 women based in USA. Aged 28-40 (Median 33). 86.6% heterosexual. 69.8% married or cohabiting, 95.3% male partner, 63.8% spouse.	Rating of painful sex (1 item from previous survey waves), disclosure of pain (yes/no reports of pain disclosure), reasons for non-disclosure (open response), sexual wantedness (previously used item), self rated sexual health (1 item), social positions (age, ethnicity, sexual orientation, income, education, most recent partner).	Disclosure of pain lower amongst women reporting mild versus severe pain. Pain not reported as viewed as normal and attributed to factors such as age, virginity, health, esexual frequency. Past discussion meant women felt there was no need to discuss again and partner was gentle following these discussions. If pain was mild, it was viewed as insignificant and not worth disclosing. Did not disclose as partner's satisfaction was viewed as more important, felt disclosure would make it less enjoyable for partner, feared making situation awkward or uncomfortable, feared ruining mood, felt pain was pleasurable.
Chelune et al., 1985		20 married couples from the USA. Couples included 10 clinical couples recruited from marital therapy and 10 controls. Mean age=38.5. Married for a mean of 17 years. Mean of 2.3 children.	Victoria hospital intimacy interview.	Clinical wives showed higher self-disclosure rates than husbands. Non-distressed partners show greater equity in their disclosure patterns than distressed partners.
Chiou, 2006	Sexual self-disclosure.	1347 adolescents. 51% male and 49% female	Online sexual self-disclosure scale for adolescents (developed with initial sample. Initially contained 45 topics but narrowed down to 15 topics of varying degrees of intimacy. Intimacy level assessed for each item by asking what proportion of people they would disclose about topic to). Willingness for sexual self-disclosure	Male participants indicated a higher willingness to engage in sexual self-disclosure than female participants. Increased willingness to disclose when anonymous. Males exhibited higher reply intent for corresponding self-disclosure when receiving SSD from partner than female participants. Reply intent amongst male participants was

			(willingness to disclose under various anonymity levels). Reply intent for sexual disclosure (likelihood of replying if partner disclosed on topics).	
Cleary et al., 2002	Disclosure of sexual history.	22 female students from Canada. Aged 19-23 (M=20.2)	Semi-structured interviews. As themes emerged from discussions, researchers added additional questions. Grounded theory methodology used to apply to analyse narratives. Notes taken during interview. Open coding- descriptive categories generated. Axial coding- descriptive categories subsumed by broader conceptual ones. Developed into more encompassing themes. Two participants provided feedback about whether narrative described their experiences.	Sexual knowledge increased confidence in initiating disclosures. Communication skills developed through parental education and familial discussions of sexuality. Ability to disclose developed over the course of the relationship. Disclosed if perceived partner as comfortable with the topic. Disclosure avoided due to fear of consequences (judgement, rejection, upsetting partner). Previous disclosure experience increased efficacy to disclose again. Disclosure seen as more important for high-risk sexual encounters.
Cotten-Huston & Wheeler, 1983	Sexual self- disclosure (sexual preferences).	Treatment: 38 women. Control: 32 women. All white, average income of \$25000. 51 married, 10 divorced, 7 single, 2 separated. 15 high school graduates, 22 attended college, 19 had bachelor's degree, 8 had graduate degree, 1 employment related training, 2 RN diploma. 51 worked outside home, 12% students Aged 21-55 (Mean control=31, treatment=34).	General information questionnaire. Survey of sexual activity. Dyadic adjustment scale. Sexual arousal inventory. The Gambrill Richey assertion inventory.	In response to the item " can you tell your partner specifically what feels good to you during foreplay and intercourse". Participants of the treatment programme reported significantly less difficulty in communicating sexual desires and preferences to partners.
Cottrell et al., 2005	Sexual history disclosures.	133 Chinese college students. Mean age of sexual partners 21	Chinese youth health risk behaviour inventory-college version	Females reported more conversations about HIV, STD, pregnancy. More likely to disclose sexual history if knew someone who had fallen pregnant outside marriage. Those who viewed condom use as unnecessary in a LTR were less likely to have discussed AIDS/STD. Less likely to discuss if did not want others to know they were using condoms. Males and students were less likely to discuss if viewed their peers as unconcerned about sexual history. Predictors of disclosure: perceived ability to control sexual desires, condom use knowledge, concern about consequences of sex.
Cowden & Koch, 1995	Sexual self-disclosure.	185 students in the USA. 114 heterosexual (18-25, M=19.7) and 71 homosexual (17-36, M=21.7)	Attitudes related to sexual concerns scale- 30 items covering 8 areas. (Sexual self-understanding, body image gender roles, commitment, communication, masturbation sex guilt, performance anxiety)	Heterosexual men reported more negative attitudes e, towards sexual communication than Gay men, particularly

Cramer, 1990	Self-disclosure.	123 UK students. 19 Male (Mean age= 19.2)/104 Female (Mean age=17.9).	Shortened version of the revised relationship inventory. Rosenberg self-esteem scale. 2 items to assess comfort in disclosing personal problems.	Self-esteem positively correlated with disclosure of personal problems and facilitative qualities of the relationship. Facilitative qualities positively correlated with disclosure. When facilitative qualities were controlled for the relationship between self-esteem and disclosure was non-significant.
Cuming & Rapee, 2010	Self-disclosure.	312 adult participants in committed relationships (49% married). 75 Male/237 Female. All participants were living in Australia.	Social interaction anxiety scale. Depression subscale of DASS-21. Self-disclosure index. Emotional self-disclosure scale. Quality of relationships inventory.	Higher social anxiety associated with lower self-disclosure and negative emotional disclosure.
Davis et al., 2006	Sexual self- disclosure (sexual preferences)		O.Attachment (experiences in close relationships measure). eNeuroticism (NEO-PI neuroticism scale). Inhibition of need expression (18 items). Deference to partner (10 items). Sex as a barometer of relationship status (7 items). Sexual anxiety (5 items). Relationship satisfaction (rating). Sexual satisfaction (physical-10 items, emotional-4 items satisfaction with control-6 items)	fewer disclosures. For those in relationships, disclosure avoidance negatively associated with love and positively associated with sexual anxiety. For those not in relationship, disclosure avoidance positively associated with sex as a barometer, sexual anxiety, and deference to partner.
Dellucci et al., 2021	Sexual self- disclosure. Disclosure of sexual agreement rule breaks.	70 same-sex male couples recruited via online platforms and from New York City, USA. All couples had established sexual agreements regarding extradyadic partners. Average age 26.84, Largest age discrepancy 61 years, predominantly non-white, completed L4 degree. Average relationship length 26.51 months. 90.7% gay and 92.9% HIV negative.	Dyadic communication (communication patterns questionnaire and dyadic sexual communication	Those with discrepant sexual agreements had poorer skills in sexual communication than those in any other type of agreement. Age, race, HIV status not associated with sexual communication. Relationship length negatively associated with sexual communication.
Denes, 2012	Post-sex sexual self-disclosure.	200 students at a large Western University, USA, aged 18-26 (M=19.6). 77% female. 96% straight. 59% Caucasian, 16% Hispanic, 11% Asian, 9% other or mixed, 5% African American. 69% in relationship (M=13.9 months)	Sexual behaviour checklist. Orgasm occurrence. Post-sex disclosures. Marital opinion questionnaire, commitment, and trust (Lund, 1985). Trust (Couch et al., 1996). Closeness (Aron et al., 1992) Regret.	Women who orgasmed reported more positive self-disclosure after sex than men who orgasmed. Those who orgasmed reported significantly less negative self-disclosure. Significantly more positive self-disclosure if in a relationship and if relationship was monogamous.

Denes, 2018	Post-sex sexual self-disclosure.	206 students at a large Western University, USA, aged 18-32 (M=19.3). 158 men and 48 women. Relationship length 0-63 months (M= 13.6 months). 98% heterosexual. 68% Caucasian, 16% Hispanic, 9% Asian, 4% mixed, 2% African American.	Demographics. Nature of sexual activity (Denes 2012). Positive relational disclosure (Denes 2012). Risk-benefit assessment (Denes and Afifi 2014), Relationship satisfaction (Marital opinion questionnaire).	Perceiving greater benefits and fewer risks associated with more positive disclosures. Those who orgasmed reported greater benefits and fewer risks, however direct influence on disclosure non-significant.
Denes, 2021	Post-sex sexual self-disclosure.	236 students at a large Western University, USA, aged 18-24 (M=20.45). 22% men, 78% women. 232/236 heterosexual. 171 white, 26 Latino, 24 Asian, 8 mixe race.	1 ml saliva test for OXTR genotype (repeated before and after). Nature of sexual activity (orgasm yes/no). Positive relational disclosure (Denes 2012). Relationship satisfaction (shortened marital opinion d questionnaire).	Biological sex not associated with positive relationship disclosure. Interaction between OXTR gene, orgasm and sex approaching significance for males- orgasm positively associated with positive relational disclosures for female partners. GG males- influence of orgasm on positive self-disclosure stronger.
Denes & Afifi, 2014	Post-sex sexual self-disclosure.	253 students at a large Western University, USA, aged 18-45 (M=21.02). 78% female. 246 heterosexual. 185 Caucasian. 70% in monogamous relationship. 30% in casual or open relationship. Relationship duration= 0-144 months (M=21).	Nature of sexual activity. Alcohol consumption. Unintentionality of disclosure and amount of disclosure, risk benefit assessment.	Achieving orgasm associated with unintentionality of disclosure (more intentional in disclosing after sex). Orgasm associated with disclosure of more information and greater positive valence of disclosure. Alcohol consumption associated with higher unintentionality of disclosure, disclosure of lower magnitude information, disclosure of less positively valanced information.
Denes et al., 201	7 Post-sex sexual self-disclosure.	253 students at a large Western University, USA, aged 18-45 (M=21.02). 78% women. 246 heterosexual. 70% in committed relationship. Relationship duration= 0-144 months i relationship (M=21)	Saliva samples (testosterone). Nature of sexual activity. Orgasm. Type of sexual activity. Disclosure (Denes 2012), risks and benefits of disclosing (Denes and Afifi 2014). Completed every time had sex n for 2 weeks in form of diary entry.	Lower testosterone associated with more intention disclosures and more positive disclosures.
Derlega et al., 2008	Self-disclosure.	238 students in the USA (Mean age=21.54). 113 Male/125 Female. 58.4% Caucasian and 22.3% African American.	Described something personal about themselves and reasons for disclosure/non-disclosure.	Reasons provided for disclosure: Close relationships/trust (20.51%), Seeking help (15.9%), Duty to inform (28.21%), similarity (6.67%), availability (6.15%), other asked (4.1%), other involved (6.15%), catharsis (3.08%), educate (5.13%) and increase intimacy (4.1%). Reasons for non-disclosure: Protect other (13.68%), concern about losing respect (16.24%), privacy (9.4%), superficial relationship (5.13%), information not important in relationship (12.82%), self-blame or low

				self-esteem (8.55%), communication difficulties (7.69%), other cannot be helpful (4.28%), putting relationship of risk (15.39%), prior knowledge (4.27%), dissimilarity (2.56%).
Descutner & Thelen, 1991	Self-disclosure.	Stage 1:231 students (116 Male/115 Female). Stage 2: 129 students (Mean age=19.11). 59 male and 70 female participants (though reduced to 39 male and 44 female at follow-up). Stage 3: Therapists provided information of 30 clients (6 Male/24 Female. Mean age=31.5). Participants were living in the USA.	Fear of intimacy scale. Jourard self-disclosure questionnaire. Miller social intimacy scale. Revised UCLA loneliness scale. Marlowe-Crowne social desirability scale. Short form of the need for cognition scale. Bem's sex role inventory.	High fear of intimacy was associated with lower self-disclosure, higher discomfort getting close to others,
Desiderato & Crawford, 1995	Sexual history disclosure.	398 students living in the USA. 108 men (58.3% below 21 and 41.7% aged 21-25). 218 women (68.8% aged under 21, 31.2% aged 21-25). All unmarried and heterosexual.	Crawfords et al 1992 survey	Those with multiple sexual partners were significantly less likely to be honest about sexual history (disclosure of previous partners, condom use, sexual health history).
Dodge et al., 2008	Disclosure of MSMW sexual orientation.	30 Black MSMW living in the USA (mean age=23.4). Mean female partners 4.7 (1-20). Mean male partners 10.1 (1-60)	Semi-structured interviews.	Easier to discuss bisexuality with male partners as were seen as more relaxed than female partners. Sexual openness promoted disclosure to all partners. Easier to disclose to bisexual partners as common sexuality facilitated more open channel of communication. Disclosure seen as bothersome to female partners and had physical, emotional and social consequences. Perceived female partner would be disappointed, would become shocked, vindictive, emotional. Threats of violence, public humiliation and scorn hindered disclosure. Similar trends for gay men-viewed as emotional, high maintenance, vindictive. More likely to disclose in long-term/serious relationships.
Evans & Wertheim, 2002	Self-disclosure of sexual and non-sexual topics.	360 female students (country of residence not listed). Mean age=23	The revised Bulimia test. The eating disorder inventory. The Beck depression inventory. 4 items covering self-disclosure.	No difference in disclosure of daily topics or sexual topics. High Bulimic group disclosed less on eating. When depression used as a covariate, no significant difference between groups on disclosure emerged. Indicated that disclosure difficulties were related to depression.
Franzoi et al., 1985	Self-disclosure.	131 heterosexual student couples recruited in Indiana (USA). Females (aged 17-30, M=20), Males (aged 17-32, M=21).	Private self-consciousness (10 item subscale of self-consciousness scale). Perspective taking (7 item perspective taking subscale of interpersonal reactivity index).	High private self-consciousness was associated with greater self-disclosure.

		6% together less than 2 months, 18% 3-6 months, 17% 6-12 months, 27% 13-24 months and 32% together over 2 years.		
Frisby et al., 2011	Self-disclosure of topics in military and non-military couples.	118 military participants and 94 non-military controls, all living in the USA. Military participants: 5 Male/113 Female, aged 18-59 (M=28.01), relationship length= 3months to 22 years (M=6.01 years). Non-military participants:34 Male/59 Female, aged 18-55 (M=29.63), relationship between 1 month and 35 years.	Previously used Topic avoidance scale. Revised taxonomy of interpersonal speech events. Perceived stress scale.	Military couples avoided discussions of prior relationships, negative behaviour and conflict inducing topics. Non-military couples avoided discussions of past relationships, marriage and negative relationship behaviours. Topic avoidance was higher among non-military couples. Higher avoidance of negative behaviour marriage, cohabitation, religion and values in Non-military couples versus military couples.
Giordano et al., 2010	Self-disclosure.	957 adolescents from 62 schools in Ohio, USA. Mean age 15.49. 49% male. Participants were Black 23%, Hispanic 11%, white 66%.	Frequency of interaction (Giordano et al., 1986). Importance of relationship. Intimate self-disclosure (Modified version of West & Zingle, 1969). Love (Hatfield & Sprecher, 1986). 3 items from the Conflict tactics scale. Relationship duration. Delinquency (Elliot & Ageton, 1980). Shortened Rosenberg's self-esteem scale. Parental monitoring (5 items).	Delinquency not significantly related to intimate self-disclosure.
Goldsmith et al., 2016	Sexual self- disclosure.	University. 349 women: 37.2% East Asian, 37.2% Euro-Caucasian, 25.6% other. 88.7% heterosexual, 54.9% in monogamous relationship. 17-23 (M=20.79)) 106 men: aged 17-24 (M=21.07), 47.8% East Asian, 24.1% Euro-Caucasian, 28.1% other, 84.1% heterosexual, 50% in monogamous relationship.	Revised experiences in close relationship questionnaire (attachment). Sex role ideology scale. Dyadic sexual communication scale. Golombak-Rust inventory of sexual satisfaction.	Anxious attachment associated with poorer sexual communication. Higher avoidant attachment associated with poorer sexual communication.
Goodwin et al., 1999	Sexual self-disclosure.	450 participants. 50 entrepreneurs, 50 students and 50 manual workers each from Hungary, Russia and Georgia. Students were 66% female and median age of 21. Manual workers were 37% female and median	Cultural bias questionnaire. Intimate disclosure inventory.	Hungarians disclosed most overall to partners. Sex was most intimately discussed by Russians. Younger participants reported more intimate disclosures to partner than older participants. Fatalism was negatively correlated to disclosures to partners. Individualism and egalitarianism were not significantly correlated

		age of 39.5. Entrepreneurs were 57% female and median age of 32.		
Greene & Faulkner, 2005	Sexual self-disclosure.	USA, aged 18-30 (M=21.9). Relationship duration ranged from 3 month to 13 years (M=2 years).	Dyadic sexual communication scale. Dyadic sexual regulation scale. Double standard scale. Hurlbert index of sexual assertiveness. Duffy and Rusbult 1986 (relationship satisfaction). Condom use (asked about contraception use)	Men reported higher negotiation efficacy than women. Higher belief in the sexual double standard was related to less sexual self-disclosure, less dyadic sexual communication and more sexual negotiation efficacy. Women reported more dyadic sexual negotiation but less sexual negotiation efficacy than male partners. Assertive talk predicts dyadic sexual communication and sexual self-disclosure. Refusal assertiveness predicts dyadic sexual communication. Initial assertiveness predicts all 3 sexual communication variables.
Hanley et al., 2013	Self-disclosure.	64 cohabiting couples from the USA. 85.9% white, 1.6% white Hispanic, 2.3% non-white Hispanic, 6.3% African American. Together average of 11 year 11 months (4 months to 45 years).		Husbands- PTSD severity positively associated with self-disclosure during positive discussions. Partner symptom severity positively associated with disclosure during negative discussions.
Hendrick & Hendrick, 1987	Self-disclosure.	218 students from the USA. 116 Male/ 102 Female	Love attitude scale. Sexual attitude scale. Self-disclosure index. 10 item opener scale. Sensation seeking scale. Self-esteem measure.	Self-disclosure positively related to love styles of eros, agape and communion approach to sexuality. Negatively related to ludos and instrumentality for females. Passionate, giving, idealistic and non-manipulative lovers more likely to self-disclose. Females self-disclosed more frequently.
Herbenick et al., 2019	Sexual self-disclosure.	999 women in the USA. 7.7% aged 18-24, 10.3% aged 25-29, 16.7% aged 30-39, 16.5% aged 40-49, 20.3% 50-59, 19.1% aged 60-69, 9.6% aged 70+. 66.4% white, 12.3% Black, 13.7% Hispanic, 6.3% other non-Hispanic. 92.9% heterosexual. 1.6% lesbian, 5% bisexual, 0.4% asexual.	Sexual behaviour (3 items from NSSHB). Faking orgasm and sexual communication (have you ever faked an orgasm, reasons for no longer faking orgasm, reasons for faking). Sexual non-communication ("has there ever been a time you wanted to tell your partner how you wanted to be touched, desired, fantasise about but decided not to tell him). Sexual satisfaction (female sexual function index- one item). Specific sexual communication (ease of communication).	feelings (42.4%), uncomfortable going into detail (40.2%), embarrassment (37.7%), not sure how to ask for
Herold & Way, 1988	Sexual self-disclosure.	203 unmarried, female students living i Ontario, Canada. Aged 18-22 (M=19.8). 93% not living at home. 48% in relationship. 52% had experienced sexual intercourse.	/	Non-virgins were significantly more comfortable discussing sexual topics, including sexual history. SSD positively related to: perceived comfort of target, attitudes about disclosing to partner, dating commitment, perceived similarity of partner attitudes, self-esteem, importance placed on sex, number of previous partners,

			Commitment (1 item).	frequency of sexual behaviour/thoughts/fantasies. SSD negatively associated with sex guilt.
Horne & Johnson 2018	Self-disclosure.	5042 participants in intimate relationships living in Germany. 57.9% Female. Mean age of 29.07. 46.7% in midlife cohort (M 36.18). Relationship duration= average of 7.12 years. 47.5% married, 30.2% non-cohabiting, 18.4% cohabiting.	Self-disclosure (2 items from Furman and Buhermester 1985). Traditional gender norms (3 items). Relationship efficacy (2 items from self-determination theory. Satisfaction, relationship length, children, employment, sex)	More frequent disclosure associated with less traditional gender role attitudes, greater relationship efficacy, being female, newer relationship, more satisfying relationship, fewer children, higher past disclosure.
Horvath et al., 2008	Sexual self- disclosure (sexual preferences)	2716 men who have sex with men (MSM) residing in the USA. 979 aged 18-24. 690 aged 25-29. 724 aged 30-39. 249 aged 40-49. 71 aged 50+. 512 Asian, 445 Black, 683 Latino, 728 white.	Counterbalanced online questionnaire. Previously used in other online studies- 170 items. Demographics, testing status, passive communication and active communication.	n Discussed sexual likes and serostatus more with online partners than offline partners. Highest percentage of communicators were those who had not been tested. HIV positive men exchanged status information with offline partners more than those never tested.
Hovick & Silver, 2019	Promoting sexual self-disclosure through "Consent i sexy" campaign.	284 students living in the USA. 58.5% female, 80.9%, 7.4% s African American, 11.7% other. 37.7% in relationship. Mean age 20.5.	Demographics (age, relationship status, year in school, race, living situation, alcohol use, membership in fraternity or sorority or student organisation). CIS recall posters/phrase (Flowers et al). Communication attitudes (3 items from TPB questionnaire by Ajzen). Perceived behavioural control (items based on Ajzen). Dyadic sexual communication scale. Campaign reaction measures (Barakowski and Stables).	Those who recalled the consent is sexy campaign reported significantly more positive attitudes towards sexual communication, but this was not associated with dyadic communication. Perceived behavioural control associated with dyadic sexual communication. Attitudes towards sexual communication not significantly associated with sexual communication.
Humphreys & Newby, 2007	Sexual self-disclosure.	97 Canadian students. 64 female and 33 male. 18-30 (M 19.6). 42% in steady relationship	Demographics. Initiation tactics scale (approaches for initiating new sexual behaviours. 14 items). Hypothetical couple scenario (likelihood of using initiation tactics). Personal initiation scenario (tactics they would use to suggest new sexual behaviour). The revised sexual self-disclosure scale. The sexual opinion survey (erotophilia and erotophobia).	No gender differences in sexual self-disclosure. The more exclusive and committed participants were the higher the level of sexual self-disclosure. Length of relationship and number of sexual partners associated with sexual self-disclosure.
Ijam & Miller, 2000	Sexual self- disclosure (sexual dreams)	51 students recruited from a Midwestern university, USA. 20 men and 31 women. 67% Caucasian, 16% African American, 12% Arabic, 4% Asian. 84% 18-25 and 16% 26+. Mean age 21.	Completed the dream workbook (Information about intimate partner, perceived level of intimacy, extent to , which dreams recollected and discussed, reasons dreams disclosed or not disclosed, descriptions of dreams).	Relational reasons for dream disclosure include feelings of closeness, trust, understanding. Pre-existing positive feelings encourage dream-disclosure due to increased comfort with disclosure. Dream content: Dreams of sexual infidelity concealed as suggest disloyalty. Dreams of taboo content (orgies, same sex activity) concealed due to risk of self-humiliation, harm to others

				feelings, relational conflict, partner becoming upset/jealous/uncomfortable.
Jiang & Hancock 2013	, Self-disclosure.	63 student couples aged 18-34 (M=20.97). 54% Caucasian, 30.2% Asian, 7.8% African American. 1-125 months relationship duration (M=22.71 months). Participants were all residing in Northeastern United States.	Communication medium. Interaction length. Self/partner disclosure. Partner responsiveness. Intimacy. Relationship uncertainty scale. Relationship assessment scale. Rusbult commitment scale.	Long distance couples engaged in more self-disclosure that geographically close participants.
Johnson et al., 2019	Self-disclosure.	3734 couples residing in Germany. 2097- no migration background, 614 1 partner migrant. Year of migration average of 13.49 years ago.	Relationship assessment scale. Conflict frequency and SD (2 items from network of relationships inventory and 2 items for self-disclosure).	Immigrant male partners had higher self-disclosure compared to native born male partners, but disclosure declined at faster rate than native born men. Immigrating longer ago predicted lower levels of self-disclosure for male partners. Partner extraversion predicted higher disclosure and neuroticism predicted lower disclosure.
Kattari, 2014	Sexual self- disclosure (sexual preferences)	9 participants with physical impairments (Cerebral palsy, bilateral deafness, Usher's syndrome, Meniere's disease, Cutis Marmorata, Rheumatoid arthritis, Shattered knee, brain injury, visual impairment, brain stem stroke, osteochondroma, multiple sclerosis, fibromyalgia.). 8 women. 26-38 (M 33). Largely lesbian, queer, pansexual, bisexual or polyamorous. Participants were residing in Southwestern United States.	Interviews- participant disability, conversations and interactions with sex partner.	Disclosure perceived as difficult- fear of partner reaction. Increased partner connection led to more communication of needs and more confidence in sharing desires. Important to have a partner who was open to negotiations. Communication is vital for BDSM so engagement in kink community aided them to have more in-depth conversations with partner.
Kattari, 2015	Sexual self- disclosure (sexual preferences).	8 participants. 7 women. 1 Hispanic and white. 1 native American. 6 white. Aged 26-38 (M 33). Cerebral palsy, bilateral deafness, usher's syndrome, manières disease, cutis Marmorata, rheumatoid arthritis, shattered knee, traumatic brain injury, visual impairment, CVA stem stroke, osteochondroma, multiple sclerosis, fibromyalgia, osteoarthritis,	Phenomenology based approach. Semi-structured questionnaire. Experience of discussing disability. Probes chosen to aid flow.	Being into kink aided participants in asking for needs to sbe met. Improves communication. This made participants feel more comfortable sharing sexual desires. Expected level of communication in kink relationship made it easier to share sexual desires in kink relationship versus vanilla. Intersection of disability, sexuality and gender increased confidence in discussing sexual needs.

		autoimmune issue. Participants were residing in Southwestern United States.		
Kislev, 2020	Sexual self- disclosure.	3207 participants residing in Germany. 32-46 (M 39.3). 57.4% married, 14% single, 4.3% LAT, 13.1% cohabiting but not married, 5.3% divorced single, 2.7% divorced LAT, 3.3% divorced cohabiting.	Sexual satisfaction (how satisfied are you with your sex life). Sexual communication (2 items from Plus, Nickel and Schmidt 1999). Sexual self-esteem (I am a very good sex partner; I can fulfil the desires of my partner). Life satisfaction (how satisfied are you with life at the moment).	Married individuals tend to score lower on sexual communication compared to divorced/separated/ never married LAT
Kito, 2005	Self-disclosure.	145 students. 70 men and 63 women. 64 American (85.9% Caucasian, 18-47 (M 22.2)) 81 Japanese (19-31 M21.86)	Self-disclosure index. Passionate love index	American students reported higher levels of SD than Japanese students
Knobloch & Carpenter-Theune 2004	Self-disclosure,(topic avoidance).	to 9 years (M=13 months).	Stage of relationship development (Billingham, 1987). Rubin's Love scale. Relational uncertainty (Knobloch & Solomon, 1999). Number of avoided topics. Expected outcome from communicating about topics.	Intimacy negatively associated with number of topics avoided. Self/partner/relational uncertainty associated with number of topics avoided. Relationship uncertainty mediated association between intimacy and topic avoidance.
Kohlberger et al., 2019	Sexual self- disclosure.	75 heterosexual couples recruited from a Midwestern university, USA. Non-married and not cohabiting, aged 18-24, 38.4% white, 31.5% Black, 12.3% Asian/Pacific islander, 1.4% Latino, 0.7% native American. Length 6 months to 4 years 11 months (M=1 year 8 months)	Demographics. Sexual subjectivity inventory. Sexual communication (3 items from couple's communication scale). Sexual satisfaction (index of sexual satisfaction). Number of previous partners.	Men: Greater sexual body esteem, sense of entitlement to sexual pleasure from self, self-efficacy in achieving sexual pleasure from self associated with higher sexual communication. Number of partners associated with greater sexual communication. Higher levels of female self-reflection associated with greater sexual communication. Women: Greater self-efficacy in achieving sexual pleasure and sense of entitlement to sexual pleasure from partner associated with higher sexual communication.
Kohut et al., 2017	Sexual self- disclosure (sexual preferences).	430 participants. 79.3% Canada, 16.97% United States. 48.82% male and 51.18% female. 80.95% Caucasian. Mean age 32.32. 56.74% living with romantic partner. 3- 552 months in relationship (M 85.24 month).	Demographics, porn consumption, types of porn used, reasons for porn consumption, effect of porn use, solitary use, joint pornography use.	Porn consumption positively impacted sexual communication. Being non-judgemental about porn fostered more open sexual communication and increased openness and honesty. Facilitated conversations about kink, fetish, wants and won'ts and increased acceptance of sexual desire. Perceived partner as more open minded and confident in expressing desires. Porn use lowered barriers so partners could learn about one another and discuss sexual preferences. Education- use porn to find sexual likes and dislikes.
Krain, 1975	Self-disclosure.	80 heterosexual student couples in Iowa, USA.	Task coded according to 31 categories.	Early stages of relationship development were characterised by relationship entropy. As the relationship develops relationship negentropy increases and

		Relationship duration ranged from second date to weeks before wedding.		participants became more able to discuss sensitive topics and resolve conflict.
Le Poire et al., 1997	Self-disclosure.	Duration of relationship varied between 6 months and 53 years with mean of 11 years 4 months. Females (age 18-71, M=31.8), Males (19-74, M=33.6). Primarily Caucasian (90% males and 92% females). All were either married (60%) or seriously committed (40%).	Self-disclosure (Wheeless and Grotz 1976). Discussed relationship with caregiver-coded to assess attachment.	disclosure. Male preoccupation related to less honest disclosures. Female dismissive avoidance related to more positive but less honest SD. Greatest disclosure reported in secure/role reverse, secure/secure, role reverse/ role reverse pairs and least disclosure reported in anxious ambivalent/anxious ambivalent. Most honesty reported in anxious/reverse, reverse/reverse pairs and least in anxious/anxious pairs. Most control reported in secure/reverse, reverse/reverse pairs and least in anxious/reverse, reverse/reverse pairs.
Lehmiller et al., 2014	Sexual self- disclosure (sexual preferences).	376 participants in friends with benefit relationship/romantic relationship. 74% female, 70% Caucasian, 83% heterosexual, 79% students, aged 18-67 (M=25.68). Known partner for 1-480 months with mean of 46.78. Participants were predominantly residing in the USA (85%).	Frequency of sexual and friendship activity. Time spent on friendship and sexual activity. Satisfaction. Sexual behaviour checklist. Frequency of condom use. Sexual communication.	Romantic partners more likely to discuss sex frequently, discuss sexual desires/needs, discuss sexual boundaries, discuss STI, discuss contraception, to have clear rules about extradyadic sex. FWBR more likely to discuss condoms for sex outside relationship, discuss extradyadic sexual experiences. Women more likely to discuss contraception.
MacKenzie et al., 2020	Disclosure of MSMW orientation.	121 MSMW living in San Franscisco, USA. 28% HIV positive and 72% unknown. 87% bisexual, 9% heterosexual. 3% homosexual. 59% in 1-3 year relationship, 16% 4-5 years, 14% 6-10 years, 11% 10+ years. Age: 22% aged 21-40, 61% aged 41-60, 17% 61-80 (M=51). Reported 1-33 female partners in last 6 months (M=3) and 1-72 male partners (M=4).	Condom use frequency. Bisexual stigma scale. Internalised homophobia scale. The bisexual identity measure.	Bisexual stigma, internalised homophobia and difficulty with bisexual identity positively associated with difficulty in disclosure to female partners of MSM behaviour.
Mark & Jozkowski, 2013	Sexual self-disclosure.	133 monogamous, heterosexual, student couples in the USA.	Index of sexual satisfaction. Dyadic adjustment scale. Communication function questionnaire. Dyadic sexual communication scale.	Relationship satisfaction positively related to sexual and non-sexual communication
Matsuda, 2017	Sexual self- disclosure.	40 heterosexual Latino couples. Mean age of men: 28.2 and women:26.5.	Demographics. Dyadic sexual communication scale. The sexual relationship power scale (created and validated).	Women's sexual relationship power negatively associated with men's sexual communication. General communication positively associated with sexual communication. Men's general communication negatively

		Years living in USA men: 7.8 years, women:6.7 years. Relationship length mean=4.8 years.	Communication with partner scale. Contraceptive attitudes and perception scale.	associated with women's sexual communication. Negative association between men's contraception attitudes and perceptions and the sexual communication of both men and their partners. Women's contraceptive attitudes and perceptions positively associated with men's sexual communication.
McCabe, 1999	Sexual self- disclosure.	239 participants. 137 men (age M=33.4). 102 females (age M=29.6). Involved in relationship at least 12 months	Personal assessment of intimacy in relationship (emotional/social/intellectual intimacy and conventionality). Sexual function scale (sexual satisfaction, sexual functioning, general relationship, conflict, communication, attitude to sex, sexual communication, sexual outside relationship, sexual dysfunction)	Men had a higher level of sexual communication. Sexual behaviour, conventionality, desire to change physical contact made contribution to relationship communication in males. In females only sexual behaviour made contribution.
Mongeau et al., 2019	Sexual self-disclosure.		бо б	Those in successful transition in/accidental transition in FWBR reported greater self-disclosure than those in Just sex, network opportunism and failed transition in FWBR.
Morgis et al., 2019	Sexual self-disclosure (intervention study).	15 couples from Pennsylvania, USA . All heterosexual, 63% white, 20%	Demographics, fidelity checklist, treatment feasibility (attrition rates and therapist reports), qualitative sexperiences of workshop, acceptability credibility and expectancy questionnaire, learned knowledge (5 items self-report and 10 multiple choice), brief accessibility responsiveness and engagement scale (attachment), patient reported outcome measurement information system (sexual satisfaction), dyadic sexual communication scale, revised dyadic adjustment scale.	No significant influence of intervention on sexual communication.
Morton, 1978	Self-disclosure.	24 married couples and 24 opposite sex strangers residing in the USA. Mean age of 25. Married for a mean of 2.8 years.	, J	Spouses used greater descriptive intimacy than non-spouses and communicated more personal information.

				Increased acquaintance prompted greater self-disclosure of private facts. Females communicated more intimately than males. Spouses became less reciprocal over time.
Muin et al., 2016	disclosure.	30 Austrian women. All white European, aged 41-65 (M=53), Duration 5-40 years (M=18 years).	Used to record sexual fantasies, desires, barriers to satisfaction. Whether intimacy, sex life or communication had changed. Female sexual function index, female sexual distress scale, Hamilton depression scale. Also received either oxytocin nasal spray or placebo.	
Ng & Kamal, 2006	history).	16 students. 6 male and 10 female. 18-22 (M=19.8). 9 Chinese, 4 Malaysian, 3 Indian.	included in the subsequent interviews.	Men were less open to discussing sexual experiences and past relationships and were less likely to ask their partner about their experiences.
Nichols, 2012	Sexual self- disclosure (sexual history).	222 American students. 57% women. 88% Caucasian.	entitled to know history), relationship information (whether still together), level of disclosure (adaptation of sexual self-disclosure scale), guilt (the guilt inventory), reasons for non-disclosure (adapted from past scale), social desirability (inventory of desirable responding scale), demographics.	Privacy accounted for variance in disclosure- as participants desire to control access to information increased, disclosure decreased.
Noland et al., 2016	Sexual self- disclosure (disclosure of extradyadic partners).	17 participants living in Puerto Rico. 18-48 (M 26).	Semi-structured interviews with 50 questions. Sample provided in write up. Interviews transcribed and coded into categories by author and colleague. Thematic analysis performed.	Social norms and cultural expectations dominant and influence perceptions of how men should behave and communicate. Men do not communicate extra-relational partners as society expects that men have them. Limited ability of participants to discuss aspects of sex with partner.
Oattes & Offman, 2007		74 participants residing in Canada. 27 male and 47 female. 19-56 (M 27.39). All heterosexual. Primarily Caucasian 91.9%. 2.7% each of African and Asian descents. 2/3 currently dating (1 month to 31 years, M=5.9 years)		Ability to communicate general topics predicted ability to communicate sexual needs. Higher self-esteem and sexual self-esteem both related to sexual and general communication.
Pagano & Hirsch, 2007	Self-disclosure.	122 students residing in Midwestern USA. 43% Black and 49% white. Average relationship length 28 weeks.	Self-disclosure (mutual sharing of thoughts and feelings). Fear of betrayal.	White males reported higher SD than black males. Black girls reported higher SD than white girls. White girls reported less SD than white males. Black girls reported higher SD than black males.
Pazmany et al., 2014	Sexual self- disclosure.	pain free control) and 82 male partners. Mid to late 20s. Catholic, highly educated, born in Belgium.	Sociodemographic, pain history, dyadic sexual communication scale, dyadic adjustment scale, State-trait anxiety inventory, Beck depression inventory, Female sexual functioning index, Female sexual distress scale, International index of erectile functioning.	
Perry et al., 2016	Sexual self- disclosure	566 same sex MM couples recruited in San Franscisco, USA.	Demographics. Decision making power.	Couple income negatively associated with disclosure. Higher decision-making power associated with higher

	(disclosure of extradyadic partners).	47% in interracial relationships. Ppts: 65.5% white, 11.3% Hispanic, 9.5% Black, 6.7% Asian Pacific Islander. 310 HIV concordant negative, 124 concordant positive, 132 discordant. Relationship length Mean=6.9 years. 77% cohabitation.	Sexual agreement investment scale. Sexual agreement break. Disclosure of break.	disclosure. Those who earned more than partner less likely to disclose. HIV positive men more likely to disclose.
Porter & Chambless, 2014	Self-disclosure.	163 student couples in Pennsylvania, USA. Participant relationship length ranged from 3 months to 6 years (M=1.4 years). 69.9% of men and 63.8% of women were white. Mean age of male participants was 20.2 years and 19.5 years old for female participants.	Social interaction anxiety scale. Depression anxiety stress scale-21. Relationship assessment scale. SIRRS-R-support. SIRRS-R-preferred. Personal assessment of intimacy in relationship. Risk in intimacy inventory. Self-disclosure index.	For female participants, disclosure predicted by social anxiety, relationship length, depression. No factors predicted men's disclosure.
Prager, 1989	Self-disclosure.	53 couples in the USA. Aged 19-57 (M=31.5). 77.4% married (M=9.36 years). Relationship Duration of unmarried couples (M=1.83 years).	Tesch and Whitbourne's updated intimacy interview. Jourard Self-disclosure questionnaire. Morton's two-dimensional scoring system	Significant effect of male partner intimacy on female self-disclosure. For male participants, disclosure was highest when both partners were rated as intimate, followed by intimate male and then intimate female couples. For female participants, disclosure was highest when both partners were intimate compared to relationships with one intimate partner.
Prager et al., 2015	Self-disclosure.	156 cohabiting couples in the USA. Male partner: 20-62 (M 29.33). Female 20-53 (M 26.53). 52.9% euro- American, 11% Asian, 9.1% African American, 18.6% Hispanic, 8.4% other.	Adult attachment questionnaire. Quality of marriage index. Positive and negative affect schedule. Conflict frequency. Interaction record form- intimacy and satisfaction. Diary completed for 21 days.	Less self-disclosure on day after conflict. Avoidant men reported less disclosure on conflict days than secure men. Anxiously attached women reported greater disclosure declines than secure women.
Quina et al., 2000	Sexual self- disclosure (sexual preferences).	816 women living in the USA. Mean age 30.4, 61% single, 12% married, 24% divorced. 86% attended college. 9.4% African American, 3.1% Asian, 1.2% Native American.	2 scales assessing assertive communication (Adapted from Deiter 1994, communication of sexual preferences and communication of HIV risk related information). Sexual response matrix (frequency of unprotected sex in last 6 months). Sexual history (age of first sex, number of partners, years in relationship, common sexual activities).	partners, anticipated partner reaction.). Communication of

			scale (Harlow et al 1993, beliefs about power over sexualife). Scales developed from Transtheoretical model of behaviour (Prochaska et al 1990- readiness to use condoms, perceived disadvantages of condoms and condom self-efficacy).	[
Reback et al., 2015	Disclosure of MSMW orientation.	31 MSMW living in the USA. 12 HIV positive. 22-60 (M 39.85). 61.9% African American. 28.5% white, 4.8% Asian/pacific islander. 4.8% Latino. 28.6% married.	Open-ended semi-structured interview: Sexual history, sexual risk history.	Did not disclose same-sex partners to female partner as viewed that was the cultural norm. Fear of rejection and relationship dissolution played a key role and hid same sex partners to maintain and protect relationship. Less likely to disclose if felt partner held negative attitudes towards same sex behaviour. Disclosure of HIV status viewed as more acceptable. More likely to disclose if viewed as acceptable in boundaries of sexual experimentation. Some viewed information as none of their partner's business and did not compromise health of partner so was no need to disclose.
Redlick, 2017	Sexual self- disclosure (topic avoidance)	330 participants residing in the USA. Average length of relationship- 1.76 years. 71.4% female. 18-29 (M 21.23). 70.6% Caucasian, 12.7% Hispanic, 11.2% Asian/pacific islander, 3% African American.	Sexual history topic avoidance, perceived threat of sexua communication scale.	l Higher perceived threat of sexual communication associated with topic avoidance.
Reedy et al., 1981	Self-disclosure.	102 married couples in California, USA. 198 were white and 6 were Black. 10% young, 15% middle and 4% older adults previously divorced. 65% young adults 12% middle adults and 9% older adults had no children. 36% protestant, 19% Jewish, 15% catholic, 3% no religion. Young adult (68): M age= 28.2, Couple age (average age of husband and wife)= 22.5-33.3. M marriage= 4.7 years Middle aged (68): M age=45.4 with couple age- 36.5-56.5. M marriage= 20.5 Older adult (68)- M age= 64.7. Couple age= 57.5-83.5. M Marriage= 37.4	S ,	Younger adults had a significantly higher rating of communication.

Rosen et al., 2019	Sexual self- disclosure.	97 coupes with FSIAD and 108 couples Couples were recruited from Canada and the USA.	Sociodemographic, sexual desire inventory, female sexual distress scale-revised, female sexual function index, Beck depression index II, couples' satisfaction index, dyadic sexual communication scale, global measure of sexual satisfaction, state-trait anxiety inventory-short form	Couples affected by FSIAD reported lower sexual communication compared to controls. Partners also reported lower sexual communication.
Rosenfeld & Welsh, 1985	Self-disclosure.	30 dual career couples and 30 single career couples living in the USA. Dual career couples significantly younger M 41.1 VS 44.8. More educational degrees in men than women. Higher education in dual career women than single career women. Single career men had more advanced degrees than dual career husbands.	Taylor-Altman Intimacy scaled instrument.	Dual-career husbands reported greater breadth, depth, and amount of self-disclosure than single-career husbands; single-career wives reported greater depth of disclosure than dual-career wives; dual-career husbands reported greater depth of disclosure than their wives; and single-career wives reported greater breadth, depth, and amount of disclosure than their husbands.
Rosenthal & Starks, 2015	Sexual self-disclosure.	480 participants in either interracial or same sex relationship. 288 in interracial relationship (heterosexual), 99 in same sex (same race relationship), 93 in interracial and	Adult attachment scale, relationship options scale, everyday discrimination scale, relationship stigma, investment model scale, perceived relationship quality components inventory (satisfaction), conflict tactics scale (intimate partner aggression), dyadic sexual communication scale, Derogatis sexual functioning inventory-satisfaction subscale (sexual satisfaction), egalitarianism subscale of social dominance orientation scale, dyadic coping inventory.	
Rubin et al., 1980	Self-disclosure (topic avoidance).	231 couples living in Boston, USA. All heterosexual. 1/5 cohabiting.	Sex role traditionalism scale. Rubin's Love and liking scale (1973).	Egalitarian participants disclosed more readily than moderate/traditional. Relationship duration positively related to disclosure. Topic-related differences in disclosure. Female participants reported greater disclosure about feelings towards partner/closest same-sex friend, classes, work, fears in life and accomplishments. Male participants disclosed more about political views, pride and things they like about their partner.
Rubinsky, 2018	Sexual self- disclosure (sexual preferences).		eOpen-ended questions- how technology was used to have sex and communicate about sex.	Technology used as felt disinhibited and less stigma and shame. Made it easier to communicate about sexual fantasies and more comfortable disclosing. Partners found it easier to open up about needs. This comfort was vital for negotiating sexual wants and online use was viewed as non-confrontational. Text-based allowed for more depth,

		pansexual, 37.6% heterosexual, 4.2% gay or lesbian, 3% Asexual. 82.4% Caucasian, 7.3% multiracial, 4.8% Asian/pacific islander, 3% Latinx. Aged 18-55 (M=29.01).		description and discussion of difficult topics. Some viewed technology as an extension and used interchangeably with face-to-face communication. Good for planning and to maintain long distance relationships. Used more commonly at early stages of relationship to negotiate.
Ruppel, 2015	Self-disclosure.	64 students in the USA. 57 Female/ 7 Male. Aged 18-43 (M=20.9). Relationship length from 0.17- 13 years (M=2.46).	Interpersonal solidarity scale. Parks and Floyd's 1996 self-disclosure scale. Communication mode. Cohabitation. Relationship length.	Self-disclosure breadth and depth narrower when used text based or voice-based communication technologies. This difference became smaller as the relationship developed.
Schrimshaw et al. 2018	Disclosure of MSMW orientation.	203 MSMW in New York City, USA. Mean age 36.9. 33% Black, 29% Latino, 27% white, 10% Asian, 1% Native American. 35% heterosexual and 57% bisexual.		Anticipated strong negative emotional response from female partners and potentially termination of relationship. Fear of being labelled bisexual or queer and stereotyped. Past negative experiences with disclosure. Feared they would be viewed as gay and avoided. Feared partner would tell others.
Seidler et al., 2016	Sexual self- disclosure amongst participants diagnosed with cancer.	17 participants aged 24-77 (M=57.47), Mean age at diagnosis=53, 77% married.	Telephone interviews- open ended questions- relationship background, quality of sex, cancer influence on identity/masculinity, sexual communication style. Open coding and axial coding performed.	p Enhanced or preserved masculine identity may facilitate sexual communication. Cancer often leads to changes in self-perception, such as perceived emasculation, may negatively influence sexual communication. Low self-esteem in verbalising sexual concerns and gendered communication norms played a role. Fear of upsetting partner. Desire to be open and honest.
Simsek et al., 2020	Sexual self- disclosure amongst participants with chronic urticaria.	64 participants in Türkiye. 75% women, mean age=43.37, 67.2% unemployed, 71.9% living with spouse or children.	Sexual self-confidence scale (developed by Celik- sexual self-disclosure, sexual awareness, sexual self-confidence). Multidimensional body-self relationship scale (Winstead and cash).	Men had higher scores on self-disclosure and there was a positive correlation between body image and self-disclosure.
Sollie & Fischer, 1985	Self-disclosure.	167 female students in the USA. Aged 18-32 (M=20.24). Mostly Caucasian, middle class and either protestant or catholic.	Jourard self-disclosure scale Bem sex role inventory	Self-disclosures were higher amongst androgenous participants, especially when the topic was high intimacy. Self-disclosure was most common for all targets when topic was low intimacy.
Sparrevohn & Rapee, 2009	Self-disclosure.	48 participants with social phobia and 58 community controls recruited from Australia. Social phobic participants- mean age 33.4 (18-54), 58% female, 67% in relationship, 43% married. Control-67% female, 81% in relationship, 62% married, 18-45	ADIS. SIAS. PAIR. CCS.	Social phobics reported less SD than controls. Females reported greater SD than males.

Sprecher & Hendrick, 2004	Self-disclosure.	101 couples in the USA. Mean age at TP1=20. 97.5% white. 86.6% middle or upper-middle class. Relationship duration TP1 (1-55MONTHS, M=18.7 months).	Miller et al self-disclosure index. Hendrick relationship assessment scale. Braiker and Kelley love scale. Lund commitment scale. Miller et al opener scale. Rosenberg self-esteem scale. Relationship portion of the snell and Finney relationship assessment questionnaire Followed for 5 years at yearly intervals.	Belief that they are good at eliciting self-disclosure positively correlated with high self-disclosure. Men's responsiveness scores associated with partner's reports of disclosure. Self-esteem/ relationship-esteem positively associated with disclosure/partner disclosure. Consistent across 5 year follow up.
Stanton et al., 2017	Self-disclosure (intervention designed to promote intimacy).	70 heterosexual Canadian couples. Men aged 18-65 (M=23.17). Females 18-64 (M=22.11)	Experience of study task measure. Inclusion of other in self scale. Relationship assessment scale. Discussion task by Aron et al., 1997 Attachment ECR. Half of participants were assigned to the intimacy condition and took part in 30-minute discussion task to promote self-disclosure and 30-minute stretching exercise. Control discussion task where played word games and stretching exercises. Participants kept a diary of interaction for 10 days following the intervention.	Those who were assigned to intimacy enhancing condition reported greater self-disclosure in discussion task. More avoidantly attached participants reported less disclosure in task but higher self-disclosure in following 10 days.
Starks & Parson, 2014	Sexual self-disclosure.	172 same-sex male couples recruited from New York City or Los Angeles, USA. 60.5% white, 20.1% latino, 86% HIV negative.	Demographics, adult attachment scale, dyadic sexual communication scale, weekly sexual activity, number of unprotected partners,	Men with anxious avoidant or anxious ambivalent attachment had lower sexual communication. Men with anxious avoidant partners had lower sexual communication.
Starks et al., 2013	Sexual self- disclosure.	172 same-sex male couples recruited from New York City or Los Angeles, USA. 39.5% people of colour. 63.1% completed college degree. Together average 74.3 months (1-378)	Demographics, sexual satisfaction scale, dyadic sexual communication scale, frequency of sexual activity, number of casual partners, sexual compulsivity scale	Sexual compulsivity negatively associated with sexual communication.
Tajmirriyahi & Ickes, 2020	Self-disclosure.	Study 1: 235 participants (145 female and 90 male. Aged 19-84 (M=34.89)	Campbell's 1996 measure of self-concept clarity. Rosenberg's self-esteem scale. d Self-disclosure (Revised self-concealment scale). Self-disclosure scale (Wheeless 1978). Self-disclosure task (McCarthy et al 2017).	Study 1: self-esteem and self-concept clarity were significant predictors of self-disclosure. Study 2: Self-esteem and self-concept clarity explained variance of self-disclosure. Study 3: self-esteem and self-concept clarity predicted disclosure.

Theiss, 2011	Sexual self-disclosure.	220 married couples recruited from Northeastern USA. Aged 20-81 (M 43.43), 68% Caucasian, 9.4% Hispanic, 8.7% Asian, 8.5% African American. Average length of relationship 15.16 years.	Relationship uncertainty (Knobloch's 2008 marital uncertainty scale). Self-uncertainty scale (4 items). Partner uncertainty (3 items). Relationship uncertainty (4 items). Indirectness of communication about sex (6 items). Sexual satisfaction (adaptation of previous scale).	Wives were more indirect about their sexual communication. Relationship uncertainty positively associated with indirectness of sexual communication.
Theiss & Estlein, 2014	Sexual self-disclosure (topic specific).	85 heterosexual student couples recruited from Northeastern USA. Aged 18-31 (M 19.72). 61.8% Caucasian, 20.6% Asian, 11.8% Hispanic, 2.8% African	Relationship uncertainty (based on Knobloch and Soloman 1999). Partner interference (Solomon and Knobloch 2001). Perceived threat of sexual communication (5 items). Sexual topic avoidance (several topics). Indirect sexual communication (theiss and Solomon 2007). Sexual satisfaction (6 items).	Relationship uncertainty positively associated with sexual topic avoidance. Perceived threat of sexual communication positively associated with sexual topic avoidance.
Thomas et al., 2018	Sexual self- disclosure (sexual preferences).	39 women aged 45-60 recruited from Pittsburgh, USA. 20 took part in individual interviews (45-58 M=52.3, 60% married or cohabiting. 68% white, 26% black, 5% other. 89% heterosexual. 5% bisexual.). 19 took part in focus groups (46-59 M 53.4, 61% married or cohabiting, 40% white, 45% black, 15% other, 100% heterosexual.)	20 took part in individual interviews (45-58 M 52.3, 60% married or cohabiting. 68% white, 26% black, 5% other. 89% heterosexual. 5% bisexual.). 19 took part in focus groups (46-59 M 53.4, 61% married or cohabiting, 40% white, 45% black, 15% other, 100% heterosexual.)	
Tolstedt & Stokes 1984	,Self-disclosure.	60 couples residing in the USA. 114 participants were white, 6 non- white. Aged 18-59 (M= 31.05). Married for 0-36 years (M=7.11). Average of 1.4 children.	Coded intimacy task. 10 statements to assess intimacy. Jourard self-disclosure questionnaire Intimacy tasks- participants were asked to graph the course of their relationship. Participants were then asked to indicate the point where they felt closest and the point they got married.	SD breadth decreased as intimacy decreased. As intimacy decreased, descriptive and evaluative intimacy increased. As intimacy decreased valence became more negative.
Traeen & Skogerbo, 2009	Sexual self- disclosure (sexual preferences).	399 Norwegian married cohabiting couples. Women aged 22-66 (M=44), men aged 23-67 (M=46.2).	Social background. Communication. Sexual behaviour. Cohabitation. Loss of sexual desire (adapted from Swedish sexual behaviour survey). Obligatory sex (1 item). Communication about sexual issues (8 categories).	Among men with experience of obligatory sex, they communicated more about what is sexually pleasing, sexually displeasing, sexual fantasies, sexual desires. In women with reduced sexual desire there was a relationship between occurrence of obligatory sex and lack of communication about secret desires and sexual fantasies. In women with no reduced desire there was a correlation between obligatory sex and no communication

				about what is sexually pleasing, secret desires and sexual fantasies.
Tschann & Adler, 1997	Sexual self- disclosure.	201 adolescent women living in the USA. Average age 17.5. 49% African American, 23% European American, 9% Asian American, 7% mixed. 35% protestant and 40% catholic. 20% no religion. 2-3 sexual partners average	Sexual self-acceptance (Sexual self-concept scale). Sexual communication (10 item sexual communication scale). Contraceptive communication (asked about amount and frequency in discussion pre sex, average and frequency). Asked what contraception they use and frequency of use. Follow up contraception frequency measures repeated.	Greater sexual self-acceptance significantly related to more sexual communication and contraception communication.
Unger et al., 2015	Self-disclosure.	285 German couples. Mean age=38.77, Worked average of 44.27 hours per week. 76.14% cohabitation. Mean relationship length 11.91 years. 63.51% married.	Working hours, SOC questionnaire, couples' satisfaction index, self-disclosure (Prager and Buhrmester 1998), length of relationship, if both partners worked in academia, number of children, age, partner relationship outcomes.	Positive associations between SOC and self-disclosure. Higher disclosure at time 1 associated with higher disclosure at time 2. SOC- selective optimisation with compensation in private life. This is how individuals who work long hours choose to deal with scarce resources (time, money, energy), to optimise functioning.
Vaillancourt- Morel et al., 2019	Self-disclosure.	365 couples (283 at follow up.) Female participants were aged 19-58 (M=27.66), 73.4% were French Canadian. Male participants were aged 18-73(M=29.52), 66.8% French Canadian. 77% were married, 55.3% were cohabiting. Relationship duration ranged from 0.5-28.83 years (M=5.16 years).	Childhood trauma questionnaire. Relationship intimacy measure. Global measure of sexual satisfaction. Couples' satisfaction index.	Women's higher level of childhood maltreatment negatively associated with own self-disclosure.
Valvano et al., 2018	Sexual self- disclosure.	58 patients living in Southwestern USA. 87.7% female, 65% reported duration over 10 years, 20-65 with average of 43.53, 60.3% Caucasian.	Demographics, depression subscale of mental health inventory, sexual satisfaction scale, dyadic sexual communication scale, Golombok rust inventory of marita state (quality), patient determined disease steps (communication about intimacy), MS intimacy and sexuality questionnaire (influence of MS).	Sexual dissatisfaction associated with lower quality and less frequent sexual communication. Relationship quality lnegatively associated with quality and frequency of sexual communication.
van de Bongardt & de Graaf, 2020		6098 Dutch adolescents and young adults. 12.1- 26.1 (M 20). 27.5% adolescents (12.1-17.9), 72.5% young adults (18-26.1). 85.7% Dutch or western, 14.3% non-western. 2.3% same sex partner and 97.7% other sex.	Most recent sexual partner (for different sex acts), sociosexual competences (sexual interactional behaviour scale used to construct- sexual esteem, sexual assertiveness, sexual control, sexual communication),	Women reported higher levels of sexual communication. Young adults reported higher sexual communication than adolescents. Age positively correlated with sexual communication. Correlation between assertiveness and sexual communication. Being in love related to sexual communication. Frequency of sexual activity related to sexual communication. Higher sexual communication with romantic partners compared to casual partners.
van Horn et al., 1997	Self-disclosure.	162 students in Michigan, USA. 80 participants in Long-distance relationships and 82 in geographically close relationships.	Network of relationships inventory. Inclusion of others in the self scale. Follow up- asked whether still dating, satisfaction, contribution of distance to breakup.	Participants in Long-distance relationships reported fewer descriptive self-disclosures but there was no significant difference for intimate self-disclosures.

		122 F/ 40 M.		
Whitaker et al., 1999	Sexual self-disclosure.	372 teenager-mother pairs from Alabama, New York and Puerto Rico. Adolescent had engaged in sexual activity	Sexuality and risk discussions (whether had discussed topics with mother), parental responsiveness (perception of mother's openness, skill, comfort in discussing topics) Partner communication (whether had discussed topics with partner). Condom use (lifetime condom use and during last sexual encounters).	maternal responsiveness associated with communication with partner. Association between risk discussion and partner communication strongest when responsiveness is
Widman et al., 2006	Sexual self-disclosure.	73 couples in Tennessee, USA. Mean age 17.7. Mean weeks dating 58.1. 91.1% Caucasian	Demographics, General sexual communication (couples communication scale CCT), Contraceptive communication (CCT), Contraceptive use (2 items), Relationship satisfaction (Relationship experiences questionnaire), Commitment (REQ), self-silencing (silencing the self scale).	Men silenced themselves more. Females reported more open communication about contraception. Those who reported being satisfied in their relationships reported higher sexual communication. Adolescents who silenced themselves more in their relationship reported lower sexual communication openness. Self-silencing influenced sexual communication of females more than males.
Xie & Galliher, 2018	Sexual self-disclosure.	190 participants of ethnic heritage from Greater China Region. 18-30 (Women M 24.16, Men M 25.79). 97 men and 93 women.	The Vancouver Index of acculturation. The bicultural identity integration scale- version 1. The Hurlburt index of sexual assertiveness. The double standard scale. The dyadic sexual communication scale. Heritage language preferences (19 items—language use in different situations).	Women reported better sexual communication than men. For women: BII-conflict associated with sexual communication. Heritage language preference associated with less sexual communication. Men: Mainstream and heritage cultural orientation associated with less sexual communication. BII conflict and heritage language preference associated with sexual communication. All-More time spent in United States associated with more sexual communication. Higher proportion of same ethnicity partners associated with lower communication. Mainstream acculturation associated with less sexual communication. BII conflict associated with less sexual communication. Preference for heritage language associated with less sexual communication.
Yadav & Choudhury, 2019	Self-disclosure.	420 Indian participants. 47.38% male, 52.61% female. 46.7% under 25, 16% aged 25-30, 19% aged 31-35, 11.2% aged 36-40, 7.1% aged 40+	Relationship assessment scale. CMC motives scale. General disclosiveness scale. Amount and type of internet use (Papacharissi and Rubin 2000)	Dimensions of self-disclosure (honest, amount, positive valence) positively predicted by relationship satisfaction.
Zamboni et al., 2000	Sexual self-disclosure.	227 students residing in the USA. 64.8% female, mean age of 19.97, 93.4% heterosexual, 65.2% European American, 53.3% catholic, 42.7% single, 34.8% in committed relationship.	Interpersonal communication inventory (patterns of communication), Sexual communication inventory (ability to communicate about sexual information). Rathus assertiveness inventory (social assertiveness). Sexual assertiveness subscale (of Sexual awareness questionnaire). Sexual risk scale (condom	Females reported higher levels of general and sexual communication. Sexual communication associated with general and sexual assertiveness.

			attitudes, normative beliefs about sex, expectations for				
			safe sex, perceived susceptibility to HIV, intentions to				
			practice safe sex, substance use). Marlowe-Crowne social				
			desirability scale. Sexual activity scale.				
Zuroff &	Self-disclosure.	160 Canadian students.	DEQ scale.	Self-criticism negatively related to SD. Autonomy related			
Fitzpatrick, 1995		86 male and 74 female. Had been in a	Personality style inventory.	to poorer self-disclosure. Self-criticism and autonomy			
		romantic relationship before. Mean age	Collin and Read 1990 scale.	related to avoidant attachment style.			
		of 20	Franzio et al., 1985 scale.	Symptoms of depression were negatively associated with			
			Rempel 1985.	self-disclosure.			
			Miller et al., 1983.				
			Beck depression inventory.				

Note: Articles are listed in alphabetical order, as opposed to the order in which they appear in the chapter. Included articles focusing on disclosures relating to sexual health information are displayed in a separate table, which is presented in Appendix 1.

2.4.2: Relationship characteristics

The influence that an individual's relationship can have over disclosure behaviour was highlighted in 38 articles. Participants who were in longer relationships were more likely to engage in both SSD (Byers & Demmons, 1999; Cleary et al., 2002; Dodge et al., 2008; Humphreys & Newby, 2007; Lehmiller et al., 2014; van de Bongardt & de Graaf, 2020) and NSSD (Knobloch and Carpenter-Theune, 2004; Rubin et al., 1980). However, Porter and Chambless (2014) only replicated this finding for female participants. Krain (1975) argued that the ability to communicate effectively develops as the relationship progresses. Five studies (Antill & Cotton, 1987; Burke et al., 1976; Dellucci et al., 2021; Horne & Johnson, 2018; Reedy et al., 1981) reported decreases in NSSD as relationship duration increased, with Reedy and colleagues (1981) suggesting that this was due to less reliance on intense communication in established relationships.

Several relationship characteristics (which sometimes increase over the course of the relationship) were highlighted as influencing disclosure behaviour. Commitment was positively associated with both NSSD (Mongeau et al.,2019; Morton, 1978) and SSD (Byers & Demmons, 1999; Denes, 2012; Lehmiller et al., 2014; Herold & Way, 1988; Humphreys & Newby, 2007). In a sample of consensually non-monogamous participants, Balzarini and colleagues (2017) reported increased numbers of disclosures to primary partners compared to secondary partners. However, Kislev (2020) reported lower perceived abilities to engage in SSD among married participants, compared to those who were divorced, separated or unmarried.

Kattari (2014; 2015) argued that increases in disclosure over time are instead due to the development of trust and intimacy. This is supported in the included research, with positively associations noted between disclosure behaviour and trust (Derlega et al., 2008), intimacy (Derlega et al., 2008; Knobloch & Carpenter-Theune, 2004; Tolstedt & Stokes, 1984), love

(Davis et al., 2006), levels of affection (Byers & Demmons, 1999), and satisfaction (Antill & Cotton, 1987; Byers & Demmons, 1999; Horne & Johnson, 2018; Mark & Jozkowski, 2013; Valvano et al., 2018; Widman et al., 2006; Yadav & Choudhury, 2019). Whilst Kattari (2014) argued that the development of these traits prompts disclosure, Ijam and Miller (2000) proposed the reverse, with SD leading to increases in positive relationship traits.

Contact with partners also influences disclosure. Three studies (Jiang & Hancock, 2013; Ruppel, 2015; van Horn et al., 1997) focused on disclosures in long-distance relationships, though with inconsistent findings. Whilst Jiang and Hancock (2013) reported higher disclosures in long-distance relationships, Ruppel (2015) reported that technology use was associated with lower SD breadth and depth. Ruppel (2015) did not specifically examine long-distance disclosure behaviour, but the use of technology more widely to facilitate disclosure. van Horn et al. (1997) reported that NSSDs in long-distance relationships were less descriptive, but no less intimate than those made in geographically close relationships.

Towards the end of a relationship, the number of topics participants were willing to disclose reduced and became more negative (Tolstedt & Stokes, 1984). The authors proposed the reversal hypothesis of SPT, suggesting that as relationships breakdown, individuals limit the number of topics they disclose. This is supported by other included research, which reported lower disclosure behaviour when relationship uncertainty was high (Knobloch & Carpenter-Theune, 2004; Theiss, 2011; Theiss & Estlein, 2014), participants did not intend to have sex with their partner again (Herbenick et al., 2019), and if conflict had recently occurred (Prager et al., 2015). Whilst Balderrama-Durbin et al. (2013) reported that relationship distress was associated with lower SD, Chelune et al. (1985) found that responses to distress were gendered: in relationally distressed couples, wives reported greater SD than their husbands, but in non-distressed couples SD was relatively equal between partners. This suggests that for

some participants in distressed relationships, SD can act as a tool to increase relationship satisfaction (Byers & Demmons, 1999).

2.4.3: Anticipated outcomes

The included research highlighted how, prior to disclosing, individuals first weigh up the perceived costs and rewards of disclosure. Based on these cost/reward assessments, individuals determine the likely outcome of disclosure and whether it is likely to be positive or negative. Where positive outcomes are anticipated, disclosure is more likely to occur (Brown & Weigel, 2018; Cleary et al., 2002; Traeen & Skogerbo, 2009). Particularly for sensitive topics, many negative outcomes can potentially occur, including stigma (Benoit & Koken, 2012; Herbenick et al., 2019; Ijam & Miller, 2000), threats to the relationship (Anderson et al., 2011; Benoit & Koken, 2012; Redlick, 2017; Theiss & Estlein, 2014), upsetting partners (Benoit & Koken, 2012; Ijam & Miller, 2000), and embarrassment (Ijam & Miller, 2000). Where these negative outcomes are anticipated as likely, disclosure is avoided. The potential risk of disclosing varies by topic, with disclosure being less likely for topics perceived as intimate (Sollie & Fischer, 1985). Some individuals avoid disclosing due to fears of intimacy (Descutner & Thelen, 1991). When choosing to disclose, participants tended to avoid high risk topics (e.g., anal sex, sexual dislikes, or past sexual experiences) and instead prioritised low risk topics (e.g., oral sex, safe sex, and sexual likes) for disclosure due to more favourable expectations of disclosure outcomes (Anderson et al., 2011; Brown & Weigel, 2018; Byers & Demmons, 1999; Ijam & Miller, 2000; Rosenthal & Starks, 2015). Some participants described that they felt uncertain how to communicate their sexual wants, which led to non-disclosure (Herbenick et al., 2019). Other participants described avoiding certain topics (e.g., sexual history), due to the conflict-inducing nature of the topic (Anderson et al., 2011; Ijam & Miller, 2000; Nichols, 2012; Redlick, 2017; Theiss & Estlein, 2014). Other topics (such as number of sexual partners) were avoided due to fears of judgement for

discrepant sexual histories (Anderson et al., 2011) or desires for privacy (Anderson et al., 2011).

Partners were highlighted as influential to disclosure behaviour, with some disclosing in order to receive social support (Derlega et al., 2008). Partners can also influence anticipated disclosure outcomes. Positive associations were reported between disclosure behaviour and perceived partner support (Balderrama-Durbin et al., 2013), partner responsiveness (Sprecher & Hendrick, 2004), partner intimacy (Derlega et al., 2008; Prager, 1989), partner involvement (Derlega et al., 2008) and availability (Derlega et al., 2008). Disclosures were more likely when partners were viewed positively (Ijam & Miller, 2000) and less likely when relationships were viewed to be superficial or as having communicational difficulties (Derlega et al., 2008). Disclosure was more likely to occur where partners were seen to be non-judgemental (Kohut et al., 2017), sexually open (Benoit & Koken, 2012; Dodge et al., 2008; Herold & Way, 1988; Kattari, 2014; Kattari, 2015), and comfortable discussing sexual topics (Cleary et al., 2002; Herold & Way, 1988). However, partners can also reduce the likelihood of disclosure, for example when they are viewed as likely to be judgemental (Anderson et al., 2011; Kattari, 2014; Kattari, 2015). Partners can also prompt disclosure through disclosing sensitive information themselves (Burke et al., 1976; Byers & Demmons, 1999; Oattes & Offman, 2007).

For the disclosure of bisexuality, female partners were anticipated to be more likely to respond negatively (Dodge et al., 2008; Schrimshaw et al., 2018). Such disclosures were seen to be bothersome to female or gay male partners, and were seen as holding risks of violence, disappointment, humiliation, or scorn (Dodge et al., 2008). Anticipated stigma reduced disclosure likelihood (Benoit & Koken, 2012; Dodge et al., 2008; Reback et al., 2015; Schrimshaw et al., 2018), including internalised stigma (Mackenzie et al., 2020). Anticipated stigma reduced where partners shared an identity (e.g., bisexuality), leading to higher

disclosure rates (Benoit & Koken, 2012; Derlega et al., 2008; Dodge et al., 2008; Herold & Way, 1988).

The use of technology was seen to reduce disclosure risks (Horvath et al., 2008; Rubinsky, 2018). Rubinsky (2018) reported that this was due to online environments led participants to feel increasingly comfortable and less inhibited. The author argued that this was due to the non-confrontational nature of online communication, which reduced anticipated stigma and allowed for more open communication and negotiation of sexual wants. Text-based communication allowed BDSM practitioners to describe fantasies in-depth and discuss sensitive topics, which was particularly useful in new or online relationships where sexual boundaries are unclear (Rubinsky, 2018). Kohut et al. (2017) reported that pornography consumption lowers barriers to SSD, by allowing participants to learn about their partner, discuss sexual preferences and facilitate conversations.

2.4.4: Sexual experience

Eighteen studies examined the influence of sexual factors (e.g., sexual experience or sexual interactions) on disclosure. In several studies by Denes and colleagues (Denes, 2012; Denes & Afifi, 2014; Denes et al., 2017; Denes, 2018; Denes, 2021), post-sex disclosures were more likely to occur when female participants reported having an orgasm. These disclosures were more positive (Denes, 2012; Denes & Afifi, 2014), intentional (Denes & Afifi, 2014) and were broader in breadth (Denes & Afifi, 2014). Denes (2018) argued that the heightened emotional state following orgasm increases intimacy and prompts disclosure.

These articles suggest a biological component to SSD. Denes (2018) reported that SSD frequency and positivity following orgasm was associated with the GG genotype of the Oxytocin receptor gene OXTR rs53576. Denes (2018) argued that Oxytocin release promotes SSD through an increased connection to partners, which can be prompted by bonding or

physical contact with partners. Denes et al. (2017) reported that lower levels of testosterone were associated with more intentional and positive SSDs. The authors explained these findings through the Steroid/Peptide theory of social bonds, which suggests that low testosterone levels promote warm loving contact and more positive perceptions of SD outcomes (van Anders et al., 2011, as cited in Denes et al., 2017).

Participants who reported more sexual experience were more likely to have engaged in SSD (Byers & Demmons, 1999; Desiderato & Crawford, 1995; Herold & Way, 1988; Humphreys & Newby, 2007; Kohlberger et al., 2019; Quina et al., 2000). This can be due to increased sexual comfort (Desiderato & Crawford, 1995), decreased guilt associated with sex (Derlega et al., 2008; Herold & Way, 1988) or increased sexual self-acceptance (Tschann & Adler, 1997). Thomas et al. (2018) reported that as women became older, they often felt more empowered to communicate their sexual needs. The researchers suggest that this is due to increases in sexual confidence and an increased ability to express sexual needs over time.

Similarly, higher SSD was noted amongst participants reporting more frequent sexual thoughts (Herold & Way, 1988) and BDSM engagement (Kattari, 2014; Kattari, 2015).

Though Starks et al. (2013) reported that higher sexual compulsivity scores were predictive of lower SSD. Where participants reported negative sexual experiences, SSD was less likely to occur. These included experiences of obligatory sex (Traeen & Skogerbo, 2009) and harassment (Adams-Clark et al., 2019; Rosen et al., 2019),

Two articles focused on SSD avoidance amongst women who had previously faked an orgasm (Herbenick et al., 2019) and women who had concealed sexual pain (Carter et al., 2019). For women who had previously faked an orgasm, SSD was avoided due to fears of hurting partner's feelings or criticising their partner's sexual performance (Herbenick et al., 2019). Participants also expressed fears of appearing demanding and beliefs that their partner

would not understand their sexual desires. Amongst women experiencing sexual pain, decisions of whether to disclose were influenced by the extremity of the pain (Carter et al., 2019). Amongst participants who viewed their pain as mild or insignificant, disclosure was not seen to be worthwhile. These participants held beliefs that disclosing would reduce their partner's enjoyment. Social norms were seen to normalise sexual pain, particularly when factors such as virginity, age and sexual frequency were considered. Some participants also indicated that pain was concealed as they felt the pain experienced was pleasurable. Where participants had previously disclosed, intentions to disclose in the future were low. Some participants described how their partner had taken actions to reduce sexual pain, such as being gentler during sexual encounters (Carter et al., 2019).

2.4.5: Individual traits

Forty articles highlighted individual traits which can influence SD behaviour. Though, demographic differences will be discussed in a later section. Attachment style was implicated as influencing both NSSD (Le Poire et al., 1997; Prager et al., 2015; Zuroff & Fitzpatrick, 1995) and SSD (Davis et al., 2006; Goldsmith et al., 2016; Stark & Parsons, 2014). Where participants had a secure attachment style, SDs were more intentional (Le Poire et al., 1997) and more frequent (Le Poire et al., 1997). Lower SD behaviour was reported for avoidantly attached participants (Davis et al., 2006; Goldsmith et al., 2016; Prager et al., 2015; Stark & Parsons, 2014; Zuroff & Fitzpatrick, 1995) or those with an avoidantly attached partner (Starks & Parsons, 2014). Le Poire and colleagues (1997) reported that avoidantly attached female participants disclosed more positive, but less honest information. Lower disclosure rates were also reported for anxiously attached participants (Goldsmith et al., 2016; Prager et al., 2015; Stark & Parsons, 2014). Le Poire and colleagues (1997) also reported that disclosures were less honest and less controlled amongst anxiously attached participants.

Starks and Parsons (2014) reported that rejection sensitivity, which is characteristic of anxious attachment styles, reduced SD.

Participants were more likely to disclose when self-esteem was high (Babin, 2013; Derlega et al., 2008; Herold & Way, 1988; Oattes & Offman, 2007; Seidler et al., 2016; Sprecher & Hendrick, 2004; Tajmirriyahi & Ickes, 2020), including: relationship esteem (Sprecher & Hendrick, 2004) and sexual self-esteem (Oattes & Offman, 2007). These findings were partially replicated by Kohlberger and colleagues (2019), but only for male participants. Tajmirriyahi and Ickes (2020) reported that once self-concept clarity was controlled for, selfesteem was no longer a significant predictor of SD. The authors suggest that through increases in self-esteem, an individual's self-views become more consistent, which encourages SD. Cramer (1990) argued for an alternative explanation, suggesting that high levels of self-esteem promote facilitative qualities in relationships, which encourage SD. Kohlberger and colleagues (2019) reported higher SSD amongst participants who held positive self-perceptions, had higher confidence, higher self-efficacy to engage in SD, and stronger beliefs surrounding entitlement to sexual pleasure. Similarly, SSD was higher when body image was positive (Simsek et al., 2020) and where participants believed they were good at eliciting SD (Sprecher & Hendrick, 2004). Increased SD was reported by participants reporting desires to be sexually open and honest (Seidler et al., 2016). High levels of SSD were associated with lower SSD apprehension (Babin, 2013). Several articles (Greene & Faulkner, 2005; Oattes & Offman, 2007; Quina et al., 2000; van de Bongardt & de Graaf, 2020; Zamboni et al., 2000) reported higher engagement in SSD where sexual assertiveness was high. Similarly, Perry and colleagues (2016) reported positive associations between decision-making power and SD. However, Matsuda (2017) reported that SSD in men was lower when higher sexual power was reported for female partners.

Hendrick and Hendrick (1987) reported higher NSSD amongst participants with love styles

of eros, agape or communion. NSSD was lower for participants with love styles of ludos or instrumentality. The authors argued that this suggests that passionate, idealistic, and non-manipulative lovers were more able to disclose. Davis and colleagues (2006) reported that where sex was viewed as a barometer of the relationship in casual relationships, sexual need communication was reduced.

Higher engagement in SSD has also been linked to more positive attitudes towards SSD (Herold & Way, 1988; Matsuda, 2017) and more positive psychosexual attitudes (Quina et al., 2000). Attitudinal differences were also observed, with homosexual men displaying more positive attitudes towards SSD than their heterosexual counterparts (Cowden & Koch, 1995). However, Matsuda (2017) reported higher SSD amongst men with negative contraceptive attitudes. This may be due to men with negative contraceptive attitudes engaging in SD to express desires to avoid using contraception.

Franzoi and colleagues (1985) reported higher SD engagement amongst individuals reporting higher private self-consciousness. Johnson et al. (2019) reported that personality influenced NSSD, with higher NSSD reported for individuals with high extraversion and low neuroticism. In a study of adolescents, Giordano et al. (2010) reported no significant relationship between delinquency and SD (Giordano et al., 2010).

An individual's mental, physical, and sexual health influences their willingness to disclose (Cuming & Rapee, 2010). Inhibited SD was associated with depression (Evan & Wertheim, 2002; Porter & Chambless, 2014), sexual anxiety (Davis et al., 2006) and social phobia (Cuming & Rapee, 2010; Porter & Chambless, 2014; Sparrevohn & Rapee, 2009). However, social phobia was only significantly associated with inhibited SD amongst female participants in Porter and Chambless' (2014) sample.

Obsessive compulsive symptomology was also associated with lower SD, due to a high degree of worry and heightened fears of rejection (Abbey et al., 2007). Similarly, low SD was associated with both participant (Balderrama-Durbin et al., 2013; Hanley et al., 2013) and partner (Hanley et al., 2013) post-traumatic stress disorder symptomology. Evans and Wertheim (2002) reported lower SD amongst bulimic participants, though only for eating-related topics. Inhibited SD has also been associated with childhood maltreatment (Vaillancourt-Morel et al., 2019). Inhibited SSD was reported for women with dyspareunia (Pazmany et al., 2014) and couples experiencing female sexual interest/arousal disorder (Rosen et al., 2019).

Dellucci et al. (2021) reported no associations between SSD and HIV status. However, Perry et al. (2016) reported greater disclosures of sexual agreement rule breaks amongst HIV positive men compared to HIV negative men. Such disclosures were also more frequent for men reporting lower incomes (Perry et al., 2016).

2.4.6: Demographical characteristics

Inconsistent findings have been observed regarding sex differences in SD and SSD. Some studies reported greater SSD, more direct SSD, and greater intentions to reply to partner SSDs amongst men (Chiou, 2006; McCabe, 1999; Simsek et al., 2020; Theiss, 2011), whilst others reported higher SSD and NSSD amongst women (Burke et al., 1976; Horne & Johnson, 2018; Ng & Kamal, 2006; Van de Bongardt & de Graaf, 2020; Xie & Galliher, 2018; Zamboni et al., 2000). Humphreys and Newby (2007) found no gender differences in SD. A possible explanation for this discrepancy is given by Rubin et al. (1980), who found that gender differences in SD were topic dependant. Seidler et al. (2016) reported that inhibited disclosure amongst men was due to communicating being perceived as a feminine trait. Alternatively, three studies (Greene & Faulkner, 2005; Widman et al., 2006; Xie & Galliher, 2018) argued that gender differences are due to cultural endorsements of sexual

self-silencing and sexual double standards. Kattari (2015) reported that the intersectionality between disability, gender and sexuality enabled participants to feel confident in discussing their sexual needs.

Gender roles were highlighted as influencing SD. Rubin et al. (1980) reported greater NSSD engagement by participants with egalitarian gender roles compared to those with traditional or modern gender role adherence. Similarly, Horne and Johnson (2018) reported that lower endorsement of traditional gender roles was associated with more frequent NSSD.

Androgenous participants were more likely to engage in NSSD (Sollie & Fischer, 1985; Antill & Cotton, 1987) and elicit SD (Antill & Cotton, 1987), particularly for high intimacy topics (Sollie & Fischer, 1985). Femininity was also associated with increased NSSD to partners (Antill & Cotton, 1987).

Pagano and Hirsch (2007) reported an interaction between the influence of race and sex on SD in a sample of American high school students. Whilst white male participants disclosed more frequently than Black male participants, the opposite trend was identified for female participants. However, no significant associations between SSD and race were reported by Dellucci et al. (2021) in their sample of same-sex male couples recruited in New York City, who had an agreement about extradyadic partners.

Similar inconsistencies were identified for age, with age being reported as significantly associated with both higher SD (van de Bongardt & de Graaf, 2020) and lower SD (Goodwin et al., 1999). Dellucci et al. (2021) reported no significant association between age and SSD.

2.4.7: Social factors

Social factors were implicated as influencing SD and SSD in sixteen articles. In these articles, the role of family life, employment, and culture were highlighted.

Burke and colleagues (1976) reported greater SD when both partners were employed, due to perceptions that employed partners were more knowledgeable about work-related problems. Disclosure was avoided due to desires to maintain a work-home balance, to avoid their partner worrying or due to perceptions that their partner was disinterested. In contrast, Rosenfeld and Welsh (1985) reported that this finding was only consistent for husbands in dual-career relationships, with dual-career wives reporting lower SD depth than single career wives. Frisby et al. (2011) compared SD in military and non-military couples, reporting higher topic avoidance for non-military couples.

Unger et al. (2015) argued that for participants in high stress employment, time and energy can be scarce resources. These scarce resources required participants to engage in Selective Optimisation with Compensation (SOC), which refers to the ability to navigate scarce resources by prioritising important goals (Unger et al., 2015). In high-stress employment, limited time and energy resources require partners to prioritise investing resources towards important goals in their relationship, such as relationship maintenance behaviours. Similarly, where couples reported a higher number of children, SD declines were observed (Antill & Cotton, 1987; Horne & Johnson, 2018). The authors argued that this was due to limited time to engage in relationship maintenance.

Several studies (Goodwin et al., 1999; Johnson et al., 2019; Kito, 2005; Xie & Galliher, 2018) compared SD between cultures. Kito (2005) reported higher SD amongst American students compared to Japanese students. In a comparison of Hungarian, Russian and Georgian participants, Hungarian participants disclosed more frequently, whilst Russian participants disclosed more intimately (Goodwin et al., 1999). Johnson et al. (2019) studied relationships in Germany, with immigrant male partners reporting greater SD than their German counterparts. However, SD declined at a faster rate for immigrant partners, which the authors proposed was due to the adoption of new cultural norms. Similarly, Xie and Galliher

(2018) reported that participants with ethnic heritage from the Greater Chinese region who were living in the United States of America often reported experiencing a conflict between their Chinese and American identities. Chinese cultural identities were seen to discourage SSD, compared to American identities. SSD was lower where participants reported a preference for their heritage language, a greater connection to Chinese identities, less time spent in the United States and partners of shared ethnicity. The findings of these studies suggest the presence of cultural differences regarding social norms and individuals' adaptability during enculturation towards SD. They also suggest that SD behavioural patterns can and do change in relationships, which makes interventions feasible. Interventions focusing on SD will be discussed in more detail later in the review.

Both SSD and NSSD were more likely to occur where social norms were perceived to encourage SD (Anderson et al., 2011; Reback et al., 2015). Noland (2008) reported that the non-disclosure of extradyadic partners was more common when social and cultural norms were seen to expect men to have partners outside the relationship. Such norms led to beliefs that partners were aware of extradyadic sexual encounters and discouraged further SSD. Similarly, Reback et al. (2015) reported that social norms discouraged the disclosure of bisexual sexual orientations. Many participants described knowing other men who had sex with men and women (MSMW) who did not inform female partners of sexual encounters with men. This was viewed by participants to normalise non-disclosure and led to beliefs that disclosure would lead to negative outcomes.

Whitaker et al. (1999) suggests that through sexuality discussions with mothers, discussions around sexual topics was normalised which led to higher SSD with partners. Similarly, where peers were viewed to be unconcerned about sexual histories or participants did not want peers to know they were using condoms, participants were less likely to engage in sexual history disclosures (Cottrell et al., 2005). However, SSD was higher where these participants had a

high degree of knowledge about sex and condom use, and believed they were able to control their sexual desires (Cleary et al., 2002; Cottrell et al., 2005; Hovick & Silver, 2019). This suggests that social norms can be developed through interactions with social network members and education. When participants consumed alcohol, SSDs were less intentional, more negative and considered to be of lower consequence (Denes & Afifi, 2014).

2.4.8: Interventions

Several studies have attempted to increase SD through intervention studies, with varying success. Stanton et al. (2017) reported increases in SD for couples assigned to the intimacy enhancing intervention condition, particularly amongst participants with avoidant attachment styles. Cotten-Huston and Wheeler (1983) reported that participants who participated in an intervention reported less difficulty disclosing sexual desires and preferences. SD was also noted to increase in an intervention run by Avery et al. (1980), however this was not maintained at follow-up. Diary keeping was also beneficial for promoting SSD (Muin et al., 2016). Hovick and Silver (2019) demonstrated that whilst their poster campaign was not associated with changes in SSD, participants who recalled the campaign reported more positive sexual attitudes. Meanwhile, the intervention run by Morgis et al. (2019) was not associated with increases in SSD.

2.5: Discussion

This review discussed the findings of 116 articles, which focused on factors which influence sexual or non-sexual self-disclosure in intimate relationship. To the author's knowledge, this is the first systematic review to collate research on these topics. Previous systematic reviews have often focused on sexual health disclosures such as HIV disclosure in specific populations (Adeoye-Agboola et al., 2016; Mekonnen et al., 2019; Nasarruddin et al., 2017; Yehualashet et al., 2020). Given the importance of SD for relationship outcomes (e.g., Fisher

et al., 2015; Le et al., 2010), the present review provides valuable insight into some of the factors that influence whether individuals disclose information to their intimate partner.

This information is of great value for sex and relationship therapy, by providing insight into potential barriers to disclosure. Le and colleagues (2010) argued that self-disclosure is a form of relationship maintenance behaviour. Considering that sexual self-disclosure has been linked to sexual satisfaction (Byers & Demmons, 1999), the ability to prompt disclosures has implications for relationship maintenance. Fallis and colleagues (2016) demonstrated that sexual satisfaction was a strong positive predictor of later relationship satisfaction.

Considering that relationship satisfaction is predictive of positive relational outcomes (e.g., Fisher et al., 2015) and motivation to engage in relationship maintenance (Weisler & Weigel, 2016), the ability to increase satisfaction indirectly through self-disclosure may be valuable.

The included research highlighted the role of relationships, partners, social factors, and individual traits in directly or indirectly (e.g., through influencing outcome expectancies) influencing whether individuals engage in SD to partners.

In-line with CPM (Petronio, 2002), the included research suggests that regardless of the information to be disclosed, the disclosure must first perform a cost-reward analysis. This allows the individual to determine whether disclosing is likely to lead to positive or negative outcomes. Brown and Weigel (2018) reported higher disclosure rates amongst those who anticipated positive outcomes. Similarly, where negative outcomes (e.g., rejection, stigmatisation, and conflict) are expected, disclosure is avoided (Redlick, 2017). Considering the benefits of disclosing for the relationship (Le et al., 2010), developing an understanding of anticipations of disclosure costs and rewards are formed is of great interest. The included research highlighted several factors which can increase anticipated rewards, such as having a supportive and non-judgemental partner or through the process of reciprocal self-disclosure.

Having a supportive partner can increase the perceived likelihood of partners responding positively and supportively to high-risk disclosures, whilst partners disclosing first increases intimacy and promotes pro-communicational norms in the relationship.

Sexual experience promoted SSD engagement and likelihood (Herold & Way, 1988), with more frequent disclosures recorded by participants who reported positive sexual experiences, sexual comfort, and sexual self-acceptance. Through positive sexual experiences, individuals develop more positive outcome expectancies, which in turn prompt SSD. When deciding whether to disclose future information, individuals can reflect on previous disclosure experiences and where positive, this increases the perceived likelihood of partners responding positively again. Alternatively, the circular model of female sexual response (Whipple & Brash-McGreer, 1997) suggested that positive sexual experiences have a reinforcing effect on sexual response and act as the initial stage of subsequent sexual response cycles. SSDs then function to promote progression of these sexual responses, by informing partners of sexual desires, fantasies or liked/disliked sexual acts.

Technology can also be used to assist in the facilitation of SD. For example, BDSM practitioners reported using text-based communication to navigate sexual preferences and limits (Rubinsky, 2018). Rubinsky (2018) proposed that this was due to anonymity online or a reduced personal involvement for participants. This provides an avenue for sex and relationship therapy to incorporate technology to assist in disclosures between committed partners. Additionally, considering that some participants used pornography to facilitate the disclosure of sexual desires (Kohut et al., 2017), this provides an interesting avenue for future research and potentially for use in an intimacy-enhancing intervention.

A participant's relationship with their partner was frequently highlighted in the literature as influencing both SSD and NSSD. This research (e.g., Byers & Demmons, 1999) generally

suggests that SD increased as the relationship progressed. This is supportive of SPT (Altman & Taylor, 1973), which suggests that as individuals progress in the relationship, intimacy develops between partners. This increased intimacy, increases the number of topics which can be disclosed in the relationship. Through reciprocal disclosure and increases in intimacy, the ability to disclose increases across the course of the relationship. However, many participants in committed relationships did not engage in SD suggesting an alternative explanation is possible. One such explanation is that SD is not promoted merely through relationship duration, but by positive relationship traits which develop over the course of the relationship. This was supported, with the included research (e.g., Mongeau et al., 2019) highlighting how characteristics such as trust, commitment or satisfaction can increase disclosure behaviour.

The extent to which an individual engages in SD is influenced by a number of characteristics at a societal and cultural level. The included research (e.g., Johnson et al., 2019) suggested that SD engagement is dictated by social, cultural, and relational norms. Such norms are shaped through one's relationships with others, including parent-child communication (Whitaker et al., 1999). An increased readiness to engage in SD was reported where social norms were seen to reward or accept SD. However, where such norms are perceived to discourage SD, participants often reported avoiding disclosure due to the perceived threat of violating social norms, such as stigmatisation or conflict (Anderson et al., 2011). Social norms often differ between cultures, communities, and relationships. For example, in the BDSM community, social norms were seen to strongly encourage engagement in SSD (Kattari, 2014; 2015). Some individuals reported experiencing conflicts between different sets of social norms, such as between Chinese and American cultural norms in Xie and Galliher's participants (2018).

Individual traits were highlighted as influential to both NSSD and SSD engagement. In terms of attachment style, greater SD was reported by participants with secure attachment styles, compared to avoidantly or anxiously attached participants (e.g., Zuroff & Fitzpatrick, 1995). Having an anxious attachment style reduced disclosure likelihood, due to fears of rejection which are characteristic of these attachment styles. Linking to CPM, these heightened fears of rejection shift appraisals of disclosure costs and rewards, so that disclosure costs (e.g., rejection) are seen to greatly outweigh potential rewards. This may be due to the discomfort with intimacy associated with avoidant attachment styles and fears of rejection which are characteristic of anxious attachment styles (Stark & Parsons, 2014). Reduced engagement in SD by avoidantly attached participants may be explained by desires for autonomy and discomfort with intimacy amongst some avoidantly attached participants. For these participants, disclosing may be seen as an uncomfortable process due to the intimate nature of SD, and may be seen as relinquishing control on private information.

High self-esteem was also highlighted as increasing engagement in both SSD and NSSD (e.g., Babin, 2013). It is suggested that those with higher self-esteem possess a greater self-efficacy to engage in SD, potentially due to higher confidence, sexual assertiveness, or beliefs in entitlement to sexual pleasure (Kohlberger et al., 2019). Matsuda (2017) reported that having positive attitudes towards SSD was associated with higher engagement in SSD. Linking to CPM, both self-esteem and positive SSD attitudes increases SD through a greater emphasis on potential disclosure rewards when forming outcome expectancies. This can lead to more frequent SD through perceptions that disclosure rewards are likely to outweigh disclosure costs.

In Chapter 1.6, two theoretical frameworks were outlined: SPT and CPM. The findings of this review lend support to CPM by highlighting a large number of factors (e.g., the development of positive relationship traits or attachment orientation) which influence

whether someone engages in SSDs. It may be proposed that these highlighted factors may inform anticipations of likely disclosure costs and rewards. For example, the presence of an anxious attachment style and fears of rejection may lead the individual to place greater emphasis on the potential disclosure costs (e.g., conflict or rejection). In contrast, positive relational traits (e.g., trust) may lead to greater anticipations of disclosure rewards both directly and indirectly. Directly these traits may lead to more anticipations that a trusted/positively evaluated partner will respond in a positive manner. Indirectly, such positive traits may partially develop following positive previous disclosure experiences and as such the individual may be able to reflect on these experiences when deciding whether to disclose. In contrast, SPT would suggest that an increased readiness to disclose would be the result of increasing intimacy in the relationship. Whilst this was supported (e.g., by Derlega et al., 2008; Knobloch & Carpenter-Theune, 2004; Tolstedt & Stokes, 1984), the findings of this review suggest a greater complexity to disclosure decisions inline with CPM.

Included articles were limited to those published or translated into English due to pragmatic constraints. This may have led to an inclusion bias towards a westernised perspective of SD. In particular, there was a limited number of articles discussing research conducted in Asian and Eastern European communities, meaning that the experiences of individuals in these communities were underrepresented.

In conclusion, this review collated and discussed the findings of 116 articles focusing on sexual and non-sexual self-disclosure in intimate relationships. Several factors (relationships, anticipated outcomes, societal factors, individual differences) were discussed in relation to their ability to increase the likelihood of participants engaging in SD to intimate partners. By providing a review of this research, consistent factors are identified, and this is of value to sex and relationship therapy, by identifying factors which inhibit disclosure. This information can be used to facilitate relational changes in the form of increased disclosure behaviour, by

identifying current barriers to disclosure. This could be beneficial through increases in satisfaction, greater relationship maintenance behaviours and potentially lower rates of relationship dissolution.

2.6: Chapter Summary

This systematic review set out to identify factors which can influence the likelihood (or willingness) of disclosing either sexual or non-sexual information. One hundred and sixteen articles were included in this review. Several factors were identified which influence disclosure likelihood, including: characteristics of the relationship, social influences, anticipated disclosure outcomes, and individual differences.

Similar findings were echoed in the second portion of this review, which focused on the factors which influence whether an individual shares sexual health information with an intimate partner (for the full review, please see Appendix 1). As with sexual self-disclosure, an individual's relationship with their partner (and the traits of the relationship) influenced whether disclosure was likely to occur. For example, in both reviews individuals were more likely to disclose when individuals were in a long-term committed relationship, which was characterised by positive traits, such as love or trust.

Whilst both reviews highlight how individuals may consider existing social/cultural norms when deciding whether to disclose, the review included in Appendix 1 also highlighted the role of social support. Disclosure can be prompted both because of high levels of social support (e.g., attending a support group) but also to elicit social support from the disclosure target.

Both reviews discussed how participants may anticipate what the likely outcome of disclosing would be prior to engaging in self-disclosure. This was reported as particularly important due to the sensitive and personal nature of the disclosure topics investigated

(sexual information and sexual health information). Negative partner responses were seen as a threat both at the relational level (e.g., through triggering conflict) and the societal level (e.g., risks of experiencing stigma or ostracisation). In-line with CPM, prior to disclosure individuals assess the anticipated costs and rewards of disclosing (Petronio, 2002). Where costs are seen as outweighing rewards, disclosure is less likely to occur. In comparison, where rewards are anticipated to outweigh costs, participants are likely to disclose. This was consistently demonstrated within both reviews and suggests that similar processes are likely to occur for the disclosure of sexual fantasies, as argued by Anderson (2011).

Considering the nature of sexual self-disclosures (and that sexual fantasy disclosure may fall under the label of sexual self-disclosure) these findings are beneficial by providing insight into some factors which may also predict sexual fantasy disclosures. Such insight will be crucial during the planning stages of future studies (Chapters 3-6) by highlighting potential predictors of disclosure and through informing the methodologies. For example, included papers including Anderson et al (2011) include a methodology, whereby they ask participants to describe sexual topics that they would not disclose to a partner and their reasons for not doing so. This framework holds great potential for a study to identify some of the reasons for either disclosing or not disclosing a sexual fantasy.

Chapter 3: A content analysis of sexual fantasy disclosure reasoning and partner response

3.1: Chapter overview

In Chapter 1, the absence of research examining the factors which influence the disclosure of sexual fantasies was discussed. Chapter 2 and Appendix 1 identified a very large factors which either consistently or inconsistently predicted self-disclosure, though have not been examined in relation to sexual fantasy disclosures specifically. Due to the large volume of relevant factors and the time constraints associated with the PhD programme, it would not be possible to examine all identified factors in relation to the disclosure of sexual fantasies. As insight into sexual fantasy disclosure decisions is limited, selecting relevant factors from Chapter 2/Appendix 1 to examine would be difficult. Therefore, this chapter aimed to gain insight into some of the reasons held by participants for disclosing or concealing their favoured sexual fantasy. These insights will be used in inform the scope of Chapters 4-6, with the findings of the systematic review (Chapter 2/Appendix 1) being used to identify specific traits within the overarching categories. Comparisons were also made between partner responses described by participants who had disclosed and expected responses amongst participants who had not disclosed. Once an understanding of participant reasoning was developed, comparisons could be made between the described reasons of participants for avoiding sexual fantasy disclosure and the factors which influence other forms of selfdisclosure (outlined in Chapter 2). This chapter is written in article format and has been published in the Journal of Sex Research.

3.2: Introduction

A sexual fantasy can be defined as any mental imagery, occurring during a conscious state, that is sexually arousing or at least considered to be erotic (Leitenberg & Henning, 1995).

The private nature of fantasies enables personal exploration of a diverse range of sexual acts, including those that may be perceived as impossible to enact or likely to trigger relational conflict, without fear of social or relationship repercussions (Ahlers et al., 2011; Lehmiller & Gormezano, 2022).

Population surveys generally concluded that most adults experience sexual fantasies at least occasionally (Leitenberg & Henning, 1995; Lehmiller & Gormezano, 2022). While content is highly diverse, few fantasies are truly rare (Ahlers et al., 2011; Bártová et al., 2021; Joyal et al., 2015; Joyal & Carpentier, 2017), and Lehmiller (2018) suggested that most can be placed into one or more of seven categories: sex involving multiple partners; sex involving the exchange of power or pain between partners; novel or exciting experiences; socially taboo or forbidden experiences; non-monogamy; passion and romance; or flexibility in regard to gender or sexual identity.

Sexual fantasies serve a variety of purposes. Leitenberg and Henning (1995) concluded that having sexual fantasies can be beneficial for sexual functioning, including through greater sexual desire, arousal, orgasmic consistency, and pleasure gained through sexual acts. Similarly, Hill (2008) found that individuals who experienced sexual fantasies more frequently, also reported more frequent sexual interactions. With sexual fantasies about current partners benefitting relationships through greater sexual desire for the partner (Birnbaum et al., 2019; Langeslag & Davis, 2022) and greater engagement in relationship promoting behaviours (Birnbaum et al., 2019). Greater levels of sexual fantasy are also associated with greater desire for sexual novelty, and more willingness to initiate and comply with novel sexual acts (Rosa et al. 2019). This may have wider relational implications, as sexual novelty has previously been linked to greater sexual (Frederick et al., 2017) and relationship (Matthews et al., 2018) satisfaction.

There are also, however, many reasons a person may choose not to disclose a fantasy to a sexual partner. Disclosure of highly taboo fantasies, or of those that are otherwise inconsistent with the established norms of a relationship, could potentially be damaging to the relationship. For some individuals, sexual fantasies may be associated with guilt (Cado & Leitenberg, 1990) or otherwise appraised negatively (e.g., Renaud & Byers, 2001); Lehmiller and Gormezano (2022) argued that this was especially likely when a person perceives their fantasy to be very uncommon. The characteristics of a person's relationship to whom they are disclosing are also likely to be important: an oxytocin administration study by Mikolajczak and colleagues (2010) reported that oxytocin increased trust when the discovery of sexual fantasies was at stake. This provided an indirect indication that trust is important when disclosing sexual fantasies. Finally, some sexual fantasies may simply not be accompanied by any desire for enactment (Joyal et al., 2015).

Despite this apparent complexity, self-disclosure of sexual fantasies is an area that has received very limited research attention. Self-disclosure can be broadly defined as the process of making oneself known to a targeted individual through the revelation of personal information, including sexual information (Jourard & Lasakow, 1958; Rehman et al., 2011). Self-disclosure generally acts to strengthen and maintain romantic relationships, with higher disclosure rates associated with lower rates of relationship dissolution (Le et al.,2010). Byers and Demmons (1999) argued that the disclosure of sexual likes and dislikes leads to the development of a mutually pleasurable sexual script in the relationship. This is due to such disclosures increasing partner knowledge, allowing them to prioritise performing preferred liked sexual acts. Similarly, in a study of couples, higher sexual satisfaction was reported where participants disclosed their sexual likes and dislikes, and (for men) where partners did the same (Rehman et al., 2011). Greater rates of disclosures of sexual preferences were associated with lower levels of sexual dysfunction, particularly in female participants. As

sexual satisfaction is a predictor of later relationship satisfaction (Fallis et al., 2016), this may have implications for wider relationship outcomes. For example, relationship satisfaction predicts greater relationship happiness (Fisher et al., 2015), perceived marital quality (Stanik & Bryant, 2012), and relationship stability (Sprecher, 2002).

The decision to disclose sexual or intimate information to a partner can be a complex one. CPM (Petronio, 2002) suggests that when deciding whether to disclose (or not disclose) information, the individual first must determine what the potential rewards or costs of disclosing are likely to be. For disclosure to occur, the perceived rewards of disclosing must outweigh the potential for costs to be incurred. For example, Kalichman and colleagues (2016) reported that individuals may avoid disclosing their HIV serostatus due to fears of incurring social or relational costs. Similarly, Kattari (2014) identified that participants were more likely to negotiate sexual needs and desires with partners, when partners were seen as being likely to respond in a positive manner.

Very little research has been conducted that directly explores the disclosure of sexual fantasies in intimate relationships. In a very large sample of 37747 US adults in committed relationships, Frederick and colleagues (2017) reported higher rates of sexual satisfaction amongst those who had discussed or acted upon their sexual fantasies. Similarly, Lehmiller (2020) found that, of those who reported that their favourite fantasy involved consensual non-monogamy, 60.8% had shared it with their partner. Where these fantasies were shared, experiences were largely positive (64.6%) rather than negative (19.8%). Despite quite high disclosure rates and positive experiences amongst disclosing individuals, only one in ten participants reported enactment following disclosure. Obstacles to the enactment of consensual non-monogamy included expectations of partner disapproval, belief that partners would not share the interest, not knowing how to enact the fantasy, and fear of social disapproval.

Most relevantly, in their unpublished doctoral thesis, Anderson (2011) reported asking participants to describe the possible rewards and costs associated with disclosure of sexual fantasies. Participants perceived several possible disclosure rewards, including the ability to enact fantasy content; bonding with their partner; enhancing sexual relationships; promoting communication; and learning about partner preferences. Perceived costs/reasons to avoid disclosure included fear that partners would react negatively; embarrassment with the topic; the private nature of sexual fantasies; marital status influenced decisions; to avoid making partners uncomfortable; concerns about what the content of their partner's fantasy may be; and concerns about pressures to fulfil any disclosed fantasies. Participants also rated their willingness to disclose, sexual satisfaction and relationship satisfaction. The author found that disclosure of sexual fantasies was positively associated with sexual satisfaction in both the person disclosing and their partner, with the important caveat that this was mediated by factors such as fantasy content.

This limited existing research, in combination with findings related to other types of self-disclosure, suggests that the disclosure of sexual fantasies can have benefits for intimate relationships. It is also clear, however, that a person must evaluate a wide range of factors before deciding whether to disclose. Our understanding of this process is currently very limited. The present study therefore aimed to explore the reasons people give for disclosing, or not disclosing, their fantasies to sexual partners. Participants were asked about previous disclosure experiences, or about reasons for not disclosing, as well as actual or expected partner responses. Online studies (e.g., Joyal & Carpentier, 2017; for further discussion please see Chapter 1.2) have tended to report greater diversity in fantasy content, suggest an increased comfort in responding to questions relating to sexual fantasies online. Therefore, the decision was taken to utilise open-response text boxes as opposed to interviews. Reasons for (non-) disclosure were categorised by their content, and partner responses coded as

positive or negative, to provide insight into how and why people make the decision to discuss their sexual fantasies with an intimate partner.

3.3: Method

3.3.1: Design

This study employed a mixed-methods design, with the survey facilitated through Qualtrics.

Open-response text boxes were used to gain an understanding of some of the reasons participants held for either disclosing or not disclosing a sexual fantasy. Additionally, open-response boxes were used to elicit responses relating to their partner's response (or anticipated response) to the disclosure of their chosen sexual fantasy. Responses to both text-boxes were analysed using descriptive content analysis.

3.3.2: Participants

Individuals were eligible to participate if they were adults (18 years or older) who self-reported as currently or previously being in an intimate relationship, and as having had at least one sexual fantasy. A range of online platforms was used for recruitment, to facilitate a diverse sample. Platforms included social media (Twitter, Facebook, LinkedIn), websites such as Reddit (r/samplesize, r/psychology, r/sex) and sexandpsychology.com, and a university psychology department's research participation scheme. Students recruited via the latter method received credits to use towards their own research as incentives; no other payments incentives were given. All recruitment materials explicitly stated that the study related to sexual fantasies.

Recruitment ran from October 14th 2021 until December 1st 2021. In total, 290 people fully completed the survey; three were removed because they indicated that they did not experience sexual fantasies, so the final sample consisted of 287 participants. This large sample size was targeted to maximise the possibility of reaching saturation in responses and

to conservatively provide sufficient power for the quantitative analyses, given effect sizes that are broadly consistent with those reported by e.g., Lehmiller (2020).

Participant demographics are displayed in Table 3.1. Participants were aged between 18 and 83 years (M = 34.34, SD = 14.06). Most participants reported residing in either the United Kingdom or the United States. Just under half of the sample identified as heterosexual.

Table 3.1: Participant Demographics

	Frequency	Percentage
Gender		
Man	135	47%
Woman	128	44.6%
Non-binary/Third gender	21	7.32%
Self-describe	3	0.9%
Sex		
Male	140	48.8%
Female	145	50.5%
Sexual orientation		
Heterosexual	136	47.39%
Homosexual	18	6.27%
Bisexual	106	36.93%
Self-described	27	9.41%
Country of residence		
Asia (Bangladesh, China, India & Philippines)	6	2.1%
Australia and New Zealand	9	3.1%
Canada	19	6.6%
Central Europe (Austria, Czech Republic, Germany, Poland, Slovenia & Switzerland)	15	5.2%
Eastern Europe (Belarus, Russia & Ukraine)	3	1.0%
Mexico	1	0.3%
Northern Africa (Monaco & Turkey)	2	0.7%
Northern Europe (Denmark, Finland, Norway & Sweden)	6	2.1%
Southern Europe (Andorra, Italy, Malta & Spain)	5	1.7%
United Kingdom	86	30.0%
United States of America	115	40.1%
Western Europe (Belgium, France, Ireland & Netherlands)	8	2.8%

3.3.3: Materials and Procedure

Ethical approval was awarded by Staffordshire University research and ethics committee. The survey was conducted via the online survey platform Qualtrics (Qualtrics, Provo, UT). After consenting to take part in the study, participants completed demographic information (age, country of residence, biological sex, gender, and sexual orientation).

Following the demographic items, participants were shown a screen with the following text:

"What is a sexual fantasy?

For the purposes of the present study, sexual fantasies are defined as "any mental imagery during a conscious state that triggers a state of arousal or is sexually pleasurable to think about". According to Lehmiller (2018), there are seven main categories of sexual fantasy.

You may fantasise about wanting to try a new sexual position or about an attractive celebrity on television. You do not need to necessarily intend to try this fantasy. Sexual fantasies may occur frequently, may reoccur or may only occur once. You may have several different sexual fantasies, although for the purposes of this study, please consider your favourite or most recent sexual fantasy. This may be a fantasy that you have often or one that may particularly stand out. Please reflect on this fantasy throughout your participation in this study."

The provided definition was developed by Leitenberg and Henning (1995), and has previously been used in research (e.g., Lehmiller, 2018).

Participants were then provided with a list of Lehmiller (2018)'s sexual fantasy categories, accompanied by short descriptions. The categories and descriptions were: *multi-partner sex* ("Fantasies involving more than one sexual partner, such as threesomes or group sex."); *power, control and rough sex* ("Fantasies involving themes of power exchange or inflicting/receiving pain, such as dominant and submissive, BDSM-related fantasies, spanking, flogging or sensory deprivation."); *novelty, adventure and variety* ("Fantasies involving sex in new locations, involving new or thrilling acts. This may involve fantasies of

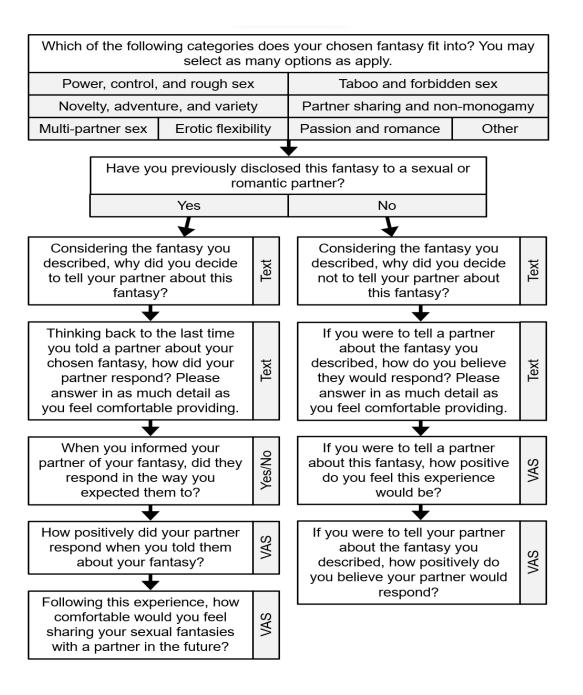
sex in public locations, sex in new positions or the use of sex toys."); taboo and forbidden sex ("Fantasies which you consider to be taboo in the eyes of your culture, society or religion, or which involve typically non-sexual objects."); partner-sharing and non-monogamy ("Fantasies about relationships where partners are free to pursue more than one sexual relationship, such as open relationships."); passion and romance ("These fantasies have a strong emphasis on emotional fulfilment and connecting with one's partner."); and erotic flexibility ("Fantasises involving the flexibility of one's gender identity or sexual orientation."). All categories were presented in a list, and participants were asked to select which they felt matched their own fantasy. Multiple categories could be selected, and an "Other" option was also available. Participants were then asked to indicate whether they had previously disclosed this fantasy to a sexual or romantic partner (yes/no).

Participants who responded that they *had* disclosed their fantasy were then asked: why they chose to disclose (open text response); how their partner responded (open text); whether their partner responded as they expected them to (yes/no); how positively their partner responded (0-100 visual analogue scale [VAS]); and how comfortable they would feel sharing sexual fantasies in future (0-100 VAS).

Participants who responded that they *had not* disclosed their fantasy were instead asked: why they chose not to disclose (open text); how they believe a partner would respond if they did disclose (open text); how positive they expect the experience of telling a partner would be (0-100 VAS); and how positively they expect their partner would respond (0-100 VAS). Figure 33 illustrates the branching and ordering of questions and shows all questions and response options. All participants were then presented with a debrief screen.

Figure 3: Survey flow

Participants were asked a series of questions about a chosen sexual fantasy. The survey branched based on whether participants indicated they had previously disclosed this fantasy. Responses (shown in grey) could be multiple choice, open text boxes, or visual analogue scales (VAS).



3.3.4: Analyses

Descriptive content analysis was used to categorise written responses (Neuendorf, 2017). This approach has been used previously to examine sexual behaviour and intimate relationships (e.g., Downing et al., 2014; Driskell et al., 2008; Labrecque et al., 2021).

For responses relating to reasons for disclosing or concealing sexual fantasies, the primary researcher (MLK) undertook several readings of the dataset and made initial codes. These codes were later grouped into five categories describing motivations given by participants for (not) disclosing a sexual fantasy: *sexual gratification*, *relationship-motivated*, *partner traits or characteristics*, *communication patterns*, and *specific fantasy content*. These categories are described in detail in the results section. For items assessing partner responses, descriptions were categorised as positive, negative, mixed, or neutral.

A final list of categories and example topics which fell in each category was shared with a secondary coder (JME). Both researchers (MLK & JME) independently coded all responses against the developed categories. Where participants alluded to several reasons for disclosing or concealing, these were coded as falling in multiple categories. Inter-rater reliability was calculated using Cohen's Kappa (Cohen, 1960). Kappa scores and percentage agreement for each category is presented in Table 3.2. Using the boundaries suggested by Landis and Koch (1977), most categories achieved at least moderate agreement.

Where disagreement was present for any question, both coders (MLK & JME) met to discuss these responses and came to an agreed decision. The primary area of disagreement between coders related to the *partner traits and characteristics* and *specific fantasy content* reasons for avoiding disclosure and contributed to these categories only achieving fair agreement. The disagreement occurred specifically in situations where participants expressed an expectation that their partner would disapprove of the content of the fantasy. For example:

"I figured they would not be interested in such a fantasy, as well as they would be unhappy that my fantasy included multiple people."

MLK initially categorised such responses as *specific fantasy content* reasons, whereas JME initially categorised them as *partner* reasons. The coders discussed these responses and agreed to place them in the *specific fantasy content* category, as the perceived disapproval related to the specific content of the fantasy (rather than, for example, sexual fantasies in general).

An inductive thematic approach to saturation was adopted, whereby it was determined that saturation had been reached and it was unnecessary to collect further responses due to the absence of data falling outside of the five generated categories (Saunders et al., 2018).

Table 3.2: Inter-rater agreement for categories (Cohen's kappa [percentage agreement])

	Disclosed fantasies		Undisclosed fantasies	
Reason				
Relationship-motivated	0.70	(88.83%)	0.65	(88.24%)
Communication patterns	0.60	(82.45%)	0.70	(89.41%)
Sexual gratification	0.79	(89.36%)	0.76	(91.76%)
Partner traits or characteristics	0.07	(89.89%)	0.32	(68.24%)
Specific fantasy content	0.57	(84.57%)	0.24	(71.76%)
Partner response				
Positive	0.66	(88.77%)	0.60	(86.52%)
Negative	0.61	(91.98%)	1.00	(79.78%)
Neutral	0.38	(86.77%)	0.51	(100%)

3.4: Results

3.4.1: Sexual fantasy occurrence and disclosure rates

The prevalence of Lehmiller's (2018) categories of sexual fantasies in participant responses is shown in Table 3.3. As previously demonstrated by Lehmiller (2018), the most frequently selected categories were *multi-partner sex* and *power, control and rough sex*. A substantial proportion (79.8%) of participants indicated that the fantasy on which they were reflecting fell in more than one category.

High rates of disclosure (69.3%) were recorded. When asked to describe their reasons for disclosing or not disclosing a sexual fantasy, a substantial proportion of participants listed specific fantasy content as a motivator for disclosure. Therefore, a binary logistic regression model, with fantasy content coded as categorical dummy predictor variables (e.g., presence of multiple partners yes/no) was run to examine whether fantasy content significantly predicted disclosure. Based on these findings it was hypothesised that fantasy content would significantly predict disclosure. However, the overall model was not significantly predictive of whether participants reported disclosing their sexual fantasy, $\chi^2 = 10.53$, df = 8, N = 287, p = .230. No individual fantasy categories in the model were significantly predictive of disclosure, p > .05.

Similarly, Chapter 1.3 highlighted that demographic characteristics can influence the content and frequency of experiencing sexual fantasies. Further, Chapter 2 and Appendix 1 highlighted that disclosure can inconsistently be predicted by these demographical characters. However, research had not previously examined whether sexual fantasy disclosure is predicted by demographic characteristics. A binary logistic regression model consisting of age, biological sex, gender and sexual orientation, was not significantly predictive of sexual

fantasy disclosure, $\chi^2 = 4.30$, df = 4, N = 287, p = .367. No individual demographical characteristic in the model was significantly predictive of disclosure, p > .05.

Table 3.3: Frequency of fantasy content for overall sample, disclosed and undisclosed fantasies

Fantasy content	Overall (<i>n</i> = 287)	Disclosed (n = 199)	Not disclosed (n = 88)
Multi-partner	55.7% (160)	60.3% (120)	45.5% (40)
Power, control and rough sex	61% (175)	62.8% (125)	56.8% (50)
Novelty, adventure and variety	55.7% (160)	58.8% (117)	48.9% (43)
Taboo and forbidden sex	34.8% (100)	37.2% (74)	29.5% (26)
Partner sharing and non-monogamy	37.6% (108)	40.7% (81)	30.7% (27)
Passion and romance	52.6% (151)	54.8% (109)	47.7% (42)
Erotic flexibility	28.9% (83)	31.2% (62)	23.9% (21)
Other	6.6% (19)	5% (10)	10.2% (9)

3.4.2: Reasons for disclosing/concealing sexual fantasies

Using content analysis, five categories were generated that encompass the reasons participants gave for disclosing, or not disclosing, a sexual fantasy to their partner. Briefly, these categories were *sexual gratification*, *relationship-motivated*, *partner traits or characteristics*, *communication patterns*, and *specific fantasy content*. These categories are discussed in further detail below. Responses could fall into multiple categories.

Table 3.4 shows the frequency of each category in the data. Participants most frequently cited sexual gratification reasons (38.91%) for disclosing sexual fantasies to their intimate partner, whilst specific fantasy content reasons (28.09%) were cited most frequently for concealing sexual fantasies.

Table 3.4: Coded frequencies for disclosure reason and partner response and mean visual analogue scale (VAS) responses.

Reasons for (not) disclosing	Disclosed fan	tasies	Undisclosed fa	Undisclosed fantasies		
	Percentage	Proportion	Percentage	Proportion		
Relationship-motivated	16.28%	42/258	16.85%	15/89		
Communication patterns	21.32%	55/258	20.22%	18/89		
Sexual gratification	38.75%	100/258	16.85%	15/89		
Partner traits or characteristics	4.65%	12/258	17.98%	16/89		
Specific fantasy content	18.60%	48/258	28.09%	25/89		
Other	0.40%	1/258	0%	0/89		
Disclosure responses	Actual (disclo	osed)	Anticipated (undisclosed)			
	Percentage	Proportion	Percentage	Proportion		
Positive	81.72%	152/186	23.86%	21/88		
Negative	8.60%	16/186	50.00%	44/88		
Neutral	6.99%	13/186	22.72%	20/88		
Mixed	2.69%	5/186	3.41%	3/88		
VAS (0-100)	Actual (disclo	osed)	Anticipated (u	ındisclosed)		
	Mean	SD	Mean	SD		
Positivity of partner response	79.07	24.64	44.39	28.48		
Comfort disclosing again	79.97	24.65				
Positivity of disclosure experience			46.11	27.94		

Relationship-motivated reasons

Relationship-motivated reasons accounted for 16.28% of those provided for disclosing a sexual fantasy and 16.85% of reasons for concealing a sexual fantasy. In order for responses to be coded in this category, the participant had to provide some indication that their reason for engaging (or not) in the disclosure of their sexual fantasy was motivated by their relationship (such as whether they were in a new relationship or an established relationship), specific traits in the relationship (e.g., trust or love), desires to increase positive traits in the relationship, or fear that disclosure would threaten the relationship.

In established relationships, the level of commitment often led to perceived obligations to disclose sexual fantasy content to romantic partners. In new relationships, the lack of

familiarity and trust between partners led to fears of receiving judgement or overwhelming partners. In these relationships, participants indicated that sexual fantasy disclosure can be a gradual process associated with the slow intentional revelation of information in preparation for a larger (potentially more stigmatised) disclosure.

"We are not in a relationship and are both seeing other people. I do not want to be judged when it is so early on with us seeing each other."

Factors such as the levels of trust, love, and closeness in a relationship were highlighted as facilitating the disclosure of sexual fantasies. The presence of these factors facilitated open communication between partners.

"Because I love and trust him and we can openly discuss what we want in our sexual life"

Power dynamics, including elements of submission, were also seen to prompt disclosure, potentially due to social norms surrounding communication in BDSM relationships (Kattari, 2014).

For some participants, disclosure served a function in their relationship, increasing intimacy and bringing partners together. For these participants, sexual fantasy disclosures were seen to act as a form of emotional bonding between intimate partners. The disclosures came out of desire for honesty with a partner, and to increase trust in the relationship.

"I wanted to be honest with my wife... I wanted a relationship where trust and confidence were strong enough that would allow me to share those thoughts..."

Some participants expressed that their decision to disclose stemmed from relationship dissatisfaction. For these participants, dissatisfaction reduced concerns about disclosure outcomes, allowing for more open communication of sexual fantasies.

"I knew it wouldn't work out, but I just was tired of not receiving anything so I just threw it [the fantasy disclosure] out there. I told her that because I did want it to happen, but knew it wouldn't despite her asking so much of me in the bedroom."

Communication patterns

Communication patterns accounted for 21.32% of the reasons provided for disclosing a sexual fantasy and 20.22% of the reasons provided for concealing a sexual fantasy from an intimate partner. Responses in this category highlighted how communication patterns in the relationship can influence disclosure decisions. Responses in the category Communication patterns were similar to those in the relationship-motivated category. However, for a reason to be coded as related to communication patterns, participants must have explicitly cited that disclosure was a result of communication-related goals, existing communication patterns, or desires to promote communication in the relationship.

For some participants, their desire or ability to communicate sexual fantasies was limited by discomfort, embarrassment, or fear of judgement. Additionally, some participants viewed their fantasy as a private topic, whilst others indicated that they would only discuss their fantasy if it came up naturally in a conversation, or their partner initiated such a conversation.

"Privacy and the topic never coming up in conversation. Feeling uncomfortable in case my fantasy didn't match theirs and fear of judgement."

Responses by participants who had previously disclosed their fantasy to a partner suggested that the ability to communicate develops over an extended period, leading to an increased level of comfort with discussing such topics. Some participants also held beliefs that communication was vital for ensuring sexual compatibility.

"My partner and I were able to communicate very clearly, and as a result felt comfortable enough to share fantasies with one another in an attempt to understand how we could help please each other more."

Some participants indicated that their partner played a role in their disclosures, such as through disclosing their own fantasies, initiating the conversation, or directly asking. For some participants, disclosure was intended to encourage partners to disclose their own fantasies.

"I'm not fully sure how the conversation started, but I and my partner were just laying in bed when he decided to ask me about any sexual fantasies and this is when I told him – I just told him openly."

Some participants reported using technology, such as pornography or online quizzes (which only reveal to partners fantasies that they both share), to initiate the disclosure of sexual fantasies.

"Very open communication style and also performed online quizzes that anonymise fantasies unless you match with your partner regarding them (mojo upgrade). This helped start a dialogue"

Sexual Gratification

Sexual gratification was more commonly cited as a reason for disclosing a sexual fantasy (38.75% of responses) than for not disclosing a fantasy (16.85% of responses). Responses were placed into this category when the reason for (non-) disclosure was a desire to increase sexual gratification (for the participant or their partner). This most frequently took the form of a hope to enact the described sexual fantasy with their partner.

"Because it was a fantasy I would love to act upon and wanted to see how interested my partner would be in exploring the fantasy." Participants often described disclosing with the intention of introducing sexual adventure, sexual excitation and/or increasing sexual pleasure. Some participants described disclosing with the intention of gaining insight into partner sexual likes and desires, which acted to increase sexual pleasure for both partners:

".... In an attempt to understand how we could help please each other more."

For some participants, the act of disclosing itself was an arousing or sexual process for them or their partner:

"I decided to tell my partner about the fantasy because I knew that it would bring sexual arousal to them too so I wasn't uncomfortable with sharing my fantasy to them."

Sexual gratification reasons were also provided for the avoidance of disclosure. Disclosures were avoided where enactment was perceived to be not possible, undesirable, or not pleasurable:

"If I tell my partner, he will try to make it come true and I haven't come to terms yet whether I want to really do it"

Partner traits or characteristics

Participants more frequently cited their partner's experience, views, or personality as a reason for concealing their sexual fantasy (16.85% of responses) than disclosing it (4.65%). Responses indicate that participants' decision whether to disclose their fantasy was influenced by their partner's sexual experience, with some indicating they avoided disclosing because their partner was "new to kink", "vanilla", or "sexually conservative". When partners were viewed to be sexually open or adventurous, participants felt more able to disclose:

"She is very adventurous and enjoys bringing fantasy's to life. She's equally sharing and open minded"

For some participants, disclosure was avoided due to fears that partners would respond in a critical or judgemental manner.

"Fear of judgment, rejection and inadequacy. She has been openly critical of people with attributes that fit within the imagery of my fantasies."

"They did not respond in an open-minded way to less taboo fantasies. I chose not to expose myself to them for judgment."

In contrast, those who had disclosed often viewed their partner as "non-judgemental" and "a source of support".

"My current partner I feel safe with and regardless of whether or not we act on this fantasy I don't feel ashamed or like I need to hide away the thoughts I may have."

Specific Fantasy Content

Specific fantasy content was a further category of reasons for concealing a sexual fantasy (28.09%) and, less frequently, disclosing a fantasy (18.60%). To be included in this category, the reason given for (non-) disclosure must emphasise that the nature of the fantasy itself was central to the decision. This is distinct from, for example, sexual gratification, where the decision may be more related to a general desire to increase sexual pleasure.

For some participants, the acts present in sexual fantasies are representative of elements of their sexual identity, such as fantasies involving BDSM or same-sex acts: "Because for me, BDSM isn't just a fantasy to spice up the sex, but a sexual identity..." For these participants, disclosure may not only serve to inform partners of sexual fantasies, but of elements of their sexual identity. Disclosure may function as a way of screening for sexual compatibility, with

the acceptance/sharing of this identity acting as a prerequisite of relationship formation.

Some participants described specifically forming relationships with partners known to share their fantasy or identity. "...I don't want to compromise on that, so I'll just look for partners that are into it as well & discuss things early on." For some participants, the concealment of fantasies led to the development of an inner conflict, which led to disclosure: "I have had this fantasy for quite some time and after hiding it for so long, it really started to eat away at me and I became tired of hiding it from her."

Several participants described how they factored the specific content of their fantasy into their decision about whether to disclose. Participants were more likely to disclose fantasies whose content was perceived as posing little threat to their relationship, for example because the fantasy was not especially taboo, was likely to be shared by their partner, or had elements that were already present in sexual encounters with current partners.

"We communicate well with each other and have been together for 60 years. This fantasy was almost realized when I was 12 years old....so no threat to our relationship."

The perceived extremity of the fantasy often influenced likelihood of disclosure: participants generally indicated an increased readiness to disclose less extreme or more socially acceptable fantasies:

"For me they were easy to disclose because they were normal/socially accepted."

"Some of them I have, and some I will take to the grave because they are socially unacceptable and/or will offend my partner."

3.4.3: Partner responses to disclosure

Participants were asked to describe how their partner responded when they disclosed the sexual fantasy that they were reflecting upon. The majority of described responses were coded as positive (81.72%). For participants who had disclosed their fantasy, positive

responses from partners often included elements of communication, "sharing of his own similar fantasies", which functioned to negotiate enactment, "Responded with enthusiasm about the hypothetical situation as a fantasy, discussion of possibility IRL", gain more information about the fantasy, "He said he never tried it before and will educate himself about that topic", or to engage in reciprocal self-disclosure, "sharing of his own similar fantasies". For some participants, disclosure elicited a sexual response, including arousal, sexual interactions, or enactment of the fantasy. Partners were often seen to be understanding, accepting, non-judgemental, and supportive.

In comparison, less than ten percent of partner responses were coded as "negative". Such responses often included partners not showing interest in the acts present in the fantasy, showing disinterest, or being hesitant: "They said they didn't really have the same fantasies and didn't understand the appeal."

Responses were categorised as neutral when they were neither clearly positive nor negative.

Less than ten percent of described responses in the sample were coded as neutral and often involved partners responding in an ambivalent manner, such as by showing limited interest in the fantasy: "Without judgment but with limited curiosity or interest. There was no talk at all about acting on the fantasy or incorporating it into our sex life through role play or dirty talk."

Mixed responses were any that incorporated both positive and negative elements. Few responses were categorised as mixed (2.69%). Such responses often described reactions that changed over time: "At first she was shocked and didn't agree to it. After having an actual conversation more deeply about it, she agreed to go on with it. She was uncomfortable at first but after communicating more deeply she eased into it."

These coded findings are in line with participant descriptions, with disclosing participants largely describing their partner's response as positive (M = 79.07). When reflecting upon their experiences of disclosing sexual fantasies, most participants indicated that their partner responded as they expected them to (82.8%) and that they would feel comfortable disclosing fantasies again in the future (M = 79.97 out of 100).

Using fantasy content to predict response positivity

Considering the frequency at which specific fantasy content was highlighted as a reason for disclosure or non-disclosure of sexual fantasies, it was anticipated that fantasy content would influence positivity of partner responses to disclosure. A multiple linear regression model, with fantasy content coded as categorical dummy predictor variables, was not significantly predictive of the reported positivity of disclosure experiences, F(8, 189) = 1.52, p = .154. No individual fantasy types were significantly predictive in the model, p > .05.

A multiple linear regression model, with disclosure reason coded as categorical dummy predictor variables, was overall significantly predictive of VAS scores indicating positivity of partner response, F(5, 192) = 2.332, p = .044. However, no individual reasons were significantly predictive in the model, p > .05.

3.4.4: Anticipated partner responses (for those who had not disclosed their fantasy)

Participants who were reflecting upon a fantasy that they had not disclosed were asked to consider (and describe) how their partner would be likely to respond if they were to disclose their sexual fantasy. These responses were again coded as either positive, negative, neutral, or mixed.

Half of the participants anticipated that their partner would respond in a negative manner. For some participants, disclosure was seen as a possible threat to the relationship, as likely to trigger relational conflict or potentially harming partners emotionally:

"She would be shocked, and possibly it would make her feel like I had no interest in our relationship and would be looking at leaving her due to our lack of sex life. She'd feel she wasn't enough, and maybe my extreme fantasies were a path to something she wouldn't wish to be involved in, or a signal I'd cheat."

Some participants expressed fears that disclosing may lead their partner to feel pressured or obligated to enact the fantasy: ".... I'm afraid it might put too much pressure on them, and they might feel that they're obligated to act out my fantasy even if they don't want to.".

Likewise, it was perceived that there was the potential for disclosing to lead to unwanted sexual encounters: "... they might want something in return that I am not comfortable with."

Disclosure in some cases was seen as holding the potential for leading to experiencing judgement (including humiliation), stigmatisation, or legal threats:

"... they'd have a lower opinion of me."

"She would think I was a pervert and make me go to talk to someone, a counsellor"

Just under a quarter of participants (23.68%) indicated that they believed that their partner would respond in a positive manner, though many of these positive responses included a degree of uncertainty. Participants expressed hope that their partner would respond in an open-minded and non-judgemental manner. For some, disclosure responses were seen as likely to involve conditional acceptance of the fantasy: "I feel that they would be open to some aspects of it but not to the same extreme extent as me and would possibly try out some of the more neutral parts of what I'm into."

Again, under a quarter of participants (22.72%) indicated beliefs that their partner would respond in a neutral manner. As with the experiences of participants reflecting upon a disclosed fantasy, neutral fantasies often included anticipated limited expressions of interest by the partner or ambivalence: "They would probably be neutral. They would not be offended

or disgusted by it and would be supportive of me having my own fantasies but they would not want to participate in it." Others were uncertain how their partner would respond: "I am not sure."

A small number of responses (3.41%) were coded as mixed, with beliefs that partners would respond both positively and negatively. For some, this was due to beliefs that disclosing would lead to enactment or sexual experiences, which was not the intention of disclosing: "I think she would see it positively, but it might result in increased sexual interactions, which I really don't enjoy."

3.5: Discussion

This study aimed to explore the reasons for (non-) disclosure of sexual fantasies between intimate partners. Participants were also asked how their partner responded when they disclosed (for those who had previously disclosed their fantasy), or how they expected that their partner would respond if they were to disclose (for undisclosed fantasies).

A large proportion of participants in the present study (69.3%) had previously disclosed their fantasy. This is very close to the 69.8% reported by Anderson (2011), and slightly higher than the 60.8% disclosure rate of fantasies involving consensual non-monogamy in Lehmiller's (2020) study. In agreement with previous research (Lehmiller, 2018; 2020), the most frequent fantasy themes in the sample were *power*, *control and rough sex*; *multi-partner sex*; *novelty*, *adventure and variety*; and *passion and romance*; each of these themes was present in over half of participants' chosen fantasies. Though it is worth noting that whilst the recorded prevalences of each of these categories is lower than those recorded by Lehmiller (2018; 2020), this is largely due to methodological differences. In Lehmiller's (2018) research, participants were not only asked about their favourite sexual fantasy but also whether they

had ever experienced specific sexual fantasies. This would provide an explanation for these discrepancies, as the present study only asked participants to consider a single prominent sexual fantasy- either favourite or recent. It is possible that had participants been asked about all experienced fantasies, that the figures may have been more in line with those put forwards by Lehmiller (2018). Additionally, most participants indicated that there chosen fantasy contained elements of several themes, suggesting a complexity to fantasy content.

Through content analysis, five categories of reasons participants gave for (not) disclosing their fantasy. These were characteristics of the relationship, communication patterns with their partner, perceptions of their partner (e.g., their personality or views), desire for sexual gratification, and specific characteristics of the fantasy.

Reasons relating to relationship characteristics were given at similar frequencies for both the disclosure and concealment of sexual fantasies. Factors such as commitment, trust, love, and relationship closeness were mentioned in association with disclosure, and several participants indicated that their ability or desire to disclose increased as their relationship developed. This is consistent with findings relating to other forms of self-disclosure (Humphreys & Newby, 2007; van de Bongardt & de Graaf, 2020). Participants were not explicitly asked about their relationship duration, but the frequency with which it was cited (and consistency with past research) suggests relationship length may be a key predictor of disclosure, providing an interesting avenue for future study. Similarly, considering the influence that participants described their relationship as having over disclosure behaviour, an examination of which relational traits predict sexual fantasy disclosure should also be explored through future research.

Sexual gratification was the most common category for past disclosures. In their research,
Frederick and colleagues (2017) highlighted an association between sexual fantasy disclosure

and sexual satisfaction. Considering that sexual gratification (including desires for enactment) was a prominent reason for disclosing, this suggests that increases in sexual satisfaction may, in part, be due to subsequent enactment of the disclosed sexual fantasy. Whilst not focused on sexual fantasies, Byers and Demmons (1999) reported that the disclosure of sexual likes/dislikes leads to the development of a mutually pleasurable sexual script in the relationship. This promotes sexual satisfaction by providing partners with the information necessary to perform liked sexual acts and avoid performing disliked sexual acts. It is plausible that the disclosure of sexual fantasies serves a similar function by informing partners about fantasies that they wish to enact out. This may then explain the reported associations between having sexual fantasies and benefits to sexual functioning, including increased pleasure gained from sexual encounters and orgasmic consistency (Leitenberg & Henning, 1995). Disclosing sexual fantasies may also act as a means by which to introduce sexual novelty to the relationship, which has also been associated with sexual satisfaction (Frederick et al., 2017). In a study focusing on participants with fantasies relating to consensual non-monogamy, whilst 60.8% of participants had disclosed their fantasy, only one in ten reported enactment (Lehmiller, 2020). Some participants reported that the process of disclosing could also be intimate/arousing, whilst for others the potential for enactment may be undesirable. However, from the data collected it was not possible to ascertain whether those who reported disclosing a sexual fantasy also then enacted the fantasy. This provides an avenue for future research to explore why enactment may or may not follow disclosure. Among participants who had not disclosed their fantasy, the most common category of reason was specific fantasy content. Responses in this category highlighted how disclosure can be specifically inhibited by the content of the fantasy, including perceptions that the fantasy would be disapproved of by partners or society. Such perceptions were associated with fears of partners responding negatively, including judgement or stigma. This is consistent with the

Appendix 1), in which participants described fears of stigma/social repercussions resulting from disclosure. Negative responses were particularly anticipated where partners were seen to be sexually conservative, or the fantasy perceived to be taboo. Such perceptions may be the result of internalised stigma, with reported associations between internalised stigma and non-disclosure (Bry and colleagues, 2017). Relating to sexual fantasy disclosure, for some individuals having sexual fantasies is associated with guilt (Cado & Leitenberg, 1990) or negative appraisals of fantasies (Renaud & Byers, 2001), suggesting the presence of internalised stigma. Relatedly, some participants indicated that they adopted a gradual process of disclosing to reduce concerns surrounding disclosure. Similar processes have been observed amongst individuals disclosing their HIV serostatus to an intimate partner (Bird et al., 2017; Greenhalgh et al., 2016; Maman et al., 2001). For example, individuals may engage in several smaller disclosures (e.g., disclosing that someone in their immediate social network is HIV positive) to test a partner's reaction prior to disclosing their own HIV status (Greenhalgh et al., 2016).

Specific fantasy content also featured as a reason *for* disclosure, including among participants whose fantasies included key parts of their sexual identity. For those participants, disclosing served not solely to increase partner awareness of sexual fantasies, but also to share elements of sexual identity (e.g., BDSM identity or sexual orientation). Disclosure can be used to assess sexual compatibility with partners (by screening for partners who are accepting and/or share sexual identities) and can be a pre-requisite to relationship formation. For those who had not disclosed these identities, it was common to report inner conflict resulting from concealment. This finding is consistent with the findings of Feinstein and colleagues (2020), who reported negative mental health outcomes amongst bisexual and non-monosexual participants who reported concealment of their sexual identity.

The diversity of reasons recorded for either disclosing or not disclosing a sexual fantasy provides strong support for CPM theory. With some participants reporting having disclosed some fantasies but not others, this suggests that disclosure may be dependent in part on the content of the fantasy (as opposed to purely the development of intimacy as suggested by SPT). Across all categories, participants described various rewards (enactment, strengthening partner connections, development of positive relationship traits) and costs (partner disapproval, conflict, feeling pressured to enact a fantasy) associated with disclosing sexual fantasies. Future research should consider CPM and examine these categories in relation to the anticipation of costs and rewards.

Interestingly, when tested statistically, the content of a fantasy was not found to be significantly predictive of whether a participant had chosen to disclose it. There are several possible reasons for this. First, only allowing participants to select from broadly defined categories is a relatively crude measure and may mask important differences in fantasy content between participants. Second, because less than a third of participants had not chosen to disclose their fantasy, the binary logistic regression may have been underpowered to detect any effect. Or finally, it may simply be that, for the majority of participants, fantasy content is not a major consideration; indeed, only 28.09% of reasons for non-disclosure, and 18.60% of reasons for disclosure, were placed in this category. A more important predictor of disclosure may be the frequency at which participants experienced their chosen fantasy, though this is outside of the scope of this research and should be explored through future research.

This study also asked participants about the actual or anticipated (for those who had not disclosed) response of their partner to sexual fantasy disclosure. In-line with the findings of Lehmiller (2020), sexual fantasy disclosure experiences were largely coded as positive. Experiences. Interestingly, the positivity of partner response was not significantly predicted by the reasons provided for disclosing or the content of the sexual fantasy to be disclosed.

This may be due to the tendency for participants to pre-screen for fantasies that their partner would be likely to approve of or for participants to only select the most prominent reason for disclosing (as opposed to all reasons).

Participants who had not disclosed their sexual fantasy were asked to report who they believed their partner would respond if they chose to disclose. Responses were frequently coded as negative. Similarly, Kalichman and colleagues (2016) reported that participants who avoided disclosing their HIV serostatus often cited beliefs that their partner would respond in a negative manner as the reason. Similarly, Kattari (2014) reported that BDSM practitioners engaged in sexual self-disclosure partially due to beliefs that disclosure outcomes would be positive. In line with CPM (Petronio, 2002), it may suggest anticipated negative responses represent an increase in the perceived costs associated with disclosure. Alternatively, it may be that the sexual fantasies participants choose to disclose are qualitatively different (for example, more socially acceptable) than those that remain undiscussed, and that participants' anticipation of a negative response reflects this. Participants in the present study were not asked for any details about their sexual fantasy beyond its general category/categories, so this possibility cannot be explored using this data, but this is an avenue for future research.

This study had some limitations. Many of these relate to sampling, which is a systemic and perennial issue in sex research (Brown, 2018). The study was advertised to online communities created for the discussion of sex or engagement in sex-related research. Even among those who were recruited elsewhere, there is likely to be a bias in favour of people who are comfortable discussing topics surrounding sex and sexuality. It is possible that those who completed the study were more sexually active or kinky, explaining in part why only about half of the sample (52.6%) reported passion and romance as the theme which represented their chosen fantasy. The demographic information provides some indication of differences between the current sample and the general population: less than half of the

sample self-identified as heterosexual, which is lower than previous research (e.g., Lehmiller, 2020) and far below population estimates (e.g., Lansky et al., 2015). Furthermore, over a third of the sample self-identified as bisexual. This may be partially due to the use of social media (e.g., Reddit) as a recruitment method, as Salk and colleagues (2020) have highlighted social media as a powerful method of recruiting LGBTQ+ participants. Furthermore, research has indicated an increased propensity to experience certain types of sexual fantasies (Nimbi et al., 2020b), to engage in the negotiation and discussion of sexual fantasies (Lahti, 2018; Nimbi et al., 2020b) and to disclose highly personal information (Klitzman et al., 2007; McKay & Mutchler, 2011). This may suggest an increased comfort amongst at least some bisexual individuals, which may then increase their comfort in taking part in surveys related to sexual fantasies. The anonymity of the online survey and the online recruitment methods may then have further increased comfort in participation among bisexual participants. However, it should be noted that in this sample, no demographic measure was found to significantly predict likelihood of disclosure.

Nonetheless, this probable bias in the sample means these findings may not fully reflect the experiences of people who are less comfortable with, or accustomed to, openly discussing sex. One specific possible outcome is that the high rates of disclosure recorded in this study (and others; Anderson, 2011; Lehmiller, 2020) may be above the population average. There may be demographic differences in the types of fantasy experienced or in reasons for (non) disclosure – for example, Ahrold et al. (2011) found that agnostic and atheist women fantasise about more diverse content than women who belong to religious groups. Future research could provide deeper insight into these issues by collecting more detailed information about the participants (e.g., ethnicity, religiosity, political leaning), their relationships (e.g., relationship type, duration), and their experience of sexual fantasies (e.g., frequency). This would serve two purposes: first, it would enable a clearer assessment of the

degree to which the sample deviated from the wider population; second, it would allow for closer investigation of the role these factors play in the experience and disclosure of sexual fantasies.

It may also be useful for future research to provide more explicit instructions to participants about which fantasy, and which relationship, they should reflect on. For example, it is possible that some participants in the present study reflecting on past relationships may have been considering a fantasy that they had experienced since the relationship ended.

Alternatively, when considering the positivity/negativity of disclosure experiences/partner responses, those reporting on past relationships may have reflected on such experiences more negatively.

This study provided increased insight into some of the motivations surrounding sexual fantasy disclosure, which until now has been an area of research which has been understudied. This knowledge has a great deal of practical applicability and importance for sex education, sexual dysfunction and sex/relationship therapy. Having and engaging with sexual fantasies has been linked to more positive sexual functioning (Leitenberg & Henning, 1995). Similarly, in this sample participants highlighted that disclosing can be an arousing process and may be utilised during sexual interactions or to facilitate sexual acts. Future research could pilot interventions to identify where communicating about sexual fantasies is beneficial for individuals experiencing sexual dysfunctions. Moreover, the findings that (reported) disclosure experiences in this sample are largely positive may suggest that interventions in sex/relationship therapy which identify shared fantasies and encourage the discussion of these fantasies are a couple may prove highly beneficial to the relationship. Participant responses indicate that technology may prove useful for assisting with this, through the use of pornography or online surveys, where both partners complete a sexual fantasy index and shared fantasies are highlighted. Not only may this strengthen relationships

and increase intimacy, as suggested by partner responses, but may also provide an avenue by which to introduce sexual novelty in the relationship. This may be beneficial as sexual novelty has previously been associated with both higher sexual satisfaction (Frederick et al., 2017) and relationship satisfaction (Matthews et al., 2018). It is worth noting that disclosure would not be desirable (or indeed positive) for all experienced fantasies and in some cases sharing sexual fantasies may trigger relational conflict (for example, where these are not shared), though technology may assist with this.

Additionally, one in five participants who had not disclosed their fantasy reported communication-related barriers. Such barriers included the perceived inability to disclose (for example waiting for a partner to bring up the subject) or embarrassment with the discussion of sexual topics. Other participants highlighted that disclosing may introduce the risk of undesired sexual interactions (for example partners encouraging the enactment of a fantasy where enactment is not desirable or pressuring them to enact a fantasy of their own). These findings may suggest difficulties in communicating about sexual consent, highlighting that further sex education is of great importance. This education should focus on increasing the ability (and comfort) of individuals to communicate about sexual topics and sexual consent. By doing so, communicational abilities will increase allowing those in attendance to feel more comfortable discussing sexual topics and to express consent (or not) to engaging in sexual acts.

This study explored the reasons given by participants for disclosing, or not disclosing, a sexual fantasy to their intimate partner. Five categories were identified: *sexual gratification*, *relationship*, *partner*, *communication*, and *specific fantasy content*. It was also shown that the majority of partner responses to past disclosures were positive. For those who had not shared their fantasy, expectations of likely partner responses were predominantly negative. Potential directions for future research and practical applications of knowledge gained are discussed.

These findings may have implications for sex education, sexual dysfunction and sex/relationship therapy.

In the following chapters, this thesis will further examine two identified factors which can influence sexual fantasy disclosure: relationship characteristics and fantasy specific content.

The aim of these studies will be to examine whether characteristics representative of these categories can be used to predict both whether a participant has previously engaged in sexual fantasy disclosure, but also whether they are likely to disclose sexual fantasies in the future.

Chapter 4: The influence of relationship characteristics on sexual fantasy disclosure

4.1: Chapter overview

Chapters 2 highlighted the role that an individual's relationship plays in influencing whether they engage in sexual or non-sexual self-disclosure, and sexual health disclosures. This was further demonstrated in Chapter 3, where participants frequently described their relationship as a reason for either disclosing or concealing their favoured sexual fantasy from an intimate partner. The current chapter builds upon these findings by examining which relationship factors can significantly predict sexual fantasy disclosure likelihood. Factors selected as potential predictor variables were selected based upon previous research discussed in Chapters 1-4. This chapter is presented in publication format and it is anticipated that this article will be submitted for publication in the near future.

4.2: Introduction

Leitenberg and Henning (1995) defined sexual fantasies as any mental imagery, occurring during a conscious state, that an individual perceives as at least sexually arousing. For more information about sexual fantasies, including the content of sexual fantasies and factors which influence fantasy content, please see Chapter 1.

Having sexual fantasies can convey several benefits to the relationship, including more positive sexual functioning (see Leitenberg & Henning, 1995, for a review), greater desire for partners (Birnbaum et al., 2019: Langeslag & Davis, 2022), greater engagement with relationship promoting behaviours (Birnbaum et al., 2019), andthe introduction of sexual novelty (Rosa et al., 2019). Disclosing sexual fantasies can benefit the relationship through increased sexual satisfaction (Frederick et al., 2017). Such increases in satisfaction may be

the result of disclosure providing an opportunity to enact the specific sexual fantasy. This was highlighted in Chapter 3, where desires for enactment were a prominent response in the category "sexual gratification" reasons.

However, not all sexual fantasies are disclosed, and it may not be beneficial or desirable to disclose all sexual fantasies (Chapter 3). For some individuals, sexual fantasies are associated with guilt (Cado & Leitenberg, 1990), can be appraised negatively (Renaud & Byers, 2001) or are experienced in the absence of desires for enactment (Chapter 3; Joyal et al., 2015). This is more likely where fantasies are perceived as uncommon, taboo or disapproved of by partners (Chapter 3; Lehmiller & Gormezano, 2022).

Chapter 3 presented five key categories of reasons participants gave for choosing to disclose (or not disclose) their sexual fantasies. This chapter will focus on one of these (relationship-related reasons), where participants discussed how features of their relationship with their partner (e.g., trust) may influence their decision whether to disclose. This chapter aimed to examine whether such characteristics can significantly predict sexual fantasy disclosure.

Several relationship characteristics have been found to influence the likelihood of a person disclosing in intimate relationships, such as HIV serostatus disclosure (Kalichman et al., 2017, Appendix 1) and the disclosure of sexual likes/dislikes (Byers & Demmons, 1999, Chapter 2). The willingness to disclose can increase over time (Mbichila et al., 2018), which may be due to the development of relationship trust and commitment (Kattari, 2014). High levels of trust can promote disclosure through more positive perceptions of disclosure outcomes (Chapter 3; Derlega et al., 2008). Similarly, as the level of commitment rises in relationships, disclosure likelihood increases (Byers & Demmons, 1999; van de Bongardt & de Graaf, 2020). Disclosure likelihood was higher in participants who described feelings of love towards their partners (Davis et al., 2006; Myers et al., 2016). All three of Sternberg's

(1997) components of love have been associated with disclosure likelihood: disclosure likelihood increased with higher levels of passion (Hendrick & Hendrick, 1987), intimacy (Knobloch & Carpenter-Theune, 2004), and commitment (Byers & Demmons, 1999; van de Bongardt & de Graaf, 2020).

Individuals who reported higher relationship and sexual satisfaction showed an increased likelihood of disclosing sensitive or personal information to their partner (Mark & Jozkowski, 2013; Valvano et al., 2018; Widman et al., 2006). This is potentially due to high satisfaction leading to more positive perceptions of intimate partners, an increased sense of connection with partners, and elevated levels of trust (Mark and Jozkowski, 2013). Similar findings have been noted where partners reported engaging in more frequent self-disclosures post-sex where orgasm was reported (Denes, 2012; Denes & Afifi, 2014; Denes, 2018). These disclosures were more positive and were performed with greater intent (Denes, 2018).

This chapter aimed to build upon this existing body of research into various types of self-disclosure in intimate relationships, to examine whether any of these characteristics predict the likelihood of an individual disclosing a sexual fantasy to their partner. Three additional potential predictors were also introduced, which have not, to the researcher's knowledge, previously been examined in relation to any form of intimate self-disclosure: sexual novelty, sexual idealisation, and sexual need prioritisation.

The introduction of sexual novelty has been linked to several benefits in relationships, including the prevention of sexual boredom and increases in relationship and sexual satisfaction (Frederick et al., 2017; Matthews et al., 2018). Sexual novelty might be associated with fantasy disclosure in multiple ways. Relationships characterised by high sexual novelty may develop norms favouring sexual communication and exploration. Such

norms could promote disclosure, including through more positive expectations of disclosure outcomes (Carter et al., 2019; Haas et al., 2020; Kattari, 2014).

Sexual idealisation instead refers to the extent to which an individual holds positive perceptions about their sexual relationship with their partner (Goldsmith & Byers, 2019). Idealisation of sexual partners has been associated with higher sexual satisfaction in intimate relationships (Goldsmith & Byers, 2020). Whilst previous research has not examined the relationship between sexual idealisation and disclosure likelihood, positive associations between sexual satisfaction and self-disclosure have been noted (e.g., Byers & Demmons, 1999). It is anticipated that sexual idealisation may, in general, be associated with a higher likelihood of fantasy disclosure. However, this may not hold true for more extreme or taboo fantasies, where idealisation could instead hinder disclosure through heightened fears of rejection.

Finally, sexual need prioritisation refers to an individual's motivation to meet the sexual needs of their partner, even to the extent of incurring personal costs to do so (Muise & Impett, 2019). Individuals who prioritise meeting a partner's needs often gain a sense of satisfaction from doing so. The effect of need prioritisation on sexual fantasy disclosure may therefore depend on the relationship context and type of fantasy: individuals who score highly on this measure might only disclose their fantasies if they expect that doing so could lead to sexual fulfilment for their partner.

The present study applied multiple regression analyses to systematically assess whether relationship characteristics predict disclosure of sexual fantasies in intimate relationships. It was hypothesised that models consisting of relationship duration, intimacy, passion, commitment, trust, sexual satisfaction, relationship satisfaction, orgasmic consistency,

orgasmic satisfaction, sexual novelty, sexual idealisation, and sexual need prioritisation would significantly predict the likelihood of sexual fantasy disclosure.

4.3: Method

4.3.1: Design

This study employed a correlational design to assess whether relationship characteristics could significantly predict sexual fantasy disclosure likelihood. This survey was conducted via Qualtrics (Qualtrics, Provo, UT).

4.3.2: Participants

Participants were recruited online between December 2021 and February 2022, using social media (LinkedIn, Twitter, Facebook), Reddit (r/psychology, r/samplesize) and an online sex research site (sexandpsychology.org). University students were also recruited via a psychology department research participation scheme that compensated them in course credits for their time. Participants recruited by other means received no compensation. Eligible participants were aged 18 or over and were currently in an intimate relationship. Participants who had multiple concurrent partners were asked to reflect on their longest relationship. Participants were not required to have previously experienced or disclosed sexual fantasies.

G power was used to determine the required sample size for a study including 13 predictor variables with an anticipated medium effect size. It was predicted that in order to reach sufficient power to detect an effect, 131 participants were required. In total, 159 completed responses were collected. Data from fourteen participants was removed due to the failure of one or more attention checks. The final sample was therefore comprised of 145 participants, who ranged in age from 18 to 83 years (M = 34.46, SD = 13.13). Participant demographics are presented in Table 4.1. Just over half of the participants (55.9%) identified as

heterosexual and participants were predominantly residing in the United Kingdom, United States of America, or Canada. Participants predominantly reported on steady, monogamous relationships, with partners with whom they were cohabitating at least some of the time and were not married to. Reported relationship duration ranged from one month to 63 years 5 months, with a mean of just over 9 years (108.8 months, SD = 129.27 months). The median relationship duration was 5 years and 4 months (64 months).

Table 4.1: Participant demographics.

	N	Percentage
Gender		
Man	68	(46.9%)
Woman	72	(49.7%)
Non-binary/Third gender	4	(2.8%)
Sex		
Male	66	(45.5%)
Female	76	(52.4%)
Sexual orientation		
Heterosexual	81	(55.9%)
Homosexual	10	(6.9%)
Bisexual	42	(29%)
Other (Self-described)	9	(6.2%)
Country of residence		, ,
Canada	11	(7.64%)
France	5	(3.47%)
United Kingdom	49	(34.03%)
United States	66	(45.83%)
Other (Europe)	7	(4,86%)
Other (Not Europe)	6	(4.17%)
Marital status		, ,
Married	47	(32.4%)
Engaged	7	(4.8%)
Not married	91	(62.8%)
Cohabitation		, ,
Cohabitating permanently	85	(58.6%)
Cohabiting some of the time	15	(10.3%)
Not cohabitating	45	(31%)
Partner gender		
Man	74	(51%)
Woman	67	(46.2%)
Non-binary/Third gender	4	(2.8%)
Relationship steadiness		
Steady	125	(86.2%)
Dating	10	(6.9%)
Casual	9	(6.2%)
Exclusivity		
Sexually and romantically exclusive	115	(79.3%)
Involved sexually with other partners, but not romantically	16	(11%)
Involved romantically with other partners, but not sexually	2	(1.4%)
Involved with other partners both sexually and romantically	11	(7.6%)

4.3.3: Materials and procedure

Ethical approval was awarded by Staffordshire University research and ethics committee.

After giving their informed consent, participants provided demographic information (see Table 4.1).

Participants were then asked to respond to a series of measures that assessed relationship characteristics (predictor variables) and sexual fantasy disclosure likelihood (outcome variables). These outcome measures asked participants to indicate how likely they would be to disclose various hypothetical fantasies, and to provide information about their own experiences and intentions of disclosing actual sexual fantasies. Scales used to assess the predictor variables (relationship characteristics) are shown in Table 4.2; outcome measures are described below. The presentation order of all measures was randomised between participants.

Attention checks were included both in and following the survey. During the survey, the attention check asked participants to select a given option. At the end of the survey, participants were asked whether they had provided their full attention to completing the survey (using a binary yes/no option). Data was removed for participants who failed any of these checks. All participants were thanked and debriefed following their participation.

Table 4.2. Measures used to assess predictor variables (relationship characteristics).

Measure	Relationship characteristic	Cronbach's alpha in original sample	Cronbach's alpha in current sample	
Demographics	Relationship duration			
Trust Scale (Rempel et al., 1985)	Trust	0.81	0.92	
Triangular Love Scale (Sternberg, 1997)	Intimacy, Passion, Commitment	>0.93	Intimacy= 0.96; Passion= 0.94; Commitment= 0.94	
Quality of Sex Index (Shaw & Rogge, 2016) Sexual	Sexual satisfaction	>0.95	0.98	
Idealization Scale (Goldsmith & Byers, 2019)	Sexual idealisation	0.86	0.90	
Sexual Novelty Scale (Matthews et al., 2018)	Sexual novelty	0.91	0.92	
Sexual Communal Strength Scale (Muise & Impett, 2019)	Sexual need prioritisation	0.78	0.68	
Relationship Satisfaction Scale (Røysamb et al., 2014)	Relationship satisfaction	0.89	0.83	
Orgasmic consistency scale (McIntyre-Smith & Fisher, 2011)	Orgasmic consistency, Orgasmic satisfaction	Orgasmic consistency= 0.81 Orgasmic satisfaction=0.72- 0.90	Orgasmic consistency= 0.63 Orgasmic satisfaction= 0.84	

Note. For all scales, higher scores indicate that the characteristic is stronger/more representative of the relationship (e.g., higher scores equal more trust, greater sexual idealisation, higher satisfaction with orgasms).

Outcome variables (Sexual fantasy disclosure).

Participants were asked to reflect on both their likelihood of disclosing hypothetical new sexual fantasies, and on their own actual disclosure behaviour and intentions.

Hypothetical fantasy disclosure.

Participants were asked to indicate their likelihood of disclosing hypothetical sexual fantasies. They responded to these items by indicating their likelihood of disclosing the

specified fantasy using a seven-point Likert scale. High scores on these items indicate high disclosure likelihood.

First, to assess how likely participants would be to disclose a new sexual fantasy regardless of content, participants were asked: "Imagine you have a new sexual fantasy. In general, how likely would you be to tell your partner about this new fantasy (regardless of the topic of this fantasy)?".

Participants were then asked about their likelihood of disclosing sexual fantasies with specific content. These items were developed using Lehmiller (2018)'s categorisation of sexual fantasies: "Multi-partner sex", "Power, control, and rough sex", "Novelty, adventure, and variety", "Taboo and forbidden sex", "Passion and romance", "Partner-sharing and non-monogamy" and "Erotic flexibility". The wording of these items remained consistent between fantasy types, except for the fantasy described. For example: "Imagine you have a new fantasy that involves [multi-partner sex]. How likely would you be to tell your partner about this fantasy?".

The above questions about hypothetical fantasy disclosure were always presented together and in the same order.

Actual fantasy disclosure.

Participants were also asked about their own, actual sexual fantasies. First, they were asked a yes/no question: "Considering your relationship with your primary partner, have you at any stage of your relationship informed your partner about one (or more) of your sexual fantasies?". They were then asked: "Are there any fantasies which you currently have, which you have not told your partner about?".

Any participants with undisclosed fantasies were then asked to indicate their content: "Considering the fantasy that you have not informed your partner about, which of the following best describes these fantasies? (If there are multiple fantasies, which your partner is not aware of, please consider your preferred or most prominent fantasy)." Participants could choose as many of Lehmiller (2018)'s seven categories of sexual fantasies (presented with a short description) as they felt applied, as well as an "other" option.

Finally, participants with undisclosed fantasies were also asked to indicate how likely they would be to disclose them in future: "Considering the fantasy you described above, how likely are you to inform your partner in the given time period? Please indicate your response from 1 (extremely unlikely) to 10 (extremely likely)". On a ten-point scale, participants indicated their disclosure likelihood for two time periods: "within the next six months" and "at some point in the future".

4.3.4: Analyses

Multiple regression analyses (as implemented in IBM SPSS statistics, version 28) were conducted to test whether relationship characteristics could predict various measures of sexual fantasy disclosure likelihood. For continuous outcome measures (likelihood of disclosing an unspecified, hypothetical new fantasy; likelihood of disclosing hypothetical new fantasies that fall into specific categories; likelihood of disclosing an actual, undisclosed fantasy within six months or ever), these were standard linear regressions. For categorical yes/no responses (has the participant ever disclosed a fantasy; do they have any undisclosed fantasies), binary logistic regressions were used. In all models the following predictor variables were entered simultaneously: relationship duration, trust, intimacy, passion, commitment, sexual satisfaction, sexual idealisation, sexual novelty, sexual need prioritisation, relationship satisfaction, orgasmic consistency, and orgasmic satisfaction.

Predictor variables were entered simultaneously due to the absence of previous research findings to inform entering variables hierarchically.

Prior to analysis, pairwise correlations were calculated across all continuous variables. The process of assumption checks outlined by Field (2017) was then followed for all analyses. Scatterplots were produced between all predictor variables and outcome variables, and no nonlinear relationships were observed. Residuals of all linear regression models were found to be approximately normally distributed. For all models, assumptions were met for VIF (scores fell below 10), tolerance (scores fell above 0.2), Cook's distance (scores fell below 1), and DFBetas (scores fell below 1).

Data screening revealed that multiple cases violated the assumptions for Mahalanobis' distance (21.03 for a model containing 12 predictors) and three cases violated the criteria for centred leverage. However, as Cook's distance and DFBetas fell below one, these cases were not considered to exert an undue influence on the model (Field, 2017; Stevens, 2002).

4.4: Results

The correlation matrix of all continuous predictor variables are displayed in Table 4.3. Descriptive values for each scale are displayed in Table 4.4. Strong correlations (r>0.8) were observed for intimacy and trust; intimacy and relationship satisfaction; and trust and relationship satisfaction. Additionally, a strong correlation (r>0.8) was observed between sexual satisfaction and sexual idealisation. The r values for these correlations exceed the threshold of 0.8 set by Field (2017). However, as these fall below the threshold of 0.9 set by Clarke-Carter (2018), these variables were still included with the model. However, it should be noted that these high correlations may reduce the ability to estimate beta values for these predictors (and, thus, their statistical significance in the model).

Table 4.3: Correlation matrix demonstrating relationships between predictor variables.

-	RD	T	I	P	С	SS	SI	N	NP	RS	OS	OC
RD	1											
T	068	1										
I	071	.817***	1									
P	076	.659***	.754***	1								
C	.187*	.583***	.722***	.759***	1							
SS	368***	.445***	.417***	.516***	.184*	1						
SI	352***	.369***	.371***	.518***	.210*	.837***	1					
N	354***	.119	.160	.286***	046	.712***	.711***	1				
NP	.089	.091	.125	.214*	.256**	.052	.086	.004	1			
RS	069	.802***	.823***	.738***	.667***	.499***	.472***	.191*	.118	1		
OS	133	.294***	.259**	.360***	.164*	.682***	.640***	.461***	.066	.369***	1	
OC	.112	.055	.041	.143	.200*	.168*	.233**	.171*	.215*	.069	.347***	1

Note. RD= relationship duration; T= trust; I= intimacy; P= passion; C= commitment; SS= sexual satisfaction; SI= sexual idealisation; N= sexual novelty; NP= sexual need prioritisation; RS= relationship satisfaction; OS= organic satisfaction; OC= organic consistency.

Significance is denoted as * p < .05; ** p < .01; *** p < .001

Sexual satisfaction

Table 4.4: Descriptive values for each variable.

Previous disclosure history	Yes		No		
	Percentage	Proportion	Percentage	Proportion	
Had previously disclosed a sexual fantasy with a partner.	92.4%	134/145	7.6%	11/145	
Had a sexual fantasy that they had not shared with their partner.	55.2%	80/145	55.8%	65/145	
Presence of Leh	miller's (2018)	categories in und	isclosed fantasies.		
	Present		Not present		
Fantasy content	Percentage	Proportion	Percentage	Proportion	
Multi-partner	35%	28/80	65%	52/80	
Power, control and rough sex	27.5%	22/80	72.5%	58/80	
Novelty, adventure and variety	32.5%	26/80	67.5%	54/80	
Taboo and forbidden sex	25%	20/80	75%	60/80	
Partner sharing and non-monogamy	27.5%	22/80	72.5%	58/80	
Passion and romance	10%	8/80	90%	72/80	
Erotic flexibility	15%	12/80	85%	68/80	
Other	13.75%	11/60	86.25%	69/80	
Measur	es of sexual fan	tasy disclosure lil	kelihood.		
Likelihood of disclosing	Mean	SD	Range		
An undisclosed fantasy in the next six months.	3.36	2.74	0-10		
An undisclosed fantasy at any point in the future.	5.39	3.20	0-10		
A hypothetical sexual fantasy of unspecified content.	5.33	1.85	0-7		
A fantasy involving multiple partners.	4.30	2.42	0-7		
A fantasy involving power, control, and rough sex.	5.37	2.02	0-7		
A fantasy involving novelty, adventure, and variety.	6.22	1.32	0-7		
A fantasy involving taboo and forbidden sex.	4.64	2.20	0-7		
A fantasy involving non-monogamy and partner sharing.	3.63	2.43	0-7		
A fantasy involving passion and romance.	6.00	1.55	0-7		
A fantasy involving erotic flexibility.	4.23	2.21	0-7		
	-	characteristic			
Measure	Mean	SD	Range		
Trust	5.54	1.11	1.47-7		
Intimacy	115.44	20.88	28-135		
Passion	103.35	24.97	21-135		
Commitment	114.63	21.88	26-135		

4.27

1.49

1-6

Sexual idealisation	32.52	8.88	10-45
Sexual novelty	4.12	1.71	1-7
Sexual need prioritisation	4.13	0.60	1.67-5
Relationship satisfaction	4.83	0.97	1.20-6
Orgasmic satisfaction	5.64	1.65	1-7
Orgasmic consistency	60.81	24.92	0-100

4.4.1: Hypothetical fantasy disclosure

As shown in Table 4.5, the overall regression model was significant (p<.001), in predicting disclosure likelihood of a hypothetical fantasy. Specifically, intimacy, sexual idealisation, sexual novelty, and sexual need prioritisation were all significant positive predictors of disclosure likelihood. Conversely, for relationship satisfaction there was a significant negative association with likelihood of disclosure.

Table 4.5: Predictive ability of relationship characteristics on hypothetical sexual fantasy disclosure likelihood of unspecified content.

Predictor	Predictive ability
Duration	β = -0.019, p = .780
Trust	$\beta = 0.193, p = .558$
Intimacy	$\beta = 0.293, p = .027$
Passion	$\beta = 0.074, p = .525$
Commitment	$\beta = -0.101, p = .368$
Sexual Satisfaction	$\beta = 0.190, p = .169$
Idealisation	$\beta = 0.317, p = .011$
Novelty	$\beta = 0.325, p < .001$
Prioritisation	$\beta = 0.126, p = .046$
Relationship Satisfaction	$\beta = -0.434, p < .001$
Orgasmic Consistency	$\beta = 0.107, p = .115$
Orgasmic Satisfaction	β = -0.141, p = .113
Overall Model	F = 13.597, p < .001, R2 = .562

Note. Significant values are highlighted in bold text.

4.4.2: Disclosing a new fantasy in a specified category

Following the question about a generic fantasy, participants were asked about their likelihood of disclosing hypothetical fantasies that fell in specific categories. The results of separate multiple regression models, fitted to predict each of these outcome variables, are shown in Table 4.6. In all cases, a model consisting of the several relationship characteristics was significantly able to predict disclosure likelihood.

The degree of sexual novelty in the relationship was a significant, positive predictor of disclosure for all hypothetical fantasies except those relating to passion and romance.

Orgasmic consistency was also a significant positive predictor of disclosure of fantasies relating to multi-partner sex and power, control, and rough sex. Conversely, greater relationship satisfaction significantly predicted *lower* hypothetical disclosure of fantasies relating to multiple partners, power, control, and rough sex, and erotic flexibility.

Other relationship factors were only found to be significant predictors for a single category of fantasy: relationship duration negatively predicted disclosure of fantasies relating to power, control, and rough sex; passion, unsurprisingly, positively predicted disclosure of fantasies involving passion and romance; and both sexual idealisation and prioritisation of partners' needs were positively associated with disclosure of fantasies involving sexual novelty.

Trust, intimacy, commitment, sexual satisfaction, and orgasmic satisfaction did not significantly predict disclosure for any of the categories of hypothetical fantasy. This may be due, in part, to strong correlations between some of these predictors masking their individual contributions to the model.

Table 4.6: Predictive ability of each relationship characteristics (predictor variable) for the indicated likelihood of disclosing a hypothetical sexual fantasy in a given category

	Multi Partner	Power, control, and rough sex	Sexual Novelty	Taboo and forbidden sex	Non monogamy	Passion and romance	Erotic Flexibility
Duration	$\beta = 0.040,$ $p = .656$	$\beta = -0.261,$ $p = .002$	$\beta = -0.003,$ $p = .967$	$\beta = 0.011,$ $p = .893$	$\beta = 0.013,$ $p = .887$	$\beta = -0.147,$ $p = .069$	$\beta = -0.069,$ $p = .450$
Trust	$\beta = 0.108,$ $p = .476$	$\beta = 0.146,$ $p = .286$	$\beta = 0.062,$ $p = .604$	$\beta = 0.123,$ $p = .384$	$\beta = 0.071,$ $p = .651$	$\beta = -0.003,$ $p = .984$	$\beta = 0.141,$ $p = .357$
Intimacy	$\beta = 0.211,$ $p = .220$	$\beta = 0.108,$ $p = .483$	$\beta = 0.054,$ $p = .688$	$\beta = 0.117,$ $p = .464$	$\beta = 0.146,$ $p = .412$	$\beta = 0.071,$ $p = .640$	$\beta = 0.257,$ $p = .139$
Passion	$\beta = 0.109,$ $p = .468$	$\beta = 0.017,$ $p = .900$	β = -0.175, $p = .144$	$\beta = 0.088,$ $p = .530$	$\beta = 0.146,$ $p = .349$	$\beta = 0.358,$ $p = .008$	$\beta = -0.085,$ $p = .574$
Commitment	$\beta = -0.144,$ $p = .325$	$\beta = 0.118,$ $p = .370$	$\beta = 0.045,$ $p = .696$	$\beta = -0.052,$ $p = .704$	$\beta = -0.195,$ $p = .197$	$\beta = -0.082,$ $p = .524$	$\beta = 0.030,$ $p = .840$
Sexual Satisfaction	$\beta = 0.135,$ $p = .453$	$\beta = 0.166,$ $p = .303$	$\beta = 0.272,$ $p = .057$	$\beta = -0.083,$ $p = .619$	$\beta = 0.019,$ $p = .920$	$\beta = 0.208,$ $p = .192$	$\beta = -0.011,$ $p = .953$
Idealisation	$\beta = 0.018,$ $p = .909$	$\beta = 0.074,$ $p = .611$	$\beta = 0.371,$ $p = .004$	$\beta = 0.250,$ $p = .097$	$\beta = -0.082,$ $p = .622$	$\beta = 0.168,$ $p = .239$	$\beta = 0.270,$ $p = .098$
Novelty	$\beta = 0.332,$ $p = .012$	$\beta = 0.244,$ $p = .033$	$\beta = 0.226,$ $p = .025$	$\beta = 0.422,$ $p < .001$	$\beta = 0.356,$ $p = .007$	$\beta = -0.014,$ $p = .900$	$\beta = 0.305,$ $p = .018$
Prioritisation	$\beta = -0.002,$ $p = .980$	$\beta = 0.040,$ $p = .584$	$\beta = 0.203,$ $p = .002$	$\beta = 0.059,$ $p = .443$	$\beta = 0.018,$ $p = .828$	$\beta = 0.066,$ $p = .366$	$\beta = 0.022,$ $p = .789$
Relationship Satisfaction	$\beta = -0.400,$ $p = .014$	$\beta = -0.321,$ $p = .028$	$\beta = -0.118,$ $p = .356$	$\beta = -0.262,$ $p = .082$	$\beta = -0.292,$ $p = .080$	$\beta = -0.233,$ $p = .103$	$\beta = -0.461,$ $p = .005$
Orgasmic Consistency	$\beta = 0.213,$ $p = .017$	$\beta = 0.173,$ $p = .031$	$\beta = 0.069,$ $p = .324$	$\beta = 0.024,$ $p = .770$	$\beta = 0.171,$ $p = .064$	$\beta = -0.021,$ $p = .793$	$\beta = 0.009,$ $p = .918$
Orgasmic Satisfaction	$\beta = -0.121,$ $p = .293$	$\beta = -0.035,$ $p = .739$	$\beta = -0.078,$ $p = .393$	$\beta = 0.005,$ $p = .961$	$\beta = 0.013,$ $p = .911$	$\beta = 0.126,$ $p = .219$	$\beta = -0.124,$ $p = .287$
Overall Model	F = 3.638, p < .001, R2 = .256	F = 7.038, p < .001, R2 = .399	F = 12.156, p < .001, R2 = .535	F = 5.843, p < .001, R2 = .356	F = 2.746, p = .002, R2 = .206	F = 7.596, p < .001, R2 = .418	F = 3.433, p < .001, R2 = .245

Note: Significant values are highlighted in bold text.

4.4.3: Actual fantasy disclosure

Participants were asked whether they had ever disclosed a sexual fantasy to their partner and if there were any fantasies they had experienced but not disclosed. High rates of previous disclosure were recorded, with the majority (92.4%) having disclosed at least one sexual fantasy to their current partner. However, over half of participants (55.2%) also recorded having a sexual fantasy that they had not yet disclosed to their partner. Two separate binary logistic regressions were run with each of these variables as the outcome.

Table 4.7 shows the results of a model predicting the probability of responding "No" to the question "Considering your relationship with your primary partner, have you at any stage of your relationship informed your partner about one (or more) of your sexual fantasies?". The model significantly predicted whether a participant had disclosed a sexual fantasy. Relationship duration, intimacy, sexual need prioritisation, and sexual novelty were all significant positive predictors of having previously disclosed a fantasy. These results should be interpreted with caution, due to the limited variability in the outcome measure.

Table 4.7 also shows the results of a model predicting the probability of responding "No" to the question "Are there any fantasies which you currently have, which you have not told your partner about?". This model significantly predicted whether a participant had an undisclosed fantasy. The only significant individual predictor was sexual idealisation: higher sexual idealisation scores were associated with a reduced likelihood of having an undisclosed fantasy.

Table 4.7: Predictors of whether a partner has ever disclosed a fantasy, and whether they have any undisclosed fantasies

	Ever disclosed a fantasy	Have an undisclosed fantasy
Duration	B =013, p = .029	B =001, p = .667
Trust	B =630, p = .446	B =078, p = .830
Intimacy	B =097, p = .035	B = .019, p = .413
Passion	B = .002, p = .941	B = .013, p = .469
Commitment	B = .068, p = .108	B =008, p = .663
Sexual Satisfaction	B = .081, p = .901	B = .092, p = .778
Idealisation	B =029, p = .765	B = .130, p = .009
Novelty	B =894, p = .038	B =061, p = .757
Prioritisation	B = -1.712, p = .024	B =467, p = .225
Relationship Satisfaction	B = 1.419, p = .196	B =378, p = .375
Orgasmic Consistency	B =026, p = .187	B =005, p = .572
Orgasmic Satisfaction	B =105, p = .755	B = .017, p = .925
Overall Model	F(12, 127) = 29.315, p = .004 Nagelkerke $R^2 = .446$	F(12, 127) = 40.501, p < .001, Nagelkerke $R^2 = .336$

Note. The model predicts the probability of responding "No" to these questions, so a negative B value indicates that a variable is a positive predictor of whether disclosure has previously happened, or of whether a participant has an undisclosed fantasy, respectively. Significant values are highlighted in bold.

Participants were asked to indicate which of Lehmiller's (2018) categories best described the content of their undisclosed fantasy. Summaries of the responses to this question are shown in Table 4.4. Participant responses to this item were relatively diverse, with five categories achieving prevalences of over 25%. The most common fantasy type not reported was those involving multiple partners.

Participants with an undisclosed fantasy were also asked how likely they were to disclose this fantasy over two timescales: over the next six months, and ever. These questions aimed to examine whether the fantasy remained undisclosed as they simply had not disclosed the fantasy (e.g., for a new fantasy or they felt they were not ready to disclose the fantasy yet but

intended to in the future) or whether the participant had no intention of disclosing the fantasy. Multiple regression analyses were conducted to examine whether intentions to disclose in the future could be predicted by characteristics of the relationship. It should be noted that the statistical power of these regression analyses was lower than for the others discussed, as they were conducted on a subset of participants (those with undisclosed fantasies).

As shown in Table 4.8, models consisting of the various relationship characteristics were significantly able to predict likelihood of future disclosure over both timescales. Interestingly, the individual predictors differed entirely between these two models. More passion and lower relationship satisfaction significantly predicted a higher likelihood of disclosure over the next six months. Conversely, shorter relationship duration and lower sexual idealisation, significantly predicted a higher likelihood of disclosure at some point in the future. The other relationship characteristics were not found to be significant predictors in either of these models.

Table 4.8: Predictive ability of relationship characteristics on the likelihood of disclosing a (currently) undisclosed sexual fantasy in a given time period.

	Likelihood of disclosing in months	6 Likelihood of disclosing ever
Duration	β = -0.193, p = .114	$\beta = -0.341, p = .005$
Trust	β = -0.010, p = .960	$\beta = 0.055, p = .779$
Intimacy	$\beta = 0.177, p = .414$	β = -0.088, p = .674
Passion	$\beta = 0.430, p = .021$	$\beta = 0.293, p = .114$
Commitment	$\beta = 0.147, p = .460$	$\beta = 0.254, p = .195$
Sexual Satisfaction	$\beta = 0.194, p = .391$	$\beta = 0.231, p = .302$
Idealisation	β = -0.222, p = .246	$\beta = -0.385, p = .045$
Novelty	$\beta = 0.133, p = .472$	$\beta = 0.264, p = .148$
Prioritisation	β = -0.147, p = .222	β = -0.070, p = .556
Relationship Satisfaction	β = -0.587, p = .016	β = -0.272, p = .256
Orgasmic Consistency	β = -0.054, p = .655	β = -0.109, p = .362
Orgasmic Satisfaction	$\beta = 0.195, p = .212$	$\beta = 0.167, p = .280$
Overall Model	F = 2.405, p = .012, R2 = .3	B11 F = 2.737, p = .005, R2 = .343

Note. This table shows the predictive ability of each relationship characteristics when participants were asked how likely they would be to disclose a fantasy which they had not yet disclosed to their partner. Significant values are highlighted in bold.

4.5: Discussion

The present study aimed to systematically examine whether relationship characteristics predict the likelihood of disclosing sexual fantasies. In all cases, a multiple regression model consisting of several relationship characteristics was able to significantly predict disclosure, regardless of how this was measured. Several individual relationship characteristics were identified as holding significant predictive ability for the likelihood of disclosing a sexual fantasy. While some characteristics were consistent in their predictive ability across multiple outcome measures, others varied according to the specifics of the fantasy and/or whether participants were asked about actual or hypothetical disclosures.

More than 90% of participants who took part in the survey indicated having previously disclosed a sexual fantasy in their relationship. This is considerably higher than disclosure rates indicated in Chapter 3 (69.3%) and of comparative research (60.8%; Lehmiller, 2020),

however this is likely due to methodological differences. In Chapter 3, participants were asked to consider a single sexual fantasy (such as a recent or favourite fantasy) and whether they had disclosed that specific sexual fantasy. Similarly, Lehmiller's (2020) research focused specifically on the disclosure of fantasies involving consensual non-monogamy. However, in this study no limitations were placed on fantasy content and participants were asked only whether they had ever disclosed a sexual fantasy to their current partner. These findings suggest that whilst most individuals disclose sexual fantasies at some point during their relationship, the disclosures are selectively restricted dependent on the fantasy content. In support of this, over half of participants in this sample indicated having a sexual fantasy that they had not disclosed to their partner.

When asked about the content of these undisclosed sexual fantasies, relatively few participants indicated that their undisclosed fantasies involved passion and romance, or erotic flexibility. This may suggest that fantasies in these categories are disclosed more readily. When asked how likely they would be to disclose a hypothetical sexual fantasy in these categories, few relationship characteristics predicted disclosure likelihood. For fantasies involving passion and romance, disclosure likelihood was only significantly predicted by relationship passion. Whereas higher disclosure likelihood was predicted by higher sexual novelty and lower relationship satisfaction when fantasies included elements of flexibility of one's gender or sexuality. One explanation for this may be that the costs and rewards associated with the disclosure of these fantasies may differ to those of others. Alternatively, these fantasies may be less common than others (as suggested in Chapter 3; Lehmiller, 2018; 2020), and thus some participants may have struggled to consider a fantasy within this category. However, as participants were not asked about all fantasies that they had experienced nor which fantasy they had considered for each item, this is outside of the scope of the current findings. However, a comparison of fantasies which are disclosed/undisclosed

would be an interesting and useful avenue for future research. As participants were only asked to indicate which of Lehmiller's (2018) categories they felt represented their undisclosed fantasy, the potential for inferences to be drawn about the content/characteristics of undisclosed fantasies were limited. Given that over half of participants reported having at least one undisclosed fantasy, it would be useful to have greater insight into these fantasies, such as whether they were re-occurring, the length of time held, whether enactment would be welcomed and the extent to which participants were comfortable with the content of these fantasies.

The most consistent positive predictor of sexual fantasy disclosure was the extent to which the relationship was characterised by sexual novelty. In the analyses, sexual novelty predicted the likelihood of disclosing a future sexual fantasy of unspecified or specified content (except for fantasies involving passion and romance) and having ever disclosed a sexual fantasy. This finding is particularly interesting considering that sexual novelty has not, to the authors knowledge, previously been examined in relation to other forms of self-disclosure. This provides an avenue for future research to examine whether this predictive ability is consistent with other forms of self-disclosure. Research is also required to examine the mechanisms by which sexual novelty promotes disclosure behaviour. One potential explanation is that relationships characterised by sexual novelty may include greater levels of sexual exploration and a greater diversity of sexual acts present in sexual interactions. This may lead to the establishment of relational sexual scripts which promote sexual exploration, with sexual fantasy disclosure providing one avenue by which to introduce this sexual novelty. Alternatively, this greater diversity of performed acts may increase disclosure comfort by allowing participants to relate their sexual fantasies to existing sexual behaviour (Chapter 3). This may increase disclosure comfort by increasing anticipations that partners are likely to approve of (or share) sexual fantasies. Considering communication privacy management

theory (Petronio, 2002), sexual novelty may reduce perceived disclosure costs (by relating sexual fantasies to existing behaviour and, thus, lowered anticipations of negative partner responses) and increase rewards (through anticipated enactment). As sexual fantasy disclosure can also provide an avenue to introduce sexual novelty to the relationship, this may also provide opportunities to reflect on experiences where partners may have previously responded in a positive manner. This can explain why sexual novelty was predictive of all hypothetical disclosure measures, apart from fantasies involving passion and romance. Such fantasies may be perceived as having a higher number of associated rewards compared to disclosure costs.

However, sexual novelty was not predictive of having a currently undisclosed sexual fantasy (or the intention to disclosure this). This may suggest that whilst sexual novelty increases the likelihood of disclosing sexual fantasies (and the breadth of sexual fantasies which are disclosed), some may still be perceived as undisclosable. CPM theory (Petronio, 2002) suggests a variable level of disclosure costs and rewards for each individual sexual fantasy experienced. Disclosure costs for each fantasy may be informed by historical, political, and sociocultural factors. Similarly, in Chapter 3 some participants described that whilst they had disclosed some sexual fantasies, for others they did not intend to disclose them. This may be due to some fantasies being perceived as too extreme/taboo, deviating from existing sexual behaviour too highly, or as being likely to receive partner disapproval. For other participants, non-disclosure decisions may be linked to the perceived absence of disclosure rewards (for example, due to the absence of desires for enactment).

Several other relational characteristics also predicted sexual fantasy disclosure. Whilst some were consistent between hypothetical and actual disclosures, others varied. For example, poorer relationship satisfaction increased the likelihood of disclosing a hypothetical sexual fantasy (of specified or unspecified content) and of disclosing a fantasy in the future.

However, relationship satisfaction did not predict having ever disclosed or having an undisclosed sexual fantasy. It may be proposed that over-time, mutual sexual scripts (Gagnon & Simon, 1973) develop in the relationship, which dictate which sexual behaviours are acceptable. The violation of these established scripts may be perceived as a threat to the relationship, and partners may place greater emphasis on these potential threats where they are satisfied in the relationship. This also explains why relationship duration positively predicted having ever disclosed a sexual fantasy (as this would include relationally acceptable fantasies) but negatively predicted the likelihood of disclosing a sexual fantasy in the future or of disclosing a currently undisclosed fantasy. This is consistent with the wider findings of HIV disclosure (Appendix 1), with Paiva and colleagues (2011) arguing that in long-term relationships, fears of disclosure consequences (such as conflict or relationship dissolution) are enhanced. Alternatively, in Chapter 3 a small number of participants indicated using sexual fantasy disclosure due to relational/sexual dissatisfaction, with the introduction of pleasurable sexual acts aimed to reduce this dissatisfaction. Interestingly, sexual satisfaction was not predictive of any of the outcome measures in chapter 4. Further research is necessary to examine the influence of perceived relational threats stemming from disclosure on subsequent disclosure behaviour. This research should examine how these perceptions of relational threat are influenced by the characteristics of the relationship.

In this chapter, intimacy positively predicted both hypothetical and actual disclosure behaviour. This supports SPT (Altman & Taylor, 1973), which argued that as the relationship develops, intimacy between partners increases which allows for a greater number of topics to be disclosed. However, intimacy was not a consistent predictor, only predicting two outcome measures (the likelihood of disclosing a hypothetical sexual fantasy of unspecified content and the likelihood of having disclosed a sexual fantasy in the current relationship). This may be explained through the observed predictive ability of sexual idealisation, as idealising one's

partner positively predicted the likelihood of disclosing a hypothetical sexual fantasy and having an undisclosed fantasy, with a negative association with intention to disclose.

Similarly, both sexual need prioritisation and orgasmic consistency positively predicted hypothetical disclosures but not actual disclosure behaviour.

This suggests a complex interplay in that the development of positive relational traits may increase the likelihood of disclosing some sexual fantasies (where the associated relational threat is low) potentially by increasing anticipations that partners will respond in a positive manner. However, due to positive perceptions of the relationship, this may also increase fears of relational threat, particularly for taboo/extreme fantasies. This is consistent with Chapter 3, in which partners described disclosing some sexual fantasies but not others. Thus, an examination of how perceptions of relational threat are constructed and its relationship to positive relationship characteristics, would be a useful direction for enhancing knowledge on sexual fantasy disclosure in future research. It would also be useful to examine the influence of trust in greater depth, as whilst trust did not significantly predict disclosure, several participants in the study discussed in Chapter 3, cited trusting their partner as a reason for disclosing. It may be proposed that trust may not be one single concept but may include several distinct components (e.g., sexual trust or financial trust).

This chapter increased the current understanding of how intimate relationships influence sexual fantasy disclosure. This research also introduced three new predictors (sexual novelty, sexual idealisation, and sexual need prioritisation), which had not previously been examined in relation to self-disclosure. This research has a great deal of practical applicability and importance for sex/relationship therapy, particularly considering that having sexual fantasies has been associated with more positive sexual functioning (Leitenberg & Henning, 1995), greater desire for partners (Birnbaum et al., 2019; Langeslag & Davis, 2022) and engagement in relationship promoting behaviours (Birnbaum et al., 2019). However, disclosing and

having sexual fantasies is not always positive and can lead to guilt, distress or conflict (Cado & Leitenberg, 1990; Chapter 3; Renauld & Byers, 2001). Whilst positive relational traits promote sexual fantasy disclosure, this may also increase fears of relational threat. As more value is placed on the relationship (through the development of positive partner perceptions and positive relationship traits), the costs associated with the dissolution of the relationship may increase in turn. Understanding how perceptions of relational threat are constructed is of great importance for understanding the process of sexual fantasy disclosure (or non-disclosure).

This study had some limitations, predominantly relating to sampling methods and limited information provided about disclosed/undisclosed sexual fantasies. As previously discussed in Chapter 3 (see section 3.5), there is likely to be biases in the sample as is a common issue in sex research (Brown, 2018). Indeed, nearly all participants reported having disclosed a sexual fantasy at some point in the relationship. However, over half also reported having a currently undisclosed fantasy. This suggests that whilst the sample may be biased towards those who are more comfortable discussing topics relating to sex/sexuality, some topics remain off-limits for disclosure.

It is also worth noting that most participants were residing in Europe, the United States or Canada. In a review of the literature, Lehmiller and Gormezano (2022) highlighted few differences in sexual fantasy experiences between European and American samples but did note large cross-cultural variability between Asian and American Samples. Wu and colleagues (2016) reported that nearly half of Asian women in their sample had not experienced a sexual fantasy previously, with considerably more modest content amongst those who did experience sexual fantasies. Considering that much of the research on the benefits of experiencing/disclosing sexual fantasies is also limited to European/American samples, the generalisability of the findings outside of these samples is reduced. Therefore,

cross-cultural examinations of sexual fantasies and sexual fantasy disclosure would be of great value to extending the findings.

The inferences which can be drawn about the content of fantasies which are disclosed/not disclosed are limited. It is not possible to make suggestions about why certain fantasies are not disclosed from the data collected here. Therefore, future research should further examine the content of disclosed/undisclosed fantasies, the frequency at which they are experienced, the extent to which they are perceived as deviating from existing sexual scripts and the anticipated relational threat, which would result from disclosing them.

It is worth considering that items used to assess hypothetical sexual fantasy disclosure were deliberately vague, allowing participants scope to apply their own preferences to the imagined fantasy elicited by the item. For example, participants were asked how likely they would be to disclose a fantasy involving "multiple partners". Fantasies imagined in response to this item likely varied greatly, for example the number of partners and inclusion of elements of other categories. Additionally, considering the importance placed on the inclusion of the partner in the fantasy for relational benefits to be experienced (Birnbaum et al., 2019; Langeslag & Davis, 2022), it was not possible to assess whether the imagined fantasy included their current partner. This may also have implications for the potential relational threat stemming from disclosure, for example disclosing a fantasy that does not involve the partner may be perceived as leading to greater relational threat. These variations in fantasy content may be minimalised using detailed scenarios outlining hypothetical sexual fantasies.

In conclusion, this chapter demonstrated that sexual fantasy disclosure (both hypothetical and actual) can be predicted by relationship characteristics. Whilst most participants indicated having disclosed a sexual fantasy at some point in their relationship, over half also indicated

the presence of a currently undisclosed fantasy. The most consistent positive predictor of disclosure was sexual novelty. Disclosure was also inconsistently predicted by relationship duration, intimacy, passion, sexual idealisation, sexual need prioritisation, relationship satisfaction, and orgasmic consistency. Potential directions for future research and practical applications of knowledge gained are discussed. These findings greatly enhance current understanding of sexual fantasy disclosure and may have implications for sexual dysfunction and sex/relationship therapy.

Chapter 5: The influence of fantasy characteristics on sexual fantasy disclosure likelihood

5.1: Chapter overview

In Chapter 3, participants commonly described fantasy-specific characteristics as a motivation for the avoidance of sexual fantasy disclosure (and to a lesser extent in the facilitation of sexual fantasy disclosure). This highlighted how for some fantasies, disclosure is avoided due to reasons, such as perceived partner approval or risks of societal rejection. Furthering this, in the empirical study presented in Chapter 4, the relationship characteristics that predicted the likelihood of disclosing sexual fantasies differed dependent on fantasy type. The present chapter investigated whether the characteristics of sexual fantasies could significantly predict the likelihood of disclosure.

In Chapter 4, participants were asked to imagine they had a sexual fantasy in a given category (e.g., multiple partner sex). However, in participant interpretation of these items there may be a degree of subjectivity. This subjectivity may have influenced the type, content and characteristics of fantasies reflected on. Chapter 5 builds on the findings and methodology in Chapter 4, to reduce potential subjectivity in the interpretation of sexual fantasies, by developing and implementing detailed scenarios describing sexual fantasies, to remove ambiguity.

5.2: Introduction

Sexual fantasies can be defined as any mental imagery during a conscious state perceived as arousing or at least erotic (Leitenberg & Henning, 1995). Sexual fantasies (and the disclosure of them) can provide several benefits to both the individual and their relationship, for example more positive sexual functioning (Leitenberg & Henning, 1995), increased desire for

partners (Birnbaum et al., 2019), or increased sexual satisfaction (Anderson, 2011; Frederick et al., 2017). For a review of the benefits of having, disclosing and enacting sexual fantasies, please see Chapter 1.4. Where sexual fantasies are disclosed to a partner, such experiences are largely positive (Chapter 3; Lehmiller, 2020). Chapter 3 highlighted how disclosing sexual fantasies can function to increase partner awareness of desires and to prompt partners to engage in disclosures of their own. What's more, Le and colleagues (2010) argued that self-disclosure can constitute a relationship maintenance behaviour.

However, not all fantasies are disclosed. In Chapter 4, more than half of the sample reported at least one undisclosed sexual fantasy. Similarly, Lehmiller (2018) reported that whilst more than three quarters of participants indicated desires to enact their favoured fantasy, less than a third reported having enacted their desired fantasy. For some, disclosure (and subsequent enactment) can be undesirable and sexual fantasies can be perceived negatively (Renaud & Byers, 2001) or can trigger guilt (Cado & Leitenberg, 1990). This is particularly common for fantasies which are perceived as taboo (Lehmiller, 2020) or as likely to trigger conflict (Anderson, 2011).

In Chapter 3, participants were asked to describe their reasons for disclosing or concealing their favoured sexual fantasy. From this data, five categories were identified: *sexual gratification, partner reasons, relationship reasons, communication reasons, and specific fantasy content reasons*. This chapter focuses on the category "specific fantasy content reasons", which accounted for a sizeable proportion of the reasons for both disclosing (18.6% of participants) and concealing (28.09% of participants) sexual fantasies.

For some participants, disclosure was facilitated where the fantasised act formed part of their sexual identity. Such disclosures acted to reveal a previously hidden component of oneself to an intimate partner and was seen to reduce inner conflict experienced from concealment.

Such motivations were strongest where fantasies were reoccurring or had been present for an extended period of time. Where fantasies formed part of one's identity, disclosing may act to screen partner compatibility during the initial stages of an intimate relationship. A high level of investment in sexual fantasies was previously demonstrated by Lehmiller (2018; 2020), and it was anticipated that disclosure would be more likely to occur where fantasies were part of one's sexual identity.

However, the private nature of sexual fantasies enables individuals to explore a diverse range of sexual acts without fear of social repercussion, violating social norms/conventions or threatening their relationships (Ahlers et al., 2011; Wilson, 1997). In Chapter 3, participants reported an increased readiness to disclose fantasies which were perceived as being approved by society, an individual's social network or intimate partners. An increased readiness to disclose sexual fantasies was also reported where elements of the fantasy were already present in sexual encounters. Such perceived approval or shared characteristics with current encounters may reduce the perceived threat to relationships and of experiencing negative partner responses.

Some fantasies may be concealed due to the perceived difficulty in enactment (Anderson, 2011). For the disclosure of sexual fantasies, the reward may be sexual gratification: the ability to enact sexual fantasies, introduce novel sexual acts or through disclosure being an arousing process. For fantasies where enactment is not possible, the individual may determine that the likely costs of disclosing outweigh the potential benefits/rewards.

This study aimed to examine how the specific fantasy characteristics influence disclosure likelihood. It was hypothesised that a model containing perceived social approval, deviation from typical sexual encounters, ease of enactment, presence of act in sexual identity,

perceived partner approval, and perceived threat to relationship would predict sexual fantasy disclosure likelihood.

5.3: Pilot study

5.3.1: Purpose of pilot study

In Chapter 4, the ability for relationship characteristics to predict sexual fantasy disclosure was examined. In this study, participants were asked to reflect on their previous disclosure behaviour and also to indicate how likely they would be to disclose a hypothetical future sexual fantasy of either specified or unspecified content. Asking participants to reflect on previous disclosure experiences meant that it was not possible to determine whether relationship characteristics predicted, or were the result of, disclosure. In Chapter 4, participants were also asked to reflect on how likely they would be to disclose hypothetical sexual fantasies. One such item is as follows:

"Imagine you have a new fantasy that involves multi-partner sex. How likely would you be to tell your partner about this fantasy?".

Whilst this item was useful for assessing hypothetical likelihoods of disclosing sexual fantasies, there is a large potential for subjectively. For example, with the above item, fantasies may vary in terms of the number of imagined partners, involvement of current partners, the inclusion of elements of power, or anonymity of partners. This subjective interpretation leads to variations in fantasy specific characteristics, such as societal acceptance and does not account for the fantasy's similarity to an individual's existing sexual behaviour. Participants may also have chosen to reflect on a similar fantasy that they had already disclosed. All of these variants may exert an influence on disclosure rates. To address this limitation, a pilot study was utilised to develop scenarios outlining hypothetical sexual

fantasies. By asking all participants to reflect on the same fantasies, it reduces variation in fantasy content and subjective interpretation.

5.3.2: Development of scenarios

Lehmiller's (2018) categories of sexual fantasy content were utilised to develop the scenarios which were piloted. Briefly, these categories are: "Multi-Partner Sex", "Power, control and rough sex", "Novelty, adventure and variety", "Taboo and Forbidden Sex", "Partner sharing and non-monogamy", "Passion and romance", and "Erotic flexibility". For further detail relating to these categories and the frequency at which were present in Lehmiller's sample, please see section 1.2. Three scenarios were developed per category, which can be viewed in Table 5.1. Developing multiple scenarios per fantasy category allowed for the development of scenarios which varied in relation to their specific and contextual level of detail (e.g., whether participants were placed in either an active or passive role). Fantasy scenarios were developed with the intention of encapsulating the diversity of sexual acts within each category.

Table 5.1: Piloted scenarios and location in Lehmiller's (2018) sexual fantasy categorisation:

Scenario	Sexual fantasy content (Lehmiller, 2018)
You have a threesome with your partner and a stranger that you think is attractive. You	Multi-Partner Sex (scenario 1)
become aroused as both partners kiss you passionately and run their hands over your body.	
You attend a group sex event and have your partner and several strangers focus their attention	Multi-Partner Sex (scenario 2)
on pleasing you. You feel yourself grow hot as they all run their hands over your body. Your	
partner and the other individuals take turns performing oral sex on you.	
You and your partner perform oral sex on another person together.	Multi-Partner Sex (scenario 3)
You dominate your partner by blindfolding them. You then alternate between running an ice	Power, control and rough sex (scenario 1)
cube along their body and dripping hot wax on their skin. Your partner wriggles as the two	
temperatures touch their skin.	
Your partner hits your bottom repeatedly with their hand or a riding crop. Your bottom goes	Power, control and rough sex (scenario 2)
red and you feel it throbbing as they continue to spank you whilst whispering into your ear.	
Your partner restrains you by tying your hands and feet to the corners of your bed. They	Power, control and rough sex (scenario 3)
then stimulate your genitals until you get close to orgasming, and then stop all touch. Your	
partner repeats this repeatedly over the course of an evening before finally allowing you to	
orgasm.	
You go for a walk with your partner. On this walk, you come across a clearing in the forest	Novelty, adventure and variety (scenario 1)
filled with flowers. You and your partner start to undress and have passionate sex. Grass	
tickles against your bare skin and you feel a gentle breeze running over your back. Part-way	
$through, a slow \ drizzle \ of \ rain \ begins. \ \ You \ feel \ yourself \ getting \ wet, \ but \ carry \ on \ regardless.$	
Your partner places a toy in/around your genitals that they can control remotely. During a	Novelty, adventure and variety (scenario 2)
romantic dinner they play with you when you least expect it.	
You place popping candy inside your mouth before performing oral sex on your partner.	Novelty, adventure and variety (scenario 3)

Your partner arrives home from a long day at work and sits down. You sit down in front of	Taboo and forbidden sex (scenario 1)
your partner and slowly remove their shoes and socks. You then lower your face to their feet	
and slowly glide your lips and tongue across each of their toes.	
You fall to your knees in front of your partner in the middle of the forest as they begin to	Taboo and forbidden sex (scenario 2)
urinate on you. You feel the liquid coat your body and fall to the ground below you. Your	
partner finishes and you continue on your walk with your wet clothes on.	
You and your partner have sex, whilst a laptop is in the corner of the room broadcasting you to	Taboo and forbidden sex (scenario 3)
an online website where strangers can join and watch you.	
You walk through the front door and find rose petals scattered by the front door and leading	Passion and romance (scenario 1)
up the stairs. You follow the trail to your bedroom and when you open the door, you find	
your partner lying on the bed surrounded by rose petals. You kiss your partner passionately,	
and in that moment all you can smell is roses. The connection to your partner has never felt	
stronger.	
Your partner engages you in slow kisses after a pleasurable day, leading to gentle increases in	Passion and romance (scenario 2)
arousal. After a few minutes of kissing, you make love.	
You are stood at the sink washing the dishes from dinner, when suddenly your partner taps you	Passion and romance (scenario 3)
on the shoulder and spins you around, so that your back is touching the work surface. Your	
partner drops to their knees and performs oral sex on you in the kitchen.	
You engage in sexual acts with your partner in an outdoor location, whilst other couples	Partner sharing and non-monogamy (scenario 1)
watch.	
You and your partner meet up with another couple. During the evening, both couples switch	Partner sharing and non-monogamy (scenario 2)
partners. You watch your partner have sex with one member of the couple, whilst their	
partner has sex with you.	
You watch as your partner performs oral sex on an attractive stranger. You feel yourself	Partner sharing and non-monogamy (scenario 3)
growing aroused as the stranger moans under your partner's attention.	
You kiss someone of a gender that you typically would not be sexually attracted to, whilst	Erotic flexibility (scenario 1)
your partner watches appreciatively.	

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You have sex with your partner whilst you are wearing underwear typical of another gender.	Erotic flexibility (scenario 2)
Your partner runs their hands over you throughout and whispers sexual comments into your	
ears.	
You wear underwear typical of another gender whilst your partner performs oral sex on you.	Erotic flexibility (scenario 3)

Note: Table shows all scenarios included in the pilot study. Scenarios selected for inclusion in the main study are presented in bold italics.

5.3.3: Participants

When determining the required sample size for this pilot study, suggested sample sizes in previous research varied considerably from 10 to 50 (Hertzog, 2008; Hill, 1998; Johanson & Brookes, 2010; Julious, 2005; Mooney et al., 1993; van Belle, 2002). Arain and colleagues (2010) instead opted for a minimum sample size exceeding 9% of the planned total sample size. For the purpose of the present research, this would provide a minimum sample of at least 11 participants. For this pilot study, a sample of between 12 and 15 participants was aimed for.

Participants were recruited using Staffordshire University's psychology department's research participation scheme and received credits to use in their own research as incentivisation. In total, 14 participants were recruited, who ranged in age from 36 to 55 years old (M=44.14, SD=6.14). All participants self-identified as a cisgendered woman. All participants were residing in the United Kingdom, and most identified as heterosexual (9 participants), with 1 participant identifying as homosexual, two as bisexual, 1 as pansexual and 1 as Asexual. All participants self-reported being in an intimate relationship at the time of their participation, with relationship duration ranging from 6 months to 34 years (M=86.93 months, SD= 113.64 months). Whilst the characteristics of the sample included in the pilot study are representative of the students undertaking psychology degrees at Staffordshire University, they are not be truly representative of the wider UK or global population.

5.3.4: Method

Qualtrics (Qualtrics, Provo, UT) was used to facilitate the online survey. Ethical approval was awarded by Staffordshire University research and ethics committee. After providing informed consent, participants were asked to complete demographical information (age, country of residence, biological sex, gender, and sexual orientation) to provide their relationship duration.

Participants were then presented with each of the 21 sexual fantasy scenarios and were asked to reflect on this when responding to the subsequent items. The order of presentation for these scenarios was randomised. For each scenario, participants were asked to reflect on the fantasy specific characteristics through nine items (Table 5.2). For all items, participants were asked to indicate their agreement with statements using a seven-point Likert scale. All participants were then presented with a debrief form.

Table 5.2: Items used to assess fantasy characteristics and sexual fantasy disclosure likelihood.

Purpose of measure	Wording of item
Perceived societal approval of fantasy	This fantasy would be viewed negatively by those around me.
Deviation from typical sexual behaviour	The acts described in this fantasy are very different from my usual sexual behaviour.
Ease of enactment	This fantasy would be easy to act out in real life.
Detail in fantasy	This fantasy is detailed.
Inclusion in sexual identity	This fantasy forms an important part of my sexual identity.
Perceived partner approval	My partner would not approve of this fantasy.
Perceived threat to relationship from disclosure	Sharing this fantasy with my partner would harm my relationship.
Sexual fantasy disclosure likelihood	If this was a fantasy I held, I would be likely to share this fantasy.
Clarity of scenario	I was able to understand this fantasy clearly.

5.3.5: Scenario selection

Descriptive statistics (mean and range) of fantasy characteristics were calculated for each of the twenty-one developed scenarios and are presented in Table 5.3. These scores were used during the selection of the final scenarios. For selection, scenarios were prioritised which demonstrated a high range of scores for disclosure likelihood and had high scores on understanding of scenarios. This helped to eliminate unclear scenarios and also screened for floor-and-ceiling effects (e.g., a scenario that all participants responded that they were highly likely to disclose). The aim was to develop a set of scenarios which showed diversity in participant perceptions and responses.

Table 5.3: Mean (range) scores of fantasy characteristics for each scenario

Scenario	Social approval	Deviation from typical behaviour	Ease of enactment	Level of detail	Part of sexual identity?	Partner approval	Threat to relationship	Disclosure likelihood	Clarity of scenario
MP1	4.57 (2-7)	5.36 (1-7)	3.43 (1-7)	5.93 (4-7)	2.29 (1-6)	5.14 (1-7)	3.79 (1-7)	4.36 (1-7)	6.14 (4-7)
MP2	5 (2-7)	5.57 (1-7)	3.36 (1-6)	5.86 (4-7)	2.36 (1-5)	5.21 (1-7)	3.93 (1-7)	4.57 (2-7)	6 (4-7)
MP3	4.79 (1-7)	5.07 (1-7)	4.14 (1-7)	5.36 (2-7)	2.14 (1-5)	4.14 (1-7)	3.71 (1-7)	4.43 (1-7)	5.79 (2-7)
P/C1	3.57 (1-5)	3.93 (1-6)	5.29 (2-7)	5.79 (4-7)	3.5 (1-7)	3.29 (1-6)	2 (1-4)	5.43 (3-7)	6 (4-7)
P/C2	3.86 (1-6)	3.43 (1-7)	5.36 (3-7)	5.36 (4-7)	3.93 (1-7)	2.14 (1-6)	2 (1-4)	5.71 (3-7)	6 (4-7)
P/C3	3.21 (1-6)	3 (1-7)	6.21 (4-7)	6.14 (4-7)	4.64 (1-7)	2 (1-4)	1.86 (1-4)	5.93 (2-7)	6.29 (4-7)
Nov1	2.93 (1-7)	3.14 (1-5)	5.5 (2-7)	6.07 (4-7)	3.64 (1-7)	1.71 (1-4)	1.57 (1-4)	6 (4-7)	6.21 (4-7)
Nov2	3.71 (1-6)	2.93 (1-6)	5.71 (3-7)	5.5 (3-7)	3.86 (1-7)	2.36 (1-7)	1.71 (1-4)	6.07 (5-7)	5.93 (4-7)
Nov3	3.21 (1-6)	4.93 (1-7)	5.79 (2-7)	4.79 (2-7)	3.14 (1-7)	3 (1-7)	1.86 (1-4)	5.79 (2-7)	5.79 (3-7)
T/F1	4.64 (2-7)	6.07 (2-7)	4.43 (1-7)	5.86 (4-7)	1.64 (1-4)	4.93 (3-7)	2.86 (1-7)	3.5 (1-6)	5.57 (1-7)
T/F2	6.07 (4-7)	6.21 (2-7)	3 (1-6)	6 (4-7)	1.79 (1-5)	4.5 (1-7)	3.57 (1-7)	3.07 (1-6)	5.57 (1-7)
T/F3	5.36 (1-7)	6.43 (4-7)	3.71 (1-7)	5.29 (2-7)	1.79 (1-4)	5.57 (2-7)	3.93 (1-7)	3.64 (1-7)	5.93 (4-7)
PR1	2 (1-4)	3.86 (1-7)	6 (3-7)	5.71 (2-7)	4 (1-7)	1.93 (1-4)	1.57 (1-4)	6.5 (4-7)	6.29 (4-7)
PR2	1.64 (1-3)	2.07 (1-7)	6.71 (6-7)	5.07 (2-7)	5 (1-7)	1.43 (1-2)	1.57 (1-5)	6.29 (4-7)	6.5 (6-7)
PR3	2.71 (1-4)	2.71 (1-6)	5.93 (2-7)	6 (4-7)	3.93 (1-7)	1.79 (1-4)	1.79 (1-4)	6.14 (3-7)	6.07 (4-7)
PS1	4.93 (2-7)	4.86 (1-7)	4.29 (1-7)	4.86 (1-7)	2.43 (1-5)	3.64 (1-7)	2.93 (1-7)	4.14 (1-7)	5.93 (2-7)
PS2	5.36 (2-7)	5.71 (1-7)	3.36 (1-7)	5.43 (2-7)	1.86 (1-6)	4.79 (1-7)	4.64 (1-7)	3.86 (1-7)	6.07 (4-7)
PS3	5.71 (4-7)	5.71 (1-7)	3.29 (1-7)	5.43 (2-7)	1.86 (1-5)	4 (1-7)	3.64 (1-7)	3.71 (1-7)	5.79 (4-7)
EF1	4.46 (1-7)	5.77 (4-7)	4.69 (2-7)	5.15 (2-7)	2.23 (1-4)	4.62 (2-7)	4.23 (1-7)	4.69 (1-7)	6.08 (4-7)
EF2	3.5 (1-7)	5.07 (3-7)	5.14 (1-7)	5.14 (3-7)	2.36 (1-5)	3.64 (1-7)	2.86 (1-7)	4.79 (1-7)	5.86 (4-7)
EF3	4.07 (1-7)	4.71 (1-7)	4.64 (2-7)	4.57 (2-7)	2.36 (1-5)	3.79 (1-7)	2.86 (1-7)	4.43 (1-7)	5.86 (4-7)

Note. These scores were used when selecting final scenarios. scenarios. MP refers to Multi-Partner Sex. P/C refers to Power, control and rough sex. Nov refers to Novelty, adventure and variety. T/F refers to taboo and forbidden sex. PR refers to passion and romance. PS refers to partner sharing and non-monogamy. EF refers to erotic flexibility. Bold text indicates that these fantasies were included in the final seven scenarios.

For additional description of the final seven scenarios included in the main study, please see items presented in Table 5.1 in bold italics.

For "multi-partner sex" fantasies, scenario one was selected as the final included scenario for this theme. This scenario showed the highest mean score and lowest variation for participant understanding, suggesting that this fantasy was easily understood by participants. High variations in scores for items assessing fantasy characteristics were also noted for this scenario.

For the theme "power, control and rough sex", scenario three was selected due to displaying the highest mean understanding score compared to scenarios one/two. This scenario also displayed a high range in scores assessing fantasy-related characteristics and disclosure likelihood. However, it is worth noting that both scenario one and two showed a greater range of scores for items assessing partner approval and ease of enactment.

For the theme "novelty, adventure and variety", scenario one was selected. This scenario displayed the highest mean understanding score compared to the two other novelty scenarios. A high range of scores were obtained for social approval, ease of enactment, sexual identity incorporation, and relational threat. A higher range of scores were obtained by scenario three for deviation from typical sexual behaviour, partner approval, and disclosure likelihood. However, this scenario had the lowest mean understanding score.

For the theme "taboo and forbidden sex", scenario one was selected. Whilst this scenario had a lower mean understanding score (and higher range) than scenario three, histograms produced demonstrated that this was due to one participant indicating difficulty understanding this scenario. Scenario one was also seen to represent the theme to a greater extent. This scenario also showed a high range in fantasy-related characteristics scores, suggesting that participant perceptions of the scenario were varied.

For the theme "passion and romance", scenario one was selected. Whilst scenario scored lower than scenario two for ease of understanding, scenario two was eliminated from the final set of scenarios due to low variation in several items (social approval, ease of enactment, and partner approval). In contrast, scenario one showed a higher range of scores for social approval, deviation from sexual behaviour, incorporation into sexual identity and partner approval when compared to the other scenarios in this theme.

For the theme "partner sharing and non-monogamy", scenario two was selected. This scenario showed a high mean understanding score (although the range varied from two to seven). Participant responses also showed a greater range for several characteristics, showing that participant perceptions were varied.

For the theme "erotic flexibility", scenario one was selected due to equivalent ranges and higher mean understanding scores. Participant responses to fantasy-related characteristics and disclosure likelihood also showed a good range in scores.

5.4: Main study Method

5.4.1: Design

This study employed a correlational design to assess whether fantasy specific characteristics could significantly predict sexual fantasy disclosure likelihood. This survey was conducted via Qualtrics (Qualtrics, Provo, UT).

5.4.2: Participants

Participants were recruited online, using social media (LinkedIn, Twitter, Facebook), Reddit (r/psychology, r/samplesize) and a university research participation scheme. No compensation was offered, with the exception of course credit for students recruited via the latter. To achieve a medium effect size, it was determined that between 100 and 120 participants would be required (Clark-Carter, 2019). In total, 115 participants fully

completed the survey; data from 15 participants was removed due to failing one or more attentional checks, resulting in a final sample of 100 participants. The characteristics of participants can be seen in Table 5.44. Participants ranged in age from 18 to 60, with a median age of 23 (Mean=26.09, SD=8.39). Participants were predominantly residing in the United Kingdom, identified as a woman, with gender largely matching sex assigned at birth and were heterosexual.

Relationship duration ranged from less than one month to 33 years and 11 months. The median relationship duration was 2 years and 6.5 months with a mean of 5 years and 1 month (SD= 79.14 months). Participants were largely reporting on relationships described as steady and monogamous.

Table 5.4: Participant demographics

Demographics		n = (%)	
Gender			
Man	26	(26%)	
Woman	68	(68%)	
Non-binary/Third gender	5	(5%)	
Feminine aligning	1	(1%)	
Does gender align with sex assigned at l	birth?		
Yes	95	(95%)	
No	5	(5%)	
Sexual orientation			
Heterosexual	60	(60%)	
Homosexual	6	(5%)	
Bisexual	27	(27%)	
Pansexual	3	(3%)	
Other (self-described)	3	(3%)	
Country of residence			
Canada	5	(5%)	
Europe	10	(10%)	

United Kingdom	70	(70%)
United States	15	(15%)
Marital status		
Married	19	(19%)
Engaged	4	(4%)
Not married	77	(77%)
Cohabitation		
Cohabitating permanently	41	(41%)
Cohabiting some of the time	15	(15%)
Not cohabitating	43	(43%)
Relationship steadiness		
Steady	72	(72%)
Dating	18	(18%)
Casual	6	(6%)
Exclusivity		
Sexually and romantically exclusive	89	(89%)
Involved sexually with other partners, but not romantically	4	(4%)
Involved with other partners both sexually and romantically	5	(5%)

5.4.3: Materials and Procedure

Ethical approval was awarded by Staffordshire University research and ethics committee.

This survey was delivered through Qualtrics (Qualtrics, Provo, UT). After providing informed consent, participants were asked to provide demographic information relating to themselves and their current intimate relationship. If participants had more than one partner, they were asked to reflect on their longest current relationship.

Participants were then presented with seven scenarios outlining hypothetical sexual fantasies and asked to describe their own fantasy (if they had experienced a sexual fantasy previously). Participants were asked to respond to several items in relation to each fantasy, which assessed fantasy-specific characteristics and the likelihood of disclosing each fantasy. Qualtrics was

used to randomise the order of presentation for each scenario. Attention checks were used in the survey, which read as "This is an attention check, please select...". If participants failed attentional checks, their data was removed. All participants were thanked and debriefed following their participation.

Demographic measures

Participants were asked to indicate their age, gender identity, whether their gender identity matched their sex assigned at birth, sexual orientation, and country of residence. Participants were then asked to provide information about their relationship: relationship duration, marital status, sexual exclusivity, relationship steadiness, and whether they were cohabitating with their partner.

Sexual fantasy content

Participants were asked to reflect on both hypothetical sexual fantasies and their own sexual fantasies. For hypothetical fantasies, participants were provided with the seven scenarios developed in the previously described pilot study (Chapter 5.3). For reference, these scenarios are presented in Table 5.1, and the final selection are presented in bold italics.

To assess the likelihood of disclosing an experienced sexual fantasy, participants were asked "Please describe one of your sexual fantasies in as much detail as you feel comfortable describing. If you have not had a sexual fantasy before, please tick the box below and you will be directed to the next question." Where participants indicated that they had not previously had a sexual fantasy, they were redirected to the next block of questions.

Fantasy characteristics and disclosure likelihood

For each fantasy (hypothetical and self-reported), participants were asked to respond to seven questions which assessed fantasy-related characteristics and disclosure likelihood.

Characteristics assessed included: perceived societal approval towards the fantasy, the extent to which the outlined fantasy deviates from existing sexual behaviour, ease of enacting the fantasy, whether the fantasy was considered to be part of the participant's sexual identity, whether partners were considered to be likely to approve of the fantasy, and whether disclosing the fantasy would be likely to threaten their relationship with their partner. Participants were also asked to indicate how likely they would be to disclose the outlined fantasy. All items were answered using a seven-point Likert scale. For described sexual fantasies, participants were also provided with an option which read "I have already disclosed this fantasy".

The items are the same as those previously used in the pilot study (for the full list of items, please see Table 5.2). One item from the pilot study, "I was able to understand this fantasy clearly", was not included in the main study. This was due to this item's purpose being to check the clarity of scenarios when selecting them for final inclusion.

5.4.4: Analyses

Multiple Regression Analyses

Data was analysed separately for each scenario (or described fantasy) using Multiple Regression analyses. These analyses contained one outcome variable (the likelihood of disclosing a sexual fantasy) and six predictor variables, which were: perceived societal approval of fantasy, deviation from typical sexual behaviour, ease of enactment, inclusion in sexual identity, perceived partner approval, and the perceived threat to relationship if disclosure were to occur. All predictor variables were entered into the model simultaneously. Initially, correlation matrices were produced for each analysis to screen for multi-collinearity between predictor variables. In line with the suggestions of Field (2017), 0.9 was used as an upper threshold for a variable's inclusion in the model. Though, it is worth noting that several close relationships (though falling below 0.9) were identified and are presented in Table 5.5.

Multicollinearity was deemed as not presenting a problem, as Tolerance fell above 0.2 and VIF fell above 10 (Field, 2017).

Table 5.5: Correlation matrices demonstrating relationships between all continuous variables for each set of predictor variables.

Multi- partner SA Description 1.61 1 1 1 1 1 1 1 1 1	Scenario		SA	D	EE	ID	PA	RT	
EE	Multi-		•						
ID	partner								
PA 489*** 385*** -369*** -449*** 1 Power, SA 1 -324*** -356*** -694*** 1 control, D 1.58 1									
Power									
Power, control, D J158 I and rough EE 265** 385*** I sex ID 002 627*** .504*** I sex ID 002 627*** .504*** 1 RT .346*** 2.84** 560*** 256* 1 Novelty, adventure A36*** 3.19** 477*** 220* .610*** 1 Novelty, adventure D .163 I I I I BC -0.77 404*** I II							-		
control, on the properties of the propertie			.391***	.299**	324***	356***	694***	1	
and rough EE 265** 385*** 1 sex ID 002 627*** .504*** 1 PA .386*** .284** 560*** 220* .610*** 1 Novelty, RT 346*** .319** 477*** 220* .610*** 1 Novelty, BT A 1 404*** 477*** 220* .610*** 1 Average EE 077 404*** 1									
sex ID 002 627*** .504*** 1 PA .386*** .284** 560**** 256* 1 RT .346*** .319** 477*** 220* .610*** 1 Novelty, adventure D .163 1									
PA	and rough								
Novelty, SA	sex								
Novelty, adventure			.386***				1		
adventure D .163 1 and variety EE 077 404*** 1 ID .025 419*** .429*** 1 PA .268** .272** 294** 351*** 1 Taboo and forbidden SA 1 .701***		RT	.346***	.319**	477***	220*	.610***	1	
and variety EE 077 404*** 1 ID .025 419*** .429*** 1 PA .268** .272** 294** 351*** 1 RT .199* .210* 189 273** .533*** 1 Taboo and forbidden D .438*** 1	Novelty,	SA							
ID	adventure								
PA .268** .272** 294** 351*** 1 Taboo and forbidden SA 1 .189 273** .533*** 1 sex EE 267** 418*** 1	and variety								
RT .199* .210* 189 273** .533*** 1 Taboo and forbidden D .438*** 1 Sex EE 267** 418*** 1 ID 522*** 846*** .391*** 1 PA .568*** .546*** 458*** 527*** 1 Partner SA 1 156 .579 1 Partner SA 1 707*** .479*** 1 monogamy ID 464*** 707*** .479*** 1 Passion SA 1 412*** 440*** .501*** 1 Partner <									
Taboo and forbidden SA (38)*** 1 sex EE 267** 418*** 1 sex EE 267** 418*** 1 ID 522*** 846*** .391*** 1 PA .568*** .546*** 458*** 527*** 1 RT .377*** .206* 504*** 156 .579 1 Partner SA 1									
forbidden sex EE 267** 418*** 1 Sex EE 267** 418*** 1 ID 522*** 846*** .391*** 1 PA .568*** .546*** 458*** 527*** 1 RT .377*** .206* 504*** 156 .579 1 Partner SA SA 1 500*** 156 .579 1 sharing D .413*** 1 500*** 1 156 .579 1 and non-monogamy ID 464*** 500*** 1 479*** 1 479*** 1 212* 456*** 1 464*** 1 212* 456*** 1 707*** 1 404*** .501*** 1 404*** .501*** 1 404*** .701*** 1 404*** .701*** 1 412*** 454*** 151 1 151 1 412*** 448***<				.210*	189	273**	.533***	1	
sex EE 267** 418*** 1 ID 522*** 846*** .391*** 1 PA .568*** .546*** 458*** 527*** 1 RT .377*** .206* 504*** 156 .579 1 Partner SA I			=						
ID	forbidden								
PA .568*** .546*** 458*** 527*** 1 Partner SA 1 sharing D .413*** 1 and non- EE 457*** 500*** 1 monogamy ID 464*** 707*** .479*** 1 PA .257* .407*** 212* 456*** 1 RT .264** .346*** 190 404*** .501*** 1 Passion SA 1 and D .213* 1 1 romance EE 472*** 405*** 1 ID 139 531*** .285** 1 PA .424*** .324** 454*** 151 1 Erotic SA 1 flexibility D .346*** 1 ID 349*** 441*** 1 ID 349*** 441*** 1 ID 349*** 42** 42** ID 349*** <t< td=""><td>sex</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	sex								
RT .377*** .206* 504*** 156 .579 1 Partner sharing D and non- EE .413*** 1						=			
Partner sharing SA sharing 1 and non- EE 457*** 500*** 1 monogamy ID 464*** 707*** .479*** 1 PA .257* .407*** 212* 456*** 1 RT .264** .346*** 190 404*** .501*** 1 Passion SA 1 1 1 1 1 romance EE 472*** 405*** 1				.546***		527***	-		
sharing and non- D .413*** 1 and non- EE 457*** 500*** 1 monogamy ID 464*** 707*** .479*** 1 PA .257* .407*** 212* 456*** 1 RT .264** .346*** 190 404*** .501*** 1 Passion SA 1			.377***	.206*	504***	156	.579	1	
and non-monogamy EE 457*** 500*** 1 monogamy ID 464*** 707*** .479*** 1 PA .257* .407*** 212* 456*** 1 RT .264** .346*** 190 404*** .501*** 1 Passion SA I III IIII IIIII IIIII IIIIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Partner		-						
monogamy ID 464*** 707*** .479*** 1 PA .257* .407*** 212* 456*** 1 RT .264** .346*** 190 404*** .501*** 1 Passion SA I II III									
PA .257* .407*** 212* 456*** 1 RT .264** .346*** 190 404*** .501*** 1 Passion SA 1 and D .213* 1 1 1 romance EE 472*** 405*** 1	and non-								
RT .264** .346*** 190 404*** .501*** 1 Passion and D and	monogamy	ID							
Passion SA 1 and D .213* 1 romance EE 472*** 405*** 1 ID 139 531*** .285** 1 PA .424*** .324** 454*** 151 1 RT .732*** .076 448*** 099 .522*** 1 Erotic SA 1 flexibility D .346*** 1 EE 349*** 441*** 1 ID 349*** 441*** 1 PA .477*** .380*** 412*** 482*** 1 Multi-level SA 1 Image: Multi-level SA 1 Image: Multi-level SA 1							-		
and D .213* 1 romance EE			.264**	.346***	190	404***	.501***	1	
romance	Passion	SA	1						
ID	and	D	.213*	1					
PA .424*** .324** 454*** 151 1 RT .732*** .076 448*** 099 .522*** 1 Erotic SA 1 flexibility D .346*** 1 EE 349*** 441*** 1 ID 349*** 739*** .393*** 1 PA .477*** .380*** 412*** 482*** 1 RT .491*** .323** 324** 366*** .701*** 1 Multi-level SA 1 linear D .456*** 1	romance	EE	472***		1				
RT .732*** .076 448*** 099 .522*** 1 Erotic SA 1 flexibility D .346*** 1 EE 349*** 441*** 1 ID 349*** 739*** .393*** 1 PA .477*** .380*** 412*** 482*** 1 RT .491*** .323** 324** 366*** .701*** 1 Multi-level SA I linear D .456*** 1		ID	139	531***	.285**	1			
Erotic SA 1 flexibility D .346*** 1 EE349***441*** 1 ID349***739*** .393*** 1 PA .477*** .380***412***482*** 1 RT .491*** .323**324**366*** .701*** 1 Multi-level SA 1 linear D .456*** 1		PA	.424***	.324**	454***	151	1		
flexibility D .346*** 1 EE349***441*** 1 ID349***739*** .393*** 1 PA .477*** .380***412***482*** 1 RT .491*** .323**324**366*** .701*** 1 Multi-level SA 1 linear D .456*** 1		RT	.732***	.076	448***	099	.522***	1	
EE349***441*** 1 ID349***739*** .393*** 1 PA .477*** .380***412***482*** 1 RT .491*** .323**324**366*** .701*** 1 Multi-level SA 1 linear D .456*** 1	Erotic	SA	1						
ID	flexibility	D	.346***	1					
PA .477** .380**412**482** 1 RT .491** .323*324*366** .701*** 1 Multi-level SA 1 linear D .456** 1		EE	349***	441***	1				
PA .477** .380**412**482** 1 RT .491** .323*324*366** .701*** 1 Multi-level SA 1 linear D .456** 1		ID	349***	739***	.393***	1			
RT .491*** .323**324**366*** .701*** 1 Multi-level SA 1 linear D .456*** 1						482***	1		
Multi-level SA 1 linear D .456*** 1							.701***	1	
linear D .456*** 1	Multi-level		1						
			.456***	1					
model EE435***515*** 1	model	EE	435***	515***	1				
ID368***700*** .471*** 1						1			
PA .617*** .561***517*** 1							1		
RT .530*** .435***461***385*** .715*** 1								1	

RT .530*** .435*** -.461*** -.385*** .715***

Note. $SA = Perceived \ societal \ approval; \ D = Deviation \ from \ typical \ sex; \ EE = Ease \ of \ enactment; \ ID = Degree \ to \ which \ fantasy \ is \ representative \ of \ sexual \ identity; \ PA = Perceived \ partner \ approval; \ RT = Perceived \ threat \ to \ the \ relationship.$

Asterix denotes correlation is significant at *p<.05; ** p<.01; *** p<.001. Bold text denotes that r value exceeds 0.7. A threshold for inclusion was set at r=0.9, as suggested by Clark-Carter (2018)

Several checks were performed to identify cases deemed to exert excessive influence on the model, as outlined by Field (2017). Cook's distance was utilised to examine the overall influence of each case on the model, with cases exceeding one deemed to have excessive influence (Cook & Weisberg, 1982, as cited in Field, 2017). For all analyses, Cook's distance fell in the acceptable range. Similarly, Field (2017) proposes that DFBeta scores should fall below one, an assumption which was met in all Multiple regression analyses run.

Mahalanobis' distance was utilised to identify the distance between cases and the mean of predictors. For a multiple regression model with six predictors, Field (2017) suggests a cut-off point of 12.56 where p=0.05, and a cut off value of 16.81 where p=0.01. A small number of cases (five or less) in each analysis fell above the cut off value of 16.81. Similarly, for centred leverage, Field (2017) suggests a cut-off value of 3(k+1)/n, which equates to 0.212 in this dataset. A small number of responses fell above this threshold, with a maximum of three cases in each analysis. Despite several cases violating the assumptions of Mahalanobis' distance and centred leverage, this was deemed as acceptable as data fell below the acceptable limit of 1 for Cook's distance (Field, 2017).

Histograms were produced to check that there was normal distribution of standardised residuals. Field (2017) outlines that in a normally distributed model, less than five percent of cases should fall outside of the +/-1.96 range, and less than one percent outside of the +/-2.58 range. Additionally, there is cause for concern where more than 0.1% of cases fall outside of the +/-3.29 range. In analyses, a small number of cases fell outside the +/- 1.96 range deemed acceptable by Field (2017). For Multi-partner sex, five cases exceeded the +/-2 threshold, with two exceeding the +/- 2.58 range and a further one exceeding the +/-3.29

range. However, upon examination of histograms of the standardised residuals, these appeared normally distributed and so were deemed to be acceptable.

For Power, control and rough sex, nine cases fell outside the +/-2 threshold. Though it is worth noting that no cases exceeding the +/-3.29 range, which Field (2017) describes as requiring further examination. Four cases fell outside of the +/-2 threshold for sexual novelty fantasies, with these values falling between -2.122 and -2.87. As histograms appeared to be normally distributed and no values exceeded +/-3.29, this was deemed as acceptable. For taboo and forbidden sex fantasies, two cases exceeded +/-2 and an additional one exceeded +/-3, though this value fell below the threshold of +/-3.29. For passion and romance fantasies, six cases fell outside of +/-2 (two of which exceeded +/-3.29). Similarly, six cases fell outside of the +/-2 range for non-monogamy fantasies, one of which fell above +3 (though below +3.29). For erotic flexibility fantasies, three cases fell outside of the +/-2 threshold though in the +/-3 threshold, and data was normally distributed.

Durbin-Watson test values were screened to ensure that no serial correlations between errors were present in the dataset. Field (2017) suggests a conservative acceptable range between 1 and 3. Values for this data fell well in this range, suggesting an absence of serial correlations.

Multi-level Linear model

A Multi-level linear model was then run with the intention of comparing the predictive ability of each characteristic across models. This form of analysis was selected due to it lacking the assumption of independence, which was beneficial in the current dataset where scores from each participant are represented several times in the dataset (Field, 2017).

Multi-collinearity was screened for by the production of a correlation matrix between outcome variables, with the acceptable limit set at 0.9. Correlations between all continuous variables are displayed above in Table 5.55. All correlations fell well below the acceptable

limit. As multi-collinearity was not deemed to be a problem in the dataset, it was not viewed as necessary to undergo the process of centring (for additional information, see Field, 2017, pp 950-951).

Content analysis

Where participants indicated having previously had one (or more) sexual fantasies, they were asked to describe one of their sexual fantasies in as much detail as they felt comfortable providing. This item read "Please describe one of your sexual fantasies in as much detail as you feel comfortable describing. If you have not had a sexual fantasy before, please tick the box below and you will be directed to the next question". Descriptive content analysis was completed with the aim of describing and categorising participant responses according to Lehmiller's (2018) seven categories of sexual fantasies. The purpose of this content analysis was to identify the frequency at which each of Lehmiller's categories are present in this sample. Despite differences in message format, the approach used for descriptive content analysis in this study was similar to that used previously by Downing and colleagues (2014), who utilised content analysis during the analysis of sexually explicit videos of gay men.

Two researchers were involved in the coding of open-response text (MLK and JME). To ensure that both coders were utilising the same rules and criteria for coding responses, both coders met and together discussed a sample of 9 responses. The purpose of these discussions was to form a joint decision about the described fantasy and to produce a set of criteria for each of Lehmiller's (2018) categories which then would be utilised whilst coding the remaining dataset. The criteria used to code fantasies into each theme are described below in Table 5.66.

From this initial coding, an additional category of "specific sex act" was generated. Fantasies were coded in this theme where there was a focus on a specific sex act, but the motives

underlying this fantasy were not clearly described. For example, one may describe their fantasy as involving/centring around feet. Without additional explanation, this would be coded as "specific sex act". However, if the participant explicitly described that this was a novel act or that they perceived this act as taboo, then the fantasy would be categorised accordingly.

Table 5.6: Rules for content analysis

Category	Rules
Multi-partner	Focus is on several partners- rather than them/their
_	partner engaging with others together.
	Partner may not be mentioned or may be unspecified
	("threesome")
Non-monogamy and partner sharing	May be engaging with several partners or not (e.g.,
	cuckolding where partner would be engaging with
	other partners whilst they watched).
	Focus on joint experience.
	Specifically mention partner.
Novelty, adventure and variety	New sexual act- explicitly mentioned that it is a
	novel act e.g., "I would like to try"
	Non-bed location
	Unexpected/surprising encounter
Taboo and forbidden	Participant specifically mentions the taboo/forbidden
	nature of the fantasy.
Erotic flexibility	Flexibility of gender/gender roles/sexuality
Passion and romance	Focus on connection/romance
Specific sex act	Specifies act but not enough information to
	determine motives for fantasy about act- taboo vs
	novel vs enjoyed.
	Partner may mention an act but not whether it is
	novel or taboo.
Power, control and rough sex	Having power/control over another or exerted over
C	themselves.
	Pain infliction.

Each coder independently coded the full dataset (excluding those utilised in the development of the coding guidelines), utilising the criteria outlined in Table 5.66. Upon completion, both coders met to check agreement. It was anticipated that where disagreement occurred, both coders would discuss the response to resolve each disagreement. Where the two coders were unable to reach consensus, it was planned that a third coder would be introduced to resolve disagreements. Overall, agreement was present between coders in 44 out of 46 cases,

providing a percentage agreement of 95.65%. One disagreement was for the following response:

"After a long day out of the house coming home to the shower with my partner. After the shower carrying them to the bed and bending them over the bed and having anal sex."

Both coders described uncertainty on coding the above fantasy. Whilst it could potentially be suggested that it falls in "Novelty, adventure and variety" (as suggested by MLK), the participant does not specify whether sexual acts would occur in the shower or whether the desire to engage in anal sex is driven by its novelty. The response may be categorised as "passion and romance", as suggested by JME. However, the participant does not explicitly describe feelings of passion/romance in the act, for example perceiving the act of washing one's partner as romantic. Due to the absence of contextual information, this response was unable to be coded in these categories. The decision was made to categorise the response into the new category of "Specific sex act", as two acts as explicitly mentioned (showering with a partner and anal sex), but without additional context.

The second fantasy where disagreement occurred is as follows:

"We are quite into toys and BDSM. Not extreme but it's an area we like exploring."

This fantasy was initial coded in the category of "power, control and rough sex" by MLK, due to the explicit mention of BDSM. The second coder (JME) placed this response in the category of "novelty, adventure and variety", due to the discussion of "toys" and the mention that BDSM is "an area that we [the participant and their partner] like exploring". Upon discussion, agreement was reached and the response was coded into both categories.

5.5: Results

5.5.1: Hypothetical fantasy disclosure

Participants were asked to respond to scenarios outlining hypothetical sexual fantasies and to rate the scenario on their likelihood of disclosure, perceived societal approval, deviation from typical sexual interactions, ease of enactment, presence of scenario in sexual identity, perceived partner approval, and the perceived threat to the relationship from disclosure.

Descriptive values are displayed in Table 5.7.

Table 5.7: Descriptive values for each item.

Measure	Mean	SD	Range	
Multiple partner (<i>N</i> =113):				
Perceived societal approval	4.30	1.91	1-7	
Deviation from typical sexual encounters	5.47	1.89	1-7	
Ease of enactment	3.61	1.93	1-7	
Presence in sexual identity	2.79	1.81	1-7	
Perceived partner approval	4.58	2.22	1-7	
Perceived threat to the relationship	3.80	2.28	1-7	
Disclosure likelihood	4.12	1.96	1-7	
Power, control and rough sex (N=113):				
Perceived societal approval	3.30	1.74	1-7	
Deviation from typical sexual encounters	3.28	1.87	1-7	
Ease of enactment	5.67	1.62	1-7	
Presence in sexual identity	3.94	1.87	1-7	
Perceived partner approval	2.23	1.46	1-7	
Perceived threat to the relationship	1.82	1.31	1-6	
Disclosure likelihood	5.38	1.72	1-7	
Novelty, adventure and variety (N=114):				
Perceived societal approval	3.08	1.87	1-7	
Deviation from typical sexual encounters	3.99	1.84	1-7	
Ease of enactment	4.68	1.93	1-7	
Presence in sexual identity	3.58	1.71	1-7	
Perceived partner approval	2.63	1.69	1-7	
Perceived threat to the relationship	1.71	1.13	1-6	
Disclosure likelihood	5.45	1.67	1-7	

Taboo and forbidden sex (*N*=114):

Perceived societal approval	5.06	1.79	1-7	
Deviation from typical sexual encounters	5.79	1.86	1-7	
Ease of enactment	4.55	2.31	1-7	
Presence in sexual identity	2.13	1.83	1-7	
Perceived partner approval	4.59	2.10	1-7	
Perceived threat to the relationship	2.82	1.93	1-7	
Disclosure likelihood	3.81	2.12	1-7	
Partner sharing and non-monogamy (N=114):				
Perceived societal approval	5.61	1.35	1-7	
Deviation from typical sexual encounters	6.10	1.60	1-7	
Ease of enactment	2.92	1.91	1-7	
Presence in sexual identity	2.07	1.49	1-6	
Perceived partner approval	5.55	1.86	1-7	
Perceived threat to the relationship	4.39	2.25	1-7	
Disclosure likelihood	3.60	2.12	1-7	
Passion and romance (N=113):				
Perceived societal approval	1.55	0.83	1-5	
Deviation from typical sexual encounters	3.58	1.79	1-7	
Ease of enactment	5.96	1.43	1-7	
Presence in sexual identity	3.68	1.79	1-7	
Perceived partner approval	1.75	1.17	1-6	
Perceived threat to the relationship	1.38	0.70	1-4	
Disclosure likelihood	5.98	1.48	1-7	
Erotic flexibility (<i>N</i> =113):				
Perceived societal approval	4.27	2.01	1-7	
Deviation from typical sexual encounters	5.30	1.87	1-7	
Ease of enactment	4.42	2.11	1-7	
Presence in sexual identity	2.52	1.72	1-7	
Perceived partner approval	4.45	1.98	1-7	
Perceived threat to the relationship	3.93	2.12	1-7	
Disclosure likelihood	4.17	1.96	1-7	
Own fantasy (N=65):				_
Perceived societal approval	4.08	1.96	1-7	
Deviation from typical sexual encounters	3.86	2.14	1-7	
Ease of enactment	5.08	1.94	1-7	
Presence in sexual identity	4.54	1.81	1-7	
Perceived partner approval	3.17	2.20	1-7	
Perceived threat to the relationship	2.45	2.01	1-7	
Disclosure likelihood	6.12	2.50	1-8	

Overall Models

The overall models (which contained perceived societal approval, deviation from typical behaviour, ease of enactment, presence of act in sexual identity, perceived partner approval, and perceived threat to the relationship) showed statistically significantly predictive ability for the likelihood of disclosing all seven scenarios. R² values ranged from 0.323 (for the scenario which focused on passion and romance) to 0.616 (for the scenario focusing on non-monogamy). The predictive ability of the overall model and each fantasy characteristic is displayed in Table 5.8.

Table 5.8: Predictive ability of specific fantasy characteristics on the likelihood of disclosing sexual fantasies outlined through scenarios.

		Fantasy Type					
Predictor	Multi Partner	Power, control, and rough sex	Sexual Novelty	Taboo and forbidden sex	Non monogamy	Passion and romance	Erotic Flexibility
Perceived societal approval	β=121,	β=184,	•	•	β =121.,	•	$\beta =078,$
	p = .181	p = .058	p = .002	p = .006	p = .119	p = .016	p = .383
Deviation from typical sexual	$\beta = .018,$	$\beta =055,$	$\beta = .127,$	B =230,	$\beta = .123,$	B = .009,	$\beta =022,$
interactions	p = .859	p = .633	p = .116	p = .115	p = .201	p = .937	p = .847
Ease of enactment	B = .162,	$\beta = .213,$	β =.233,	B = .005,	$\beta = .177,$	$\beta = .178,$	$\beta = .167,$
	p = .077	p = .075	p = .005	p = .955	p = .028	p = .105	p = .055
Presence in sexual	$\beta = .191,$	$\beta =120,$	$\beta = .197,$	$\beta =039,$	$\beta = .167,$	$\beta = .215,$	$\beta = .134,$
identity	p = .069	p = .329	p = .020	p = .798	p = .096	p = .038	p = .249
Perceived partner	$\beta = .056,$	$\beta = .009,$		$\beta = .166,$	$\beta =049$,	β =110,	$\beta =034,$
approval	p = .640	p = .939	p = .124	p = .151	p = .533	p = .313	p = .760
Perceived threat to	$\beta =484,$	β =356,	•	$\beta =577,$	$\beta =610,$	$\beta = .020,$	$\beta =480,$
the relationship	p = <.001	p = .002	p <.001	p <.001	p <.001	p = .884	p<.001
Overall Model	F (6,92) =	F(6,92) =	F (6,93) =		F (6,93) =	` ' '	
	12.712,	7.429, p<.001, R2	19.663,	=14.890,	24.914, n< 001 R2	7.307, n< 001 R2	15.619, p<.001, R2
	p <.001, R2 = .453	= .326	p <.001, R2 =.559	= .490	= .616	= .323	= .505

Note: Significant values are highlighted in bold text.

Perceived societal approval

The perceived societal approval of acts in the fantasy scenario significantly predicted the likelihood of disclosing three of the seven scenarios: Sexual novelty (β =-.230, p = .002), taboo and forbidden sex (β = -.272, p = .006), and passion and romance (β = -.321, p = .016). As this item was negatively worded (This fantasy would be viewed negatively by those around me.), Beta values indicate that participants who felt that the fantasy would be disapproved of by society were less likely to be willing to disclose the fantasy outlined in the scenario.

Ease of enactment

The extent to which fantasies were perceived as easy to enact was a significant positive predictor of the likelihood of disclosing a fantasy involving sexual novelty (β = .233, p = .005) and non-monogamy (β = .177, p = .028). Beta values indicate that a higher perceived ease of enactment was predictive of higher likelihoods of being willing to disclose.

Presence in sexual identity

The extent to which acts contained in the scenario were deemed to form a component of the participant's sexual identity was significantly predictive of the likelihood of disclosing fantasies involving sexual novelty (β = .197, p = .020), and passion and romance (β = .215, p = .038). Beta values suggest higher disclosure likelihoods for fantasies viewed as part of one's sexual identity.

<u>Perceived threat to the relationship from disclosing</u>

The perceived threat to the relationship from disclosure demonstrated statistically significant predictive ability for the willingness to disclose all scenarios, with the exception of the scenario involving passion and romance. Beta values for tests where relational threat was a significant predictor ranged from -0.356 to -0.610, indicating that higher scores for perceived relational threat where predictive of a lower willingness to disclose the outlined fantasy.

Perceived partner approval & Deviation from typical sexual encounters

The extent to which partners were perceived as likely to approve of the fantasy in scenarios and the extent to which acts detailed in the scenario were deemed to deviate from a participant's typical sexual encounters, did not significantly predict participant's willing to disclose for any of the fantasies outlined in scenarios.

5.5.2: Disclosure of a self-reported fantasy

Participants were asked to describe a sexual fantasy held by them., Where participants had not previously had a sexual fantasy, they were provided with an option to indicate this. Table 5.9 shows the content of these fantasies. In the sample, 57% described a sexual fantasy. In this subsample of participants, two participants who indicated having experienced a sexual fantasy did not describe a sexual fantasy. Participants most frequently selected to describe fantasies involving either "power control and rough sex" or "novelty, adventure and variety". Relatively few participants described fantasies involving "taboo and forbidden sex" or "passion and romance". No participants described fantasies involving "erotic flexibility". Coders were unable to code two fantasies due to insufficient detail.

Table 5.9: Coded frequency of fantasy content in self-reported sexual fantasies.

Category	Occurrence (N=55)	Occurrence frequency
Multi-Partner sex	9	16.36%
Power, control and rough sex	21	38.18%
Novelty, adventure and variety	15	27.27%
Partner-sharing and non-	8	15.55%
monogamy		
Taboo and forbidden sex	1	1.82%
Passion and romance	3	5.45%
Erotic flexibility	0	0%
Specific sex act	5	9.09%
Uncategorisable	2	3.64%

Multiple regression analysis was then conducted to examine whether fantasy specific characteristics were able to predict the likelihood of disclosing a described fantasy. The overall model significantly predicted disclosure (p<.001). with perceived threat to the relationship from disclosure being significant (β = -.915, p<.001).

Table 5.10: Predictive ability of specific fantasy characteristics on the disclosure of a described sexual fantasy.

Predictor	Predictive ability
Perceived societal approval	$\beta = .049, p = .504$
Deviation from typical sexual interactions	β =051, p = .554
Ease of enactment	$\beta = .063, p = .444$
Presence in sexual identity	β =010, p = .891
Perceived partner approval	$\beta = .066, p = .597$
Perceived threat to the relationship	β =915, p <.001
Overall Model	F(6,50) = 33.985, p < .001, R2 = .803

Note: Significant values are highlighted in bold.

5.5.3: Multi-level linear models: Overall what characteristics can predict sexual fantasy disclosure likelihood?

Multi-level linear models were run to examine the overall predictive ability of each of the fantasy characteristics on disclosure likelihood. Across the seven scenarios, the reported likelihood of disclosing the outlined sexual fantasy was positively predicted by the perceived ease of enactment (β = .106, p <.001) and the degree to which described acts were representative of participant sexual identity (β = .191, p < .001). Disclosure likelihood was negatively predicted by perceived societal disapproval for the fantasy (β = -.171, p < .001), in that where participants indicated beliefs that the fantasy would be disapproved of by society, disclosure was less likely to occur. Disclosure was also negatively predicted by perceived

partner disapproval for the fantasy ($\beta = -.086$, p = .020). and the extent to which disclosure was seen to pose a threat to the relationship ($\beta = -.367$, p < .001).

5.6: Discussion

This study aimed to examine the predictive ability of five fantasy characteristics, which builds on the findings reported in Chapter 3. To accomplish this, scenarios describing hypothetical sexual fantasies were developed and piloted (Chapter 5.3). The predictors were perceived societal approval, deviation from typical sexual interactions, ease of enactment, whether fantasy included elements of sexual identity, perceived partner approval, and the perceived threat to the relationship from disclosure. Predictive ability was examined individually for the likelihood of disclosing each sexual fantasy (using multiple regression analyses) and overall across all fantasies (using multi-level linear modelling). Overall, the findings supported the idea that disclosure may in-part be dependent on the considered sexual fantasy.

The perceived threat to the relationship from disclosing the sexual fantasy significantly predicted the likelihood of disclosing the participant's own fantasy, fantasies outlined in scenarios (with the exception of the scenario outlining a fantasy based upon passion and romance) and overall, in the multi-level linear model. Where participants perceived there to be a greater threat to the relationship from the fantasy, lower likelihood of disclosure was indicated. This is in-line with the findings of Chapter 3, where participants indicated that disclosure decisions were influenced by whether the fantasy was seen to pose a threat to the relationship. Future research could build upon these findings by asking participants to identify (and describe) potential threats stemming from disclosure. These findings would be beneficial for understanding how participants determine the potential risks associated with sexual fantasy disclosure and could lead to the development of a model, which explains how participants determine relational threat and how this then subsequently influences disclosure

behaviour. This model would have practical applications, not just for explaining sexual fantasy disclosure, but could be expanded to explaining non-disclosure of other topics.

Additionally, the perceived ease of enactment predicted two scenarios (fantasies outlining sexual novelty, and consensual non-monogamy) and contributed to the multi-level linear model. Interestingly, ease of enactment was not identified as a predictor when participants were asked how likely they would be to disclose their own sexual fantasy (which had previously been described). Ease of enactment was a significant predictor of disclosure likelihood was where participants indicated beliefs that the fantasy would be easy to act out in real-life. This finding is consistent with the findings of Anderson (2011), who identified lower disclosure rates for highly elaborate sexual fantasies (containing several elements). Anderson argued that this was due to perceived difficulties in enacting such fantasies, potentially stemming from the complexities of these fantasies. One of the potential rewards of sexual fantasy disclosure may be enactment (where this is desirable). The perceived inability to enact sexual fantasies may suggest substantially lowered perceptions of disclosure rewards in relation to potential costs (such as relational threat). This may lower lower disclosure likelihoods due to potential costs outweighing rewards. This could be an interesting avenue for future research to explore by asking participants to consider what the potential rewards/costs of disclosure may be whilst manipulating the content of sexual fantasies. Alternatively, lower described ease of enactments may be reflective of low/no desires to enact the fantasy. It would be useful for future research to make this distinction and to ask participant whether they would wish to enact the fantasy, as opposed to simply would the fantasy be easy to enact.

For some individuals, sexual fantasies may include elements of their sexual identity (Chapter 3). For these individuals, disclosure may function in-part to unveil aspects of sexual identity to their intimate partner. Where such fantasies were concealed, participants described

experiencing identity conflicts and internal struggles (Chapter 3). The extent to which fantasies were representative of sexual identity positively predicted the likelihood of disclosing two scenarios (sexual novelty and passion/romance) and overall disclosure likelihood (in the multi-level linear model analysis). Interestingly, whether fantasies contained elements of sexual identity was not predictive of the disclosure of one's own fantasy or fantasies involving elements of power, control, or rough sex. The first is surprising considering that individuals are often highly invested in their sexual fantasies, with Lehmiller (2018) reporting that more than three quarters of participants expressed wishes to enact sexual fantasies and some (10% of men and 20% of women) reporting experiencing orgasm from engaging with their sexual fantasy. The second is surprising as previous research has argued that BDSM may be a form of sexual identity. One possibility may be that BDSM may be part of the participant's sexual identity but that they may not specifically identify with the acts described in the power-related fantasy. In this scenario, the fantasy placed the participant in the submissive role (with their partner fulfilling the dominant role). For participants in an established dominant/submissive dynamic with their partner in which they fulfil the dominant role, this scenario may not be representative of their sexual identity. However, if the dynamic in the scenario were to be reversed, they may then score more favourably on the sexual identity measure. This could be an avenue for further research by focusing more specifically on BDSM-related sexual identities and power dynamics. Interestingly, the extent to which outlined acts deviated from typical patterns of sexual behaviour was not significantly predictive of disclosure likelihood.

This study examined the influence of perceived approval (from both partners and society) on disclosure likelihood. The extend to which participants believed that society would approve of the fantasy positively predicted disclosure likelihood for three scenarios (sexual novelty, taboo/forbidden sex, and passion/romance) and in the multi-level linear model. Interestingly,

perceived partner approval was not predictive of disclosure likelihood in any individual analysis but was significant in the multi-level linear model analysis. It may be that where perceived approval was low, participants may have more negative expectations of disclosure outcomes (such as anticipated stigma). These anticipations may be reflective of greater expectations of disclosure costs compared to rewards as per CPM (Petronio, 2002). Of interest for future research would be to examine whether this in-part may be related to internalised stigma, which has previously been linked to lower disclosure rates in research focused on other forms of self-disclosure (Tsai et al., 2013).

The use of several scenarios (focusing on different hypothetical fantasies) allowed for comparisons to be drawn whilst examining the predictive ability of fantasy characteristics. Additionally, the use of multi-level linear modelling allowed for this predictive ability to be examined across different fantasies. Whilst perceptions of these fantasies may still vary between participants (in part due to the subjective, diverse, and personal nature of sexual fantasies), by asking all participants to reflect on the same descriptions of fantasies, this minimised differences in fantasy content. Participants were also asked to describe a held sexual fantasy. However, response rates were much lower to these items (despite the anonymity of the survey). The use of open-response questions in a survey format meant that participant responses were often brief, with no opportunity to ask participants to expand upon their response.

The findings of this research have implications in sex/relationship therapy, sex education and enhancing dyadic communication between partners. The willingness to disclose sexual fantasies can be predicted by the type of sexual fantasy, particularly whether disclosure is seen to pose a threat to the relationship. In sex and relationship therapy, it is important to consider how opportunities for disclosure can be provided whilst minimising risks to the participant (in terms of relational threat). Whilst for some participants this may stem from

enactment being undesirable, for others they may have strong desires to disclose/enact their sexual fantasies. Particularly those where the fantasy contains elements of sexual identity, where concealment may lead to inner conflict. One possible solution may be through the utilisation of technology, such as online quizzes- mojo upgrade (Chapter 3). Such quizzes allow both partners to complete them independently and to select their sexual fantasies/acts they wish to try. These quizzes enable minimal-risk disclosures by only sharing fantasies/sexual acts which are indicated by both partners in the relationship. The use of technology disclosure can potentially lead to relational benefits (through enactment and the introduction of sexual novelty), whilst reducing the potential for relationship conflict.

It is worth noting that whilst the scenarios in this chapter were selected based upon their greater diversity in disclosure behaviour in the pilot study, a different selection may be more appropriate dependent on research aims. The pilot sample for the scenarios was comprised of predominantly heterosexual cis-gender women, undergraduate psychology students. As the final selection was based upon the responses of these participants, it is possible that had the scenarios been piloted on a different sample (for example LGBTQIA+), that the final selection of items may have been different. However, when asked to indicate their agreement (through a seven-point Likert scale) with the statement "The acts described in this fantasy are very different from my usual sexual behaviour.", participant scores were relatively dispersed across the responses. Around one third of the participants indicated that they felt that the scenarios were very different from their typical sexual behaviour, however the remainder of the responses were evenly spread across the response options (around 10% of participants selecting each option).

In conclusion, this study increased the current knowledge surrounding the influence that fantasy specific characteristics play in disclosure behaviour. Significant predictors were perceived relational threat, perceived partner approval, perceived societal approval, ease of

enactment, and sexual identity. In particular, the strongest predictor of disclosure was the perceived threat to the relationship stemming from disclosure. However, further research is required into the influence of fantasy characteristics on disclosure, particularly relating to the type of fantasy and whether enactment would be desirable. Additionally, in this study scenarios were developed which outline hypothetical sexual fantasies. These will prove to be a valuable resource for future research, particularly those that are interested in examining sexual fantasy disclosure whilst controlling for potential characteristics. Though further testing of the scenarios is recommended in target populations due to the subjective nature of sexual fantasies. The findings of this research have wider implications in sex/relationship therapy, sex education and enhancing dyadic communication between partners.

Chapter 6: How do relationship characteristics influence sexual fantasy disclosure when fantasy characteristics are controlled?

6.1: Chapter overview

In previous chapters, the role of relationship characteristics in influencing self-disclosure (Chapter 2/Appendix 1) and sexual fantasy disclosure (Chapters 3/4) were discussed. These findings highlighted how an individual's relationship influences their decisions of whether to disclose to an intimate partner. Previous chapters (3-5) also highlighted how disclosure likelihood can vary according to fantasy content and the characteristics of these fantasies. In this chapter, the ability of relationship characteristics to predict the likelihood of disclosing sexual fantasies was investigated. To control the content/characteristics of the sexual fantasies that participants reflected on, participants were presented with scenarios outlining sexual fantasies, which were developed in Chapter 5.

6.2: Introduction

This study aimed to build upon the findings reported in Chapter 4, where the ability of relationship characteristics to predict sexual fantasy disclosure was examined. Chapter 4 reported that relationship characteristics can be used to both positively and negatively predict sexual fantasy disclosure and hypothetical disclosure likelihood. Whilst for some characteristics, the directionality of this relationship was consistent, for others this varied dependent on the measure. Positive predictors of sexual fantasy disclosure (and disclosure likelihood) were sexual novelty, sexual need prioritisation, orgasmic consistency, intimacy, and passion. Relationship satisfaction was the only consistent negative predictor of sexual fantasy disclosure (and disclosure likelihood). Two factors (sexual idealisation and

relationship duration) were reported as both positively and negatively predicting disclosure and/or disclosure likelihood (dependent on the measure).

To the author's knowledge, Chapter 4 was the first study to examine whether relationship characteristics can statistically predict sexual fantasy disclosure. The insights gained greatly enhanced the existing knowledge of why some individuals disclose sexual fantasies and others do not. However, Chapter 4 had its methodological limitations. Participants were asked to indicate how likely they would be to disclose sexual fantasies in a given category, for example involving multiple partners. These measures are limited due to the potential for these items to be interpreted subjectively and to vary in the characteristics of the imagined fantasy. This may be problematic considering that when asked about their reasons for disclosing (or not disclosing) a sexual fantasy in Chapter 3, a substantial proportion of participants indicated specific fantasy content reasons were a motivation for disclosing (18.6% of the sample) and not disclosing (28.09% of the sample) sexual fantasies. This was further demonstrated in Chapter 5, where several characteristics at the level of the fantasy predicted disclosure likelihood.

This research aimed to address this limitation by using detailed scenarios outlining hypothetical sexual fantasies. It was hypothesised that sexual fantasy disclosure likelihood would be significantly predicted by relational characteristics (relationship duration, relationship satisfaction, orgasmic satisfaction, orgasmic consistency, sexual need prioritisation, sexual novelty, sexual idealisation, commitment, and passion.

6.3: Method

This study employed a correlational design to assess whether relationship characteristics could significantly predict sexual fantasy disclosure likelihood. This survey was conducted via Qualtrics (Qualtrics, Provo, UT).

6.3.2: Participants

Participants were recruited through a variety of online sources. For the full breakdown of the number of participants recruited through each method, please see Table 6.2. Sample size was predetermined using power tables provided in Clark-Carter (2018). It was determined that for multiple regression analyses with nine predictor variables, between 100 and 120 participants were required to reach power exceeding 0.8. In total, 123 completed responses were collected, of which 14 were removed due to failing one or more attention checks. The final dataset included data from 109 participants, the demographical and relationship information of which are provided in Table 6.1. Participants were aged between 18 and 71, with a median age of 27 (Mean=31.93, SD=132.63). Most participants identified as heterosexual and were predominantly residing in either the United Kingdom or the United States. All participants were in a sexual and/or romantic relationship at the time of their participation in the study. The duration of these relationships ranged from one month to fifty-two years and four months, with a median relationship duration of three years and two months (Mean= 99.75 months, SD=132.63 months). Most participants were reporting on a relationship in which they were living with their partner, were not married, characterised their relationship as steady, and were both sexually and romantically exclusive.

Demographical and relational characteristics varied according to recruitment source as demonstrated in Table 6.2. A greater proportion of participants recruited via the university research participation scheme (SONA) identified as women, were heterosexual and were younger in age. These participants were also exclusively residing in the United Kingdom. In contrast, those who were recruited through social media were more likely to have a gender identity that did not conform with their sex assigned at birth and a higher proportion were members of the LGBTQIA+ community. Those who were recruited through sexuality-related

sources more frequently identified as men, were older and were more likely to indicate that their relationship was not monogamous.

Table 6.1: Relationship and demographical characteristics of participants.

	n	Percentage
Recruitment source		
Sona (University research participation scheme)	31	(29.25%)
Social media and reddit	30	(28.30%)
Sex and Psychology recruitment site	38	(35.85%)
Social network referral	4	(3.77%)
Podcast	1	(0.94%)
Human sexuality class	2	(1.89%)
Gender		
Man	45	(41.28%)
Woman	59	(54.13%)
Non-binary/Third gender	5	(4.59%)
Is gender identity the same as assigned biological sex?		, ,
Yes	100	(91.74%)
No	9	(8.25%)
Sexual orientation		, ,
Heterosexual	74	(67.89%)
Homosexual	6	(5.50%)
Bisexual	18	(16.51%)
Self-described	11	(10.09%)
Country of residence	11	(10.0570)
Canada	5	(4.63%)
Europe (excluding UK)	7	(6.48%)
Other	2	(1.85%)
United Kingdom	45	(41.67%)
United States	49	(45.37%)
Marital status	42	(43.3770)
Married	33	(20, 200/.)
	8	(30.28%)
Engaged Not recorded		(7.34%)
Not married	68	(62.39%)
Cohabitation	(0	(55.050/)
Cohabitating permanently	60	(55.05%)
Cohabiting some of the time	15	(13.76%)
Not cohabitating	34	(31.19%)
Partner gender	(2)	(56,000/)
Man	62	(56.88%)
Woman	43	(39.45%)
Non-binary/Third gender	4	(3.67%)
Relationship steadiness		
Steady	76	(70.37%)
Dating	18	(16.67%)
Casual	14	(12.96%)
Exclusivity		
Sexually and romantically exclusive	88	(81.48%)
Involved sexually with other partners, but not romantically	12	(11.11%)
Involved romantically with other partners, but not sexually	2	(1.85%)
Involved with other partners both sexually and romantically	6	(5.56%)

Table 6.2: Relationship and demographical characteristics of participants organised according to recruitment source.

	Social (social media, Reddit, social network)	Sona (Research participation scheme)	Sexuality (Sex and Psychology, sexuality course, podcast)	Statistical Significance
Gender				
Man	38.2%	22.6%	61%	$X^2(4)=22.17,$
Woman	47.1%	77.4%	39%	p<.001
Non-binary/Third gender	14.7%	_	-	
Is gender identity the same as assigned				
biological sex?				
Yes	76.5%	100%	97.6%	$X^{2}(2)=14.71,$
No	23.5%	-	2.4%	p<.001
Sexual orientation				
Heterosexual	52.9%	80.6%	70.7%	$X^{2}(6)=9.54$,
Homosexual	8.8%	3.2%	2.4%	p=.145
Bisexual	20.6%	6.5%	22%	
Self-described	17.6%	9.7%	4.9%	
Country of residence				
USA	52.9%	-	73.2%	
UK	23.5%	100%	9.8%	
Other	23.6%	_	17%	
Marital status				
Married	26.5%	3.2%	48.8%	$X^2(4)=19.50,$
Engaged	11.8%	9.7%	2.4%	p<.001
Not married	61.8%	87.1%	48.8%	•
Cohabitation				
Cohabitating permanently	52.9%	38.7%	65.9%	$X^2(4)=7.07$,
Cohabiting some of the time	8.8%	19.4%	14.6%	p=.132
Not cohabitating	38.2%	41.9%	19.5%	•
Partner gender				
Man	55.9%	77.4%	39%	$X^2(4)=14.31$,
Woman	35.3%	22.6%	58.5%	p=.006
Non-binary/Third gender	8.8%	_	2.4%	
Relationship steadiness				
Steady	70.6%	51.6%	82.9%	$X^2(4)=9.73$,
Dating	14.7%	32.3%	7.3%	p=.045
Casual	14.7%	16.1%	9.8%	r
Exclusivity				
Sexually and romantically exclusive	82.4%	83.9%	75.6%	$X^2(8)=18.01$,
Involved sexually with other partners, but not		6.5%	22%	p=.021
romantically	2.9%			
Involved romantically with other partners, but not sexually	-	3.2%	2.4%	
Involved with other partners both sexually and romantically	14.7%	3.2%	-	
Age:				
Range	18-51	18-42 years	20-71 years	F(1,104)=
1141150	years			
Mean	27.26	24	40.98	26.11,
	8.30	6.26	15.35	p<.001
SD				
SD Relationship duration (months)	6.50	0.20	13.33	

Median	31	24	96	13.47, p<.001
Mean	70.79	35	173.54	p vvvi
SD	89.77	29	173.67	

Note: Demographical characteristics of participants for each recruitment source. The right-hand column shows whether there is a significant difference in demographical characteristic between recruitment sources, demonstrated through either Chi² squared tests of association (for categorical demographic variables) or linear regression (continuous demographical variables). Significance is demonstrated through bold text.

6.3.3: Materials and procedures

Ethical approval was awarded by Staffordshire University research and ethics committee. All participants were provided with information about the study and provided their informed consent. Participants were then asked to provide demographical information about themselves and the relationship they were reporting on (see Tables 6.1 and 6.2). Participants were then asked to complete several established measures, which assessed relationship characteristics (predictor variables). These measures are presented in Table 6.3. Unlike in Chapter 4, trust, intimacy, and sexual satisfaction were not assessed due to previously observed high correlations with included predictors.

Participants were asked to read through seven scenarios, which outlined hypothetical sexual fantasies. Participants were asked to indicate how likely they would be to disclose the outlined fantasy through seven-point Likert scales (outcome variables). These scenarios were developed and piloted in Chapter 5. The presentation order of all measures was randomised between participants.

Attention checks were included both in and following the survey. In the survey, these asked participants to select a certain response option and read as "This is an attention check. Please select...". Following participation, participants were asked whether they had provided their complete attention to the study. Data was removed for participants who failed any attention checks. All participants were thanked and debriefed following their participation.

Table 6.3: Measures used to assess predictor variables.

Relationship characteristic	Measure	Original Cronbach's alpha	Cronbach's alpha in current sample
Relationship duration	Assessed during demographics		
Love (Passion)	Triangular Love Scale (Sternberg, 1997)	>0.93	0.94
Love (Commitment)	Triangular Love Scale (Sternberg, 1997)	>0.93	0.96
Sexual idealisation	Sexual Idealization Scale (Goldsmith & Byers, 2019)	0.86	0.88
Sexual novelty	Sexual Novelty Scale (Matthews et al., 2018)	0.91	0.90
Sexual need prioritisation	Sexual Communal Strength Scale (Muise & Impett, 2019)	0.78	0.79
Relationship satisfaction	Relationship Satisfaction Scale (Røysamb et al., 2014)	0.89	0.89
Orgasmic consistency	Orgasmic consistency Scale (McIntyre- Smith & Fisher, 2011)	0.81	0.74
Orgasmic satisfaction	Orgasmic consistency Scale (McIntyre- Smith & Fisher, 2011)	0.72-0.90	0.84

6.3.4: Analyses

The predictive ability of relationship characteristics on sexual fantasy disclosure likelihood was assessed through several separate multiple regression analyses implemented via SPSS (IBM SPSS statistics, version 28). As the outcome variable of interest was continuous, these were standard linear regressions. All predictor variables were entered simultaneously into the model. Predictors of interest were: relationship duration, passion, commitment, sexual idealisation, sexual novelty, sexual need prioritisation, relationship satisfaction, orgasmic consistency, and orgasmic satisfaction.

Prior to analysis, pairwise correlations were calculated across all continuous variables. In the correlation matrix (Table 6.4), only one correlation was above the level suggested by Field (2017) of r=0.8. This was for commitment and passion (r=.84), however as this was below the 0.9 threshold set by Clark-Carter (2018) this was deemed as acceptable.

Assumption checks were performed for all analyses according to Field (2017). Scatterplots were produced between all predictor and outcome variables, with no nonlinear relationships

were observed. Residuals of all linear regression models were found to be approximately normally distributed. Whilst multiple cases were above the acceptable threshold set by Field (2017), this was deemed not to present a problem as assumptions were met for VIF (scores fell below 10), tolerance (scores fell above 0.2), Cook's distance (scores fell below 1), and DFBetas (scores fell below 1). Therefore, these cases were not deemed to exert undue influence on the model (Field, 2017; Stevens, 2002).

Table 6.4: Correlation matrix demonstrating correlations between all continuous variables.

	RD	P	С	SI	N	NP	RS	OS	OC
RD	1								
P	.065	1							
C	.293**	.839***	1						
SI	135	.579***	.410***	1					
N	271**	.124	080	.425***	1				
NP	.183	.543***	.514***	.338***	.159	1			
RS	.144	.578***	.628***	.521***	.092	.400***	1		
OS	.131	.469***	.518***	.514***	.138	.357***	.578***	1	
OC	.151	.112	.211*	.099	.020	.233*	.266**	.463***	1

Note. RD= relationship duration; P= passion; C= commitment; SI= sexual idealisation; N= sexual novelty; NP= sexual need prioritisation; RS= relationship satisfaction; OS= organic satisfaction; OC= organic consistency.

6.4: Results

6.4.1: Overall models

The overall models consisted of relationship duration, relationship satisfaction, orgasmic satisfaction, orgasmic consistency, sexual need prioritisation, sexual novelty, sexual idealisation, commitment, and passion. Descriptive values for all measures are presented in Table 6.5. This model significantly predicted the likelihood of disclosing sexual fantasies

^{*}Correlation is significant at p<.05; **correlation is significant at p<.01; ***correlation is significant at p<.001

(described through scenarios) for five out of seven fantasies. For those significantly predicted, R² values ranged from .166 to .265. The overall model did not significantly predict disclosure for two scenarios (fantasies involving sexual novelty and erotic flexibility). The predictive ability of each model and predictor are displayed in Table 6.6.

Table 6.5: Descriptive values for all measures.

Measure	Number of participants	Mean	Standard deviation	Range
Likelihood of disclosing a sexual				
fantasy involving:				
Multiple partners	109	7.11	2.42	4-10
Power, control and rough sex	109	8.86	1.70	4-10
Novelty, adventure and variety	109	8.46	1.95	4-10
Taboo and forbidden sex	109	6.39	2.51	4-10
Partner sharing and non-monogamy	109	6.31	2.36	4-10
Passion and romance	109	8.68	1.91	4-10
Erotic flexibility	86	7.09	2.48	4-10
Relationship characteristics				
Relationship satisfaction	109	4.85	0.88	1.78-6
Orgasmic satisfaction	109	5.92	1.49	1-7
Orgasmic consistency	109	7.61	2.63	1-12
Sexual need prioritisation	109	4.00	0.65	1.67-5
Sexual novelty	109	4.48	1.51	1-7
Sexual idealisation	109	3.80	0.86	1.67-5
Commitment	109	7.42	1.74	1.60-9
Passion	109	6.69	1.70	1.40-9

Table 6.66: The ability for relationship characteristics to predict the likelihood of disclosing hypothetical sexual fantasies.

	Multi- partne r sex	Power, contro l and rough sex.	Sexual novelt y	Partner sharing and non- monogam y	Taboo and forbidde n sex	Passion and romanc e	Erotic flexibilit y
Relationship duration	$\beta = .163,$ $p = .127$	β = .083, p = .407	β = .140, p = .210	β = .280, p = .008	β = .200, p = .063	$\beta =008,$ $p = .940$	β = .120, p = .339
Relationship satisfaction	$\beta = -$.005, p = .969	$\beta = .013, p = .920$	$\beta = -$.122, p = .380	β =023, p = .857	β =206, p = .125	$\beta =254,$ $p = .049$	$\beta = .003, p$ = .985
Orgasmic satisfaction	$\beta = .057,$ $p = .673$	$\beta = -$.123, p = .334	$\beta = -$.018, p = .896	$\beta = .004, p = .976$	$\beta = .101, p$ = .458	$\beta = .163,$ $p = .211$	$\beta =407,$ $p = .011$
Orgasmic consistency	$\beta = .002,$ $p = .984$	$\beta = .029, p = .778$	$\beta = -$.111, p = .337	$\beta = .095, p = .380$	$\beta = .066, p$ = .550	$\beta = .019,$ $p = .860$	$\beta = .199, p$ = .122
Need prioritisatio n	$\beta = .144,$ $p = .218$	β = .127, p = .247	β = .063, p = .607	$\beta = .118, p = .302$	$\beta = .179, p$ = .127	$\beta = .132,$ $p = .241$	$\beta = .020, p$ = .877
Sexual novelty	$\beta = .376,$ $p = .001$	β = .253, p = .021	β = .098, p = .417	β = .388, p < .001	$\beta = .259, p$ = .026	β =076, p = .490	$\beta = .328, p$ = .019
Sexual idealisation	β = - .295, p = .038	$\beta = -$.097, p = .466	β = .103, p = .484	β =250, p = .073	β =198, p = .163	$\beta = .179,$ $p = .187$	$\beta =041, p$ = .808
Commitmen t	β = - .254, p = .235	β = - .445, p = .029	β = .045, p = .842	β =063, p = .763	$\beta = .107, p$ = .616	$\beta = .389,$ $p = .060$	$\beta = -141, p$ = .576
Passion	$\beta = .234,$ $p = .258$	β = .691, p < .001	$\beta = .119,$ $p = .580$	$\beta = .105, p = .603$	$\beta = .022, p$ = .914	$\beta =056,$ $p = .778$	β =209, p = .394
Model	F (9, 98)= 2.282, p = .023, R2 = .173	F (9,98)= 3.930, p <.001, R2 = .265	F (9,98)= 1.131, p = .348, R2 = .094	F (9,98)= 2.743, p = .007, R2 = .201	F (9, 98)= 2.172, p = .030, R2 = .166	F (9, 98)= 3.368, p = .001, R2 = .236	F (9, 75)= 1.848, p = .073, R2 = .182

Note: Significant findings are highlighted in bold text.

6.4.2: Relationship duration

Relationship duration significantly predicted the likelihood of disclosing a sexual fantasy in the category "*Partner-sharing and non-monogamy*". In this category, higher relationship durations were significantly predictive of higher disclosure likelihoods.

6.4.3: Relationship satisfaction

Relationship satisfaction predicted the disclosure of a fantasy in the category "Taboo and forbidden sex". Higher relationship satisfaction was indicative of lower likelihoods of disclosing this fantasy.

6.4.4: Orgasmic satisfaction

For fantasies involving erotic flexibility, lower satisfaction with orgasms experienced significantly predicted higher disclosure likelihoods.

6.4.5: Sexual novelty

Sexual novelty demonstrated a statistically significant positive predictive ability in five out of the seven models (fantasies involving: multi-partner sex; power, control and rough sex; partner-sharing and non-monogamy; taboo and forbidden sex; and erotic flexibility). in these models, a higher presence of sexual novelty in the relationship was predictive of greater likelihoods of disclosing sexual fantasies.

6.4.6: Sexual idealisation

The extent to which individuals idealised their partner was significantly predictive of disclosure of fantasies involving multiple partners. Those who scored lower (indicating lower idealisation of their partner) indicating higher disclosure likelihoods.

6.4.7: Commitment

The level of commitment in the relationship negatively predicted the disclosure of fantasies involving elements of power exchange. Lower commitment was predictive of greater disclosure likelihood.

6.4.8: Passion

Higher passion in the relationship positively predicted disclosure of fantasies involving elements of power exchange.

6.4.9: Sexual need prioritisation and Orgasmic Consistency

The extent to which participants indicated prioritising meeting the needs of their partner nor orgasmic consistency, did not predict any fantasy type disclosure.

6.5: Discussion

This study aimed to build upon the research of Chapter 4, by examining whether relationship characteristics can predict the likelihood of disclosing sexual fantasies once fantasy characteristics are controlled. The limitations of this research were addressed through controlling for fantasy content using fantasy scenarios (developed in chapter 5). As in Chapter 4, relationship characteristics significantly predicted disclosure likelihood for five of the seven scenarios. Though some differences in the findings of this study and Chapter 4 emerged.

Sexual fantasy disclosure likelihood was predicted by higher levels of sexual novelty in the relationship (for five out of seven models). This finding is consistent with the findings of Chapter 4, in which sexual novelty was a significant predictor in eight out of twelve statistical models. Sexual novelty has previously been linked to higher levels of sexual satisfaction (Frederick et al., 2017) and relationship satisfaction (Matthews et al., 2018). Frederick and colleagues (2017) also reported that participants who indicated higher sexual satisfaction were also more likely to have discussed or enacted sexual fantasies with their partner. Sexual novelty consistently predicted sexual fantasy disclosure likelihood. This may be due to an increased likelihood that fantasies will contain acts already present in sexual interactions (due to prior sexual exploration). Higher disclosure (prompted by sexual novelty) may then increase sexual satisfaction, which would explain the relationship between sexual novelty and sexual satisfaction noted by Frederick and colleagues (2017).

Several other relationship characteristics were also significantly predictive of also sexual fantasy disclosure likelihood. Longer relationship duration and greater passion predicted increased disclosure likelihood. Lower relationship satisfaction, orgasmic satisfaction, sexual idealisation, and commitment predicted higher disclosure likelihood. However, each of these predictors only emerged as a significant predictor in one model only. These findings are partially in line with Chapter 4, with both studies reporting lower relationship satisfaction predicting increased disclosure likelihood. Additionally, in both studies, higher passion predicted a higher likelihood of disclosing some sexual fantasies. Orgasmic satisfaction (but not orgasmic consistency) emerged as a significant predictor in this sample, however, in Chapter 4 the opposite was true, suggesting a complex interaction between experiences of orgasm and experiences of sexual fantasy disclosure. Additionally, the extent to which an individual prioritised meeting the sexual needs of their partner did not significantly predict the likelihood of disclosing any of the sexual fantasy scenarios (in contrast to Chapter 4, where need prioritisation positively predicted disclosure). This may be due to methodological differences. For example, in Chapter 4 items allowed for subjective interpretation, which may have allowed participants to reflect on an experienced fantasy. In contrast, in this chapter, participants were provided with described fantasies, which may not be representative of their own fantasies. It may be that these variations are reflective of the described scenarios not representing a participant's fantasies or differing to the imagined fantasies in Chapter 4 (such as varying in extremity). However, due to the limited insights into imagined content in Chapter 4, this is outside the scope of this thesis.

In this research (but not Chapter 4), higher commitment and orgasmic satisfaction predicted lower disclosure likelihood. Those who were dissatisfied may engage in the disclose of sexual fantasies as a means of changing the sexual script in the relationship to increase experienced pleasure. This was highlighted in Chapter 3, where a small number of

participants indicated that a primary motivation for disclosing their sexual fantasy was dissatisfaction and as a means of expressing sexual desires and preferences to partners through fantasies that represent these. However, Chapter 5 highlighted that disclosure may be hindered by perceived relational threat stemming from disclosure. Where commitment is low, concerns around relationship dissolution may be lowered, which may in turn promote disclosure.

For other predictors, the findings of Chapter 4 were mixed in terms of whether individual relationship factors (relationship duration and sexual idealisation) positively or negatively predicted disclosure. In this study, higher relationship duration and lower sexual need prioritisation predicted higher disclosure likelihood. Considering the methodological improvements made in this chapter, it may be suggested that the initial variations in predictive abilities was due to variations in sexual fantasy content. This could be further explored by manipulating the characteristics of scenarios presented to participants.

In Chapter 4, items used to assess sexual fantasy disclosure allowed for a much broader scope of potentially imagined content. In this study, scenarios were highly specific about the acts present in the fantasy, minimising fantasy content. Variations in the predictive ability between this research and Chapter 4 suggests a complex relationship between fantasy characteristics and relationship traits. Further research is required to understand how the interaction between these characteristics can influence disclosure.

It is also worth noting that high likelihoods of disclosure were recorded across all fantasies, suggesting that participants may perceive the described fantasies as posing little relational threat. This may be due to low deviation from typical sexual behaviour, perceived partner approval of fantasy, fantasies being unrepresentative of their sexual identity, or as difficult to enact. The influence of these fantasy characteristics was discussed in Chapter 5. Fantasy

characteristics may determine an initial level of disclosure rewards/costs for each fantasy. Relational characteristics may then influence this level, for example by reducing perceived relational threat or influencing whether enactment is seen as likely. High sexual novelty may reduce the perceived deviation of the fantasy from typical sex (through a greater range of acts in sexual relationships), the establishment of positive social norms towards sexual experimentation and sexual self-disclosure norms. Further research is required to investigate the interplay between factors at the level of the fantasy and the relationship, for example by comparing the predictive ability of relational characteristics between taboo and societally accepted fantasies.

Though it is worth noting that as the outcome variable was hypothetical disclosure likelihood, the findings may not predict real-world disclosures. This would however provide an interesting avenue for future research, such as using diary studies. This research would be of great benefit through testing the findings in a real-world context. This would also allow for the potential to account for differences in the frequency at which fantasies are experienced and whether it is desirable to enact/disclose fantasies.

In conclusion, this study provided further support for the role that an individual's relationship plays in decisions of whether to disclose (or not disclose) a sexual fantasy. As in Chapter 4, sexual novelty emerged as the most consistent predictor of sexual fantasy disclosure likelihood. Several other relationship characteristics (relationship duration, relationship satisfaction, orgasmic satisfaction, sexual idealisation, commitment, and passion) also predicted disclosure. Though these factors were less consistent and varied according to the type of fantasy. Further research is required to investigate how these traits influence perceptions of disclosure costs and rewards. Additionally, research should examine the predictive ability of relationship characteristics when fantasies are perceived as extreme, disapproved of by society (or partners), as leading to relational threat or as deviating from

existing sexual scripts. The findings of this research have implications for sex and relationship therapy, by suggesting that a means of increasing the disclosure of sexual fantasies (where this is desirable) may be through the introduction of sexual novelty to the relationship.

Chapter 7: General discussion

7.1: Overview of thesis objectives

Research which explores the underpinnings and predictors of the disclosure of sexual fantasies to date is sparse. The disclosure of sexual fantasies may be associated with both beneficial and detrimental outcomes for the individual, but there is limited understanding behind why individuals may choose to disclose or not disclose some or none of their sexual fantasies. Research in this area has largely opted to focus on the content of sexual fantasies (e.g., Lehmiller, 2018), predictors of sexual fantasies (Ahrold, 2011) or the benefits of sexual fantasies and disclosure (e.g., Birnbaum et al., 2019). Additionally, a substantial proportion of this research is available only in the form of popular science books (e.g., Lehmiller, 2018) or unpublished theses (e.g., Anderson, 2011). Through the course of this PhD programme, this research aimed to address this gap in the literature by examining the factors that influence whether sexual fantasies are disclosed or not.

A systematic review (Chapter 2/ Appendix 1) was first conducted to examine which factors influence sexual self-disclosure more generally. Three hundred and twelve articles met inclusion criteria and predominantly focused on sexual self-disclosure and sexual health disclosures. Chapter 2 highlighted the role of several factors including relationship characteristics (e.g., relationship duration, trust, love) and social factors (e.g., stigma, social norms), and the role that these played on the perceived disclosure outcomes, which in turn influenced disclosure likelihood.

The factors identified in the reviews formed the basis from which the disclosure of sexual fantasies was examined in Chapter 3. Participants were asked to reflect on a sexual fantasy they had and why they had decided to either disclose or not disclose the fantasy. Participant responses were grouped into five overarching categories (using descriptive content analysis).

Briefly, these were: sexual gratification, relationship motivated, partner traits or characteristics, communication patterns and specific fantasy content. The remaining studies in this thesis focused on examining how relationship characteristics and specific fantasy content characteristics influenced sexual fantasy disclosure.

Chapter 4 examined whether relationship characteristics can predict sexual fantasy disclosure likelihood. To the author's knowledge, this was the first study to systematically examine predictors of sexual fantasy disclosure. Participants in established relationships were asked to complete measures assessing various relationship characteristics and to indicate their likelihood of disclosing sexual fantasies across several categories. Through multiple regression analyses, sexual fantasy disclosure was found to be significantly predicted by: relationship duration, intimacy, passion, sexual idealisation, sexual novelty, sexual need prioritisation, relationship satisfaction and orgasmic satisfaction. However, the predictive ability (and significance) of these factors varied dependent on the content of sexual fantasies that participants were asked to consider. This research furthered the findings of chapter 3 by providing support for an interaction between fantasy characteristics and relationship characteristics.

Chapter 5 examined how fantasy content influenced whether sexual fantasies were likely to be disclosed or not. To accomplish this, seven scenarios outlining hypothetical sexual fantasies were selected through a pilot study. In the main study, participants were asked to rate the characteristics of each of these scenarios and how likely they would be to disclose the outlined fantasy. This data was then analysed through multiple regression and multi-level linear modelling. Sexual fantasy disclosure likelihood was significantly predicted by: perceived relational threat stemming from disclosure, perceived societal approval, ease of enactment, whether the fantasy contained elements of their sexual identity, and perceived partner approval. Interestingly, when relational threat was utilised as the outcome variable, it

was significantly predicted by: perceived societal approval, ease of enactment, whether the fantasy contained elements of their sexual identity, and perceived partner approval. This study further provided support for the role of fantasy characteristics in sexual fantasy disclosure.

In Chapter 6, these scenarios were utilised to examine whether relationship characteristics could predict sexual fantasy disclosure when fantasy content was controlled. This expanded upon the findings of Chapter 4, whilst addressing the methodological limitations. Sexual fantasy disclosure was significantly predicted by: sexual novelty, relationship duration, commitment, passion, relationship satisfaction, orgasmic satisfaction, and sexual idealisation. This provided further support for the role of relationship characteristics and for an interaction between fantasy and relationship characteristics.

7.2: Role of relationship characteristics

The finding that the characteristics of one's intimate relationship influences whether an individual engages in self-disclosure was consistent across both the systematic reviews and the four studies conducted as part of this PhD programme. In this section, these findings will be discussed first independently and then in relation to theories of self-disclosure. This discussion will focus on social penetration theory (SPT: Altman & Taylor, 1973) and communication privacy management theory (CPM: Petronio, 2002).

The consistent finding across the research that the duration of the relationship is influential over whether disclosure occurs, was first highlighted in the systematic review in Chapter 2. A large volume of research (Byers & Demmons, 1999; Cleary et al., 2002; Dodge et al., 2008; Humphreys & Newby, 2007; Lehmiller et al., 2014; van de Bongardt & de Graaf, 2020) highlighted that a longer relationship duration was associated with greater engagement in sexual self-disclosure, though several studies (Antill & Cotton, 1987; Burke et al., 1976;

Dellucci et al., 2021; Horne & Johnson, 2018; Reedy et al., 1981) also noted that higher relationship durations were predictive of lower engagement in non-sexual self-disclosures.

When participants were asked to describe their reasons for either disclosing or not disclosing their sexual fantasy (Chapter 3), several participants stated that their reasons for not disclosing stemmed from being in a new relationship that they felt was not ready for the disclosure of sexual fantasies for various reasons, such as that it had not come up in conversation, or sufficient levels of trust had not yet been established. To examine whether relationship duration could predict whether sexual fantasies are disclosed, relationship duration was included in the regression models for Chapters 4 and 6. However, these findings were inconsistent. In the research discussed in Chapter 4, participants were asked to consider that they had a sexual fantasy in a certain category (e.g., involving multiple partners) and how likely they would be to disclose fantasies involving those acts. Participants were also asked whether they had ever disclosed a sexual fantasy in the relationship, whether there were any fantasies they had that they had not disclosed and how likely they would be to disclose these fantasies in the future. In this research, relationship duration both positively (having ever disclosed a sexual fantasy) and negatively (likelihood of ever disclosing a currently undisclosed fantasy; likelihood of disclosing a hypothetical fantasy involving elements of power, control or rough sex) predicted sexual fantasy disclosure likelihood. Though for many of the models, relationship duration did not significantly predict sexual fantasy disclosure. Accounting for the potential differences in terms of fantasy content, a follow-up study was conducted with fantasy content controlled through the use of scenarios. In this research, relationship duration positively predicted whether participants were likely to disclose a fantasy focusing on partner-sharing and non-monogamy, Though relationship duration did not predict the remaining six fantasies. Overall, the findings of the research conducted as part of this PhD programme provides partial support both sets of findings that emerged from the

systematic review discussed in Chapter 2 (that self-disclosure is associated with both higher and lower relationship duration). These findings may be examined through the lens of CPM (Petronio, 2002), SPT (Altman & Taylor, 1973) and sexual script theory (Gagnon & Simon, 1973). Both CPM and SPT (and the assumptions these theories make around disclosure processes) were described in Chapter 1.6.

SPT (Altman & Taylor, 1973) proposed that the development of intimacy in the relationship (which may develop through self-disclosure) allows for the disclosure of increasingly personal information. This theory is partially supported by the findings of the research conducted as part of this PhD programme. Firstly, this finding aligns with responses of several participants in the first conducted study (Chapter 3), in which participants expressed that their reasons for not disclosing stemmed from it being too early in the relationship. SPT would argue that this is due to these participants during these early stages falling in the "orientation stage", whereby low levels of intimacy and a lack of prior disclosure experiences does not allow individuals to predict how their partner would be likely to disclose (Littlejohn & Foss, 2010). SPT was further supported in Chapter 4, where longer relationship duration predicted an increased likelihood that participants had previously disclosed a sexual fantasy. Additionally, in Chapter 6, relationship duration positively predicted the likelihood of disclosure of a fantasy involving partner-sharing and nonmonogamy. It may be argued that as the relationship progressed, the development of intimacy between partners allowed partners to disclose information of an increasingly personal and intimate nature. This would explain higher likelihoods of having ever disclosed amongst those in longer relationships. However, a key assumption of SPT is that progression through these stages and an increase in self-disclosure is the result of the development of intimacy between partners. This was supported by the research included in the systematic review, which noted positive associations between intimacy and self-disclosure of various topics

(Derlega et al., 2008; Knobloch & Carpenter-Theune, 2004; Tolstedt & Stokes, 1984). Similarly, engagement in self-disclosures relating to sexual health increased as relational closeness increased (Arima et al., 2014; Derlega et al., 2008; Groves et al., 2012; Visser et al., 2008; Yan et al., 2019).

However, this was not completely supported in this research, as whilst in Chapter 3 some participants described that their decision to disclose stemmed from relational closeness, when intimacy was included as a predictor in Chapter 4, intimacy only positively predicted two disclosure outcome variables (the likelihood of disclosing a sexual fantasy in the future and having ever disclosed a sexual fantasy). In Chapter 4 it was also found that relationship duration sometimes negatively predicted disclosure (likelihood of ever disclosing a currently undisclosed fantasy and the likelihood of disclosing a hypothetical fantasy involving elements of power, control or rough sex). For other participants, disclosure occurred early in the relationship as a means by which to screen for sexual compatibility between themselves and their partner. These findings appear to contradict SPT and instead suggest that established sexual scripts in the relationship (which may become more rigid as the relationship develops) may be drawn upon when deciding whether to engage in self-disclosures of a sexual nature, including those relating to sexual fantasies.

Sexual script theory (Gagnon & Simon, 1973) argues that sexual behaviour is guided by sexual scripts. Such scripts are sets of social norms developed through cultural and relational interaction. MacNeil and Byers (2005) argued that through sexual self-disclosure (in this case the disclosure of sexual likes and dislikes) sexual scripts are influenced so that shared sexual scripts between partners are mutually pleasurable (by which liked acts are performed and disliked acts are not). Over time, these scripts may become more firmly established. Such processes may also influence whether individuals engage in the disclosure of sexual self-disclosure, by informing them of how their partner is likely to respond to sexual fantasy

disclosures. Where fantasies contain content that is not present in relationally formed sexual scripts, this may lead to perceptions that disclosure would result in negative consequences. For example, when participants were asked to describe their reasons for either disclosing or not disclosing sexual fantasies (Chapter 3), a prominent reason for not disclosing was the beliefs that a partner would not share the fantasy or would disapprove. This may link to CPM (Petronio, 2002), which argues that when determining whether to disclose information the discloser must first weigh up the rewards and costs of disclosure. Where perceived rewards outweigh the costs of disclosure, the individual is more likely to disclose the information. However, when costs are greater than rewards the information remains undisclosed. Sexual scripts may play a key role in shaping perceptions of the likely costs and rewards of disclosure. Where fantasy content is already present in sexual interactions, this may reduce fears of negative consequences such as partner disapproval.

SPT (Altman & Taylor, 1973) proposed a linear process to relationship formation, whereby as the relationship progresses intimacy increases which in turn increases self-disclosures between partners. This approach ignores several other factors which have been highlighted in the research as influential to decisions of whether to disclose (or not disclose) personal information. The inclusion of these characteristics suggests a more complex influence of one's relationship than can be explained through SPT. Instead, these findings are best examined through the lens of CPM (Petronio, 2002).

The systematic review (Chapter 2 and Appendix 1) highlighted the influence that the level of commitment in the relationship may exert. In the review, sexual self-disclosure was positively influenced by greater commitment (Byers & Demmons, 1999; Denes, 2012; Lehmiller et al., 2014; Herold & Way, 1988; Humphreys & Newby, 2007). Similar findings were also consistent in research examining the disclosure of sexual health information (Alvarez & Villarruel, 2013; Alvarez & Villaruel, 2015; Conroy & Wong, 2015; Scorgie et

al., 2021; Serovich et al., 2017), the disclosure of diagnosis of sexually transmitted infection (Marhefka et al., 2012; Mohammed et al., 2010; Myers et al., 2016; Myers et al., 2020; Pfeiffer et al., 2016; Pines et al., 2015) and the diagnosis of HIV positive serostatus (Braun et al., 2018; Brittain et al., 2018; Damian et al., 2019; Hampanda & Rael, 2018; Hojilla et al., 2018; Kalichman et al., 2020; Li et al., 2013; Marcus et al., 2017; Mbichila et al., 2018). The findings of the research conducted as part of this research partially support the finding that high levels of commitment promote engagement in self-disclosure. When participants were asked to describe their reasons for either disclosing or not disclosing, some participants highlighted that the nature of their relationship (steady and committed) promoted sexual fantasy disclosure. In some cases, participants reported that they felt that their partner was entitled to know about their sexual fantasies due to their relational label. Based on this finding and the previous research, multiple regression analyses were performed to examine the predictive ability of relationship characteristics (including commitment) on sexual fantasy disclosure and disclosure likelihood. However, in Chapter 4, commitment did not significantly predict whether participants had previously disclosed, if they had any undisclosed fantasies or their likelihood of disclosing sexual fantasies in the future. In Chapter 6, commitment only significantly predicted disclosure likelihood for one fantasy (power, control and rough sex) and the directionality of this relationship was negative: higher commitment was indicative of lower disclosure likelihoods. This contradicts much of the research cited in the systematic reviews (Chapter 2/ Appendix 1). One potential explanation is that there may be an interplay between commitment, sexual fantasy disclosure and relational threat. In general, engagement in self-disclosure (including the disclosure of sexual fantasies) may increase as commitment between partners develops (which would explain the research highlighted in the systematic review and the findings of study 1). However, commitment may also increase fears that disclosure will lead to relational threat- where

fantasies conform to established sexual scripts disclosure may be prompted due to low fears of relational threat. In contrast, fantasies that violate sexual scripts may lead to greater fears of relational threat, which may in turn reduce disclosure likelihood.

Such inconsistencies were also observed for trust. Past research (Arima et al., 2012; Bhatia et al., 2017; Bird et al., 2017; Broekema et al., 2017; Derlega et al., 2008; Hino et al., 2018; Scorgie et al., 2021) noted higher rates of self-disclosure where trust was high. Similarly, when participants were asked why they had chosen to disclose their sexual fantasy (Chapter 3), they listed high levels of trust as one of the relational traits that led to their disclosure. Though when the predictive ability of trust was examined, trust did not significantly predict any of the outcome variables utilised to assess sexual fantasy disclosure or future fantasy disclosure likelihood. This may, in part, be due to high correlations with other variables in the model. Further research is required to investigate the relationship between trust and sexual fantasy disclosure.

Satisfaction in a relationship was also highlighted as influential in research relating to sexual and non-sexual self-disclosure (Antill & Cotton, 1987; Byers & Demmons, 1999; Horne & Johnson, 2018; Mark & Jozkowski, 2013; Valvano et al., 2018; Widman et al., 2006; Yadav & Choudhury, 2019). This research includes both sexual satisfaction and romantic satisfaction. Denes (2012; 2014; 2017; 2018; 2021) highlighted an increase in the breadth of topics and positivity of topics disclosed following sexual experiences in which orgasm was experienced. Discussing/disclosing sexual fantasies has previously been associated with higher sexual satisfaction (Anderson, 2011; Frederick et al., 2017). Accounting for this, when selecting predictor variables for the multiple regression model utilised in Chapter 4, four measures were included: sexual satisfaction, relationship satisfaction, orgasmic satisfaction, and orgasmic consistency.

In contrast to previous research (e.g., Antill & Cotton, 1987), relationship satisfaction negatively predicted sexual fantasy disclosure across both studies (Chapters 4/6). These findings suggest that as an individual becomes more satisfied in their relationship, they become less likely to disclose certain sexual fantasies. Additionally, a small number of participants in Chapter 3 reported disclosing due to dissatisfaction or to initiate relational changes. One suggestion may be that for those who are highly dissatisfied, fears of relational threat stemming from disclosure may be reduced (due to being unhappy in the relationship). For these participants disclosure rewards (e.g., enactment or the potential to bring around change in the relationship) may outweigh any costs associated with disclosure (due to low worries of relational threat stemming from unhappiness in the relationship).

Building upon the research of Amanda Denes (e.g., 2012), this thesis aimed to examine the relationship between orgasmic satisfaction, orgasmic consistency, and sexual fantasy disclosure. Mixed findings were identified for these two factors. For orgasmic consistency, higher orgasmic satisfaction was predictive of a higher disclosure likelihood in Chapter 4. However, in Chapter 6, this relationship was non-significant. In contrast, orgasmic satisfaction did not significantly predict disclosure likelihood in Chapter 4, but negatively predicted disclosure likelihood in Chapter 6. These findings are surprising considering that experiencing orgasms has been associated with more positive and frequent sexual self-disclosures (Denes, 2012). Further research is required to examine the relationship between experiences of orgasm and sexual fantasy disclosure. One possibility may be that previous associations may be due to passion, which was highlighted as a significant positive predictor in both Chapters 4 and 6.

Sexual idealisation did significantly predict sexual fantasy disclosure, with some interesting trends. In Chapter 4, sexual idealisation both positively (the likelihood of disclosing a fantasy of unspecified content, the likelihood of disclosing a fantasy involving sexual novelty, and

the likelihood of having a fantasy that was currently undisclosed) and negatively (the likelihood of ever disclosing the currently undisclosed fantasy) predicted the likelihood of disclosing hypothetical sexual fantasies. Idealising one's partner may reduce anticipations that said partner may respond negatively. This may lead the individual to evaluate the rewards and costs of disclosing and to determine that the rewards outweigh the costs.

Alternatively, a partner responding positively may lead to the development of idealised perceptions may develop. However, sexual idealisation can also reduce disclosure likelihood. This may be influenced by the fantasy content, for example fantasies violating sexual scripts may not be disclosed due to the threat of relational conflict. In this case, sexual idealisation may enhance fears of conflict or the perceived relational threat. In Chapter 5, perceived relational threat was the strongest negative predictor of sexual fantasy disclosure.

In Chapters 4 and 6, higher sexual novelty predicted higher sexual fantasy disclosures and hypothetical future likelihoods of disclosing. Considering that prior to this thesis, sexual novelty had yet to be examined in relation to self-disclosure, this finding provides an exciting opportunity to examine whether sexual novelty can predict other forms of disclosure. Further research is needed to understand the mechanisms by which this relationship operates. One possibility is high levels of sexual novelty may be the result of high engagement in sexual self-disclosures previously in the relationship. This could increase disclosure by enabling these individuals to reflect on previous disclosure experiences. Additionally, this may be through the expansion of sexual scripts through these positive interactions (and subsequent enactment). Considering that deviation from existing sexual behaviour was a significant negative predictor in Chapter 5, the expansion of sexual acts present both in behaviour and sexual scripts may enable disclosure through providing a wider range of sexual behaviours to relate fantasies to. This may then increase comfort discussing topics of a sexual nature, which was highlighted as a communication-related barrier to sexual fantasy disclosure in

fantasies acts as a method to introduce additional sexual novelty to the relationship, such as through the expansion of sexual scripts. Indeed, Rosa and Colleagues (2019) reported positive associations between greater numbers of sexual fantasies and higher desires for sexual novelty, willingness to initiate sexual novelty and willingness to comply with sexual novelty. The expansion of these scripts and positive disclosure experiences may further promote disclosure through the development of relational norms which encourage sexual fantasy disclosure. In fact, when participants were asked (in chapter 3) for their reasons for disclosing their sexual fantasy, several highlighted that disclosure was reciprocal or that they disclosed due to existing relational norms surrounding sexual communication. The ability to associate fantasies with existing sexual behaviour or the presence of pro-communicational norms may greatly reduce anticipated disclosure costs, which in turn may prompt disclosure. Overall, the research conducted as part of this thesis highlighted the large influence that an individual's relationship (and the characteristics of these relationships) can have on disclosure behaviour. This finding was consistent throughout the thesis. Several relational traits (such as sexual novelty, relationship satisfaction, or sexual idealisation) were demonstrated to predict the disclosure of some sexual fantasies. This area provides an

Chapter 3. In this regard, this relationship may be cyclical whereby the disclosure of sexual

7.3: Role of fantasy characteristics

disclosure more generally.

SPT (Altman & Taylor, 1973) advocates for a linear pattern towards disclosure in relationships, whereby as the relationship develops and intimacy increases, the number and depth of topics which the individual is willing to disclose increases. This would suggest that as the relationship develops, there should come a time at which no topics are "off-limits" to disclose. However, in practice this does not seem to be the case. From the research conducted

exciting direction for future research focusing on not only sexual fantasy disclosure but self-

during this PhD programme, there does not appear to be a set point in relationships at which an individual can simply disclose sexual fantasies. In fact, this research appears to suggest a more complex relationship with relationship duration both positively and negatively predicting sexual fantasy disclosure (dependent on the topic) and with intimacy only positively predicting disclosure for a small number of measures utilised (Chapter 4). Indeed, whilst some participants cited the relationship being "too new" to disclose their sexual fantasy, the ability to disclose appears largely dependent on the content of the sexual fantasy. This was also highlighted in participant responses, with some participants describing a process by which for more "extreme/taboo" fantasies, they slowly reveal aspects of their fantasy to gauge how their partner is likely to respond. However, for other participants this was not necessary with partners opting to reveal the complete fantasy, at times due to perceptions that their fantasy was societally accepted.

This is not a novel finding, and indeed research has previously noted variations in the topics which partners feel they are able to discuss with their partner versus those that are not discussed. It appears that rather than disclosure following a linear pattern with eventually all topics being able to be disclosed, that each individual fantasy has a base level of costs. For disclosure to occur, either these costs must be reduced or alternatively rewards must be introduced to outweigh costs. This is demonstrated by Anderson and colleagues (2011) and the wider research discussed in Chapter 2, who discussed the tendency in participants to focus their disclosures on those viewed as lower risk (such as oral sex, safe sex or sexual likes) rather than high-risk topics (e.g., anal sex, sexual dislikes or past sexual experiences). In addition, several topics were strictly avoided due to the potential of these topics to induce conflict (Nichols, 2012). This may also stem from fears that disclosure may result in experiencing judgement (e.g., Anderson et al., 2011) or stigma (e.g., Benoit & Koken, 2012). Similarly, HIV positive participants who reported non-disclosure did so predominantly due to

the perceived outcomes of said disclosures, including experiencing stigma (Anglewicz & Chintsanya, 2011), relational conflict or dissolution (Maeri et al., 2016), or social consequences (Bird et al., 2017). Though it is worth noting that HIV disclosure (and its various predictors) are much more complex than those discussed in this general discussion. For more additional detail about the predictors of HIV disclosure, please see Appendix 1. The discussed research promotes the idea of a cost set point varying by disclosure topic.

In Chapter 3, participants were asked to describe their reasons for either disclosing or not disclosing a sexual fantasy. A prominent category of responses that emerged from responses was specific fantasy content reasons. These responses accounted for 18.9% of the reasons for disclosing a sexual fantasy and 28.09% of the reasons for not disclosing a sexual fantasy. This highlights that an individual's fantasy can play a large role in disclosure decisions, particularly for those who had not disclosed. This is best illustrated by one participant who wrote:

"Some of them I have, and some I will take to the grave because they are socially unacceptable and/or will offend my partner."

This highlights how fantasies can play a key role in disclosure decisions and further suggests the presence of an individual level of costs for each individual fantasy. Furthering this, Chapter 4 examined whether specific fantasy characteristics can predict disclosure.

For some participants, fantasies represented elements of their sexual identity. This was further demonstrated in Chapter 5, where the extent to which a fantasy was perceived as representing elements of sexual identity positivity predicted greater disclosure likelihoods. For these participants, the rewards of disclosing may not be limited to sexual exploration/enactment or relational benefits, but also may include revealing elements of sexual identity. When asked to describe their disclosure reasoning (Chapter 3), participants

described that disclosure for identity-related fantasies was highly important (potentially even being utilised to screen for sexual compatibility) or that non-disclosure led to an inner conflict that ultimately led to disclosure. This finding may be due to having previously disclosed similar fantasies or due to the presence of similar acts in existing sexual behaviour. Though interestingly, the extent to which fantasies deviated from typical sexual interactions did not significantly predict disclosure likelihood. This is surprising considering that in Chapter 3, participants described that disclosure was promoted where the fantasy was similar to existing sexual interactions with partners.

Another characteristic at the level of the fantasy that is influential to disclosure decisions is the extent to which participants indicated that they felt that the fantasy would be approved of in society. Significantly higher disclosure likelihoods were provided by participants who felt that society would approve of the fantasy. The extent to which partners were perceived as being likely to approve of the fantasy was also examined in relation to sexual fantasy disclosure likelihood. Interestingly, whilst partner approval was not significantly predictive in any individual multiple regression analysis, it was a significant predictor in the multi-level model. These findings are consistent with the findings discussed in Chapter 3, where participants reported avoiding disclosure due to perceptions that their partner would disapprove or think of the fantasy in a negative manner. Other participants cited that they engaged in sexual fantasy disclosure as their fantasy was not extreme or frowned upon by society. Where perceived societal disapproval is high, this may increase the likelihood of disclosure resulting in negative responses from partners or wider social implications. Similar findings were echoed for other forms of self-disclosure, including sexual self-disclosure (Anderson et al., 2011) and HIV disclosure (Maeri et al., 2016). In this research, participants indicated that the prospect of disclosing led to fears of experiencing stigma, relationship conflict or wider social costs. An interesting avenue for future research would be to examine

whether these perceptions are accurate or at least may in-part be due to internalised stigma relating to sexual behaviour. Research should also examine how these perceptions are developed and why participants may feel that their partner/society would disapprove.

Sexual fantasy disclosure likelihood was positively predicted by the perceived ease of enactment for the fantasy described in scenarios. Participants who felt that the fantasy would be easy to enact were more likely to be willing to disclose. Similarly, a primary motivator for disclosing was the desire for enactment. This may act as a disclosure reward in many cases (though enactment was not always desirable, and this is reflected in participant responses), which may help to counterbalance some of the potential disclosure costs. However, where enactment is not possible (or not desirable), rewards are reduced. This may influence the balance of disclosure costs and rewards so that costs outweigh potential rewards.

When examining the predictors of sexual fantasy disclosure, the most consistent predictor was the extent to which disclosure was seen to pose a threat to the relationship. As the perceived threat increased, disclosure likelihood was reduced. This is consistent with research on other forms of self-disclosure (e.g., HIV disclosure, sexual self-disclosure) which argued that engagement in self-disclosure was lower when the disclosure topic was seen as posing a threat to the relationship (Anderson et al., 2011). Relational threat may be influenced by several factors linking to the fantasy. For example, participants reported that they felt that disclosure was less likely to threaten their relationship where the fantasy was similar to existing patterns of sexual behaviour, as less taboo or was shared by their partner. This is an important finding considering that these factors were also identified as significant predictors of disclosure. Considering CPM (Petronio, 2002), this may suggest that perceived relational threat from disclosure may be representative of the disclosure costs for that specific fantasy, with higher relational threat being indicative of greater costs. Variations in specific fantasy content traits (e.g., deviation from typical sexual interactions, societal approval, similarity to

partner fantasies) may influence both the level of costs associated with disclosing and the perceived threat from disclosure.

7.3: Interaction between fantasy and relationship characteristics

There is a great deal of support relating to the role that relationship characteristics and fantasy characteristics play in whether a sexual fantasy is disclosed or not disclosed. Considering disclosure rates varied by fantasy type (as did the significant predictors), there is strong support for an interaction between fantasy and relationship factors. From the lens of CPM (Petronio, 2002), this can be explained through the determination of disclosure costs and rewards.

Variant disclosure rates, the presence of both disclosed and undisclosed fantasies (Chapter 4) and the influence of fantasy characteristics on disclosure (Chapter 5) support the idea that there is an individual level of costs which is determined for each fantasy. These costs can be influenced by factors, such as whether the fantasy is perceived as accepted (by society and partners), deviation from existing sexual behaviour, the perceived extremity and several other fantasy characteristics which were highlighted in Chapter 3 but not examined as part of this PhD thesis. Rewards can also be influenced by whether the fantasy is perceived as able to be enacted (where desirable, enactment serves as the predominant reward which stands to be gained from sexual fantasy disclosure). It is proposed that these fantasy characteristics interact to influence the initial baseline of disclosure costs and rewards.

It is then proposed that relational characteristics influence the weighting of potential disclosure costs and rewards. For example, high levels of relationship satisfaction may enhance fears of relational threat, which in turn reduces the disclosure likelihood.

Additionally, sexual novelty may influence both costs and rewards. Costs (such as deviation from typical sexual interactions/partner approval/whether fantasies are shared by partners)

may be reduced in relationships characterised by high sexual novelty due to the tendency for these relationships to be characterised by high levels of sexual exploration. Partners may also have a larger number of positive disclosure experiences to draw upon and hence disclosure may be promoted by reflecting on these experiences when considering how a partner is likely to respond to the disclosure.

This supports the idea of a variable level of disclosure costs and rewards for each individual fantasy, which are then influenced by an individual's relationship. CPM (Petronio, 2002) would argue that for disclosure to occur, the final rewards must outweigh the costs. This would explain variable disclosure rates dependent on the content of the fantasy. Considering that the predictive ability of both fantasy characteristics and relationship characteristics varied by fantasy type, this suggests a complex interaction between the two sets of variables. Further research is required to examine this interaction in greater depth.

7.4: Real world implications

This thesis expands upon the limited existing knowledge of sexual fantasy disclosure. Prior to the conducted research, much of the relevant research was limited to an unpublished doctoral thesis (Anderson, 2011), which asked participants to consider the rewards and costs of disclosing. This thesis highlighted the role that an individual's relationship and fantasies play in disclosure likelihood. The author also argues for an individual level of costs/rewards for each fantasy based upon its characteristics. This balance of costs/rewards is then influenced by an individual's relationship with their partner.

These findings have several wider implications, including for sex and relationship therapy. Engaging with sexual fantasies has previously been linked to several benefits for both the individual and their relationship (for a review, please see Chapter 1.4).

It may be argued that an intervention that promotes the communication of sexual fantasies between partners may have wider benefits. This would be particularly beneficial considering that several participants described disclosing due to desires to learn about their partner preferences/desires, to promote intimacy in their relationship, to bond with their partner, or to bring about positive change in the relationship. Such interventions could focus on promoting relational traits (e.g., sexual novelty) or focusing on fantasy characteristics (e.g., focusing on perceived social norms). However, it is worth noting that the disclosure of sexual fantasies is not always desirable or perceived as a positive experience (Cado & Leitenberg, 1990; Renaud & Byers, 2001). Where fantasies are not shared this may result in conflict or relational tension. Therefore, the development of therapeutic interviews should acknowledge this potential and take measures to reduce potential risks.

One avenue which could be explored to mitigate risks is using sexual fantasy indexes (such as those utilised in previous research including Joyal et al., 2015). Both partners could be asked to complete the index independently for fantasies they have experienced and would like to enact. These could be compared with only mutually shared fantasies communicated to the partners. Sessions could then be utilised to support partners to discuss these mutual sexual fantasies and whether they would be interested in enacting or partially enacting them. This would provide an avenue by which to increase sexual novelty and relational benefits with a minimalised risk of experiencing disclosure costs. In Chapter 3, some participants discussed how they had utilised a website which allowed for a similar process to occur and emailed both partners the shared fantasies. This could also be utilised in the sessions or as prior work with the shared fantasies discussed in the session.

Several participants described communicational barriers to disclosure, such as embarrassment or discomfort in disclosing sexual fantasies. Embarrassment and feeling uncomfortable was reported by participants as reasons for avoiding the disclosure of sexually transmitted

information (Arima et al., 2012; Harrison et al., 1997; Keller et al., 2000), not engaging in sexual self-disclosure (Herbernick et al., 2019) and avoiding the disclosure of sexual dreams (Ijam & Miller, 2000). Dependent on the topic of disclosure, these communicational barriers could have major implications, such as through the transmission of sexually transmitted infections, the inability to communicate sexual pain or sexual dissatisfaction. Therefore, there is a real need for enhanced sex education to promote the skills necessary to communicate about sexual topics. This could be developed through educational institutions or through communication with family members. Whitaker and colleagues (1999) suggested that through sexuality discussions with mothers, the ability to engage in sexual self-disclosure increased. Whilst these enhanced communicational abilities would have benefits in the form of promoting the disclosure of sexual fantasies (where enactment is perceived as a positive experience), they also have wider implications in that such skills may be useful for expressing physical pain, consent or non-consent, or sexual health risks to partners.

7.5: Limitations and directions for future research.

One of the main challenges faced during the PhD programme was the measurement of sexual fantasy disclosure. In Chapter 3, participants were asked to consider a favourite/recent sexual fantasy and to then indicate whether they had disclosed the fantasy or not, which had its limitations. Firstly, it was not possible to ascertain whether the reflected upon fantasy was prominent or merely recent. This limited the insights gained as recency provides little insight into engagement with the fantasy or the frequency at which it is experienced. Although participants were asked to categorise their fantasy, it was not possible to identify the exact fantasy content (and thus the characteristics of the fantasy). To address this, Chapter 4 asked participants about their previous disclosures and their hypothetical likelihood of disclosing a fantasy in a given category, for example multiple partners. Whilst this approach improved upon measures discussed in Chapter 3, it had its limitations in that the fantasy measures were

not specific enough and there was a high likelihood of subjective interpretation of the measures. The imagined fantasy may vary in terms of its characteristics (e.g., extremity) and may contain elements of other categories. For example, cuckolding fantasies would meet the criteria for several categories, such as "multiple partners", "partner-sharing and nonmonogamy" and "power, control and rough sex". Chapter 5 reduced these differences in imagined fantasy content through the development and utilisation of scenarios outlining hypothetical fantasies. This allowed for an examination of sexual fantasy disclosure likelihood (albeit hypothetical), but with all partners responding to the same scenarios. Whilst the scenarios ensured all participants were reflecting upon the same fantasy content, several considerations should be made. Firstly, the scenarios were piloted in a small sample of predominantly heterosexual cis-gender women, undergraduate psychology students. Whilst fantasies were selected based on those that demonstrated the greatest variance in characteristics and disclosure likelihood, the final selection may have differed had they been piloted in a different sample. For example, fantasy content can differ dependent on culture (Wu et al., 2016), age (Kolodziejczak et al., 2019), sex (Bogaert et al., 2015; Joyal & Carpentier, 2017; Leitenberg & Henning, 1995; Lehmiller, 2018) and sexual orientation (Lindley et al., 2020; Nimbi et al., 2020a; Yule et al., 2017). content by Indeed, in Chapters 5 and 6, indicated disclosure rates were exceptionally high, suggesting that the fantasies were not predominantly perceived as taboo or extreme. This may partially explain variations in the predictive ability of factors between measures, suggesting that the role of relationship characteristics may be particularly pertinent for the disclosure of more taboo sexual fantasies. However, it is not possible to ascertain this due to the potential for subjectivity in measures used in Chapter 4. This provides an avenue for future research through comparisons of the

predictive ability of relational characteristics between fantasies perceived as societally

accepted and those viewed as taboo. A diverse group of participants should be consulted in the development of these scenarios.

The use of hypothetical disclosure likelihood as the outcome variable limited the potential for inferences about actual disclosure behaviour (or likelihoods). Whilst participants may indicate that they would be comfortable disclosing a sexual fantasy in an online anonymous survey, they may not actually feel comfortable enough to disclose in their real-world relationships. However, asking about previous disclosure (or non-disclosure) also limits the potential to draw inferences. This may also be confounded by relationship duration, with participants in longer relationships having had more time in which to disclose. This approach also suggests that the ability to disclose in the relationship is either static or may develop and then remain constant. One approach to addressing this may be asking participants if they have disclosed a sexual fantasy in a certain time period, though in doing so there is the potential for inaccurate recall. This would also provide limited insight into disclosure behaviour moving forward in the relationship. Two approaches are suggested moving forward. Firstly, previous research (Denes, 2012) has utilised diary studies to measure disclosure period with success, though this research focused on disclosures made following sex rather than sexual fantasy disclosures. Nonetheless, participants could be asked to keep a diary of the sexual fantasies they had experienced, whether they had disclosed them and the experiences of disclosure over time. This would provide greater insight into real-world disclosure behaviour and the predictors of disclosure.

As previously discussed, another approach would be the use of a technology supported intervention, whereby partners separately complete sexual fantasy indexes and are then supported to communicate about mutual fantasies. This would provide insight into the benefits of sexual fantasy disclosure and would have practical applications in sex and relationship therapy.

Experiences of fantasising was a factor that was omitted in Chapter 5, but that would make for an interesting avenue for future research. Lehmiller (2018; 2020) argued that individuals demonstrate a high level of investment and attachment to their fantasies. Though research has not yet examined how this investment translates to desires for enactment, disclosure behaviour, nor enactment behaviour. Participants were also asked to indicate whether they felt it was possible to enact the sexual fantasy. Though another avenue may be asking participants whether they would be interested in enacting the fantasy. Considering the strong predictive ability of relational threat on disclosure likelihood, another avenue may be by examining why individuals perceive there to be a threat stemming from disclosure. This may be through the use of open-ended questions asking participants to describe how they feel that disclosure would threaten their relationship. These three avenues for future research are of great importance considering the ability for such research to provide more insight into how disclosure costs are developed and the factors that may influence the development of such cost perceptions. It may also be interesting to examine whether internalised stigma may influence decisions to disclose sexual fantasies, as has been demonstrated for other forms of self-disclosure (Tsai et al., 2013).

In Chapter 3, several other factors were identified as influential to sexual fantasy disclosure, such as communication barriers (including perceptions that sexual communication is embarrassing), an individual's partner and sexual motivations. These factors have not been examined as part of this PhD thesis but would provide an exciting opportunity for future research. The knowledge gained from this research would greatly enhance current knowledge of why individuals may disclose or not disclose sexual fantasies. Another avenue may be by asking participants to recall the process that they use to disclose sexual fantasies. In Chapter 3, though it was not the focus of the research, several pathways were highlighted including that technology may be used to assist with disclosing, that disclosure may be a gradual

process (such as by revealing lower-risk aspects before progressing to higher-risk aspects of the fantasy) or that disclosure may occur in the context of sexual interactions with a partner.

When considering the limitations and applicability of the findings of this research, it is worth considering the samples who participated in the four studies. Participants were recruited from SONA (a university research participation scheme), social media (including a large proportion from Reddit) and the sex research recruitment site operated by Dr. Justin Lehmiller. The use of online sources of recruitment where individuals self-select to participate, presents a risk of self-selection bias. It is plausible that participants who seeking to participate in research on sexual topics may hold more positive sexual attitudes, including those towards sexual communication. It is also likely that the disclosure behaviour of these participants may differ from that of individuals who are less comfortable discussing sexual topics. This is evidenced by high rates of disclosure throughout the research. This issue is one that is inherent to research on sexual topics and has been discussed previously (e.g., by Braun et al., 2018). Considering the present research, this would require participants who are uncomfortable in discussing sexual topics to choose to participate in research focusing on sexual fantasies and their disclosure. This presents a challenge for research going forwards or alternatively research should acknowledge this limitation and how this may reduce the generalisability of the findings. Of interest though is that in Chapter 4, quite a high proportion of participants also reported the presence of undisclosed sexual fantasies. This suggests that whilst those who selected to participate may be more likely to disclose and have different limits on what is/is not acceptable to disclose, there are still topics deemed "off-limits". This provides an avenue for future research by asking participants to describe fantasies that they would/would not feel comfortable disclosing and why.

Another methodological consideration going forward is the use of surveys. In all four studies, surveys were used to present participants with measures, demographical questions, and where

applicable open-response text boxes. It is the use of these open-response text boxes which should be considered. This approach is flawed in two regards. Firstly, when using this approach there is the potential that participants will provide very brief responses. This was particularly an issue in Chapter 3 when participants were asked to provide their reasons for disclosing/not disclosing a sexual fantasy, with quite a few participants providing brief responses such as "in a relationship" or "to try it" or "embarrassed". The briefness of these responses at times presented issues when categorising participant responses due to the absence of essential context. For example, with the response "embarrassed", it is unclear whether the embarrassment stemmed from the discussion of sexual topics more generally or specifically from the fantasy. Similarly, in Chapter 5 participants were asked to describe their own sexual fantasy and once more many responses were brief or would have benefited from additional context. This was particularly problematic when categorising fantasies as novel or taboo. For example, if a participant were to say their fantasy involved feet, without additional context it would be very difficult to ascertain whether this was due to such a fantasy being taboo, novel, passionate or due to the exchange of power. Without additional context in this regard about how participants perceive their fantasy, it is very difficult to categorise sexual fantasies without imposing researcher bias. One approach taken by Lehmiller (2018) was asking participants to indicate which categories they felt their fantasy fell in. This was an approach utilised in Chapter 3 (though in the absence of a description) and presented issues in terms of participants selecting several categories at once, suggesting a complexity to fantasy content. However, the use of interviews draws issues with anonymity and participant comfort in disclosing fantasies to an interviewer.

7.6: Main conclusions

The research conducted as part of this PhD programme provides strong evidence for the role that relationship characteristics (Chapters 3, 4 and 6) and fantasy specific characteristics

(Chapters 3 and 5) play in influencing whether individuals choose to disclose or not disclose sexual fantasies. To the best of the authors knowledge, the included research is the first to systematically examine the predictors of sexual fantasy disclosure. The findings lend support to communication privacy management theory (Petronio, 2002) and argue for a variable level of costs for each sexual fantasy. This level of costs is influenced by several fantasy-specific characteristics, such as perceived approval for the fantasy and perceived relational threats stemming from disclosure. This level of disclosure costs and rewards is then influenced by an individual's relationship. For example, it is proposed that high levels of satisfaction may increase fears of relational threat, whilst sexual novelty may reduce perceived deviation from existing sexual behaviour and partner disapproval. This leads to an eventual level of disclosure costs/rewards. Where final rewards outweigh disclosure costs, disclosure is predicted to occur. However, where costs outweigh the rewards of disclosing, it is argued that the fantasy will not be disclosed.

These findings have greatly enhanced the current understanding of sexual fantasy disclosure, which until now has been understudied. Additionally, there are practical applications in sex and relationship therapy through the potential for an intervention to be developed to promote relational traits that are beneficial for communication and through the development of interventions which task partners with discussing mutual sexual fantasies. Several directions for future research are suggested, including examining whether fantasy/relationship characteristics can predict real-world disclosures or the disclosure of more taboo sexual fantasies.

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Chapter 1

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Chapter 2

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Appendices

Appendix 1: A systematic review of the factors influencing sexual health disclosures (including the disclosure of HIV serostatus)

Chapter overview

In Chapter 2, a systematic review was discussed which aimed to identify factors which influence self-disclosure in intimate relationships. This appendix presents the remaining articles from this systematic review, which included articles focusing on topics relating to

sexual health disclosures. This chapter aims to identify factors which influence sexual health disclosures. As the methodology is described in Chapter 2, this will not be replicated here.

The insight gained from this chapter is important for several reasons. Firstly, information relating to one's sexual health is sensitive and personal. Similarly, one's sexual fantasies can also be considered sensitive and personal (Anderson, 2011). Thus, it is likely that many of the factors associated with the disclosure of sexual health information may also influence whether an individual chooses to disclose a sexual fantasy or not. Additionally, through examining research relating to the disclosure of sexually transmitted infections, several methodological insights were gained. Firstly, research which asked participants to describe their reasons for disclosing (or not) their HIV serostatus (e.g., Chenneville et al., 2015) provided inspiration for the empirical study described in Chapter 4, which asked participants to describe their reasons for disclosing or not disclosing a chosen sexual fantasy.

This chapter was not included in the main thesis as the findings do not directly inform the research conducted as part of this PhD programme. As such, the author felt that inclusion of this chapter in the main thesis would detract from the clarity, flow and narrative of the overall thesis. However, it was included in this appendix, as it did provide some useful methodological insights which did inform future studies.

Introduction

In sexual relationships, disclosures can have health protective functions (Kalichman et al., 2020), for example by informing partners of potential exposure to sexually transmitted infections (STI). Increasing partner awareness of potential transmission risks allows them to increase their awareness of the STI and to implement strategies to prevent further transmission, such as through testing or barrier methods (Kalichman et al., 2020). Additionally, this allows partners to make informed decisions relating to testing and

modifying their sexual behaviour to reduce transmission risks (Horvath et al., 2008; Serovich et al., 2018).

Despite the importance of disclosing sexual health information, disclosure rates appear to vary according to country, with HIV non-disclosure rates ranging from 23% in the United States (Hojilla et al., 2018) to 73% in Thailand (Hojilla et al., 2018) and 90.1% in Indonesia (Kurniawan & Sulistyorini, 2018). This in part, may be due to legal obligations surrounding disclosure in countries such as the United States (Galletly et al., 2012a; Galletly et al., 2012b).

Considering the potential transmission risks and threats to partner health, it is crucial to understand why individuals choose not to disclose. Understanding current barriers provides opportunities to implement interventions or support to promote disclosure. Existing reviews have focused on HIV disclosure in specific populations, such as Ethiopia (Mekonnen et al., 2019; Yehualashet et al., 2020), injection drug users (Nasarruddin et al., 2017) or youths living with HIV (Gabbidon et al., 2020). Such reviews (whilst important) do not allow for a holistic overview of predictors of disclosing sexual health information. These comparisons are important for identifying consistent barriers to disclosure, which would be most useful for interventions to target. Considering the importance of disclosing sexual health information and the limited scope of existing reviews, this review aimed to examine the factors associated with the disclosure of sexual health information in intimate relationships.

Results

Summary of articles

This review presents the findings of 196 articles focusing on health-related disclosures. This is part of a larger systematic review described in Chapter 2. This review includes articles relating to the disclosure of sexual history, of STIs, and of HIV serostatus. The included

articles are displayed in Table A1A1. Due to the large volume of research included research, a numbered citation system is in place for the results section of this chapter. References can be identified utilising the citation number corresponding to the allocated number in the reference list.

Included articles which focused on factors influencing sexual health-related disclosures.

Article	Disclosure type	Sample	Method of assessment	Results
Abler et al., 2015	HIV disclosure among MSM	92 recently diagnosed HIV positive MSM residing in New York City, USA. Mean age=32. 15.2% Black, 31.5% Hispanic, 37% White. 16.3% Other. 69.6% employed/ student. 43.5% had steady partner. Mean of 5.6 partners in last 30 days	Survey: Demographics, Beck depression inventory, substance abuse, number of partners, condom use, status, disclosure, disclosure self-efficacy	Higher disclosure rates were recorded amongst participants who had higher disclosure self-efficacy, a higher number of recent partners and lower depressive symptoms.
Adeniyi et al., 2017	HIV disclosure among female participants	1709 HIV positive pregnant women residing in East Cape, South Africa. Aged 14-47 (mean= 29.63), 69.5% single, 74.4% disclosed to partner.	Sociodemographic, clinical variables, non-disclosure, impact of non-disclosure	More likely to disclose if: younger, living with partner, married, employed, did not drink, did not smoke, had prior knowledge of status, disclosed to family, low viral load, strong adherence, parity, still in relationship. Reasons provided for non-disclosure: perceived reaction to disclosure (non-acceptance, non-willingness to accept blame, violence, abuse), perceiving self as responsible for transmission, viewed that men should be first to disclose.
Alemayehu et al., 2014	HIV disclosure in Ethiopia	315 HIV positive Ethiopian women. 82% urban, 84.8% orthodox Christian, 44.1% married. Aged 20-65 (M=34.9). 64% disclosure to partner.	Pretested questionnaire	Reasons for disclosure- influenced by another HIV positive person, seeking support from partner. Non-disclosure- fear of separation. More likely to disclose if knew partner status, if received counselling, if knew HIV status for over 2 years, who had seen a HIV positive person disclose to community, who discussed HIV testing with partner.
Allen et al., 2014	HIV disclosure.	657 HIV positive Canadian participants Aged 33-45 (M 39). 72.6% male. 50.9% bisexual or gay. 31.5% aboriginal ancestry.	Sociodemographic, drug use, quality of life, health related variables, disclosure, attitudes towards viral load, socio-behavioural factors.	Less likely to disclose if female, gay or bisexual man, younger, single or outside steady relationship, not on ART, had sex without condom, had more partners.

Alvarez & Villarruel, 2013	Sexual health communication	220 Latinx participants aged 18-30 (M 23.49). Participants were residing in Midwestern USA. 109 men and 111 women. Partners aged 16-43 (M 24.5). 84.1% of partners were also Latinx. Aged difference between 8 and 20 years. Relationships ranged from 3 months to 14 years (M 3.84). 27.3% married and 24.5% cohabiting.	Sexual communication (comfort with sexual communication scale), non-verbal sexual communication (sexual communication satisfaction scale), sexual behaviour (condom use, contraception, number of partners), Attitudes towards sexual communication scale, subjective norms about sexual communication scale, socioeconomics, Hispanic stress inventory, the sexual relationship power scale, the sexual gender norms scale, Lund commitment scale, Perceived risk for HIV index, short acculturations scale.	Positive attitudes towards sexual health communication and subjective norms associated with more sexual health communication. More positive attitudes towards sexual satisfaction and non-verbal sexual communication associated with sexual satisfaction communication. Larger age difference in relationship associated with decrease in sexual health communication. Endorsement of sexual gender norm stereotypes associated with less sexual health communication, strongest for those with low acculturation. Relationship duration associated with sexual health communication. Commitment predicted sexual satisfaction communication. Greater sentiment of sexual decision-making power and dominance associated with sexual health communication. Less time in USA relative to partner associated with less sexual health communication.
Alvarez & Villaruel, 2015	Sexual health communication	220 participants in Midwestern USA. 27.3% married, 25.4% cohabiting. 84.1% Latino. 80% one current sex partner.	Comfort with sexual communication scale, sexual satisfaction scale, the sexual gender norms scale, sexual relationship power scale, relationship duration, time in US, age difference, relationship status, Attitudes toward sexual communication scale, subjective norms about sexual communication scale, short acculturation scale.	Traditional gender norms associated with sexual health communication. Belief in traditional gender roles linked to lower communication in women. Women in longer relationships, who believed they held sexual decision-making power and dominance, had more positive attitudes towards sexual health communication and pleasure discussions, had more positive social norms, had been in USA longer than partner, low acculturation reported MORE sexual health communication. Positive attitudes predicted pleasure discussions for men and women. More power, positive attitudes toward pleasure discussions, high acculturation associated with more physical sexual communication in women.
Amoran, 2012	HIV disclosure in Nigeria	637 participants in Ogun State, Nigeria- 32% male and 68% female. Majority aged 20-39 (42.4%) and 40-59 (42.9%). 68.1% married. 50.9% had disclosed status to partner.	Sociodemographic, illness related factors (discussion, health), service-related factors (partner status, fear of partner reaction, ART), Psychosocial (social support, depression, substance use), behavioural factors (number of partners, self-esteem, severity, public opinion).	Following associated with higher disclosure: being married (versus single), being monogamous (versus polygamous), being educated to a higher extent, knowing partners status, low selfesteem. Reasons for non-disclosure: fear of separation (37.7%), fear partner may be afraid of catching HIV (25.5%), fear of infidelity accusations (7.1%), fear would be labelled bad person (5%), lack of contact (6.1%), fear of abuse (9.2%).
Anglewicz & Chintsanya, 2011	HIV disclosure in Malawi	2424 participants tested in 2006 in Malawi.	HIV biomarkers, disclosure, demographics, 5 stigma questions from MDICP 2006	HIV positive women less likely to disclose. Female participants from central region more likely to disclose compared to South. Higher stigma scores associated with lower disclosure by women. Participants who felt it was acceptable for wife to go to clinic alone were more likely to disclose. Higher economic status associated with lower likelihood of disclosure.

Antelman et al., 2001	HIV disclosure among female participants	999 HIV positive women in Dar es Saleem, Tanzania. Median age 24, Median gestational age 20 weeks, 1/3 primiparous, 47% had 1-2 previous births, 19% had 3+ previous births. 76% completed 5-8 years primary education. 58% monogamous marriage. 25% cohabiting. 75% reported economic dependency on someone.	Baseline questionnaire- sociodemographic, pregnancy, medical history, contraceptive use, number of partners. Data collected on HIV related events and psychosocial status at 3rd monthly visit and every 6 months. Number of HIV positive people known, reasons for non-disclosure, Hopkins symptom checklist (anxiety and depression)- Functional social support questionnaire.	More likely to disclose if monogamously married for 2+ years (compared to those married for less than 2 years), if had cohabited longer than 2 years, if monogamous (versus polygamously married), if not employed, if had fewer partners, if knew someone else with HIV/AIDS, if had not disclosed to a female relative, if had low expenditure on food.
Arima et al., 2012	Disclosure of sexually transmitted infections	81 male students in Seattle, USA. 79% white, 7% Asian. Mean age 21. Median number of partners 2 (1-9)	Survey developed based on author's previous research.	Reasons for disclosure: Wanting to be honest 90%, felt was right thing to do 89%, cared about partner 88%, strong emotional ties to partner 75%, want partner to hear from them 27%, not a big deal 10%, partner already had HPV 8%, felt HPV was partners fault 5%, explain change in condom use 4%, other 2%. Non-disclosure: embarrassment, presumed protection from condom.
Bachanas et al., 2013	HIV disclosure in Africa (Tanzania, Kenya, Namibia)	3538 HIV positive patients in Tanzania, Kenya or Namibia. 51% married, 33% regular partner and 17% casual. Mean age 37.2. 33.5% Namibia, 33.8% Tanzania, 32.7% Kenya.	Sociodemographic, health variables, HIV risk behaviour.	Factors associated with increased disclosure: male sex, longer time since diagnosis, fewer sex partners, if married compared to regular/casual partners.
Batterham et al., 2005	HIV disclosure .	604 young people living with HIV (pre and post HAART) in Los Angeles, New York, Miami or San Franscisco, USA. Pre-HAART (recruited 1994-1996)-351 ppts aged 13-24. Post-HAART (1999-2000), 253 ppts aged 13-29. Predominantly male and men who have sex with men. Mean age 20.7.	Computer-assisted interviews. Interviewers chosen to represent ethnic diversity and probes used to elicit information. Measures of demographics, social topics (social support), medical factors, behavioural topics (drug use and sexual behaviours).	Odds of disclosure were higher for men who have sex with men and for people who had known about their status for longer. Disclosure was less likely to occur for casual and HIV-negative partners. Significantly more disclosers were white. Disclosing MSMs had known about their status approximately 1 year longer than MSMs who did not disclose. Disclosure was more likely to partners who more sex acts had been committed with.

Bhatia et al., 2017	HIV disclosure in South Africa	35 HIV positive people in South Africa. 15 men and 20 women. Median age M 33 F30. Average time since diagnosis M 1 year, F 1.5. 60% M and 65% F on ART.	In-depth interviews- experiences of reproductive goals, HIV disclosure, relationships.	Barriers to disclosure: Feared consequences of disclosure (stigmatisation, accusations of infidelity, loss of partner violence). Not knowing partner status acted as a barrier to disclosure. Women disproportionately affected by gender inequality but more open to disclosing. Suspicions and mistrust led to non-disclosure. Disclosed to: prevent partner from getting infected, to access healthcare to prevent perinatal transmission.
Bickford et al., 2007	Disclosure of sexually transmitted infections	70 participants in the USA (6 in qualitative) 19 men and 50 women. 91% white. 98.5% heterosexual. Diagnosis 41-192 months (M 78).	Semi-structured interviews (disclosure). The hospital anxiety and depression scale.	More likely to disclose to long term partners (Lower fear of rejection).
Bird et al., 2011	HIV disclosure.	317 HIV positive men 32% African American, 47% white. African American men knew of their diagnosis for longer: 9.5 years versus 7.6 years.	Baseline interview data from previous study	African American men disclosed significantly less to partners regardless of partner serostatus.
Bird et al., 2017	HIV disclosure among MSM	20 HIV positive gay and bisexual African American men in Chicago, USA. 14 gay and 4 bisexual. 23-58 (M 40), time since diagnosis 1-20 years (M 9.2)	In-depth interview using interview guide of open-ended questions. Sexual relationships, health, and disclosure.	Low perceived risk of transmission (condom use) meant disclosure viewed as unnecessary. Especially when sex was with one night stand or anonymous partner. Bathhouses/parks-low trusts and perceived that partners were often not truthful. Social norm meant meaningful conversations not encouraged. Disclosure viewed as important if hoped to develop intimate meaningful relationship as status typically viewed as private and personal. High risk of rejection and stigma from disclosing. Potentially damaging- used to hurt them, social consequences. Non-disclosure if believed partner to be untrustworthy, dangerous or a gossip. Test partner initial reaction and attitudes through small disclosures so can anticipate reaction to status disclosure.
Bond et al., 2018	HIV disclosure.	61 Black heterosexual men in New York City, USA. Mean age 32.9, 96% heterosexual, 71% had primary female partner, Mean of 2.6 sex partners.	Focus groups and individual interviews. Behavioural risk assessment, perceptions of normative sexual behaviour, approaches to risk reduction, personal/behavioural/socio-structural factors. Used written guide for prompts. Black African American men facilitated the focus groups. Thematic analysis used for focus groups	Low perception of HIV risk hindered HIV status discussions with sexual partners.

			and grounded theory methodology for in-depth interview.	
Bouillon et al., 2007	HIV disclosure.	404 HIV positive individuals in French Antilles and French Guiana. 209 male and 189 females. 9.6% under 30, 62.4% 30-49, 28% 50+. 43.2% in steady relationships. 80.9% heterosexual	Information asked about social support, discrimination, self-disclosure, demographics.	Non-French citizens disclosed less than French citizens. Shorter time since diagnosis associated with non-disclosure. Education level associated with disclosure.
Braun et al., 2018	HIV disclosure among MSM	150 MSM AND TW in Peru. Mean age 29 and 17.5% top, 27.5% bottom, 55% versatile.	Demographics, partner type, characteristics, sexual practices, partner importance, norms, likelihood of notifying.	Notification more frequent for stable partners versus casual and commercial partners. Notified partners where condoms used. Perceived community norms supporting disclosure associated with more frequent disclosure.
Brittain et al., 2018	HIV disclosure among female participants	1347 HIV positive pregnant women in South Africa. Median time since diagnosis 4.2 years, Median age 30.5.	Sociodemographic, pregnancy intentions, poverty (employment, housing, household assets), HIV Diagnosis, voluntary disclosure to several targets.	Disclosure to partner associated with being married or cohabiting, being on ART at entry to antenatal clinic, had completed secondary or tertiary education, intending to get pregnant, younger age.
Brody et al., 1974	Sexual health communication- disclosure of abortion	40 Jamaicanwomen. 20 had made contraceptive decisions unilaterally (17-40, M 29). 20 made contraceptive decisions with partner (Mean age 28.06)	semi-structured interview	Unilateral decision makers had 1.2 more partners on average and were more likely to view husband as a burden. Joint decision makers were more likely to live with partner and be financially dependent. Non-significant trends- Unilateral DMs started sexual careers at an earlier age, became pregnant younger, had been impregnated by more men and had shorter relationship durations.
Brown et al., 2015	HIV disclosure among MSM	262 participants from baseline of clinical trial in Southeastern USA 147 men and 115 women. 5% aged 18-24, 15.3% aged 25-34, 41.2% 35-49, 38.6% 50+. 42.4% MSM, 13.7% heterosexual men, 37% heterosexual women, 6.9% WSW. 61.2% Black, 35% white, 3.9% other.	Perceived social support from family scale, perceived social support from friends scale, centre from epidemiologic studies-depression, disclosure behaviour scale.	MSM had highest disclosure behaviour had heterosexual women had the lowest. White participants had higher disclosure behaviour than black or other participants. Participants with higher education had higher disclosure behaviour. No association between social support and disclosure. Depressive symptoms negatively associated with disclosure.
Brown et al., 2019a	HIV disclosure among several populations.	262 participants from baseline of clinical trial in Southeastern USA.	Perceived social support from family scale, perceived social support from friends scale,	MSM had highest disclosure behaviour had heterosexual women had the lowest. White participants had higher disclosure behaviour than black or other participants. Participants with

		147 men and 115 women. 5% aged 18-24, 15.3% aged 25-34, 41.2% 35-49, 38.6% 50+. 42.4% MSM, 13.7% heterosexual men, 37% heterosexual women, 6.9% WSW. 61.2% Black, 35% white, 3.9% other.	centre from epidemiologic studies-depression, disclosure behaviour scale.	higher education had higher disclosure behaviour. No association between social support and disclosure. Depressive symptoms negatively associated with disclosure.
Brown et al., 2019b	HIV disclosure.	262 HIV positive participants in Southeastern USA. 147 men and 115 women.	The ways of coping scale, the decision self- efficacy scale, the disclosure behaviour scale, confounds (age, time since diagnosis)	Age negatively correlated with disclosure behaviour. MSM had the highest disclosure rates and heterosexual women had the lowest rates. Decision self-efficacy associated with disclosure behaviour. Adaptive coping and attack/escape avoidance associated with disclosure.
Camacho- Gonzalez et al., 2016	HIV disclosure among perinatally- infected adolescents	68 participants in Atalnata, USA. 85% male, 90% Black, Mean age 21.5, 72% reported same-sex activity, 67.7% HIV positive	Completed measures- dating, sexual behaviour, HIV testing preferences, risk behaviour. Exploratory focus groups- existing interview guide.	Barriers to disclosure: fear of rejection, lack of confidentiality, negative influence on mood during sex, not necessary outside steady relationship, perceived responsibility, not necessary if used protection.
Carballo-Dieguez et al., 2006	HIV disclosure among MSM	250 Latino gay men living in the USA (50 HIV positive and 200 randomly selected HIV negative) (Total sample pool 1026) HIV negative (18-55 M 28), 1-22 years education (M 14), 49.7% Mexican, 18.6% Puerto Rican, 6.5% Cuban, 25.1% others). HIV positive (19-51 (M 34.6), 2-22 years education (M 14.6), 61.2% Mexican, 18.4% Puerto Rican, 2% Cuban, 18.4% other.)	Demographics. Assessed interactions with last man met via internet for sex (Communication prior to meeting, HIV disclosure of self and partner, safe sex communication, cybersex engagement). Male sex partners met on internet in last 3 months (If had not told truth about HIV status to any).	Men were more likely to discuss condom use and sexual likes on the internet than in person or on the phone. HIV negative men were more likely to discuss condom use on internet than in person or on phone. HIV negative men were more likely to share status/ find out partner status online than in person or on phone. HIV positive men were more likely to share status online but no significant difference in finding out partner status. HIV positive men were less likely to share status than HIV negative men.
Chenneville et al., 2015	HIV disclosure among female participants	20 youth living with HIV in Florida, USA. All female, 16-24 (M 21.65). 16 African American and 4 Hispanic.	Computer assisted questionnaire (sexual behaviour (modified version of sexual behaviour interview) and disclosure (sexual behaviour assessment). Open-ended semi-	Reasons for non-disclosure: Fear would tell others (90%), did not think they would understand (80%), did not know how to tell them (80%), fear partner would not want to be with them (70%), fear partner would refuse sex (60%), used condom (60%), lack of trust (60%), feared the sleep around perception (50%), partner

			structured interview- influence of diagnosis, factors influencing condom use and disclosure.	viewed as not at risk (50%), bad previous experience (40%), partner did not ask (40%), partner HIV positive (20%), none of their business (10%), unimportant (10%), thought already knew (10%), drunk or high (10%). Reasons for disclosure: Right to know (16), duty to tell (15), wanted to know what was getting into (15), desire for closer relationship (15), wanted to get it off chest (15), wanted to know if partner cared (14), wanted to get it over with (14), guilty if did not disclose (13), prevent transmission (13), did not want them to find out different way (13), wanted to see reaction (12), prevent anger (12), promote condom use (12), avoid trouble (11), promote support (10), avoid jail (8), avoid being sued (6), had unprotected sex (6), condom broke (4)
Chiasson et al., 2009	HIV disclosure among MSM	442 MSM recruited online (1003 in initial sample but large number lost to follow up) Predominantly white, over 30 years old and college educated.	Demographics, marital status, sexual history, detailed accounts of last sexual encounter (activity, partner type, number of partners, drug use, disclosure.) Follow up- also assessed HIV testing history.	Disclosure less likely when men had more sex partners, used drugs before sex, had steady partners, if had unprotected sex. More likely to disclose at 3 month follow up.
Cisse et al., 2016	HIV disclosure in Mali	219 HIV positive individuals in Mali-63% female, Mean age 35.6, 87% had children.	Questionnaire designed following interviews and focus groups: 125 items. Socioeconomic data, history, contact with HIV, disclosure, reactions to disclosure, self-efficacy, intimate and social life, sexuality, quality of life, contact with CBO, gender, age, having children, main activity, being accompanied to survey site, number of years since diagnosis, treatment, knowledge of others disclosing, self-esteem, self-efficacy.	Factors associated with increased disclosure: having children, being accompanied to the survey site, knowing other people with HIV who had publicly disclosed, higher self-esteem. Using treatment methods other than HAART negatively associated with disclosure.
Coleman & Ingham, 1999	Sexual health communication	56 adolescents in Southampton, USA 43 female and 13 male. Aged between 16 and 19.	Semi-structured interviews.	A discussion was more likely to occur in a first sexual encounter with established partner compared to with a one-night stand. Females were more likely to have trouble discussing contraception. Discussions less likely to occur where had negative expectations of the outcome of discussion- concerned partner may respond negatively or with hostility. May see them as being too forward, implying they have an STD or implying ppt had many partners. Easier to have discussion if have already had sex with partner as felt closer and more able to talk about condoms. If partner has a high status it makes discussions more

Conroy & Wong, 2015	HIV disclosure in Malawi	1500 women and 616 partners (366 at follow up/ 183 couples)- Malawi. Mean age 25. 96.2% married or cohabiting.	Life event questionnaire, partner questionnaire (type, status, sexual behaviour, relationship power), HIV tested at wave 4. Disclosure assessed at follow up by asking if had disclosed to partner. Disclosure was then confirmed by asking partner if their partner had been tested and had told them the result and perceived HIV concordance.	difficult. May perceive risk to own reputation if partner was to share discussion and tell others. More concerned about negative reaction if wanted to start a relationship with partner. Self-reported disclosure: Higher when partners communicated about HIV, when relationship unity higher. Lower if was uncertain about partner status and had disclosed to non-partner. Confirmed disclosure: Lower for men, if older, if unsure of partner status. Higher if received more education, if communicated about HIV.
Conserve et al., 2014	HIV disclosure among injection drug users/ alcohol dependent individuals.	258 HIV positive participants in Haiti. 62% female, 26.4% aged 17-29. 43.4% aged 30-39. 30.2% aged 40-56. Average 35. 10.9% married and 47.7% cohabiting.	Disclosure, sociodemographic, sexual behaviour, alcohol use.	More likely to disclose if female, married, had fewer sex partners, knew partner status, did not live with someone who consumed alcohol. Belief that undetectable viral load could not infect other and two HIV positive people do not need to use condoms associated with disclosure. Less likely to disclose if aged 30-39.
Cook et al., 2018	HIV disclosure.	376 HIV positive men in Florida, USA. 84% aged over 35, 71% above poverty level, 86% diagnosed with HIV 3+ years ago.	Condomless sex, disclosure to sex partner, HIV prevention counselling, sociodemographic, poverty level (existing guidelines), sexual behaviour, HIV duration, patient health questionnaire depression scale, health variables, drug use.	Non-disclosure more likely if participants were white, MSM, had more partners or did not have condomless sex.
Cunningham et al., 2007	Disclosure of sexually transmitted infections	21 African American adolescent females in Baltimore, USA. Mean age 17.7	Semi-structured interviews on STI experiences, reaction to diagnosis, disclosure, barriers to disclosure. Audio diary project- daily lives and experiences of STI.	Motivations to disclose- concern for partner sexual health, desire to stop spread, prevent reinfection. Perception of social consequences- fear about negative perceptions people hold about STI, stigma. Notified regular partners more often than casual partners.
Damian et al., 2019	HIV disclosure among female participants	609 HIV positive women in Kilimanjaro, Tanzania. 48% Moshi, 26% Mwanga, 26% Hai district. Mean age 36.2, 77% had primary education, 88% unemployed, 50% married or cohabiting. HIV positive for 4 years.	Face to face questionnaire- sociodemographic, relationship characteristics, sexual behaviour, clinical characteristics, partner communication, HIV disclosure.	Women enrolled from Mwanga more likely to disclose than those in Moshi. Those aged over 25 more likely to disclose than those under 25. Married or cohabiting participants more likely to disclose. Sexually active participants more likely to disclose. Those who use condoms or contraception more likely to disclose. Previous partner discussion about children, contraception, condoms, and HIV testing associated with higher disclosure. Those diagnosed at PMTCT/ANC more likely to disclose than VTC or elsewhere. Those who know diagnosis for longer were

		Partners aged 17-80 (Median 41)		more likely to disclose. Those on ART treatment more likely to disclose. Those receiving counselling more likely to disclose.
Daniels et al., 2019	HIV disclosure among female participants	28 participants in South Africa. Mean age 28. 100% Black African, 61% unemployed, 50% cohabitation.	Semi-structured interview using protocol. Partner communication norms, STI disclosure, partner response to disclosure, relationship decision making, HIV disclosure, financial independence.	Violent male partner limited communication. Feared physical violence and blame which inhibited communication. Women who were self-enabled were more likely to disclose. Important to prevent re-infection which prompted disclosure.
Daskalopoulou et al., 2017	HIV disclosure.	3258 HIV positive participants in the UK. 69% MSM. Mean age 45.2. 57.6% black (heterosexual men) and 73.6% of women. 44.6% of MSM and 35.5% heterosexual ppts had Uni degree or higher. Median time since diagnosis.	Questionnaire- sociodemographic, HIV related factors, mental health factors, social support, partner status, duration, cohabitation, disclosure (social context, family, friends, steady partner, work colleague).	Following factors associated with non-disclosure: non-white ethnicity, more recent diagnosis, not being on ART, not knowing partner status, shorter relationship duration, not cohabiting.
Dave et al., 2006	HIV disclosure.	100 sexually active HIV positive individuals in London, UK. 66.9% female, median diagnosis 3.1 years ago, 63.1% Black African.	Self-administered questionnaire assessing demographics and sexual behaviour. HIV information obtained from clinic.	Knowledge of HIV status of partner associated with own disclosure.
Davidson et al., 2012	HIV disclosure.	204 HIV infected patients in Russia. 48.5% male. Average age for men 30 and for women 27.8. Married: 27.2% of men and 51.5% of women.	Demographics, sexual and drug use behaviour, route of transmission, disclosure	Female gender, marital status, education positive correlated with disclosure. Condom use negatively correlated with disclosure. Those who reported higher intentions to disclose were more likely to have disclosed in the past.
de Rosa & Marks, 1998	HIV disclosure.	577 HIV positive men in Los Angeles, USA. Majority of men at the private clinic were white and had a college degree. Those from the public clinic were 43% Latino, 40% white, 17% African American. 62%	Demographic items asked whether counsellor had discussed informing partners of HIV, checklist of sexual behaviour and disclosure in previous 2 months.	90% men informed HIV positive partners, half informed HIV negative partners and less than a quarter informed HIV unknown partners. Those who received counselling post-test and at clinic were more likely to disclose to all partners. Counselling positive associated with disclosure to HIV negative partners. As the number of partners increased, disclosure decreased. Disclosure rates were highest for men who had attended a support group.

		heterosexual and 29% bisexual. 27% had less than a high school degree, 40% had high school diploma and some college experience, 33% had a college degree or higher. Mean age of 37.2.		
Dempsey et al., 2012	HIV disclosure.	151 participants from five cities in the USA. 76 male and 70 female. 112 African American. 82 heterosexual, 64 sexual minority.	Demographics, number of partners, disclosure, partner status, unprotected sex.	Those with more than one partner disclosed less than those with only one partner. Disclosure higher with partner of known positive status than unknown partner.
Deribe et al., 2010	HIV disclosure in Africa	706 HIV positive individuals in South-west Ethiopia. 353 women and 352 men. Men (M=34.46) were older than women (M=28.99).	Quantitative measures (Demographics, sociodemographic, disclosure, relationship factors, self-efficacy- all adopted from previous studies. Beck depression inventory, stigma (Berger et al 2001)). Qualitative (semi-structured interviews on experience and knowledge of HIV disclosure.	Key findings: Reasons provided for disclosure included: it was usual to tell partner everything, wanted support, desire to protect partner, spiritual responsibility, prerequisite for marriage, fear of accusation. Reasons for non-disclosure: Fear of partner anger, blame, worry, violence, murder, separation, divorce. Men were less likely to disclose if had not previously discussed testing, if did not know partner status. Women were less likely to disclose if perceived relationship as ending soon, if were in early disease stages, if were educated to higher extent, if were unaware of partner status. All were less likely to disclose if had been unfaithful in past. Fear of abandonment, social and economic consequences and fear of blame acted as major barriers.
Derlega et al., 2002	HIV disclosure.	145 participants from Virginia, North Carolina, Ohio or Texas, USA. 105 men and 39 women. Males had a mean age of 37.46 and females had a mean age of 35.31. 37.3% African American. 57.8% Caucasian. Males had known about their diagnosis of HIV for average of 86.54 months whilst females had known for 62.57 months. 76.7% homosexual, 4.9%	Reasons for disclosing or not disclosing to a friend/parent/partner. Closeness and emotional support. Duty to inform. Desire to educate. Perceived HIV stigma scale (Bauman et al 1997)	Females more likely than males to endorse reasons for HIV disclosure. Females more likely to endorse catharsis, testing others reaction as reasons for disclosure. Females more likely to endorse fear of rejection as reason for non-disclosure. No significant correlations between HIV stigma and reasons for disclosure. Close/supportive relationship was a predictor of disclosure. Both privacy and communication difficulty associated with disclosure.

		heterosexual and 18.4% bisexual.		
Driskell et al., 2008	HIV disclosure among MSM	9 HIV positive men in Boston, USA. Aged 25-66 (M=36.6). Diagnosed between 1994 and 2005. 4 white, 1 Asian, 1 Latino, 1 other, 2 unsure.	Counselling sessions transcribed and reviewed.	Rejection (feared being rejected by partner. Fear that partner may share personal and private information with others. Partner may not have sex with them if disclosed.) Confidentiality (May spread news to others. Stigma associated with being identified as person living with HIV). Partner status (assumed partners in public sex environments were HIV positive so not necessary to disclose). Deferred responsibility (belief that it was responsibility of partner to ask). Unlikely to disclose to casual partners due to absence of emotional connection. Public sex environment (less likely to disclose. Influenced by social norms and communication. Do not communicate as view others as non-disclosing). More likely to disclose if felt morally obligated to disclose and allow to make informed decisions. More likely to disclose if saw potential to develop relationship. Honesty valued in relationship. Timing viewed as important before moving in and better to disclose upfront. More likely to disclose if partner disclosed first.
Erku et al., 2012	HIV disclosure in Ethiopia	334 HIV positive participants in Ethiopia. 59.6% female, Mean age 30.5, 72% Christian, 23.3% did not disclose.	Pretested questionnaire- sociodemographic, partner characteristics, health factors, disclosure experiences, reasons provided for disclosing or not disclosing, perceived stigma and discrimination.	Less likely to disclose if had more sex partners. Literate participants were less likely to disclose. Longer follow up support from HIV related services associated with increased disclosure. Being on ART, getting ongoing counselling service, being tested in VCT centre associated with greater disclosure. Membership of HIV/ AIDS association, seeing person who discloses to community, low stigma and discrimination associated with disclosure. Knowledge of partner status associated with disclosure.
Esmaelzadeh Saeieh et al., 2018	HIV disclosure among female participants	15 Iranian women with HIV 6 aged 22-27, 3 aged 28-33, 5 aged 34-39, 1 aged 40-45. 12 married. Predominantly knew diagnosis 1-5 years.	Semi-structured interviews. Barriers to HIV disclosure in HIV positive women until reached saturation.	Did not disclose to partner due to fear of rejection.
Famouri et al., 2016	Disclosure of sexually transmitted infections	136 participants in Kazakhstan. Average age 36, 68.4% Russian, 11% Kazakh, 81.6% cohabitation.	Baseline self-interview: HIV/HCV tested, further diagnosis of hepatitis C, whether notified partner of test result during post-test counselling, sociodemographic, sexual risk behaviour, drug use, peer norms of drug	Those who disclosed were more likely to be: older, cohabiting, convicted of drug-related offences, lower food insecurity, knew or suspected positive partner status, more positive peer norms surrounding injection drug use, use of needle exchange program, more partners, less discussion of safer injection behaviour.

			injection practices, safe sex communication, access to harm reduction services.	
Fifield et al., 2018	HIV disclosure in South Africa	459 participants -South Africa. Mean age 30.7, 68.8% female, 69.8% unemployed, 90% in relationship, 55.2% disclosed to partner.	Disclosure (when, who?), social support (5 variables-previous work), violence (6 items)	Increased scores in violence prone relationship scale associated with increased disclosure odds to partner. Social support not significantly associated.
Fortenberry et al., 2002	Disclosure of sexually transmitted infections	241 participants in Indiana, USA. Mean age 17.2. 82.6% female and 83% African American.	Partner notification (asked when they had told partners). Sex, race, history of STI infections. Coital frequency with each partner in last 2 months. Notification self-efficacy (ease of discussing STI, discussing treatment and checking whether partner had been tested. Cronbach= 0.84) Anticipated consequences of notification (likelihood of getting hit or breaking up. Cronbach alpha= 0.64). Relationship quality scale (emotive, affiliative, supportive characteristics of interpersonal relationship. Cronbach 0.9).	More likely to notify partner they had sex with number of times compared to one night stand (68% vs 51%). Multiple coital exposures, higher notification self-efficacy, greater relationship quality associated with increased likelihood of notification. Higher perceptions of consequences associated with decreased likelihood of notification. Age, sex, ethnicity, previous infection, coital frequency not associated with disclosure.
Gafos et al., 2015	Sexual health communication	1092 women in KwaZulu-Natal, South Africa. (79 women in individual interviews, 54 women and 103 men in focus groups.) 28% 18-24, 21% 25-34, 24% 35-44, 27% 45+. Mean 35.	Gel use, communication with partner, socioeconomic, living variables, sexual activity. Qual- in-depth interviews on partner involvement and focus groups on partner involvement in sexual matters.	Women who did not discuss gel use were older, enrolled at clinic 1, owned cattle, relied on free-flowing water, did not use gel consistently. Social norms: women not supposed to talk about sex. Strongest among older women. Younger participants believed these norms had changed. Perceived risks associated with communicating about sex. Discussed as: usually discussed sex, avoid conflict, knew they wanted to use gel. Did not discuss if: believed to be unimportant, if believed partner would object, not cohabiting, high perceived risk.
Galletly et al., 2012a	HIV disclosure.	469 HIV positive individuals in New Jersey, USA. 55% male, 67% African American, 16% Hispanic, 13% white. 15% married, 29% in long term relationship, 56% single.	Demographics, awareness of law, criminalisation, prevention, compliance, stigma (Westbrook and Bauman), disclosure, risk behaviour.	Factors associated with disclosure: older age, being female, being heterosexual, low educational attainment, married or in LTR, reluctance to engage in risky behaviour, high comfort with disclosure, support for law.
Galletly et al., 2012b	HIV disclosure.	384 HIV positive participants in Michigan, USA. 54.3% African American, 35.6% female, 19-70 (M 43).	Demographics, awareness of law, attitudes towards criminalisation of nondisclosure, sexual behaviour, perceived importance of law, stigma, comfort with disclosure.	Those who were aware of law disclosed more frequently before first sex with partners.

Gorbach et al., 2004	HIV disclosure among MSM	55 MSM in Los Angeles or Seattle, USA. 24-52 (M 38.5). 67% of LA ppts and 38% of Seattle ppts were ethnic minority. Years since diagnosis M LA= 9 years, Seattle 6 years.	Interviews conducted by male interviewers. Structured set of questions using probes, framing, summarising, checking.	Reasons for non-disclosure of HIV positive serostatus. HIV is no one's business (seen as personal information that no one else needs to know about). Denial (did not want to think about serostatus). Low viral load (perceived risk seen to be lower so felt did not need to disclose). Fear of rejection (more concerned about fear of rejection for more desirable partners. Worried would reject them or be unwilling to have sex with them). Just sex (no obligation to disclose if did not plan on an ongoing relationship). Drug use (led to forgetting to disclose). Public place (bathhouses/bars. Disclosure viewed as inappropriate). Type of sex (non-disclosure associated with low-risk sex acts i.e., condom use, receptive anal only, non-anal sex, only oral sex). Partner (more likely to disclose if partner asks or discloses first. Reciprocal for HIV positive partners. Non-disclosure more likely for HIV negative partners.). Feelings for partner (more likely to disclose if had feelings towards partner and hoped to establish a relationship). Responsibility (perceived responsibility to inform). Fear of arrest for non-disclosure.
Grau et al., 2011	HIV disclosure among injection drug users/ alcohol dependent individuals.	157 HIV positive injection drug users in Russia. All heterosexual, median age 28, 65% male, 37% currently employed.	Demographics, medical history, drug and sexual behaviour, sex partner information, HIV serology, disclosure	Disclosure associated with having: injected longer than 9 years, having a partner perceived to be seropositive or an injection drug user.
Green et al., 2003	Disclosure of sexually transmitted infections	50 participants (London, UK) 24 males, 26 females. Median age 34 (19-68). Duration ranged from 1 year to over 10.	Semi-structured interview (demographics, disease duration, attack frequency, triggers, impact on health, experience with antiviral treatment. Previous partners, disclosure to partners, reasons for disclosure, partner reaction, impact on relationship)	57/85 regular partners were informed compared to 8/37 casual partners. Nature and duration of relationship significantly predicted disclosure. Recent partner was less likely to be informed. Level of depression was a significant predictor of disclosure. Self-esteem, control over disease, concern about infecting others, acceptance of herpes was non-significant. Reasons for non-disclosure included: felt like they did not have to tell casual partners, worry about partners reaction ie non-acceptance, partner may view them as unfaithful or promiscuous, may inform others, perception that disease was under control, condoms eliminated perceived need to disclose. Reasons for disclosure included relationship stage and expectancy to discontinue condom use.
Greenhalgh et al., 2016	HIV disclosure among perinatally-	7 people with perinatally acquired HIV in the UK. 5 female and 2 males.	Semi-structured interview.	Fear of rejection, disclosure viewed as unnecessary if used condom (low perceived risk), tested partner responses and openness with small disclosures.

	infected adolescents	Predominantly Black African. 18-23.		
Groves et al., 2012	HIV disclosure among female participants	6 HIV positive women in South Africa Aged 22-33. In relationship from 2-6 years.	In-depth interview. Coded to identify patterns in data. Interpretive memos developed to understand how each case reflected gendered nature of testing.	Partner reaction to previous conversations associated with HIV (threats of violence, lack of interest in knowing status, partner indicated could not stand knowing status.). Did not feel close to partner (not enough emotional support, infidelity, lied). Would not consider disclosing unless partner proved was committed. Would disclose if partner became very ill.
Gultie et al., 2015	HIV disclosure in Ethiopia	324 HIV positive participants - Ethiopia 60.2% female, 45.1% aged 35-44. 49.4% married. 87.7% orthodox Christian.	Structured questionnaire- sociodemographic, disclosure	Factors associated with disclosure: cohabitation, knowing partner HIV status, being married, higher education, being on ART treatment, pretest counselling, membership of HIV association, disclosure to family, seeing another HIV positive person disclose to community, stable relationship.
Haas et al., 2020	HIV disclosure among MSM	59 participants from Midwestern USA (30 participants took part in individual interviews and 29 in focus groups). 27% African American, 73% white, 93% male, 75% MSM and 25% heterosexual. MSM- 28% HIV negative and 72% HIV positive. Time since diagnosis ranged from 1 month to 5 years. Age ranged from 18-55 (M 32).	Focus groups- same HIV status/gender/race. Also, individual interviews conducted.	HIV negative men- social norms promoted disclosure. Discuss serostatus to enable serosorting and find other HIV negative partners. Believed to be social norm of HIV negative MSM culture. Drug use, alcohol use, attraction, awkwardness all identified as barriers to discussion of HIV status. HIV positive men- individual differences- some prefer disclosing online and some in person. Some leave profile blank due to stigma surrounding HIV and find it easier to disclose in person. Fear of prosecution if did not disclose. Need for sexual fulfilment outweighed transmission concerns and facilitated non-disclosure. Believed partner to be HIV positive and believed it was the HIV negative partner's responsibility to ask. Assumed partner to be positive if did not insist on condoms.
Halkitis et al., 2016	HIV disclosure among MSM	230 HIV positive gay and bisexual men in New York City, USA. 50-64 (AV 55), 43.5% Black, 30.4% white, 13% Latino, 4.3% American Indian, 4.3% mixed/Asian Pacific Islander.	Trained research assistant- HIV, aging, substance abuse, mental health, sexual behaviour, relationship. Themes identified, coded and categorised.	Would disclose if asked. Disclosure viewed as inhibiting sexual excitement. Public sex environment (established norms of noncommunication. Viewed as not appropriate. Eye contact and sexual activity). Internet (anonymous nature makes it easier to disclose. Posted publicly on profile- potential rejection minimalization). Anonymous sex (superficiality did not warrant disclosure). Fear of stigma (stigma associated with HIV positive status.) Assumption of partner status (if did public sex more likely to be positive. Assumptions based on condom behaviour.). Guilt (guilt associated with non-disclosure prompted participants to disclose). Fear of rejection (did not disclose as did not want partner to tell others and rejection by wider gay community). Denial (choose negative and unknown partners so could deny being positive, perceived immunity as barrier to testing). Perceived responsibility (feelings of responsibility to protect

				partner by informing them whilst some believed partner should ask).
Hampanda & Rael, 2018	HIV disclosure among female participants	320 HIV positive pregnant women in Zambia. Mean age 29, Average of 3 children, 72% completed primary education, 60% diagnosed during most recent pregnancy.	HIV disclosure, Revised conflict tactics scale (IPV), household wealth (21 household assets), partner status.	Associated with increased disclosure: being diagnosed with HIV prior to most recent pregnancy, longer relationship length, HIV positive partner, knowing partner status. Intimate partner violence negatively associated with disclosure.
Harawa et al., 2006	HIV disclosure among MSM	30 African American men who have sex with men and women in Los Angeles, USA. 22-59 (M 42). 30% gay, 40% bisexual, 14% heterosexual, 10% same gender loving, 3% down low.	Focus groups (program developed through conversations with experts).	Only viewed disclosure as necessary in steady relationships. Viewed as necessary due to sense of obligation to protect partner. Often avoided due to fear of rejection.
Hardon et al., 2013	HIV disclosure in Africa (Malawi, Kenya, Uganda, Burkina Faso)	157 HIV positive participants 90 women and 67 men. Mean age 34.5. 40.6% Malawi, 26.3% Kenya, 18.2% Uganda, 14.9% Burkina Faso. 63.6% women.	Qualitative: reasons for testing, reasons for disclosure, self-stigma, support group experiences. Quantitative: testing, disclosure, awareness of serostatus, relationship status.	Disclosure occurred more frequently for: men, older ppts, those who were not members of a support group, had more severe symptoms. Main reasons for disclosure: Prevention- intention to use condoms and encourage partner to get tested, Receive care or support from their partner, intimate nature of relationship. Non-disclosure: stigma, social abuse, fear of divorce. Those from Malawi disclosed less. Those recruited in urban settings more likely to disclose.
Harrison et al., 1997	Disclosure of sexually transmitted infections	15 individuals seeking care for an STD in South Africa. 7 men and 8 women. All but 4 unmarried. All women and all but 2 men reported relationships with primary partner. Women aged 19-27 whilst men aged 23-30.	Open-ended, semi-structured interviews.	Men were more likely to discuss multiple partners. All were initially prepared to notify only primary partners but likelihood of men disclosing to casual partners increased following counselling. Respondents indicated an ability to disclose to regular partners as they trusted them. Trust implied responsibility to care for partner. Communication about STD seen as difficult, embarrassing, and elicited fear and anxiety. Men reported more embarrassment whereas women worried their partner may view them as having been unfaithful.
Hayes-Larson et al., 2017	HIV disclosure in Lesotho.	371 participants in Lesotho. 56% men and Median age of 35.	Disclosure to partners and others, sociodemographic, alcohol use (AUDIT), depressive symptoms (PHQ-9), support network size, understanding of health information, social desirability (Reynolds 1982), TB+ HIV knowledge, Perceived TB stigma scale.	Being female, married, having electricity in home, not knowing partner status, greater TB knowledge associated with non-disclosure.

Hino et al., 2018	HIV disclosure in Malawi.	40 HIV positive participants in Malawi. 16 women and 24 men. 21 were married. Average age of 28 with range of 18-51.	In-depth semi-structured interview. At 4 week follow up of a larger scale study.	Reasons for disclosure: love, commitment, desire that partner get tested, felt partner should know. Reasons for non-disclosure: fear of rejection, fear partner would tell others. Needed to know relationship was serious, such as married, before disclosure. Non-disclosure likely to casual partners or sex workers. Trust in partner influenced decision.
Hojilla et al., 2018	HIV disclosure among MSM	1184 HIV positive MS(M and TW) in several regions: Andes, Brazil, South Africa, Thailand, USA. Median age of 30. 90% MSM	Relationship characteristics, non-disclosure, knowledge of partner status, Prep use, and beliefs about prep effectiveness.	Non-disclosure highest in Thailand and lowest in USA. Higher non-disclosure to casual and transactional partners. Duration known associated with disclosure
Holt et al., 2011	HIV disclosure among MSM	did not disclose. Mean age in Mid 30S. Similar demographics to several national surveys of MSM in Australia. 20% bisexual/ heterosexual and remainder were homosexual. 11% were HIV positive, 20% uncertain and remainder HIV negative	Demographics, sexual identity, social engagement, participation in gay activities, internet use, sexual behaviour, HIV disclosure, Preferences regarding partner serostatus, HIV testing, expectations surrounding partner disclosure.	Untested men who reported disclosure were significantly younger than those who reported non-disclosure. HIV negative men who lived in cities were more likely to report disclosure. Fewer partners, previous sex with last casual partner, private sex location and expectation that HIV negative men should disclose before sex associated with disclosure for all groups. Untested men who disclosed were more likely to be: looking for regular partner, have previously sought advice from community/organisations, prefer sex with HIV negative men. And were less likely to disclose if had between 6 and 20 partners in last 6 months. HIV negative men who disclosed were more likely to have had sex with last casual partner before, have had sex in private, had unprotected sex with last partner, be looking for friends online, expect that HIV negative men should disclose before sex. And were less likely to disclose if were socially engaged with gay men or looked for sex partners at cruising grounds. HIV positive men who disclosed were more likely to have had sex with partner before, sought advice from counsellor and expect that HIV positive men should disclose.
Horvath et al., 2008	HIV disclosure among MSM	2716 MSM resding in the USA 979 aged 18-24. 690 aged 25-29. 724 aged 30-39. 249 aged 40-49. 71 aged 50+. 512 Asian, 445 Black, 683 Latino, 728 white.	Counterbalanced online questionnaire. Previously used in other online studies- 170 items. Demographics, testing status, passive communication, and active communication.	Discussed sexual likes and serostatus more with online partners than offline partners. Highest percentage of communicators were those who had not been tested. HIV positive men exchanged status information with offline partners more than those never tested.
Kairania et al., 2010	HIV disclosure in Uganda.	293 sero-discordant couples in Rakai, Uganda.	Recruitment from previous studies. Completed measures. Tested for HIV. Same sex interviewer. HIV Sero discordance, benefits of disclosure, partner communication. HIV	Disclosure higher where couple reported prior discussion of condoms and where condoms were regularly used.

			positive partner interviewed and then HIV negative partner interviewed. Asked to disclose serostatus.	
Kalichman & Nachimson, 1999	HIV disclosure.	165 men and 101 women HIV positive in USA. Mean age 37.2. 67% African American, 29% white, 5% other. All been sexually active in previous 6 months.	Demographic and health characteristics. Substance use and sexual practices (frequency of drug use/ condom use/ number of partners/ disclosure of HIV). Recent sexual experience (when, was condom used, alcohol or drug use, if aware of partner status.) Emotional distress (Brief symptom inventory). Self-efficacy for HIV disclosure (developed for study and piloted before use. Imagined were in scene and had to rate confidence in ability to perform specified action. 7 item measure of self efficacy for disclosure to sexual partners. 5 item measure of condom use self-efficacy.	No association between substance use and disclosure to sex partners. Those who had not disclosed reported lower self-efficacy for disclosing. Did not differ on self-efficacy for discussing safe sex and sexual risk refusal.
Kalichman et al., 2016	HIV disclosure among several populations.	538 sexually active HIV positive men in South Africa. Predominantly African American, Mean age 43.8	Daily diary data- sexual activity. Computer interview- demographics, health, disclosure efficacy, risk reduction communication strategies, infectiousness beliefs, drug test, ART adherence (pill counts).	Non-disclosure more common for MSMW, those who endorsed belief that it is safe for HIV uninfected person to have condomless sex with HIV positive person who is receiving ART and has undetectable viral load, lower self-efficacy, lower use of risk reduction strategies.
Kalichman et al., 2017	Disclosure of sexually transmitted infections	776 participants in South Africa. 324 men and 452 women. All receiving STI treatment.	Demographics, health, sexual behaviour (number of partners, frequency of acts, condom use), alcohol use, partner notification, intentions to notify, expected outcomes.	Women who intended to notify were less likely to have used condom and exchanged money for sex. Those who drank more were less likely to disclose. Higher education associated with disclosure. Negative past notification experiences associated with lower intentions to disclose. Men who did not intend to disclose had higher expectations that his partner would leave or act violently. In women who did not intend to disclose, they had higher expectations of adverse outcomes. Men who intended to disclose were more likely to have casual partners.
Kalichman et al., 2020	HIV disclosure in South Africa	205 HIV positive participants with co-occurring STI in South Africa. 52 men, predominantly Black	Partner characteristics (age, sex, education, marital status, children, alcohol use disorders identification test consumption scale), STI symptoms, sexual relationship behaviour (named up to 5 partners- partner type, disclosure of HIV/STI, intercourse, condom use), Disclosure- partner testing.	Participants who had not disclosed to different status partners less likely to be married, have children, to be receiving ART. Disclosure less frequent where alcohol use quantity and frequency was higher.

Kankou et al., 2017	HIV disclosure.	246 sub-Saharan migrants living in France. 167 in steady relationship. 40.2% male. 92% heterosexual. 35-48 (M 41). 132 had disclosed to partner. All HIV positive	Demographics, health, social factors, disclosure in both France and country of origin.	Associated with disclosure to steady partner: longer follow up since diagnosis, higher literacy level, higher social context, owning or renting home, living together.
Kassaye et al., 2005	HIV disclosure among female participants	67 HIV positive women living in Mettu and Gore Towns, Southwest Ethiopia. 42 reported a sexual partner. 57.18% were aged 25-34. 66.72% reported a non-regular sexual partner. 57.2% reported Oromos ethnicity. 54.8% were orthodox Christian. 69% reported disclosing.	Structured pre-tested questionnaire. Whether had told partner their test results, barriers to disclosure, outcomes of disclosure, sociodemographic, relationship duration, discussion of HIV, condom use, partner type.	Illiterate women more likely to disclose than educated. More likely to disclose if previously discussed HIV/HIV testing. Condom use was higher among disclosers. Barriers reported: fear of abandonment (31.3%), fear of stigma/rejection (25%), fear of confidentiality (25%), fear of embarrassing family members (12.5%), fear of infidelity accusations (6.2%).
Keller et al., 2000	Disclosure of sexually transmitted infections	92 individuals recently diagnosed with HPV in Midwestern USA. 63 female and 29 males. Mean age of 23.1. 89% white. 95.6% single.	Questionnaires developed by panel of experts and piloted before use. Knowledge about HPV transmission and belief about need to disclose. Open-ended questions administered to subgroup (48) about whether they have had the same partner since diagnosis and factors that influenced decision to disclose or not disclose.	Time since infection- participants indicated no obligation to disclose if had no recurrence in last 6 months (54%) or last 2 years (70%). Reasons for disclosure: seen as morally right, belief that honesty is important, concern for partner health. Reasons for non-disclosure: Embarrassment and fear of rejection.
Khidir et al., 2020	HIV disclosure in South Africa	82 men with HIV- 99% Black South African, recent pregnancy partner of negative or unknown partner (65% casual partner), 22-44 (Median 34)	Sociodemographic, Decision-making dominance subscale of sexual relationship power scale, HIV risk behaviour (disclosure, condom use, number of partners, ARV adherence, communication, knowledge of partner status)	Higher decision-making dominance scores associated with non-disclosure of HIV status.
Kidman & Violari, 2020	HIV disclosure among perinatally- infected adolescents	250 perinatally infected HIV positive participants in Soweto, South Africa. Aged 13-24 (M 16.3), 54% female, 88% Black African.	General disclosure, barriers to partner disclosure (Deribe et al 2008), "Did anyone at the clinic mention telling partner about your status", Beck Depression Inventory, Multidimensional scale of perceived social support, WHO violence against women instrument, HIV knowledge (Barnes et al 2013), Internalised AIDS related stigma scale.	Reasons for non-disclosure: Partner may leave (83%), Partner may hurt them (39%), HIV is private and personal (75%), Partner may get angry (77%), do not want to worry partner (93%), partner may fear HIV transmission (79%), Partner may think they are a bad person (74%). Females more likely to disclose. Those who had learnt about HIV more recently more likely to disclose. Knowledge of partner status increased disclosure

Kieto et al., 2014	HIV disclosure in Democratic Republic of the	127 HIV positive individuals in Democratic Republic of the Congo. 55% women,	Socioeconomic data, history/contact with HIV, disclosure, self-efficacy, demographics, quality of life, contact with CBOs.	likelihood. IPV not related to disclosure. Those who discussed at health clinic the topic of disclosure more likely to disclose. Disclosure positively associated with declaring to be in relationship, testing for HIV after symptom onset, having tested on one's own initiative, having felt sympathy or support when
Kinuthia et al., 2018	Congo HIV disclosure among female participants	Mean age 44.3. 70% employed. 2522 mothers in Kenya. 420 HIV positive. Mean age of HIV+ 28.4, HIV- 25.8. 97% married or cohabiting. Mean duration of 6.8 years for HIV + women and 5.3 years for HIV- women. Mean age of partner 35 for HIV positive women and 31.2 for HIV positive women a	Uptake of ANC, maternal HIV testing, non-disclosure, partner HIV status, IPV, use of ARV, demographic.	disclosing, regular discussions about life with HIV. If HIV negative, more likely to disclose if: unmarried, had lower income, experienced IPV, if male partner did not attend clinic. If delivered in health facility, women were less likely to disclose. HIV positive women less likely to disclose if unemployed, or if male partner did not attend clinic. More likely to attend if no longer in relationship and had employed partner.
Kiula et al., 2013	HIV disclosure among female participants	HIV negative women. 250 HIV positive participants in Morogoro, Tanzania. 63.2% older than 25. 54% Christian and 46% Muslim. 92% married. 17-41 (M 27). 148 had not disclosed.	Sociodemographic, socioeconomic and household information, sexual and reproductive health information, knowledge of PMTCT, disclosure, benefits and challenges of disclosure.	Women more likely to disclose if: younger than 25, nulliparous, had higher education, higher income, not financially dependent on partner, discussed testing beforehand, used condoms before, knew partner status before testing, aware of partner status, perceived benefit of disclosure, appreciated counsellor role in disclosure.
Kiweewa et al., 2015	HIV disclosure among female participants	85 HIV infected mothers IN Uganda. Mean age 28.7, 60% cohabitation	Pretested standardised questionnaire- disclosure, social support, partner testing, neglect and separation, demographics, relationship factors, partner HIV status, disclosure barriers.	Barriers to disclosure: fear of separation or loss of financial support, separated or not living with partner, stigmatisation, fear of worrying partner, not ready. Factors associated with disclosure: having a HIV infected baby, non-disclosure to relatives, being a homemaker.
Klitzman et al., 1999	HIV disclosure among MSM	26 HIV positive and 15 HIV negative gay/bisexual men in New York City, USA.	Semi-structured interviews.	Non-disclosure viewed as morally unacceptable and placing partner at risk. Viewed as harmless as long as safe sex practices. Disclosure viewed as important for main partners and closeness and trust provided as reasons for this. Disclosure viewed as unnecessary for one-night stands as do not know them and no obligation if safe-sex practices used. Location influences perceived appropriateness- not discussed at a bar and often led to rejection. More likely to disclose to prior female partners than male partners as gay men assumed to be more aware of risk of HIV. Disclosed indirectly by leaving AZT, HIV organisation magazines and leaflets around. Definitive label carried more stigma so more difficult to disclose. PPTS reported telling

				partners they were unsure but probably positive rather than they were definitely positive. AIDS disclosure even less likely as disclosure of illness carried more stigma and viewed as prompting rejection. Acceptance of diagnosis/decreasing shame led partners to be more comfortable discussing HIV. Main partners were told as they were able to offer social support. Guilt associated with non-disclosure. Fear of rejection and perceived responsibility identified as a reason for nondisclosure. Alcohol/drug use associated with non-disclosure.
Klitzman et al., 2007	HIV disclosure among MSM	1828 HIV positive MSM living in San Franscisco, Los Angeles, New York or Milwaukee, USA. 35.8% Black, 37.7% white, 18.1% Latino and 10.7% other. 35.5% employed. 62% had education beyond high school. 79.8% homosexual and 18.4% bisexual. Living with HIV 0-24 years (M 8.81 years).	Sexual risk behaviour assessment schedule, health status, demographics.	Knowledge of partner serostatus associated with disclosure. Disclosure higher to main partners than casual partners. Disclosure higher to HIV positive partners. Disclosure lower to among homosexual men than bisexual men. Time since diagnosis associated with disclosure. Disclosure lower amongst those with more partners.
Knox et al., 2013	HIV disclosure among MSM	300 MSM in South Africa. 18-40 (M 26.1). 66% Black, 34% white. 85% gay.	Characteristics of last sexual encounter, communication about HIV status, HIV knowledge, intention to communicate about safe sex, HIV communication self-efficacy, sociodemographic, openness about sexual orientation, discrimination.	Being white, living in a township, higher income, being employed, having tested for HIV in past year positively associated with having communicated HIV status. Femininity negatively associated with communication. Intention to communicate about safe sex and HIV communication self-efficacy positively associated with communication. Steady partner, partner of different rate, respondent being the receptive partner, drug/alcohol use, encounter occurring in public place negatively associated with communication.
Kumar et al., 2006	HIV disclosure among female participants	139 HIV positive women who had recently given birth in Barbados. 51.8% younger than 25, 85.9% unmarried, 72.8% unemployed, 34.5% living with steady partner.	Demographic information. Semi-structured open-ended interview, coded for themes and quantitative frequencies.	Reasons given for non-disclosure included fear of stigmatisation and fear of partner reaction (violence).
Kurniawan & Sulistyorini, 2019	HIV disclosure among MSM	101 MSM in Indoniesia. 18- 45 (M 28), 69.2% Javanese, 22.8% Madura, 7.9% Osino.	Previously developed self-disclosure questionnaire- validated as Indonesian version	Reasons to disclose: partner was support system, partner asked about medication, partner was also HIV positive. Reasons not to disclose: fear of breaking up/partner anger/partner suicide/worried others will find out status, fear of abandonment

				by family, being suspected of being unfaithful, fear of loss of financial support, fear of being ridiculed by others, did not receive support to disclose.
Larkins et al., 2005	HIV disclosure among MSM	34 gay men in California, USA. 82.4% Caucasian, 14.7% Latino, 2.9% Native American. Aged 20-47 (M 36.3). All frequent methamphetamine users	Open-ended, semi-structured interviews.	If partner disclosed first, would reciprocate. Disclosure seen as unnecessary in public sex location as different social laws- social norms supported sex without dialogue. Greater sense of responsibility to disclose to partners where emotional relationship was present. Intimacy level affected disclosure. Greater responsibility if doing a high-risk sex act and may avoid disclosure by doing lower-risk sex acts.
Lee et al., 2014	HIV disclosure.	493 participants in Rio de Janeiro, Brazil. 18-67 (Median 40). 65% male. 66% heterosexual. 72% on ART. Relationship 0-34 years (Median 6 years).	Demographics, relationship characteristics (length, partner status, cohabitation, substance use and sexual behaviour). Verbal and physical aggression. Social support (Medical outcomes study social support survey). Attitudes towards disclosure. HIV serostatus disclosure. Condom use.	Higher disclosure associated with higher disclosure comfort, higher social support, knowledge of partner status, longer relationship, cohabitation, verbal or physical aggression. Drug and alcohol use during sex associated with non-disclosure.
Li et al., 2013	HIV disclosure among MSM	332 HIV negative MSM in Beijing, China. Aged 18-72. 92% Han, predominantly unmarried, employed, and gay	Partner characteristics: type, satisfaction, how met, condom use, alcohol use before sex, whether paid partner, talk about HIV status, partner status disclosure.	Disclosure associated with: Living with partner, steady partner, meeting at a bar or club, alcohol use before sex.
Li et al., 2016	HIV disclosure among MSM	297 participants in the USA. Average age 41.8, average of 10.3 years HIV positive, 48.42% white, 35.35% African American, 8.75% Hispanic, 79.12% gay	HIV stigma scale, Semple et al 2004 (short scales of expectations, self-efficacy, disclosure costs and disclosure rewards), disclosure attitudes, intent, and behaviour.	Disclosure costs negatively associated with disclosure behaviour. Disclosure rewards positively associated with disclosure intent.
Loukid et al., 2014	HIV disclosure in Morocco.	124 people living with HIV in Morocco- 41% female, median age 36. 65% employed, 77% lived with partner, 62% disclosed.	Socioeconomic data, history/contact with HIV, disclosure, self-efficacy, demographics, quality of life, contact with CBOs.	Factors positively associated with disclosure: higher living standard index score, more people living in household, living with partner, becoming infected through blood, using other means to treat HIV, sharing concerns with friends, feeling need to speak to care provider, greater discussion with care provider, social exclusion. Factors negatively associated with disclosure: employment, having gone for testing voluntarily, larger social support.
Lunze et al., 2013	HIV disclosure among injection drug users/ alcohol	605 HIV infected risky drinkers in Russia. Mean age 29.9. 59.2% male. 38.9% married.	Disclosure to sex partners, alcohol consumption, Sero discordance, partner type, Beck's depression inventory, Berger HIV stigma scale, STI history.	Alcohol use, Sero discordance, steady partner, multiple partners, knowing HIV diagnosis for less time, history of STD associated with non-disclosure.

	dependent individuals.			
Maeri et al., 2016	HIV disclosure in Africa	112 community members, 32 community leaders and 50 health providers in Eastern Africa.	Semi-structured interviews- experiences of disclosure, social norms, practices, beliefs Interviewers matched to participant gender.	Women- anxiety about fear of abandonment, relationship dissolution, fear of violence, financial dependence. Men- fear of accusations, blame, fear of conflict, fear of abandonment.
Maman et al., 2001	HIV disclosure in Africa.	15 women, 17 men, 15 couples in Dar es Salaam, Tanzania. Average age of 28. 42% women. 15 women (13 positive, 2 negative). 17 men (6 positive, 11 negative). 15 couples (10 both negative, 3 both positive 2 Sero discordant).	In-depth interviews.	Serostatus influenced decision to share test results. Perceived more negative reactions to positive results and believed partner would view them as having been unfaithful. Men viewed disclosure process as less troublesome. Fear of partner reaction and communication about HIV testing influenced decision to disclose. Social support vital- one participant reported that her priest had encouraged her to talk to her husband about HIV testing.
Maman et al., 2003	HIV disclosure among female participants	15 women, 17 men, 15 couples in Dar es Salaam, Tanzania. Average age of 28. 42% women. 15 women (13 positive, 2 negative). 17 men (6 positive, 11 negative). 15 couples (10 both negative, 3 both positive, 2 Sero discordant).	In-depth interviews.	Serostatus influenced decision to share test results. Perceived more negative reactions to positive results and believed partner would view them as having been unfaithful. Men viewed disclosure process as less troublesome. Fear of partner reaction and communication about HIV testing influenced decision to disclose. Social support vital- one participant reported that her priest had encouraged her to talk to her husband about HIV testing.
Mao et al., 2018	HIV disclosure among several populations.	1254 Chinese participants 742 men and 512 females. 19.6-59.4 (Average 38.9). 71.7% Han. 78.2% married or cohabiting.	Sociodemographic, Burger HIV stigma scale, Chinese version of the Zimet multidimensional scale of perceived social support, disclosure	Higher perceived support associated with disclosure to steady and romantic partner. Married and cohabiting participants more likely to disclose. Older participants less likely to have disclosed. Employed participants more likely to disclose.
Marcus et al., 2017	HIV disclosure among MSM	4901 MSM in 13 European cities. 497 HIV positive. 18-81 (predominantly 25-35).	Demographics, disclosure, partner type, mutual disclosure, risk management tactics used.	Disclosure more common when: partner was steady, if aged 35-44, if participant was a migrant, if had higher education, were out to more people, if had tested recently, if aware of HIV positivity, if had fewer partners, if both receptive and insertive during sex, if had unprotected sex, had no substance use, less stigma.
Marhefka et al., 2012	Disclosure of sexually	251 men in the USA. 18-69 (M 31.9), 72% Caucasian,	Disclosure, information shared with partner, questions asked by partner, test results,	HPV negative men more likely to disclose. Commitment to partner associated with disclosure. Those with higher educational

	transmitted infections	86% had college education, 82% disclosed. Relationship duration few weeks to 43 years (M 5.5 years)	demographics, stigma, partner status, commitment, time in relationships, monogamy.	attainment less likely to disclose. Those who perceived greater HPV stigma less likely to disclose.
Marks et al., 1991	HIV disclosure among MSM	138 men in Los Angeles, USA. 104 Hispanic, 21 White, 11 Black and 2 Asian. 91% Homosexual or Bisexual. 45% had been sexually active in the 18 months since learning of their HIV serostatus.	Matrix checklist- sexual activity, disclosure to partners, knowledge of partner status.	30 of the 58 sexually active men had kept their serostatus from one or more sexual partners (52%). Likelihood of disclosure decreases in direct proportion to number of partners. Tended to reveal infection to partners known to be seropositive.
Mason et al., 1995	HIV disclosure among MSM	398 men with HIV in the USA. 192 Latino and 206 white men. Latino ppts were significantly younger than white ppts (M 35.5 vs 39.6), less likely to be employed (35.4 vs 55.3), less likely to be exclusively gay (57.3 vs 72.8).	Whether they had disclosed to targets, open ended reasons for non-disclosure (coded into categories by two independent coders), acculturation (language questionnaire completed in, country of origin, years lived in US), Miles lived from parents, target awareness of sexual orientation, demographics, time since diagnosis and symptom severity.	Spanish speaking Latino men were significantly less likely to disclose to a lover than English speaking Latino men and white men. Gave self-focused reasons for not informing lovers of HIV (i.e., I need their support).
Mbichila et al., 2018	HIV disclosure in Malawi	562 HIV positive people in Lilongwe, Malawi. Median age 35, 54.6% female, 90.9% married.	Partnership duration, disclosure of HIV, controls (age, education, residence, marital status, time since diagnosis, ART status)	Those who disclosed were more likely to be: married, had last sexual encounter with partner, to know partner status, have had fewer sex partners, be on ART for longer, longer relationship duration
McArthur et al., 2013	HIV disclosure in Uganda	78 HIV positive participants in Uganda. 14-48 (M 33). 59% men. Predominantly married.	Unstructured interviews using topic guides. Interviewer and participant matched in gender. Interviewed in location participant felt most comfortable.	Disclosed as wanted partner to support her. Concealed as worried would lead to relationship dissolution, abuse, murder. Disclosed so partner received treatment. Desire to have children promoted disclosure. Higher responsibility to disclose with steady partner.
McKay & Mutchler, 2011	HIV disclosure among MSM	148 HIV positive MSMW in Los Angeles, USA. 20-59 (M 39.8), 58% Bisexual, 37% homosexual, 5% heterosexual. 43% had male primary partners, 11% female, 46% both male and female primary partners in last 5 years. 33.1% Black,	Disclosure (primary vs casual), demographics, sexual orientation, feelings of responsibility (5 items), undetectable viral load, partner characteristics (sex, race, status, type etc)	Black and Latino participants were less likely to disclose before sex than white participants. Gay identified MSMW were less likely to disclose after sex than bisexual identified MSMW. Feelings of responsibility to partner positive associated with disclosure. Disclosure less likely to casual (vs steady) and HIV negative/unknown (vs positive) partners.

		33.8% Latino, 33.1% white. 69.3% partner male and 30.7% female. 22.7% of partners were steady and 77.3% casual.		
Mohammed & Kissinger, 2006	HIV disclosure among several populations.	218 participants reported on disclosure to past partners and 139 reported on disclosure to current partners. Participants were residing in Louisiana, USA. Past partners: 58.3% African American, Mean age 31, 68.3% single, 44% had 2 or more partners, 49.6% reported same sex partner. Current partner: 62% African American, Mean age 37.3, 27 male and 42 female. 62% married.	Disclosure to partners 3 months before diagnosis and 3 months before study. Items from Brief symptom inventory used to measure depression. Binge drinking- 5+ drinks per serving. Problem drinking assessed using CAGE inventory. Demographics, sexual behaviour, drug use, ARV adherence, time since diagnosis, whether received partner notification services, number of partners.	Disclosure to past partners: More likely if monogamous, received PN services, reinitiated sex with partner post diagnosis. Positive but non-significant: being female, not being African American, no reported drug use. Disclosure to current partner: More likely if not African American, if monogamous.
Mohammed et al., 2010	Disclosure of sexually transmitted infections	977 men and 463 women in New Orleans, USA. Men- 95.7% Black, 49.3% graduated from high school, median age 24.2. Women- 99.1% Black, 87.3% had high school education, median age 23.7.	A-CASI questionnaire (disclosure, behaviour, condom use).	In men: Disclosure was more likely when men were aged over 24, had only 1 partner, were in a steady relationship, were married, were living with partner, who saw partner before follow-up, whose partner had discharge, who reinitiated sex with partner, who used condoms consistently, who did not have a new partner before follow-up, who were assigned to the PDPT condition. In women: Disclosure more likely when only had one partner, were in a steady relationship, were living with partner, who saw partner before follow-up, who reinitiated sex with partner, who did not acquire new sex partner before follow-up.
Moore et al., 1995	Sexual health communication	189 women. 44 Dominican, 54 Puerto Rican, 91 Mexican. 18-40 (M 30), With primary partner for at least one year, believed partner had sex outside relationship, not used drugs or given birth in previous 6 months.	Questionnaire developed through focus groups with Dominican, Puerto Rican and Mexican women to determine appropriateness of questions. Translated into Spanish and then back into English. Measured: Acculturation (How often they spoke in Spanish to partner, parent, friend or child), Perceived HIV risk, Relationship characteristics (openness of communication, openness of sex communication, degree of conflict), Expected partner reaction to condom negotiation, HIV	Mexican women reported less open sex communication. Majority of women perceived that their partner would have a negative reaction to requests to use a condom (i.e., anger, accusations of infidelity or accusations of having an STD). Dominican and Puerto Rican women reported more HIV related communication. Mexican women were least likely to discuss testing or request that their partner get tested. Women who perceived themselves at greater risk of becoming HIV infected and reported more open communication reported increased HIV related communication. Women who had additional sexual partners outside the relationship were less likely to communicate about HIV issues.

			related communication. Frequency of using condoms	
Moskowitz & Roloff, 2008	HIV disclosure among MSM	106 HIV positive MSM recruited online. 84.9% white, 74.5% lived in cities, Mean age 41.08.	Vengeance (Stuckless and Goranson 1992), Disclosure (frequency), HIV transmitter certainty (certainty over who gave them HIV), Condom use (frequency), Number of partners, Perceived transmission to others (certainty of transmission to others).	Vengeance negatively associated to disclosure to casual partners.
Moskowitz & Seal, 2011	HIV disclosure among MSM	1451 MSM recruited from community events in Chicago and Milwaukee, USA. Aged 18-73 (M 38.86). 80.6% HIV negative, 19.4% HIV positive, 76.4% white.	HIV status, condom use, disclosure frequency, self-esteem (self-liking/ self-competence scale-revisited version)	Tendencies towards disclosure increased with Self-esteem, but only amongst HIV positive men.
Murphy et al., 2015	HIV disclosure among MSM	84 HIV positive MSM in Ireland. Aged 29-45. 1.7-8.5 years since diagnosis.	Demographics, disclosure, Gay community attachment (Fergus et al 2009), HIV health optimism (Prestage et al 2012), HIV+ community attachment	Higher gay community attachment and higher number of partners associated with less consistent disclosure. As HHO, GCA, number of partners, age increased so did likelihood of disclosure.
Murphy et al., 2016	HIV disclosure among MSM	15 HIV positive gay men in Ireland. Aged 21-43, Average number of partners in 6 months=5	Semi structured interviews- experience of diagnosis, factors influencing disclosure.	Stigma resistance and self-protection provided as reasons for non-disclosure. Loss of sexual opportunity. Partner may share status leading to social exclusion from gay community. Stigma- HIV positive men viewed as promiscuous. Low perceived risk to partner- low viral load and condoms used.
Myers et al., 2016	Disclosure of sexually transmitted infections	93 participants mostly living in the USA. 80.4% white, 79.6% female, 87.1% had college degree or higher, 73.9% heterosexual, 18-73 (M 39.2).	Disclosure, Herpes stigma internalisation (developed from version of HIV stigma scale), demographics, time since diagnosis, medication use, partner characteristics.	Older participants more likely to disclose. Those in committed relationship more likely to disclose. Relationship duration associated with disclosure. Expectations of partner reaction associated with disclosure. Reasons for disclosure: wanted to be honest, protect partner from infection, right to know. Reasons for non-disclosure: concerns of past reactions, ashamed, fear of rejection
Myers, 2020	Disclosure of sexually transmitted infections	92 participants mostly living in the USA. 80.4% white, 79.6% female, 73.9% heterosexual, aged 18-73 (M 39.2). Relationship length 12.3% less than 3 months, 6.2% 4-6 months, 11.1% 7 months to 2 years, 28.4% 2-5 years, 39.5% 6+ years.	Disclosure (did you tell your last partner you have genital herpes), disclosure timing.	Disclosure more prevalent prior to receiving oral sex versus performing oral sex. Those who disclosed more likely to have gone on first date, stopped dating other people, said "I love you", reported partner saying "I love you", got engaged, got married. High disclosure rates associated with anal sex.

Noor et al., 2014	HIV disclosure among MSM	3309 MSM in the USA. 72.6% white, Mean age of 33.8. 90.6% gay.	Demographics, internet use, sexual behaviour, douche use, drug use, sex role, LTR, openness, mental health, internalised homonegativity, HIV STI status, awareness of policy, HIV disclosure, sexual risk behaviour, meeting venue, depression.	For partners who had unprotected sex with: Less likely to disclose if met partners exclusively online or exclusively offline, if was gay, if was separated/divorced/widowed, if had more depressive symptoms, if had more partners. More likely to disclose if was out as gay. For partners who had protected sex with: More likely to disclose if out as gay. Less likely to disclose if met partners exclusively online or exclusively offline, if identified as black, if identified as gay, if was separated/divorced/widowed, if had higher internalised homonegativity, if had more depressive symptoms, if had more sex partners.
O'Brien et al., 2003	HIV disclosure among female participants	269 HIV positive women in New Orleans, USA. 84% Black. 52.4% Male. Aged 18-74 (Median age 34.5). Diagnosis 2 weeks to 5.6 years (Median 2.7 years).	Disclosure to friends/ family/ partner/ casual sex partner. Demographics, date of diagnosis, CD4 count, mode of HIV acquisition, sexual activity since diagnosis.	More likely to disclose to main partner than casual partners. Respondents over age of 22 more likely to disclose. Respondents with a lower CD4 count were more likely to disclose.
Odiachi et al., 2018	HIV disclosure among female participants	100 HIV positive women in Nigeria. 25 newly diagnosed, 26 antenatal, 28 post-partum, 21 long-term diagnosed. 69% aged 21-30. 86% married.	Sociodemographic, disclosure. Semi-structured interviews.	Fear of rejection, conflict and violence provided as reasons for non-disclosure. Reluctant to disclose if did not know partner status.
Ojikutu et al., 2016	HIV disclosure among female participants	299 heterosexual women with HIV 100 Thailand, 100 Zambia, 99 Brazil. Median age 38. 72% cohabiting.	Perceived community beliefs (23 item), anticipated stigma (5 item), demographics, centre for epidemiologic studies depression scale, number of partners, partner status, cohabitation, alcohol use disorders identification test.	Women who were older, had severe symptoms of depression, who reported stigma, who were unmarried or not cohabiting less likely to disclose.
Olagbuji et al., 2011	HIV disclosure among female participants	166 HIV positive pregnant women in Nigeria. Mean age 31.6 (25-39). 12% did not disclose. 96.4% married. All Christians.	Trained female interviewers conducted semi- structured interviews. Demographics, disclosure, reasons for non-disclosure.	Non-disclosure significantly associated with nulliparous women (never given birth before) and being single (unmarried). Reasons for non-disclosure include fear information would spread, fear of stigmatisation, fear of deterioration of current relationship.
Olley et al., 2004	HIV disclosure.	69 heterosexual people living with HIV/AIDS in South Africa.	Sociodemographics. Sexual risk behaviour questionnaire. Negative life events scale. Brief COPE (Coping behaviours)	Males were more likely to not disclose. Non-disclosure associated with alcohol use before sex, multiple sexual partners, more frequent sexual activity, non-condom use during last encounter, being in married relationship.
Osinde et al., 2012	HIV disclosure in Uganda.	403 HIV positive participants in Kabale, Uganda. 74% female. 27.1% aged 26-29.	Sociodemographic, social habits, reproductive history, sexual history, disclosure.	Factors associated with disclosure: age, having children who died, age at first intercourse, age at first marriage. Factors associated with non-disclosure: stable relationship, having sex in

		48.7% married and 27.6% widowed.		last 6 months, change of sex partner, number of partners, frequency of sexual intercourse, if partner HIV positive, use of ARV, use of contraception, stigma.
Overstreet et al., 2013	HIV disclosure among MSM	156 Black HIV positive living in Atalanta, USA. MSM. Mean age 42.42. 20% in committed relationship. 72% of partners knew status.	Demographics, disclosure to family, disclosure to sexual partners, internalised AIDS related stigma scale, depression (CES-D)	Higher reported stigma associated with increased likelihood that current partner knew status
Paiva et al., 2011	HIV disclosure.	250 HIV positive men recruited from Brazil. 155 heterosexual and 95 bisexual. 58% identified as white, 0.8% Asian or indigenous. 14% identified as Black and 27% self-identified as Brown. More bisexuals had reached university level and more heterosexual participants were married and had children. Diagnosis 1 month to 17 years (M 5.7 years).	Demographics, sexual partners, serostatus, disclosure, condom use, partner type. Focus groups- difficulties in relationship. 14 men. No details on analysis conducted.	Disclosure lowest to partners paid for sex. Disclosure higher to female partners, HIV positive partners and steady partners.
Pantalone et al., 2020	HIV disclosure among MSM	104 gay/bisexual men on PrEP living in New York City, USA. Mean age 32.5, 96.1% gay/queer/homosexual, 50.5% white, 11.7% Black, 8.7% multiracial, 26.2% Latino. 94.2% completed some college. 81.6% employed. 61.2% single, 34% dating, 4.8% married.	Semi-structured interview using guides- influence of prep on conversations about HIV, perceptions of sex, condom use.	Easier to discuss HIV status post prep. Decreased anxiety about HIV acquisition made feel more comfortable with discussion.
Parsons et al., 2004	HIV disclosure among injection drug users/ alcohol dependent individuals.	158 HIV positive individuals living in New York or San Franscisco, USA. 80 males, 78 females. Aged 24-63 (M 41.5). 62.3% African American, 21.4% white, 12.6% Hispanic.	Quantitative (incidence of sexual activity, condom use, HIV status of partners, number of partners, drug use. Depressive symptoms (subscale of Brief Symptom Inventory). Social support (4 items, Cronbach 0.83). Serostatus disclosure. Demographics). Qualitative in-depth interviews (option given to be interviewed by	Larger percentage reported disclosing to a casual partner versus primary partner before sex. Larger percentage disclosed to HIV positive partners than negative partners. Reported that feelings of responsibility for partner influenced decision to disclose. More likely to disclose to regular partners than sex workers. Comfort with discussing status associated with disclosure.

			someone of same race/sex. Sexual practices, drug use, healthcare, adherence, mental health, serostatus disclosure, recent sexual encounters)	
Parsons et al., 2005	HIV disclosure among MSM	858 HIV positive MSM living in New York or San Franscisco, USA. Had sex with a casual or non-primary partner in last 3 months.	Disclosure of HIV status (number of partners, how many told), Sex behaviour (frequency of oral, receptive anal and insertive anal. Condom use), Disclosure self-efficacy (perceived ability to disclose), Disclosure intention (agreement to "I plan on telling all new partners before sex"), Health characteristics (time since diagnosis, CD4 count), Mental health (Brief symptom inventory. Kalichman scale of sexual compulsivity), Psychosocial HIV factors (perceived responsibility to partner, assumption about partner status), Outcome expectancies (expected outcome from disclosure), Affiliation with HIV positive men (connection), Alcohol/drug use (frequency), Beliefs about unprotected sex (transmission and consequences), Social desirability (Marlowe-Crowne desirability scale).	High self-efficacy, intentions to disclose, perceived responsibility to protect others, increased feelings of connection with HIV positive men, stronger belief about HIV/STD transmission, lower levels of hedonistic outcome expectancy, fewer serostatus assumptions, received more support from HIV positive men, talked more with HIV positive men about sex, used fewer drugs, lower income.
Patel et al., 2012	HIV disclosure among female participants	200 HIV positive women living in Zimbabwe 22-69 (Median 35). 37% married. Mean duration of diagnosis 2 years.	UCFS CAPS HIV counselling and testing self- esteem scale, UCFS CAPS HIV counselling and testing depression scale, Bauman disclosure matrix, medical chart review, Berger HIV stigma disclosure subscale, Berger HIV stigma personalised and public stigma subscale, Shona symptom questionnaire, HIV QOL by Taylor et al 2009.	More likely to disclose if married, had higher age at first menses, longer diagnosis, more likely to be on ART, displayed more symptoms.
Pfeiffer et al., 2016	Disclosure of sexually transmitted infections	1064 participants living in the USA. Aged 17-24. 79% white, 6% African American, 5% Latino, 6% Asian, Mean age 20.1	Attitudes, sexual behaviour, relationships, willingness to disclose, masculinity (Chu et al), behavioural risk factor surveillance system questionnaire.	Factors associated with willingness to disclose: older age, lower conventional masculinity, having checked partner phone. Less likely to disclose to casual partners or if used drugs and alcohol before sex.
Pines et al., 2015	Disclosure of sexually transmitted infections	335 participants living in the USA- 181 female sex workers and 154 partners. Mean age 35.8, Duration M=5 years	STI/HIV testing, sociodemographic, substance use, sexual behaviour, abuse, partner characteristics	Reasons for non-disclosure: scared partner would become angry, partner also positive, low trust, not important for partner to know, end of relationship. Non-disclosure more common in longer partnerships and where drug use occurred before sex.
Powell & Segrin, 2004	HIV disclosure among perinatally-	153 student couples living in Midwestern USA.	Family communication (Family assessment device-communication subscale). Peer/dating	Family and peer communication about HIV/AIDS were significant predictors of partner communication about

	infected adolescents	Largely heterosexual. Mean age of participants 20.9. Mean age of partner 21.51.	partner communication (Primary communication inventory). Communication about sex. Communication about HIV (HIV/AIDS communication scale.)	HIV/AIDS. General family communication had a negative impact on general dating partner communication. General partner communication had significant negative relationship to partner communication about sexuality. Partner communication about sexuality was predictor of communication with partner about HIV/AIDS.
Preau et al., 2008	HIV disclosure.	1285 HIV positive participants living in France. Mean age 42, 30.7% female and average relationship 10 years.	Religion, sociodemographic, partner characteristics.	HIV disclosure less likely among younger participants, migrant participants, those who considered religion as important in their life, in shorter relationships, if did not know partner status, if viewed condoms as source of tension, shorter time since diagnosis.
Prestage et al., 2001	HIV disclosure among MSM	300 Australian men aged 20-74 (M=38.7), 35.7% received university education, 71.3% in full time employment. 86,7% from Anglo Celtic background. 230 HIV negative and 60 HIV positive. 85% gay.	Previous social/sexual contact with partner, respondent/partner HIV serostatus, requests among casual partners for unprotected sex, discussion of HIV serostatus, condom use frequency. In-depth interview conducted with 20 participants: examined use of gay community-based commercial sex on premises venues.	Whilst 52.8% of HIV positive men disclosed their serostatus to casual partners, only 31.8% of HIV negative men did. Level of familiarity with partner influenced condom negotiation.
Qiao et al., 2016	HIV disclosure.	791 HIV infected participants living in China 57% men, 70% Han, Mean age 38, 78% married, duration since diagnosis M=4 years.	Sociodemographic, disclosure, quality of relationship (Funk and Rogge 2007), family communication scale	Higher proportion of those who disclosed were married, reported HIV positive partners, higher relationship quality, better family communication.
Raj et al., 2006	HIV disclosure among injection drug users/ alcohol dependent individuals.	124 HIV-positive individuals with history of alcohol problems living in Boston, USA. 25-61 (M 42), 79% male, 49% Black, 33% lesbian, gay or bisexual.	Demographics, Non-disclosure to sex partners (Have you told the following that you are HIV infected), Sexual risk variables (Risk assessment battery), Substance abuse (Addiction severity index), Victimisation (2 items assessing physical and sexual abuse)	Age, gender, and sex not associated with disclosure. GLB participants were less likely to disclose to all sex partners than heterosexual. Participants with multiple sex partners or who bought sex were less likely to disclose.
Ramlagan et al., 2018	HIV disclosure among female participants	673 South African women Mean age 28.39, 21.7% employed, 37.7% living together.	disclosure, sociodemographic, diagnosis, visual analogue scale (adherence to ART), AIDS related stigma scale, conflict tactics scale, Edinburgh postnatal depression scale.	Older age, increased ART adherence, HIV positive partner, high partner involvement associated with increased disclosure. Having a child and being diagnosed during current pregnancy negatively associated with disclosure. Higher income associated with lower disclosure. Cohabitation associated with higher disclosure.
Reback et al., 2015	HIV disclosure among MSM	31 men who have sex with men and women living in the	Open-ended semi-structured interview: Sexual history, sexual risk history.	Cultural norms: Did not disclose same-sex partners to female partner as viewed that was the cultural norm. Other men had

		USA. 12 HIV positive. 22-60 (M 39.85). 61.9% African American. 28.5% white, 4.8% Asian/Pacific Islander. 4.8% Latino. 28.6% married.		partners who were male and did not inform primary female partner. Fear of rejection and relationship dissolution played a key role and hid same sex partners to maintain and protect relationship. Less likely to disclose if felt partner held negative attitudes towards same sex behaviour. Disclosure of HIV status viewed as more acceptable. More likely to disclose if viewed as acceptable in boundaries of sexual experimentation. Some viewed information as none of their partner's business and did not compromise health of partner so was no need to disclose.
Rosengard et al., 2004	HIV disclosure among injection drug users/ alcohol dependent individuals.	243 individuals in Rhode Island, USA. 79 women and 164 men. 18- 67 (M 35.02). 86% Caucasian, 9% African American, 3% Hispanic, 2% Native American. 88% heterosexual.	Demographics, number of male/female sex partners, disclosure of risk factors (4 items), drug use (who had shared needles with).	More likely to disclose HIV status/drug use to primary partners than casual partners.
Rosser et al., 2008	HIV disclosure among MSM	675 HIV positive MSM living in the USA. Median age 42. 45% African American, 25% Caucasian, 23% Hispanic, 80% gay, 17% bisexual, 3% heterosexual.	Existing measures of sexual comfort, internalised homonegativity, mental health, social support, compulsive sexual behaviour inventory, altruism, condom self-efficacy, social norms, HIV behavioural intention, HIV disease, outness.	Greater disclosure associated with white racial identity, outness as MSM, knowledge of CD4 count, detectable viral load, years since diagnosis, number of partners.
Rouwenhorst et al., 2012	HIV disclosure among MSM	534 Australian MSM who had engaged in protected and unprotected intercourse in previous 12 months. 15-74 (M 36.9). 54% had attended university level education. 18.4% HIV positive. 81.6% gay, 6.7% homosexual, 10.7% bisexual. 44.2% had 2-10 casual partners. 54.6% had 10+.	Condom use, most recent sexual encounters, familiarity and trust with partners, demographics, sexuality, community engagement.	89.1% whose partners disclosed status also disclosed. Disclosure higher to partners where unprotected sex occurred versus protected. Non-significant influence of familiarity.
Rujumba et al., 2012	HIV disclosure among female participants	30 pregnant women in Eastern Uganda 18-43. Predominantly married.	Semi-structured interviews- questions on background characteristics, disclosure, support. 40-45 minutes. Rapport built in process.	All HIV negative women disclosed. Reasons for non-disclosure: fear of accusation, perceptions that partner would react negatively, fear partner would accuse them of infidelity, fear of abandonment or violence, guilt and perceived responsibility surrounding non-disclosure, fear to lose support. Religious conviction aided disclosure.

Saggurti et al., 2013	HIV disclosure among female sex workers.	216 female sex workers and 210 male clients in India. Age of FSW 22-49. Male clients 20-49	Demographics, alcohol use (timeline follow back method), HIV disclosure, sex risk behaviour, health status, HIV knowledge, knowledge of partner status.	Alcohol use associated with non-disclosure. Knowledge of HIV associated with disclosure. Non-disclosers were younger, had more partners, had sex with unpaid partners, had poorer knowledge of partner status.
Saul et al., 2000	HIV disclosure among female participants	187 Puerto Rican women 73.8% had children, 27.3% married, Mean duration of 4.5 years.	Education. Decision making (Patterned after Madden et al). Scales developed from Rusbult (commitment, perceived alternatives and investment measured). Abuse (physical and verbal). HIV related communication (talking about HIV related topics and requests to partner to have sex in a certain way.)	Employed women reported lower levels of communication. Women with higher commitment to relationship reported lower levels of communication.
Scorgie et al., 2021	Sexual health communication.	39 women. 25 participants from Johannesburg and 14 from Mwanza. Mean age 20.5. Johannesburg- largely living with parents/relatives/ student housing, half were tertiary level students. Mwanza- predominantly completed only primary level education, mostly living alone or with family.	In-depth interview at 3 months (experience of prep uptake and challenges with use), 6 month (barriers to adherence), 9-12 month (experience of study intervention). Conducted in preferred language.	Reasons for disclosure of Prep use: desire for honesty and openness, decision had already been made to use Prep so informing partner not asking. Others did not disclose due to fear of violence, conflict, throw pills away, and due to low trust, high stigma. Less likely to disclose to casual partners versus steady.
Seid et al., 2012	HIV disclosure in Ethiopia	360 HIV positive participants in Northeastern Ethiopia. 5% female. Mean age 33.4 years. 93.1% disclosure.	Disclosure, demographics, prior discussion, social network, medical factors, partner characteristics.	Those who disclosed to family and had previous discussion with family more likely to disclose to partner. More likely to disclose if knew partner status and if had smooth relationship with partner. Reasons for non-disclosure: Fear of divorce, fear of confidentiality, fear of accusation of infidelity, fear of stigma and discrimination, fear of physical abuse.
Siegel et al., 2005	HIV disclosure among female participants	284 HIV positive women living in USA 43% African American, 28% Puerto Rican, 29% white.	Focused interview conducted by female interviewer. Challenges associated with HIV.	Reasons for disclosure: Felt partner had the right to know (protecting partner and allowing them the chance to make informed decision). Sense of obligation (Felt they were infected by partner who was aware of serostatus and did not want to the same to someone else. Fear of hurting partner). Reasons for non-disclosure: Belief that safe sex meant no longer obligated to disclose, fear partner would tell others of serostatus, scared relationship would end if told partner due to associated stigma.
Semple et al., 1999	HIV disclosure among MSM	223 HIV positive participants living in San Diego, USA. 89.7% male, aged 23-62 (M 36.4), 65% Caucasian, 14.8% African American, 13.9%	Disclosure self-efficacy (3 items). Disclosure positive outcome expectancy (3 items), Disclosure behaviour (percentage of times individual disclosed prior to sex in past 4	Disclosure rates were lower for participants with multiple sexual partners and disclosures were highest for steady partners compared to casual or anonymous partners. Women were more likely to disclose to all sexual partners but also had fewer casual/anon partners so possible confound. Having more

		Latino. 62% had at least some college education. 84% gay/bisexual. 71% never married. 44% AIDS diagnosis.	months), Emotional support scale, Depressive subscale of profile of mood states.	emotional support linked to higher self-disclosure. High self-efficacy and more positive outcome expectancy associated with disclosure.
Semple et al., 2006	HIV disclosure among MSM	132 HIV positive MSM dependent on Methamphetamines living in San Diego, USA. 80.3% homosexual and 19.2% bisexual. 60.6% Caucasian, 19.7% African American, 10.6% Hispanic, 4.5% native American, 1.5% Asian. 86.4% never married. 70% unemployed. 21-61 (M 36.2). HIV positive for average of 7.4 years. 91% meth dependent.	Interview- meth use, alcohol, sexual risk practices, HIV attitudes, partners, sexual communication skills, disclosure, background characteristics.	86% disclosed to HIV negative partners compared to 50% to HIV unknown partners. Disclosure rates similar between HIV negative and positive partners. Rates of disclosure across partner types did not differ by partner serostatus. Percentage high on meth during disclosure did not differ by partner type or serostatus.
Serovich et al., 2009	HIV disclosure among MSM	77 HIV positive MSM living in Midwestern USA. Aged 19-60 (M 40), 52% Caucasian, 37% African American, 11% Hispanic or Native American. 73% had completed college or attended to some degree. 74% employed. 71% single and 22% in open relationships.	Disclosure- author developed. 13 items. High score indicates higher risk associated with disclosure. Administered at 3 time points: pre, post and at 3 month follow up. High reliability found 0.95-0.98.	Minority participants and employed participants had higher baseline disclosure scores. Post intervention- facilitator only group had beneficial effect on disclosure. Lower scores on disclosure scale indicating more positive attitudes towards disclosure.
Serovich et al., 2017	HIV disclosure among MSM	339 MSM living in the USA. 47.92% white, 36.6% Black, 15.48% other. 79.46% gay and 20.54% bisexual. Mean age 42.11. Years since diagnosis M 10.94.	Relationship status, Health protection sexual communication, disclosure, sexual encounters, demographics.	Health protective sexual communication (HPSC) increased over time. No intervention effect. Those in committed relationship reported more HPSC. Employed men reported lower HPSC. Older men reported lower HPSC. Black men reported lower HPSC. Those who were committed and had extradyadic partners had lower HPSC than those who did not.
Serovich et al., 2018a	HIV disclosure among MSM	123 Black MSM living in the USA. 63.4% gay, 36.6% bisexual, Mean age of 40.9. Knew of HIV status for Mean of 10.1 years.	Disclosure, risky sexual behaviour, number of insertive and receptive partners, readiness to disclosure, readiness to engage in safe sex, consequences of disclosure, age, time since diagnosis, viral suppression.	Readiness to disclose and engage in safe sex, and perceived rewards of disclosure positively associated with disclosure. Greater perceived disclosure costs associated with lower disclosure. Time since diagnosis negatively associated with disclosure intent.

Serovich et al., 2018b	HIV disclosure among MSM	337 MSM living in the USA. 90.48% non-Hispanic, 49.21% white, 36.51% African American, 79.62% gay, 20.06% bisexual, Mean age 42.06, time since diagnosis 10.93	Disclosure (13 items, CA 0.96-0.98). Self-efficacy (HIV disclosure, condom use, safe sex negotiation. CA 0.45-0.89). Control-race, employment, sexual orientation, education, income, age, time since diagnosis.	Significant increase in disclosure over time. White versus racial minority and those with fewer partners reported greater disclosure. Greater HIV disclosure self-efficacy predicted increased disclosure behaviour. Greater HIV outcome expectancy predicted increased disclosure.
Serovich et al., 2018c	HIV disclosure among MSM	249 MSM living in the USA. Average age 42, Average time since diagnosis 10.21 years, 50.6% white, 90.76% non-Hispanic, 79.52% gay.	HIV transmission risk (modified transmission risk scale- validation?), disclosure, controls (partner details, partner type, sex location, substance use, age, time since diagnosis, race, relationship status, orientation, viral load.	Disclosure more likely in lower risk than higher risk behaviour encounters. Such as, unprotected sex with HIV positive partners, oral only compared to Unprotected sex with HIV negative partner.
Sheon & Crosby, 2004	HIV disclosure among MSM	150 gay/bisexual men living in San Franscisco, USA (60 analysed) 53% Caucasian, 38% African American. 62% HIV negative, 35% HIV positive. 14% under 30, 58% 31-40. 27% 41+.	Semi-structured interview (trained interviewer and pre-established probes).	Social norms- does not ask partner status as no-one else does. "I've never run into anyone yet since being in San Francisco that ever bring up the question". Justify non-disclosure of HIV-negative status by situating it in the community norms. Did not disclose as was seldom done by peers. HIV-negative men felt discomfort disclosing serostatus to those that they believed to be HIV positive due to desire to not hurt partner feelings. Fear of rejection, fear of ruining spontaneity, stigmatising partner. Timing (HIV positive participants disclosed upfront to avoid more difficult disclosures later).
Short et al., 2007	Sexual health communication	171 girls in the USA. Mean age 18.2, 27% Caucasian, 34% Hispanic, 39% African American.	Interviews- demographics, experience of using product, whether had told partner and reactions.	Factors not associated with disclosure (age, race, number of sexual partners, length of sexual experience). Talking with mother and use of product associated with talking to partner. Embarrassment, negative perceptions of partner and knowing were not going to use the product given as reasons for not discussing with partner.
Shrestha et al., 2019	HIV disclosure among injection drug users/ alcohol dependent individuals.	133 participants in Connecticut, USA. Mean age 49.3, 76.7% not heterosexual, 41.4% living with friends or family, duration of HIV Mean of 14.1 years.	Sociodemographic, non-disclosure (yes/no), health-(time since diagnosis, ART, VL, CD4), HIV risk assessment (NIDAS risk behaviour assessment), HIV stigma scale, HIV risk reduction (Huedo-Medina et al 2016)	Those who were virally suppressed less likely to withhold disclosing HIV status. Participants with higher degree of perceived HIV related stigma and with multiple sex partners less likely to disclose. Being older and heterosexual also associated with non-disclosure.
Sikstrom, 2018	HIV disclosure in Malawi	35 children and their parent/grandparents living in Northern Malawi, 72 stakeholders, 26 men35 children (19 boys and 14 girls), 96 of their caregivers,	In-depth semi-structured interviews (up to 10 repeat visits), experience of stigma, symptoms noticed, disclosure, diagnosis, steps taken, healthcare decision making.	Informed partner as could provide with support. Presence of children, positive relationship with grandparents and marital stability promoted disclosure. Belief that there should be openness in marriage led to increased disclosure. Non-disclosure associated with unstable/new/temporary relationship. Children

		72 stakeholders (health officials, healers, grandparents, religious leaders), 26 men		seen to solidify relationship, so absence associated with reluctance to disclose.
Simbayi et al., 2007	HIV disclosure in South Africa	903 HIV positive individuals living in Cape Town, South Africa- 73% under 35, predominantly Black, received diagnosis approx. 2.5 years ago.	Demographics, HIV related health, disclosure, substance use, sexual behaviour.	Those who had not disclosed were more likely to be married, identify as coloured, had more sex partners, concealed HIV from friends, had experienced discrimination, had lower efficacy for disclosure.
Simbayi et al., 2017	HIV disclosure in South Africa	934 HIV positive participants living in South Africa	Demographics, partner notification, relationship characteristics (age difference, partner numbers, condom use), HIV knowledge, alcohol use disorder identification test, rejection of HIV myths.	Females more likely to disclose. Those aged 15-24 more likely to disclose (compared to employed versus unemployed people). Higher education associated with higher disclosure. Those living in Urban formal areas more likely to disclose. More likely to disclose if had fewer partners. More likely to disclose if had younger or similar aged partner. Increased HIV knowledge associated with disclosure. Those who disclosed were more likely to have been tested outside HCT study.
Sobo, 1995	HIV disclosure among several populations.	4 HIV positive individuals living in New Mexico, USA. 3 women and 1 man. 2 had AIDS, 2 female participants were ex-intravenous drug users. 1 Latina and 3 white. All between late 20s and early 30s. 2 women were in heterosexual relationships. 1 woman and 1 man were in relationship with women but reported having sex with both men and women.	Focus groups	Discussion areas identified were (disclosee's need to know, non-disclosure and safe sex practices, disbelief and denial among seronegative, strategies for evaluating potential disclosure targets, rejection and acceptance.) All women believed that self-disclosure was necessary with sexual partners. Perceptions influenced (sex education states if condoms are used HIV cannot be passed on), so individuals reported disclosure was unnecessary with casual partners if condoms were used as viewed non-disclosure as harmless.) Perceived openness of partner (participants reported self-disclosure pattern where small disclosures are made to assess how open their partner would be to HIV disclosures.) Fear of rejection may prevent or prolong partners from disclosing their status.
Sobo, 1997	HIV disclosure among several populations.	12 HIV positive individuals living in New Mexico, USA. All late 20s to mid-40s. 7 men and 5 women. Half had progressed to AIDS.	Focus groups	Participants indicated that disclosure was necessary with sexual partners. Non-disclosure seen as justified if just a one-night stand if condoms were used. Participants indicated most people do not disclose HIV infection because means they can go back to normal.
Stein et al., 1998	HIV disclosure among several populations.	129 HIV positive participants recruited from Boston or Rhode Island, USA.	Whether had disclosed to sexual partners. Reasons selected from list. Age, sex, race, language, education, employment,	More likely to disclose if female, white or Latino, high spousal support, low friend support, lower sexual partners. Reasons for

		89 male and 40 female. 55 injection drug users. 59 Black, 35 white, 30 Latino. 62 reported 1 partner and the remaining 64 reported 2 or more.	homelessness, HIV transmission group, number of sexual partners, history of violence, history of drug use, alcohol abuse, spousal support, friend support, condom use, clinical symptoms.	not disclosing- stressful, fear of rejection, need to process own emotions first, believed partner could not handle it.
Stirratt et al., 2005	HIV disclosure among MSM	250 HIV positive men. 70% men of colour, New York mostly African American/Latino, whereas San Francisco mostly Asian/Pacific Islander. Aged 20-67 (M 37.6). 40% college graduates. Average time since diagnosis 6 years.	Qualitative interview- racially diverse and standardised training in interviewers. 58 openended questions and optional pen and paper survey (sex practices, drug use, healthcare, treatment adherence, mental health.	Fear of rejection associated with non-disclosure. Social norms-viewed as breaking perceived norms that disclosures are not made to casual sex partners or in public sex environment. Norms that no-one discusses HIV. Viewed as important to disclose in romantic relationship at start to promote intimacy and trust. Development of trust and disclosure of personal experiences promoted HIV disclosure. Daily influence of HIV made it hard to hide HIV from repeat partners, so HIV disclosure viewed as necessary. Moral reasons- ethical obligation to disclose and responsibility to protect partner from HIV transmission. Self-protection from guilt by allowing partner to make an informed decision. No need to disclose if used a condom as low perceived risk. Avoided disclosure if partner viewed as holding prejudiced attitudes. More likely to disclose if partner disclosed first (reciprocity).
Strauss & Falkin, 2001	HIV disclosure among female participants	104 HIV negative women IN New York, USA Typically, in mid 30s. 65.4% African American. All HIV negative.	Semi-structured interview (sources of social support, how they view social support, sexual partners, HIV status, identify who they disclosed to, drug use, sexual risk behaviour, sociodemographic.).	Women were more likely to communicate HIV status if were heterosexual, were tested more frequently, had a larger number of supporters, had communicated HIV status to a larger number of other supporters, talked with supporters about other HIV related issues, felt they could ask partner about past sexual history, were older, were criminal justice clients, were tested for HIV more recently.
Sullivan, 2009	HIV disclosure among several populations.	116 participants in Hawaii, USA. Mean age of men 46.3 versus women 43.6. Men were 78% homosexual, 16% bisexual. Women were 59.1% heterosexual, 31.8% transgender. Men were diagnosed longer 11.8 years versus 9.3 years.	Sex partner by activity checklist, alcohol and substance use before sex checklist, self-efficacy for HIV disclosure instrument (Kalichman et al 2001).	For women, SD higher in heterosexual participants. Disclosure lower among women born in Hawaii compared to migrants. For men higher disclosure amongst those born in Hawaii. Disclosures were more frequent to HIV positive sex partners and less likely amongst participants who did not discuss HIV with partner before sex. Disclosure more common in committed relationships and those with fewer sex partners. Disclosure lower when alcohol, crystal methamphetamine and cocaine used and higher when marijuana consumed. Self-efficacy influenced disclosure. Transgender women less likely to disclose. Lower income participants more likely to disclose. Higher education negatively associated with disclosure.

Sunday & Obioha, 2016	HIV disclosure in South Africa	20 South Africanstudents- 10 female and 10 male. All Black, 18-24. Predominantly dating.	No description of interview methods. Thematic analysis used to analyse data.	Reasons for disclosing HIV status: so partner can provide support, so partner can get tested and prevent infection, partner deserved to know, trust partner, privacy (if viewed it as none of anyone's business less likely to disclose), avoid conflict, fear of partner reaction (especially in women and prompted non-disclosure)
Suzan-Manti et al., 2011	HIV disclosure in Cameroon	1673 PLWHA in Cameroon-61% female, 31-43 (Median 36), 91% no or low education, 70% living with partner, 10-40 months since diagnosis, 85% disclosure to main partners.	Demographics, disease history, adherence, perception of status, social relationship, quality of life, disclosure to partner.	Living with partner, living with children, no sexual risk to partner (condom use or abstinence), not living below the poverty line associated with disclosure. Those who had HIV infected persons in their social network more likely to disclose. Women more likely than men to disclose if they were not head of household.
Tannebaum, 2018	Sexual health communication	144 students in Northeastern USA. 85.4% female, 67.6% white, average age of 19.71, 82.6% heterosexual.	Demographics, sexual health (whether sexually active, safe sex, testing history), technology for sexual communication (several topics via text), likelihood to communicate via text, likelihood to communicate via social media, perceived effectiveness of technology assisted sexual communication (2 items), communication efficacy (4 items), outcome expectations (3 items).	Past use associated with higher intent to communicate in future and higher self-efficacy associated with past communication.
Tester & Hoxmeier, 2020	HIV disclosure among MSM	22 HIV positive or Prep using MSM. Participants were living in Seattle, USA. 77% gay, 68% white, aged 24-58 (M 37.8)	Individual or small group interview- when learned about Prep, perceptions, experiences of prep, impact on life. Probing questions used to gather more information.	Upfront disclosure more prevalent since Prep emerged. Felt empowered to discuss and less stigma attached. HIV is now an easier topic to discuss.
Thurman et al., 2008	Disclosure of sexually transmitted infections	775 women. 582 Mexican American and 190 African American living in the USA. 15-45 years old. Recently diagnosed with an STI	Partner notifications, sociodemographic, financial support, physical or sexual violence, relationship issues.	Less likely to disclose if: planned not to see partner again, did not want to be accused of infidelity, were angry at him, concerned would be angry or violent. More likely to disclose if was only partner and were in steady relationship.
Trieu et al., 2010	HIV disclosure among several populations.	230 Chinese students All heterosexual, 18-24, Relationship length: 33% 1-5 months, 27% 6-12 months, 40% 1 year+.	Quantitative scale (demographics, sexual history, sexual behaviour, health belief, acculturation). Focus groups used to guide development of scale. Piloted before use with student volunteers.	More likely to reveal status in committed relationships versus casual relationships.
Trinh et al., 2016	HIV disclosure in Kenya.	615 newly diagnosed adults in Kenya. Mean age 38.3,	Partnership, disclosure, Pre-Art counselling session and 3 month follow ups for year.	Disclosers were younger, more likely to be married/cohabiting, higher CD4 recovery at 6 months follow up.

		52% male, 90% married or cohabiting.		
Tsai et al., 2013	HIV disclosure in Uganda.	259 HIV positive participants in Uganda. Diagnosis 0.3-1.8 years. 66% disclosure to partner. 67% women. Median age 34. Follow up Mean 1.6 years.	Disclosure to several targets, Internalised AIDS-related stigma scale, Experience of HIV symptoms (HIV related symptom index), Sociodemographic variables.	Internalised stigma negatively associated with serostatus disclosure. Greater symptomology negatively associated with primary sexual partner disclosure. Marital status significantly influenced disclosure.
Van Aar et al., 2015	Disclosure of sexually transmitted infections	461 STI/HIV clients 82% MSM, 9% heterosexual men, 9% women. MSM (63% Dutch origin, median age 32, median 4 sex partners). Heterosexual men (44% Dutch origin, median age 28, median number of partners 2). Women (43% Dutch origin, median age 25, median number of partners 2).	National STI surveillance database- partner information, PN outcome measure. PN notification training programme given to healthcare professionals and compared rates before and after.	Notification rate higher among MSM (92%) compared to heterosexual men (76%) and women (83%). But if all partners included rates higher among women (72%) versus MSM (43%) and heterosexual men (48%).
Visser, 2008	HIV disclosure among female participants	293 Recently diagnosed HIV positive pregnant women living in South Africa. Aged 17-41 (Average 26.5), all pregnant, 20.5% married, 42.1% living with partner, predominantly Black.	Interviewed during pregnancy after finding out about serostatus. Open-ended questions-disclosure and reasons.	Reasons for disclosure: raise risk awareness (31.7%), obligation (29.7%), supportive relationship/trust (13.1%), previous discussion/testing (9%), preparing for baby (4.8%), explanation of illness (2.1%). Reasons for non-disclosure: fear of abandonment (31.8%), fear of blame (7.3%), fear of abuse (6%), fear of violence (6.6%), general fear (9.9%), not ready (27.8%), emotionally not ready (15.8%), baby (3.3%), partner test results (6%), want to discuss in person (2.6%), low contact (13.2%), protect partner (5.3%), lack of trust (4%)
Vu et al., 2012	HIV disclosure in South Africa	630 HIV positive participants living in Cape Town, South Africa8.3% aged 18-24. 50.8% aged 25-34. 31.9% aged 35-44. 9% aged 45-61. 66.7% female. 31% unemployed. 19% had not disclosed to most recent partner.	Sexual risk behaviour, HIV related stigma, HIV disclosure, sociodemographic.	Those aged 24-44 most likely to disclose. More likely to disclose if aware of partner status, if partner is a steady partner, if perceived low levels of stigma, if had been on ART for one year. Being female and living with partner associated with disclosure to casual partner.

Wamoyi et al., 2017	HIV disclosure in Africa	107 HIV positive people in Eastern and Southern Africa. 49% women	In-depth interviews with people living with HIV.	Disclosed due to need for support to prevent mother to child transmission. Not ready to accept status. Potential for physical violence, suspicions of promiscuity, loss of financial support, guilt, fear of negative consequences, abandonment, shame.
Wang et al., 2010	HIV disclosure.	946 participants in Southern China. 53.2% male, 47.8% female. 41.3% under 30, 44.6% 31- 40, 14.1% 41+. 74.5% married.	Structured questionnaire- sociodemographic, disclosure, use of health services, social support, sexual and drug use behaviour	Disclosure higher to regular sexual partners, if tested in Yunnan (versus Guangxi), if HIV was contracted through heterosexual sex (versus injection), if provider discussed notification, if was in a longer relationship.
Wei et al., 2011	HIV disclosure among MSM	1199 MSM living in San Franscico, USA. 12.2% Asian/Pacific Islander, 52.4% White, 6.8% Black, 20.2% Latino, 8.5% other. White participants were more likely to be older than 50 (21.7%). Black participants were more likely to identify as bisexual (21%).	Sociodemographic, sero-adaptive behaviours (status, partner status, sexual practices, recent testing, receptive versus insertive anal intercourse, condom use, strategies used), disclosure (knowledge of partner status, disclosure of own)	Discussion of HIV status less likely to occur amongst participants of Asian/ Pacific Islander ethnicity.
Wei et al., 2012	HIV disclosure among MSM	416 HIV positive MSM Majority from Southeast Asia. 20.2% Taiwan, 15.9% Thailand, 14.9% Singapore, 11.1% Malaysia, 10.1% China. 27.6% aged under 30. 44% aged 30-39. 60.4% had college or post graduate degree. 92.6% gay.	Sociodemographic, measures of transmission behaviours, disclosure, HIV health related information.	Non-disclosure rates varied by country- highest in China (88.1%), Japan (74.4%), Singapore (69.4%). Lowest in Philippines (47.1%). Non-disclosure higher among those with casual versus regular partners. Least likely to disclose to partners met at cruising sites, sex party, sauna. Less likely to disclose if partner did not disclose. Those who received social and emotional support more likely to disclose. Those who were diagnosed between 1 and 5 years ago and those unsure of viral load were less likely to disclose.
Weintraub et al., 2017	HIV disclosure among perinatally- infected adolescents	98 perinatally infected HIV positive youth and caregivers living in New York City, USA. 14.5-25.7 (M 20.2). 63% African American, 48% Latino. Caregivers 85% female and M 50.3	Social disclosure interview, sexual behaviour survey, number of partners (adolescent sexual behaviour assessment), cognitive function (Peabody picture vocabulary test), HIV and STD knowledge (HIV knowledge scale and reworded version for STD), Intent to disclose (CASAH social disclosure interview), Parent child communication (adaptation of Millers scale), Age of disclosure, stigma (social impact scale), caregiver HIV status, mental health	Non-disclosure more common for casual partners, if condoms used, if had low intentions to disclose to future partners, poor STD knowledge, low parent child communication about sex, longer knowledge of status, younger age, male.

			(youth self-report and adult behaviour checklist), demographics.	
Wells et al., 2018	HIV disclosure among female sex workers.	410 female sex workers in Port Elizabeth, South Africa. 261 HIV positive, 35% disclosed to clients, Mean age 27.8, 58% in relationship, 93% Black, time since diagnosis M 5.2 years.	HIV behaviour with clients, HIV care, tested for HIV (Counselling if positive), disclosure to paying clients and main partner, individual characteristics (age, education, alcohol use, ART, history of physical violence, meeting location, forced sex.).	Participants with greater education more likely to disclose. Disclosure to partners associated with disclosure to clients. Discussing client HIV status associated with disclosure. Meeting clients online or at hotel associated with less disclosure, compared to establishment-based sex work. Those who had experienced forced sex and physical violence reported less disclosure.
Winter et al., 2012	HIV disclosure among MSM	2031 MSM living in the USA. 65% white, 20% Black, 15% Hispanic. Median age 29. 30% aged 18-24. 20\$ 25-29. 22% 30-39. 27% 40+. 12% HIV positive and 88% HIV negative	Demographics, HIV testing, sexual behaviour inventory, sero-discussion.	Sero-discussion reported more frequently by white participants than Black or Hispanic ppts. This was strongest among HIV positive MSM. Sero-discussion reported more frequently for partners where condom was not used for sex.
Wood et al., 2018	Disclosure of sexually transmitted infections	15 men and 15 women living in South Africa. Aged 19-41 (M 28.4).	Recordings of counselling sessions. Manually coded and identified prominent themes.	Men had more casual partners and were less likely to intend to notify. Women's motivations to disclose: had previously notified partner of STD, concerned for health, knew partner had other partners. Fear of contracting HIV for those with HIV concerned of influence of STD on immune system. Fear of stigma and accused of infidelity and violent reactions. Partner viewed as stubborn and difficult so had to notify.
Wong et al., 2009	HIV disclosure in South Africa	215 HIV positive participants living in South Africa. 77% reported current sexual partner. 89% female.	Disclosure rates, demographics, socioeconomic assets, stigma scale (piloted), disease progression, reasons for nondisclosure, behaviour change related to disclosure, changes in social support from disclosees.	Disclosure related to being older, having higher socioeconomic assets, and having a longer time since diagnosis.
Yan et al., 2019	HIV disclosure among MSM	432 HIV positive MSMW living in China. Median age 37- age range 20-71. 45.2% homosexual and 44.4% bisexual. 44% attended college.	HIV disclosure to main female partner, symptoms, counselling, partner serostatus, condom use, disclosure of MSM identity, reasons for establishing the relationship.	Having children positively associated with HIV disclosure. Heterosexual and bisexual participants were more likely to disclose compared to homosexual participants. Living together positively associated with HIV disclosure. Living in Hebei or Jiangsu positively associated with HIV disclosure compared to Sichuan. Presence of clinical symptoms associated with increased HIV disclosure. Perceived positive HIV status of partner associated with HIV disclosure. Counselling positively associated with HIV disclosure. Inconsistent condom use positively associated with HIV disclosure. Affectionate

				relationship associated with increased disclosure of HIV. The relationship being used to hide MSM orientation negatively associated with HIV disclosure. Disclosure of MSM orientation associated with increased HIV disclosure.
Yaya et al., 2015	HIV disclosure in Togo	291 People living with HIV. Recruited from a hospital in Togo. 30.9% male, 67% living with partner, Mean age 37.3.	Pretested questionnaire: sociodemographic, clinical features, adherence to ART, HIV/AIDS knowledge, sexual behaviour, disclosure	Those who disclosed were more likely to be married/in couple, live in rural area, know partner status, have good adherence to ART.
Zea et al., 2003	HIV disclosure among MSM	129 HIV positive Latino gay men recruited from New York, Miami and Los Angeles, USA. 29% born in Caribbean, 11.4% Central America, 14.4% Mexico, 24.6% South America, 20.5% United States. 57.3% unemployed. 29.2% mostly Spanish speaking, 18.8% mostly English speaking, 52% spoke both languages equally.	How often partners asked/told HIV status, language used to speak to friends, social isolation (Diaz et al 2001), Discrimination of being Latino (Diaz et al 2001), Discrimination of being gay (Diaz et al 2001), comfort with sexual orientation, perceived negative consequences of disclosure.	Participants from Caribbean less likely to reveal HIV status than those from USA/South America. Participants who used both languages had higher rates of disclosure. Perceived negative outcomes associated with disclosure rates. Social isolation associated with less disclosure. Experience of gay-related discrimination associated with high level of disclosure.
Zhang et al., 2019	HIV disclosure	41 participants living in Hunan, China. 70.7% male. aged 18-62 (Mean 39.3), 80.5% had disclosed.	Semi-structured in-depth interview- thoughts about disclosure, difficulties, barriers, or promoters of disclosure.	Felt disclosure was responsibility and seen to protect partner health. Social support played important role and helped to disclose. Confiding in others helped to relieve stress associated with disclosure. Barriers identified were: Perceived discrimination/stigma, fear of being excluded from society, not wanting to worry partner or cause stress, fear of rejection/divorce/ separation/ losing support/ violence. More likely to disclose if in poor health whereas if in good health did not disclose as did not want to worry partner. Strong emotionally supportive relationship promoted disclosure. Shared identity promoted disclosure (both gay or drug users etc).

Note: Articles are listed in alphabetical order, as opposed to the order in which they appear in the chapter. Included articles focusing on sexual or non-sexual disclosures are displayed in a separate table, which was presented in Chapter 2.

Relationship characteristics

In the included literature, relationship characteristics were consistently highlighted as influencing self-disclosure decisions. Individuals in committed relationships were more likely to disclose sexual health information (6; 7; 32; 33; 160; 166) and sexually transmitted infection diagnoses (15; 53; 60; 70; 110; 119; 125; 126; 143; 144; 186), including HIV positive status (e.g., 92). This finding was consistent between populations of HIV positive individuals, including men who have sex with men (MSM) (20; 68; 73; 74; 92; 93; 100; 109; 115; 164; 196), HIV positive women (2; 10; 21; 38; 62; 66; 91; 132; 133; 141; 151), drug and alcohol using HIV positive individuals (34; 104; 139; 154), HIV positive participants from African Countries (8; 12; 63; 71; 72; 82; 88; 113; 135; 174; 188; 189; 192) and the general HIV positive population (5; 13; 40; 42; 99; 108; 137; 146; 148; 176; 181; 187; 194). Two studies also reported associations between monogamy and disclosure rates (8; 118). Similarly, Noor et al. (2014) reported lower disclosure rates for individuals who were divorced, separated, or widowed participants (129).

High disclosure rates to steady partners can be due to traits in committed relationships, such as high trust (11; 14; 16; 23; 47; 70; 72; 143; 160; 179; 191), honesty (16), comfort (23; 56; 57; 99), stability (173) and relationship closeness (11; 46; 47; 62; 92; 191; 203). High rates of disclosure were reported in established relationships viewed as high quality (53; 148), with greater meaning attached to these relationships compared to casual relationships which were viewed to be superficial (47; 200). This reduced the perceived importance of disclosing to casual partners. Holding positive perceptions of partners (e.g., perceived similarity/availability) promoted disclosure (22; 47).

Partners engaged in disclosures with the intention of maintaining honesty and openness in relationships (160; 173). Disclosure can function to promote positive relational traits, such as

trust (179) or relationship closeness (29). Disclosures can arise out of desires to develop a meaningful relationship with the partner (16; 48; 179).

Amongst cohabiting partners, higher disclosure rates were recorded (22; 40; 51; 55; 63; 83; 99; 100; 102; 108; 119; 183; 188; 192; 203). This was due to the perceived difficulty of concealing information from cohabiting partners, particularly for HIV positive participants where physical aspects of HIV (e.g., medication or symptoms) limit opportunities to conceal status (179; 191; 203; 207). Similar findings were reported for cystic fibrosis (23) and diabetes (77). This would also explain higher rates of disclosure amongst HIV positive participants who were symptomatic (141; 203) or were on antiretroviral therapy (ART) (2; 5; 21; 31; 38; 63; 82; 113; 141; 151; 192). For these participants, disclosing early may act to avoid later conflict (179). However, Tsai et al. (2013) found that greater symptomology was associated with lower rates of disclosure. Similarly, Osinde and colleagues (2012) reported lower disclosure rates for individuals who were using antiretroviral medications (ARV). Higher disclosure rates were reported by participants who held greater power both in the relationship (6; 7; 33; 160) and in society (32). This power can be influenced by factors such as financial dependence (22), age gaps between partners (6; 7; 175) and time spent residing in the USA relative to partners (6; 7; 33). However, two studies (9; 86) reported higher disclosure rates amongst participants reporting lower relational power. Additionally, O'Brien and colleagues (2003) reported higher rates of disclosure to partners who were older. Though relational commitment did not always prompt disclosure, with seven articles reporting lower disclosure rates to steady partners (30; 81; 89; 94; 134; 159; 197). This could be due to heightened fears surrounding disclosure consequences in steady relationships (137), including where disclosure could expose extradyadic partners (120; 166). Increased STI disclosures were reported to partners whom they did not intend to see again (186), including

to ex-partners (144). This may be due to reduced concerns of negative responses from these partners. Lower rates of disclosure were reported where individuals had not seen their partner since diagnosis (119); had acquired a new sexual partner since diagnosis (119) or had experienced their last sexual encounter with an individual who was not their partner (113).

Sexual history

Thirty articles reported lower rates of disclosure amongst participants reporting a higher number of partners (5; 10; 12; 22; 27; 30; 34; 35; 43; 44; 45; 49; 74; 93; 104; 109; 111; 113; 118; 119; 123; 129; 134; 139; 150; 164; 167; 172; 178) and commercial partners (81).

Though this was not consistent, and seven articles reported higher rates of disclosure amongst participants with a greater number of partners (42; 51; 123; 155; 158; 174; 198). Amongst female sex workers, higher rates of disclosure to steady partners was associated with greater disclosure to clients (158; 198).

Higher rates of disclosure were recorded towards female partners compared to male partners (92). However, disclosures towards female partners were lower where relationships acted to hide MSM orientations or where female partners were unaware of MSM orientations.

Disclosure was also influenced by age at first intercourse, age at first marriage, age at first menses, recently changing partner and sexual frequency (135; 141). Higher rates of disclosure were recorded for women who had given birth previously (133) or who were diagnosed during their first pregnancy (90).

Social support

Social support was particularly highlighted as underpinning HIV disclosure decisions (2; 69; 164; 196; 206; 207). Only two articles reported that social support was not significantly associated with HIV disclosure (25; 52). The included research suggested that individuals

disclose sexual health information both because of high levels of social support and to increase the social support received from partners.

Social support can be provided by a wide range of individuals, such as family members (2; 63; 102; 148; 161; 171; 173), counsellors (4; 38; 43; 49; 63; 70; 74; 90; 102 118; 203), friends (74; 102), the wider HIV positive community or support groups (4; 10; 31; 43; 49; 63; 140; 183), healthcare professionals (87; 194) and, religious deities (157). This suggests that having a strong social support system enabled individuals to disclose to partners. Social support networks are thought to encourage disclosure through providing support during the disclosure process (74; 83; 99; 106; 207). Where social network members were also HIV positive, this allowed individuals to learn about their peer's experiences which prompted disclosure, where peer experiences are positive (10).

However, amongst MSM populations, higher gay community attachment was associated with inconsistent disclosure (123). This may be due to the potential consequences of disclosure, such as social exclusion or rejection. Disclosure may be avoided due to fears of losing social support, particularly amongst individuals with larger social networks (102; 157).

Disclosing serves as a mechanism to receive social support from disclosure targets (23). Fourteen articles reported participants disclosing in order to increase the amount of social support received from intimate partners (4; 10; 45; 47; 56; 57; 69; 96; 108; 114; 173; 178; 182; 207). Disclosing served to enable partners to provide support whilst the individual came to terms with their diagnosis or during periods of stress/ill health. This was seen to be particularly important where low support from family or social network members was reported (10; 91; 102; 174; 178), or where high levels of stigma/discrimination were reported (136; 206). Disclosures were more likely to occur to partners viewed as highly involved (31; 89; 151), supportive (55; 88; 200) and non-judgemental/open (4; 180).

Social norms

When deciding whether to disclose one's HIV status to intimate partners, individuals first look to the social norms of their communities, cultures, and social networks. Where these social norms were seen to promote disclosure, individuals reported higher levels of sexual health disclosures (6; 7; 55) and HIV disclosure (20; 74). Such disclosure-promoting norms can develop through communication with caregivers (197) or partners (145).

However, in many cases these norms discourage disclosures. Individuals who endorsed gender norms and stereotypes reported lower likelihoods of disclosing sexual health information (6; 7; 33). Amongst female participants, this could partially be attributed to norms which encouraged sexual self-silencing (6; 7; 32). Similarly, norms surrounding conventional masculinity were often seen to discourage self-disclosures (143). These gendered norms were seen to vary between cultures and age groups, with higher endorsement amongst older participants (55) and Mexican women when compared to those from Puerto Rico or the Dominican Republic (120).

Amongst MSM communities, social norms in casual or public sex environments were seen to discourage communication and disclosures (16; 48; 58; 65; 74; 77; 94; 97; 100; 170; 179; 196). In these environments, disclosing was viewed as taboo and as likely to elicit negative social consequences (16). This often led to a reliance on assumptions surrounding a partner's HIV seropositivity in public sex environments (48). Furthermore, where disclosures did occur, the low level of trust in public sex environments often led to assumptions that partners were being untruthful (16).

HIV negative MSM often reported engaging in serosorting (64). This social norm encouraged disclosure amongst HIV negative men by allowing for the location of sexual partners of shared serostatus. However, this influenced the beliefs of HIV positive individuals, by

leading to the perception that it was the HIV negative partner's responsibility to ask their status (48; 64).

Health protective strategies, moral responsibilities and transmission risks

In this review, disclosure as a health protective strategy and a moral responsibility were highlighted as reasons for disclosing sexual health information, particularly the diagnosis of STIs. Disclosures can act to inform partners of potential transmission risks, increase their awareness of the STI/HIV and to allow them to access treatment (14; 16; 37; 39; 47; 48; 58; 65; 85; 92; 97; 114; 125; 140; 147; 167; 168; 169; 179; 182; 191; 201; 207). Additionally, through disclosing, individuals were able to shield their own health through preventing reinfection (37; 39; 69; 72; 182; 201).

The health protective benefits of disclosing one's HIV serostatus can extend to protect children (14; 141), such as through increasing access to healthcare and prevent perinatal transmission (14; 21; 31; 66; 82; 114; 191; 193; 203). This was supported by higher disclosure rates amongst women with children (91; 141; 151; 173; 183; 191), women who were diagnosed at a prevention of mother to child transmission or Antenatal clinic (38) and women who had previously experienced the death of a child (135).

Due to the health implications of non-disclosure for partners, the disclosure of sexually transmitted infections was seen to be a moral responsibility (47; 48; 85; 92; 179; 207), which stemmed from desires to protect their partner's health (140). This perceived obligation increased where high levels of trust were reported between steady partners (45; 58; 68; 69; 92; 97; 114; 115; 182). An emphasis was placed on disclosing in-person (191) and that partners learnt their HIV status from themselves (29), potentially to allow themselves to offer social support following the disclosure. Disclosure also served to alleviate guilt associated with non-disclosure (65; 68; 179).

Despite the health implications of non-disclosure, not all partners are informed of sexually transmitted infections. The included research suggests that during disclosure decisions, individuals undergo a process of assessing exposure risks to partners. Where the risk of exposure is perceived to be low, higher likelihoods of non-disclosure were reported (27; 29; 61; 87; 130; 144; 157; 162; 183; 191; 197). Lowered perceptions of risks allowed participants to morally justify non-disclosure through minimalizing the perceived consequences of non-disclosure (18; 97).

Perceived transmission risks were perceived to be higher where partners had engaged in sexual acts with partners (8; 32), particularly 'high risk' sex acts (56; 57; 58; 97; 126; 167; 168; 169). The use of condoms in encounters lowered perceived risks to partners and led to lower rates of HIV disclosure (11; 16; 27; 29; 60; 61; 74; 81; 109; 124; 135; 156; 162; 176; 177; 179; 199; 203). Through engaging in 'lower risk' sex acts, individuals were able to justify non-disclosure through lowered perceptions of transmission risks. However, Mohammed et al., (2010) reported higher disclosure rates where condom use was consistent. Where transmission risks were perceived as lower, this may have reduced the perceived likelihood of partners responding negatively. Where partners did not ask their status or did not insist on using condoms, assumptions were made that their partner was already HIV positive (48; 64). This lowered transmission risk perceptions, which in turn discouraged disclosure (64).

Eleven studies demonstrated the opposite effect with higher disclosure rates reported for encounters where condoms were not used (5; 20; 30; 35; 42; 78; 84; 90; 134; 146; 197). Disclosures may occur during condomless encounters to emphasise the importance of practicing safer sex or explain changes in condom-use behaviour (11; 29; 38; 69; 130).

Perceived transmission risks were higher where partners had become ill or were showing symptoms (62; 119), and thus for these partners, disclosing acted to allow them to gain treatment. Where partners were perceived to be infected prior to sexual encounters, disclosure likelihoods were reduced (11; 144).

Transmission risks were perceived to be lower when individuals reported a longer time since symptom reoccurrence (60; 85), lower viral load (2; 58; 125; 155; 172), and higher CD4+ cell counts (58). However, Wei et al. (2012) reported higher disclosure rates where individuals were uncertain of their viral load.

Perceived transmission risks were also negatively influenced by poorer or incorrect STD/HIV knowledge (71; 175; 197). Such beliefs included that undetectable individuals could not infect others (34), two HIV positive people did not need to use condoms (34), it is safe for HIV negative individuals to have unprotected intercourse with a HIV positive partner if their partner was receiving ART and had an undetectable viral load (80).

Anticipated outcomes

Decisions on whether to disclose sexual health information are based upon careful consideration of the likely outcome of such a disclosure and of previous disclosure experiences. Negative disclosure experiences can inform anticipations of how future partners are likely to respond, which can discourage disclosure (29; 53; 62; 81; 84; 101; 106; 107; 125; 162; 167; 168; 169; 175; 182; 193; 201; 206). Kurniawan and Sulistyorini's (2019) participants often described concerns surrounding their partners response to disclosures. Participants indicated a high degree of concern that their partner would become worried (87; 91), angry (96), emotionally distressed (67; 98; 178; 207) or commit suicide (96). Outcome expectations can be negatively influenced by low trust (144), anger at partners (186; 201) and depression (60). Where outcome expectancies were hedonistic, disclosure was less likely to

occur (140). Where disclosure outcomes are anticipated as likely to be positive, higher rates of disclosure were recorded (90; 125; 164; 167; 168).

In particular, stigma associated with HIV, AIDS and STIs reduced disclosure to sexual partners (8; 9; 14; 16; 32; 45; 48; 49; 55; 65; 69; 91; 92; 94; 95; 109; 170; 124; 133; 135; 160; 161; 172; 192; 201; 207). Similar findings were also reported for the disclosure of physical health conditions, such as diabetes (77). Fears of experiencing stigma from intimate partners can inhibit disclosure (16; 65).

For STI and HIV disclosures, this stigma led to fears of receiving blame (45; 105), labels of promiscuity (29; 124) and accusations of unfaithfulness from partners (8; 14; 39; 45; 70; 84; 96; 105; 161; 157; 186; 191; 193; 201), which further discouraged disclosure (2). Individuals can encounter other forms of stigma when deciding whether to disclose, including stigma surrounding femininity for MSM (94) and internalised stigma (189). This stigma often led to fears that their partner would reject them following disclosure (4; 8; 14; 16; 23; 27; 29; 45; 46; 48; 50; 58; 61; 68; 69; 72; 77; 81; 84; 85; 87; 91; 92; 96; 105; 114; 125; 131; 133; 157; 161; 162; 170; 176; 178; 179; 191; 193; 207). These rejection fears were association with fears of the withdrawal of sexual contact (29; 87; 179) and financial resources (45; 91; 105; 162; 193; 207).

HIV-related stigma led to fears of social consequences, such as social exclusion or rejection, which can occur if partners share their serostatus with members of social networks (27; 29; 48; 60; 65; 69; 72; 84; 96; 124; 133; 161; 162; 207). Disclosure was further discouraged due to fears that such social consequences could extend to family members (84).

Disclosure outcomes were perceived as likely to be more positive where partners were perceived as similar, such as both HIV positive or injection drug users (34; 59; 66; 93; 104; 111; 115; 139; 151; 203). This may be due to viewing similar partners as less likely to

respond in a stigmatising manner due to shared identities (96). Though, three studies (29; 58; 135) reported higher disclosure rates to HIV negative partners. Individuals can feel uncomfortable disclosing to HIV positive partners due to concerns surrounding upsetting their partner, ruining the spontaneity of sexual encounters and unintentionally stigmatising their partner (65; 170). Stigma surrounding HIV was seen to reduce due to the increasing use of PrEP, particularly amongst MSM communities (138; 185). PrEP was seen to empower individuals to disclose their status early (138).

The concern that disclosure would lead to conflict with partners was reported widely in the reviewed literature (55; 105; 160; 182). In extreme cases, this was seen as likely to lead to violence (2; 8; 14; 39; 45; 55; 60; 62; 81; 87; 95; 105; 106; 107; 114; 131; 144; 157; 160; 161; 186; 191; 193; 200; 201; 207) or murder (45; 114). These concerns were heightened where partners had been violent previously (39; 66; 99). However, instances of higher disclosure rates in violence-prone relationships were reported (52; 89; 158; 198).

Concerns relating to negative outcomes led to emotional distress (91; 191) and stress (178). The prospect of disclosing elicited embarrassment, fear, and anxiety (11; 70; 85; 171). This increases the perceived difficulties in disclosing to partners (29) and many reported using strategies to reduce the likelihood of experiencing negative responses. This included strategies such as engaging in a process of smaller, lower risk disclosures (e.g., disclosing that a friend was HIV positive) to test their partner's reaction (16; 61; 106; 176). These disclosures were viewed as inconsequential and as holding fewer negative outcomes (61). This enabled individuals to assess how their partner was likely to respond before disclosing their HIV status (46).

HIV disclosure was more likely to occur where previous discussions about HIV with partners had occurred, particularly discussions about testing (45; 90). The use of technology to

disclose sexual health information in an anonymous setting was a further reported strategy (28; 65; 75; 184). However, Noor et al. (2014) reported fewer disclosures amongst partners interacting solely online or offline. Higher rates were recorded where individuals interacted both in-person and offline, suggesting that disclosure was promoted through potential transmission risks (through offline encounters) and anonymity (through online encounters). Haas et al. (2020) highlight that these findings are dependent on individual preferences regarding disclosure.

HIV-related factors

HIV-related characteristics were seen to influence the likelihood of disclosing one's serostatus to intimate partners. Whilst four studies (9; 28; 107; 157) reported higher rates of disclosure amongst HIV negative individuals. Prestage and colleagues (2001) reported higher disclosure rates amongst HIV positive men.

For individuals with a HIV positive serostatus, time since diagnosis inconsistently predicted HIV disclosure. Eighteen studies (4; 12; 13; 19; 30; 38; 40; 45; 73; 83; 93; 104; 141; 146; 151; 155; 167; 175; 202) reported higher HIV disclosure rates where time since diagnosis was longer. This suggests that initially, individuals struggle to accept their diagnosis which hinders disclosure (60). Over time, individuals accept their HIV status, which enables them to disclose their status to partners (30; 193).

However, four articles (87; 109; 168; 180) reported lower disclosure rates as time since diagnosis increased. Lower HIV disclosure rates were also reported for individuals who had a history of sexually transmitted diseases (104). Wei et al. (2012) suggests that disclosure was lowest between one-and five-years following disclosure. Lower disclosure rates were also reported by individuals who believed they had been intentionally infected by partners (121)

or through injection drug use (194). Higher disclosure rates were reported by participants who were infected through blood (102) or heterosexual sex (194).

For some, disclosure was avoided due to perceptions that HIV was private (29; 58; 65; 182). Some HIV positive individuals avoided disclosure due to the beliefs that their partner was aware of their HIV status (29). Dependent on country of residence, some participants disclosed due to potential legal ramifications of non-disclosure (29; 56; 57; 58; 64). Disclosure was more likely to occur when individuals tested on their own initiative and following symptom onset (88). In contrast, Loukid et al. (2014) reported lower disclosure rates amongst participants who tested voluntarily.

Twenty-nine articles (2; 4; 8; 14; 40; 41; 43; 44; 45; 49; 63; 66; 71; 87; 90; 99; 113; 131; 137; 146; 148; 158; 161; 164; 181; 191; 192; 198; 204) reported higher disclosure rates when participants were aware of their partner's HIV status. Disclosure can be a reciprocal process with HIV disclosure prompted where partners disclosed first (48; 97; 156; 179; 196) or directed asked their HIV status (58).

Socioeconomic factors

This review highlighted how socioeconomic factors influence the likelihood of disclosing sexual health information to partners. Individuals with lower socioeconomic status can be less likely to disclose their HIV status to partners (9; 202). Wide ranging indicators of financial or resource insufficiency was associated with decreased disclosure including, reliance on free-flowing water (55), food insecurity (10; 51), no electricity in the home (71) or when cattle were owned (55). Higher disclosure rates were associated with owning their own home (83), having a higher living standard index (102) and living above the poverty line (183).

The findings relating to the relationship between employment and HIV disclosure were inconsistent, with five articles reporting higher rates of disclosure for those with higher incomes (2; 90; 94; 108; 175) and eight articles reporting higher disclosure for those with lower incomes (10; 89; 91; 140; 151; 159; 166; 181). For individuals with higher incomes, fears of financial withdrawal by partners were lessened, which allowed them to disclose more readily. However, fears were reported pertaining to job loss, should partners divulge their serostatus to employers. Higher disclosure rates were recorded for participants living in urban environments (69; 74; 94; 175), potentially due to increased employment opportunities in urban regions. However, Yaya et al. (2015) reported higher rates for those living in rural areas. Kinuthia et al. (2018), reported higher rates of disclosure for participants whose partners were in employment. For women who engaged in sex work, the location in which they met clients influenced disclosure, with disclosure more likely to occur in establishment-based sex work compared to where clients were met at hotels or online (198).

Findings relating to education were also inconsistent. Higher rates of disclosure were reported for individuals reporting both higher (8; 19; 21; 25; 42; 63; 81; 83; 90; 109; 175; 198) and lower (45; 49; 56; 57; 84; 110; 181) levels of education. Higher educational levels lead to higher rates of disclosure through greater employment opportunities, reduced reliance on partners financially, greater education about HIV transmission risks and larger social support networks. However, this also brings risks through anticipated stigma from employers and larger social networks, which discouraged disclosure.

Lower rates of disclosure were reported for individuals who reported using drugs or alcohol (2; 29; 30; 34; 58; 64; 81; 82; 92; 94; 99; 100; 104; 109; 118; 134; 140; 143; 144; 158), potentially due to these substances lowering inhibitions. Higher rates of disclosure were reported for individuals who did not live with someone who consumed alcohol (34). However, higher rates of disclosure were reported for individuals who were criminal justice

clients (180), including those recently convicted of drug-related offences (51). Sullivan (2009) suggests that disclosure was dependent on the type of drug used, with higher rates of disclosure reported for marijuana users compared to those who used alcohol, crystal methamphetamine or cocaine. In contrast, Grau et al. (2011) reported that participants who had injected for longer than 9 years were more likely to disclose.

Demographical characteristics

Demographical characteristics inconsistently predicted an individual's likelihood of disclosing sexual health information. There was a lack of clear consensus for any demographical characteristic. These inconsistencies suggest that demographical characteristics alone are not enough to consistently predict the likelihood of engaging in sexual health disclosures. For reference, these findings are summarised below.

Sixteen articles reported higher likelihoods of disclosing for female participants (14; 34; 42; 56; 57; 71; 87; 103; 118; 164; 175; 178; 183; 190; 192; 201), particularly for emotional topics (103). However, this finding was not consistent, with five studies (5; 12; 70; 134; 197) reporting higher disclosure rates amongst men. Interestingly, Suzan-Manti and colleagues (2011) reported that where women were the head of their household, disclosure rates were significantly lower. This suggests that relational power and financial dependence may be stronger predictors than gender alone.

Similar inconsistencies were observed for age, with higher disclosure rates observed for both older (38; 51; 56; 57; 107; 119; 123; 125; 143; 146; 151; 180; 202) and younger participants (2; 5; 21; 24; 26; 74; 90; 108; 132; 158; 166; 172; 188; 197; 198). Other research has reported higher disclosure rates amongst specific age groups including those aged 15-24 (175), 24-44 (192) and 35-44 (109). Conserve and colleagues (2014) reported lower disclosure rates amongst those aged 30-39.

Similarly, higher disclosure rates were reported for both heterosexual (5; 35; 56; 57; 80; 129; 150; 180; 181; 203) and homosexual participants (13; 25; 172; 190; 207). Two studies (93; 115) reported higher disclosure rates amongst bisexual men compared to homosexual men. Amongst MSM participants, higher disclosure rates were reported amongst versatile (109) and insertive partners (94) compared to receptive partners. Higher rates of disclosure were recorded where homosexual men reported being out to social networks and low levels of internalised homonegativity (109; 129; 155).

In regard to ethnicity, the findings were discrepant with lower disclosure rates reported for participants who identified as Black (129; 166), coloured (174), non-white (40), African American (17; 115; 118; 199), Latinx/Hispanic (112; 115; 199), Asian/Pacific Islander (195) or white (35). Meanwhile, higher disclosure rates were reported for participants who identified as white (13; 94; 112; 115; 155; 166; 178; 195; 199), Latinx/Hispanic (178) or Black (35) or participants from minority ethnic groups (165). Lower disclosure rates were recorded when partners were of different ethnicities (94).

Within the included research, geographical differences were observed both between and within countries. Higher rates of disclosure were reported by participants in the United States compared to Thailand (73) and the Caribbean (206). Non-disclosure rates varied between countries in Asia, such as China (88.1%), Japan (74.4%), Singapore (69.4%) and the Philippines (47.1%). However, disclosure was not consistent within countries and variations in disclosure rates were reported. For example, Yan et al. (2019) reported higher disclosure rates amongst individuals residing in Hebei or Jiangsu compared to those residing in Sichuan. Similarly, Wang et al. (2019) reported higher disclosure rates for individuals who tested in Yunnan compared to Guangxi. In Malawi, Anglewicz and Chintsanya (2011) reported higher disclosure rates for individuals in Central Malawi compared to Southern Malawi (9). In

Tanzania, Damian et al. (2019) reported higher disclosure rates amongst individuals in Mwanga compared to Moshi.

Participants who had migrated to their country of residence were less likely to disclose (19; 146). However, Sullivan (2009) reported lower disclosure rates for women born in Hawaii. Higher disclosure rates were reported for individuals whose partner had migrated from another country (109). Disclosure rates were lower for individuals who considered religion to be an important aspect of their life (146).

Individual traits

The included research highlighted a number of traits associated with sexual health disclosures. Whilst two studies (31; 122) reported higher disclosure rates for individuals with high self-esteem, Amoran (2012) reported the opposite. Self-efficacy was highlighted as a key influential factor in disclosure likelihood, with twelve articles (1; 26; 53; 79; 80; 94; 140; 164; 166; 174; 181; 184) reported higher engagement in sexual health disclosures (including HIV disclosure) amongst individuals with higher self-efficacy. The internal belief in one's ability to disclose led to greater intentions and behavioural tendencies to disclose. Daniels et al. (2019) argued that this was due to individuals high in self-efficacy being more confident in their ability to manage if partners were to reject them. Similarly, Derlega et al. (2002) reported lower disclosure rates amongst their participants who reported communicational difficulties. Coping strategies influenced HIV disclosure. Brown and colleagues (2019b) reported that the use of attack/escape avoidance coping strategies was associated with lower rates of disclosure. Higher depressive symptomology was negative associated with HIV serostatus disclosure to partners (1; 25; 129; 132), potentially due to negative biases associated with depression.

Discussion

This review discussed the findings of 196 articles, which focused on factors which influence the disclosure of sexual health information to intimate partners. These findings form part of a larger systematic review, of which the first part was presented in Chapter 2. Where previous systematic reviews (e.g., Adeoye-Agboola et al., 2016; Gabbidon et al., 2020; Mekonnen et al., 2019; Nasarruddin et al., 2017; Yehualashet et al., 2020) have focused on specific sample populations, this review imposed no sample limitations. This allowed for the identification of trends in research findings on a larger scale and across several populations. Through the large volume of included research, the present review was able to identify factors which consistently influenced disclosure decisions. The included research highlighted the role of an individual's relationship, social factors (e.g., social norms), health-protective motivations, outcome expectations and individual characteristics.

Non-disclosure of sexual health information (particularly the diagnosis of sexually transmitted infection) has implications for an individual and their partners. Disclosing functions to inform partners about the potential risk of transmission, which allows them to access testing or to introduce precautions to reduce further transmission. Testing (and accessing treatment where necessary) is important for shielding partner health and helps to prevent re-infection. However, disclosure rates are variable, with Kurniawan and Sulistyorini (2018) reporting non-disclosure amongst 90.1% of their sample of HIV positive participants living in Indonesia. In contrast, Hojilla et al., (2018) reported non-disclosure rates of 23% amongst individuals residing the United States. This review provides insight into consistent barriers to the disclosure of sexual health information, which has real word implications in the development of interventions to promote disclosure.

The presence of a strong social support network helps to promote disclosures. Social support networks can support the individual prior to disclosure and during the disclosure process

(Sikstrom, 2018). Several articles (e.g., Chiasson et al., 2009; Damian et al., 2019; Daskalopoulou et al., 2017) reported lower rates of HIV disclosure in newly diagnosed participants, suggesting that the provision of social support would be beneficial to increasing disclosure. This may be through disclosure training, support from clinicians/counsellors following diagnosis or referral to HIV support groups. For HIV positive individuals, in lieu of existing social support, attending a support group provided the necessary social support for some participants to disclose (Alemayehu et al., 2014).

Generally higher disclosure rates were reported in long-term, committed relationships (e.g., Alvarez & Villarruel, 2013), which are characterised by positive relationship traits, such as trust, commitment, or closeness (Arima et al., 2012). Several explanations are proposed, such as the inability to conceal physical aspects of the condition (Gafos et al., 2015), disclosing to receive social support from partners (Antelman et al., 2010) or stronger health-protective motivations for long-term partners (e.g., Bhatia et al., 2017). In comparison, disclosure to casual sexual partners is less likely (e.g., Brittain et al., 2018). This suggests that interventions and campaigns to promote disclosure should target individuals who have casual sexual partners or transactional sex partners. This could be through increasing usage of anonymous text-based notification services to alert partners of potential transmission risks, though this may not always be possible where contact information is unavailable. Technology was described as facilitating disclosure (e.g., by posting one's HIV status on an online dating profile) due to perceived anonymity (Kingdon et al., 2016).

Additionally, social norms may be seen to discourage disclosure to casual partners, particularly those engaged with in casual/public sex environments (Bird et al., 2017). Bird and colleagues (2017) reported that norms present in these environments discourages communication about HIV and may lead to assumptions that partners met in these environments are already HIV positive. Additionally, the anonymity in these environments

may lead to notification difficulties for partners met prior to diagnosis. This presents a challenge to researchers on how to promote disclosure during casual sexual encounters and also how to notify these partners. Further examinations of health protective strategies currently employed in group sex environments and barriers to accessing sexual health services is of great importance for reducing HIV/STI transmission rates. One potential solution may be through the increased use of PrEP, which has been identified as reducing barriers to HIV-related communication (Pantalone et al., 2020; Tester & Hoxmeier, 2020). PrEP was also seen to reduce stigma associated with HIV (Pantalone et al., 2020; Tester & Hoxmeier, 2020), which is important as stigma was consistently highlighted as a barrier to disclosure (Camacho-Gonzalez et al., 2016; Chenneville et al., 2015; Driskell et al., 2008). Interventions to reduce stigma around sexually transmitted infection and the discussion of them may be of great use for increasing sexual health disclosures. Ultimately, this may reduce anticipated stigma and lead to perceptions that the outcome of disclosing will be positive.

Disclosure was widely reported as more likely where the outcome of disclosing was anticipated to be positive (e.g., Kalichman et al., 2017). Communication privacy management theory (Petronio, 2002) proposes that when determining whether to disclose or not, individuals undergo an assessment of the likely costs and rewards of disclosure. Where disclosure rewards outweigh costs, disclosure will occur. However, where a greater number of costs (e.g., violence, rejection) are expected, disclosure is less likely to occur. This can also account for variable disclosure rates dependent on time since diagnosis. It is likely that individuals who have been aware of their HIV/STI status for a longer period of time would have more disclosure experiences to reflect on when determining these costs and rewards. Where previous disclosure experiences are positive, this may increase the ease at which the individual may disclose in the future. Future research should examine how participants

determine the costs/rewards of disclosure to allow for the development of interventions to provide support to individuals. This may be by providing support prior to and during disclosure (which may alleviate fears of rejection), such as through referring newly diagnosed patients to counselling services or support groups. Alternatively, this might be through the development of interventions, which include training on communication strategies.

Supporting individuals to gain financial independence is a more complex aspect, though one that would be highly beneficial to reducing the costs associated with disclosure. Such support may focus on supporting individuals to access employment and housing to reduce financial reliance on partners.

Included articles were limited to those published or translated into English, due to pragmatic constraints. There is the potential that this may have biased the findings towards a westernised perspective or may not included valuable insights from articles not available in English. However, this review did include articles from Africa, Asia, Europe, North America and South America.

In conclusion, the findings of the included articles highlight that sexual health disclosures can be influenced by a number of factors at an individual, societal and relationship level. Through examining factors which influence disclosure decisions, targeted interventions can be developed to promote disclosures. In particular, such interventions may increase disclosure rates by addressing negative outcome expectancies, social norms and through providing social support to individuals both following diagnosis and during disclosure processes. Given lower disclosure rates to casual partners, such interventions may provide a valuable tool to increasing disclosure rates to these partners.

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