Perceived Causes of Postnatal Depression

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Summary

This thesis aims to provide an understanding of the perceived causes of Postnatal Depression (PND). Despite increasing research exploring the aetiology and risk factors for PND, to date, little research has explored how individuals perceive the causes of PND. The first part of this thesis reviews the literature on causal beliefs in adults in clinical, community and general population samples. Thirteen papers were critically appraised to reveal insights into these perceived causes. Beliefs were grouped into four emergent themes: (1) biological; (2) psychological; (3) social; and (4) cultural (including religious). The review identified a need to explore how PND is understood culturally, particularly amongst lay individuals from minority faith and ethnic groups. In accordance with these recommendations, the second part of this thesis is a Q-methodological study of the perceived causes of PND amongst British Muslim women of Arab origin. The sample comprised eleven participants recruited from a community organisation. Participants sorted 50 statements, each detailing a possible cause of PND, according to how much they believed them to be causes of PND. Findings identified two clear and distinct accounts: stress-generation and diathesis-stress, significant in causing PND. Although both accounts were clearly embedded in faith and values, the viewpoints operated with a subtly different interpretation of the role of faith in relation to PND. The third paper provides a reflective commentary on the research process, including a methodological critique of the research project and reflections on the personal impact of the research on the researcher. Contrary to the dominant biomedical model, the thesis highlights the existence of wide-ranging, multi-factorial explanatory models for PND. Eliciting and understanding these causal models can help to engage clients and provide culturally sensitive interventions.

Part One

Perceived Causes of Postnatal Depression: A Literature Review

Target Journal: Healthcare for Women International

See Appendix 6(a) for Instructions for Authors

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1.1. Abstract

Postnatal depression (PND) has significant economic costs and detrimental effects on maternal and paternal mental health and infant wellbeing. Although the causes of PND are multi-factorial and wide ranging, within Western cultures it is frequently conceptualised as a biomedical disorder requiring pharmacological treatment. Despite the increase in research exploring the aetiology and risk factors for PND, it is unclear how these competing causal explanations are understood by adults in clinical, community and general population samples. A literature search was conducted of studies that explored the perceived causes of PND. The search strategy and selection criteria yielded a total of 13 quantitative, qualitative and mixed-methodology studies. Four categories of explanatory theories were identified: (1) biological; (2) psychological; (3) social; and (4) cultural (including religious). Two studies identified predominant biological perceptions of cause, five were predominantly psychological, five were predominantly social and the remaining article was predominantly cultural. The overall quality of the research was uneven in several areas including recruitment strategies, measurement of PND, data collection and analysis. In conclusion, the number of high quality studies of perceived causes of PND remains limited. In line with the Equality Act (2010), further research is needed to identify how PND is understood culturally, particularly with individuals from minority faith groups, and to explore a possible link between causal beliefs and interventions for PND.

1.2. Introduction

1.2.1. Postnatal Depression (PND)

The postnatal period is an increased time of risk for the development of three forms of affective difficulties: postnatal blues (baby blues); postnatal (or postpartum) depression and; puerperal psychosis (Robertson, Celasun & Stewart, 2003). The most commonly observed mood disturbance is postnatal blues, a short-lived tearful state of slight confusion that many mothers experience within the first two weeks after giving birth (O'Hara, Neunaber & Zekoski, 1984; Altshuler, Cohen, Moline, Kahn, Carpenter & Docherty, 2001). Puerperal psychosis is the most severe and uncommon form of disturbance, with severe depressive episodes (depressed or elated mood) characterised by psychotic features (disorganised behaviour, delusions, hallucinations) and requiring hospitalisation for treatment (Brockington, Winokur & Dean, 1981; Kendell, 1987; Robling, Paykel, Dunn, Abbott & Katona, 2000). Postnatal depression (PND) is a non-psychotic depressive episode beginning within or extending to the postnatal period (O'Hara & Swain, 1996; Cox, 1999). PND has a relatively high prevalence, affecting between 10 - 20% of women in the general population in the year following childbirth (Miller, 2002). Although symptoms specific to the postnatal period have been identified, such as thoughts and fears about harming the baby and excessive worries about the baby's health, PND is not distinguished from other depressive disorders as a unique diagnostic category (Cox, Murray & Chapman, 1993; Hagen, 1999; Wisner, Parry & Piontek, 1999; NICE, 2007). According to the most recent edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), to diagnose major depression with peripartum onset, symptoms should occur during pregnancy or the first 4 weeks following delivery (APA, 2013). The most widely used screening measure for depression in the postnatal period is the 10-item self-report Edinburgh Postnatal Depression Scale (Cox, Holden & Sagovsky, 1987). PND is a serious public health problem, without effective interventions it can have detrimental effects on maternal and partner mental health and infant wellbeing (Phillips & O'Hara, 1991; Miller 2002; Milgrom, Westley & Gemmill, 2004; Milgrom, Ericksen, McCarthy & Gemmill, 2006; NICE 2007). Clinical guidelines recommend that women are seen within one month of the initial assessment for an evidence-based treatment including Cognitive Behavioural Therapy (CBT) and Interpersonal Therapy (IPT) (NICE, 2007).

1.2.2. The Lived Experience of PND

A substantial body of rich and detailed qualitative research has explored the lived experience of PND in Western cultures. Dr. Cheryl Beck (1992) conducted a phenomenological study of the subjective descriptions of PND in seven mothers diagnosed with PND. The core structure of PND was described as a "living nightmare" filled with anxiety, guilt and obsessive thinking. The mothers contemplated harming themselves and their infants and described loneliness, anhedonia and hopelessness. The author used a grounded theory approach and interviewed twelve mothers diagnosed with PND about the illness process (Beck, 1992). This provided a theory triangulation that enhanced the development of a theory of PND. Loss of control was the primary difficulty encountered through a four-stage process which the authors named "Teetering on the Edge". These stages consisted of: (1) encountering terror; (2) dying of (normal) self; (3) struggling to survive; and (4) regaining control. This theory was later modified to include ten qualitative studies on PND in mothers from other cultures, echoing a progression through the same four stages to regain control of their lives (Beck, 2007).

1.2.3. PND: A Western Phenomenon?

Although PND has been found equally in low and high income countries, the symptomatic presentation has been found to vary according to culture (Oates et al, 2004). Early research on PND was largely based on women in the United States, Australia and Europe leading to PND being viewed as a Western phenomenon attributed to biological factors (Pope, Watts, Evans & McDonald, 1999; Savarimuthu, Ezhilarasu, Charles, Antonisamy, Kurian & Jacob, 2010). Recent research has however, postulated many conflicting theories about the aetiology of PND, identifying a combination of biological, psychological and social factors significant in its development (O'Hara & Swain, 1996; Leung, 2002; Clay & Seehusen, 2004). Common risk factors include a previous history of depression, antenatal depression/anxiety, major stressful life events, lack of support, social isolation, low partner support, poor relationships with husband and/or extended family, young age of mother, personality characteristics, unplanned pregnancy and the baby's temperament (Beck, 2001; Robertson, Grace, Wallington & Stewart, 2004; Milgrom et al, 2008). Klainin and Arthur (2009) conducted a literature review to synthesise the risk factors for PND among women in Asian cultures. Unique risk-factors include the gender of the baby (Patel, 2002; Kitamura et al, 2006; Xie

et al, 2007; Chee et al, 2005), relationship difficulties with the mother-in-law (Chandran, Tharyan, Muliyil & Abraham , 2002; Leung et al, 2002; Green, Broome & Mirabella, 2006) and marital difficulties (Kalyani, Saeed, Rehman & Mubbashir, 2001; Mahmud, Shariff & Yaacob, 2002; Gulseran et al, 2006). Although studies conducted with minority groups outside Asian countries were excluded from the review, health inequalities experienced by women in Black and Minority (BME) communities can exacerbate many of these risk factors (Ashram, 2010; Mind, 2010).

1.2.4. Explanatory Models

Explanatory Models (EMs) are "the notions about an episode of sickness and its treatment that are employed by all those engaged in the clinical process" (Kleinman, 1980, p. 105). According to Kleinman, an EM is a person's general beliefs about health and illness specific to a particular illness. EMs can provide personal and social meaning to experiences and identify a direction for treatment choices. Studying these can help us to learn how individuals make sense of illness and how they choose and evaluate specific treatments. Kleinman found that differing EMs led to markedly dissimilar therapeutic options. There are five key questions that EMs seek to explain in relation to an episode of illness: (1) what caused the illness?; (2) why and how did the illness start?; (3) how is the illness experienced?; (4) how severe is the illness and how will it turn out?; and (5) what treatments and results are expected? (Kleinman, 1980, pp. 105-106). The importance of eliciting EMs is highlighted by research which has found that the explanations individuals hold for the causes of mental illness impact upon their beliefs about treatment and prognosis (Nieuwsma & Pepper, 2010). Furthermore, professional advice is likely to be appreciated and followed when it is in accord with a client's own perception of their depression and its causes. Despite this, little research has explored the perceived causes of PND.

1.3. Literature Search Method

1.3.1. Aim of the Literature Review

Despite the increase in research exploring the aetiology and risk factors for PND, it is unclear how these competing causal explanations are understood by individuals in clinical, community and general populations. A formal PICOC structure was used to define the scope of the review and formulate a focussed research question, using the following five elements: (1) participants; (2) intervention; (3) comparison; (4) outcome; and (5) context (Petticrew & Roberts,

2006). The aim of this review therefore is to summarise, analyse and critique findings of studies that have investigated the perceived causes of PND.

1.3.2. Search Strategy

An electronic literature search was carried out using the following databases: AMED (The Allied and Complimentary Medicine Database), BNI (British Nursing Index), CINAHL (Cumulative Index to Nursing and Allied Health), EMBASE (Biomedical and Pharmacological Database), MEDLINE (Medical Literature Analysis and Retrieval System Online) and PsycINFO. A combination of the following (truncated) key words was applied to the search: “PND” OR “postnatal/post-natal AND depress*” OR “postnatal AND distress*” OR “PPD” OR “postpartum/post-partum AND depress*” OR “postpartum/post-partum AND illness” OR “perinatal AND depress*” OR “motherhood AND depress*” AND “awareness” OR “knowledge” OR “understand*” OR attitude*” OR “attribut*” OR “caus*” OR “reason*” OR “perceive*” OR “perception*” OR “explan*” OR “etiolog*” OR “aetiolog*”. This was supplemented by hand searching relevant journals, author-searching, reference-searching of relevant studies and careful citation-searching. A one-to-one tutorial was completed with an academic librarian to advise on search terms (free text and thesauri) and ensure systematic searching of key healthcare databases.

1.3.3. Search Criteria

An explicit search strategy and systematic method was applied to the selection of relevant studies in order to reduce selection bias. Studies were not limited by language or publication year, ensuring that all relevant studies were captured and minimising publication bias. Electronic searches yielded 4076 results which were reduced to 153 studies following the removal of duplicates and the screening of titles against the following inclusion criteria:

Inclusion Criteria:

- Empirical studies
- Participants to be of adult/older adult age
- Studies exploring individual perceptions of the cause(s) of non-psychotic depression in the postnatal period, and specifically, postnatal depression

These 153 studies were reduced to 25 studies following the screening of abstracts against the following exclusion criteria:

Exclusion Criteria:

- Anecdotal evidence, narratives, letters, opinion pieces or meeting abstracts.

- Adolescent participants
- No explicit references to causal beliefs (e.g. participants describe their experience and/or difficulties associated with PND without an explicit mention of cause)
- Focuses on depression more broadly, rather than depression in the postnatal period
- Study does not explicitly ask participants about postnatal depression (e.g. study elicits causal models of puerperal psychosis, baby-blues, distress, unhappiness or some other difficulty in the postnatal period)

The full texts of the remaining 25 studies were assessed against the above criteria, with studies excluded from the review for failing to meet the inclusion criteria, or for meeting the exclusion criteria. This search strategy yielded 13 articles for the review.

1.3.4. Search Results

Thirteen papers satisfied these criteria and were included for review (see Appendix 1b for an overview of reviewed studies). All papers were in English, comprising nine qualitative, three quantitative and one mixed-methodology study. The papers were critically appraised using the Critical Appraisal Skills Programme (Public Health Resource Unit, 2006) or equivalent (Aveyard, 2010) tools. The findings from the literature are grouped and presented according to the following emergent causal perspectives: (a) biological; (b) psychological; (c) social; and (d) cultural (including religious).

1.4. Review of the Literature

1.4.1. Understanding the Cause(s) of PND from a Biological Perspective

Within Western cultures, PND has largely been conceptualised as a biomedical psychiatric condition attributed to genetic, hormonal and biological factors (Savarimuthu et al, 2010). The dissemination of biological explanations for mental illness has been linked to attempts to reduce stigma by presenting mental illness in a similar way to physical disorders (Read & Law, 1999; Read & Harre, 2001; Leventhal & Antonuccio, 2009). These explanations featured largely in all of the reviewed Western studies that recruited from clinical settings (McIntosh, 1993; Ugarizza, 2002; Thurtle, 2003; Edge & Rogers, 2005; Baines, Wittkowski & Wieck, 2013), amongst participants who were receiving in-patient treatment for PND (Patel, Wittkowski, Fox, & Wieck, 2013) and those with mental health training

(Highet, Gemmill & Milgrom, 2011). These explanations were the most frequently perceived causes of PND in two of the reviewed studies (Ugarizza, 2002 and Highet et al, 2011).

Ugarizza (2002) conducted qualitative interviews based on the Kleinman Explanatory Models with 30 purposively selected mothers living with self-defined PND in Florida. A top-down approach enabled the researcher to elicit general views about several areas, using open-ended questions, before funnelling participants onto more specific questions of cause. The author provided a clear rationale for using content analysis and an explanation of the specific latent and manifest processes used to derive descriptors central to PND and meanings of communication. Although the author achieved redundancy of the data across all categories, a rationale was provided for completing all of the interviews and in accordance with the study's analytical approach, perceived causes were examined and interpreted with the support of quotes embedded in the text. Although not one of the mothers believed that biochemical fluctuations were the sole cause of their mood disorder, this was a major theme identified with eight of the interviewees attributed varying degrees of depression to hormonal changes. Half of the mothers who cited hormonal changes as a cause, reported believing this because their physicians had told them so. This was followed closely by role change which was cited by six mothers as the most important cause of their PND. Other causes identified included failed breastfeeding and difficult birth experiences, particularly caesarean section deliveries. Two mothers reported that a combination of events were likely to have caused their depression, however they stated that they did not know why they became depressed. Ten mothers believed a combination of factors including giving up a job, illness, lack of sleep and loneliness had caused their PND. The author concluded that a combination of factors was perceived as causative, a combination deemed overwhelming and unexpected by the participants. Despite the associated coding difficulties, this approach provides a useful summary of the women's beliefs about the causes of PND and gives a quantitative overview of the range and diversity of ideas (Smith, 2008). This study also provides an interesting comparison between the mothers' views of PND and the widely accepted DSM-IV diagnostic criteria for PND.

In contrast to this study, Highet et al (2011) conducted a cross-sectional population survey in Australia exploring the prevailing community knowledge, attitudes and beliefs about depression during the perinatal period. The survey was

conducted by 34 interviewers and 1201 people (315 men and 886 women) took part, allowing for a useful comparison between male and female respondents. The main strength of this study lies in the development of the 26-item survey designed in collaboration with beyondblue project officers, health professionals and the consumer and carer arm, BlueVoices. The method of data analysis was clearly described and based on the percentage responses, and differences in these responses, between demographic groups as tested by a chi-square statistic (X^2) and a conservative alpha level of 0.001. A range of answers were provided when respondents were asked "Why do you think women get postnatal depression?" Hormonal/chemical imbalance and genetic/hereditary predisposition were the most frequently cited cause of PND by both men and women, followed by a lack of preparedness for parenting (30%), lack of support (21.8%), not coping with the infant's demands (17.8%), stress/pressure (15.9%) and fatigue/lack of sleep (11.4%). These results were presented graphically which helped to elucidate the findings. Although the overall pattern of responses were similar, the women were more likely to cite biology, unpreparedness for parenting and lack of support as causes of PND and the men were significantly more likely than women to respond "don't know". The most common perception of the cause of PND, particularly amongst those with mental health training, was that it was biological in nature, stemming from hormonal imbalances and/or genetic characteristics. PND may be constructed differently by trained professionals and general populations and the participants in this study may have conflated PND and baby blues into one category.

1.4.2. Understanding the Cause(s) of PND from a Psychological Perspective

Psychological causes featured heavily amongst clinical populations (Chan, Levy, Chung & Lee, 2002; Baines et al, 2013; Edge & Rogers, 2005; Patel et al, 2013), particularly individuals with self-identified PND (McIntosh, 1993; Ugarizza, 2002; Thurtle, 2003; Abrams & Curran, 2009). In line with the wider depression literature, relational causes featured prominently in most of the studies conducted in Asian cultures (Chan et al, 2002; Niemi, Falkenberg, Nguyen, Nguyen, Patelc & Faxelid, 2010; Rodrigues, Patel, Jaswal & de Souza, 2003). Holding external and contextually based explanations of mental illness can be a positive coping strategy as it has been shown to reduce stigma and the associated social distancing from those diagnosed (Hinshaw & Cicchetti, 2000).

Five studies identified psychological explanations as the most frequently perceived causes of PND (Chan et al. 2002; Edge & Rogers, 2005; Niemi et al, 2010; Baines et al, 2013; Patel et al, 2013). These causes included a range of relational, cognitive, behavioural and adjustment-related difficulties.

Chan et al (2002) carried out a qualitative study examining the lived experiences of a group of 35 purposively selected Hong Kong Chinese women diagnosed with PND. This study used the EPDS as a screening measure prior to conducting formal diagnostic interviews and a clear rationale was provided for using qualitative phenomenological analysis to interpret accurately the reality described by the participants. In-depth semi-structured interviews allowed for the identified a range of factors perceived by the participants as contributing to their depression and the authors provided an example of their interview schedule enhancing the dependability of the findings. Colaizzi's (1978) strategy was used to identify and extract significant statements from the data; these were converted into formulated meanings and grouped into categories and distinctive themes facilitating the construction of an exhaustive description. Two investigators analysed the data and member checks were conducted by three randomly selected participants. The analysis identified four themes: (1) trapped in the situation; (2) ambivalence towards the baby; (3) uncaring husband; and (4) controlling and powerful in-laws. Participants were asked to describe a time when they felt particularly depressed and what they thought made them feel like that. Many of the participants attributed their unhappiness to conflicted relationships with their parent-in-law, particularly their mother-in-law. This was related to their perception that their parents-in-law were authoritative and dominant, whilst the gender of the baby was cited as a factor affecting this relationship. A lack of support from husbands, poor marital relationships and the baby itself were also perceived as causes of unhappiness. The authors considered ethical issues extensively and provided a thoughtful discussion of the study findings. These findings indicate that explanatory models for PND are constructed within an individual's socio-cultural context and influenced by their associated coping strategies.

Edge and Rogers (2005) recruited twelve women of Black Caribbean origin, to better understand the means they deployed to maintain their mental health and cope with adverse events during pregnancy, childbirth and early motherhood. This was part of a larger mixed-methods study estimating the prevalence of, and causal

models for, perinatal depression among women of Black Caribbean origin in the UK. The rationale for using qualitative data alongside quantitative data was provided and this mixed-methodology enriched the study. Twelve of the women recruited in the quantitative study were theoretically sampled, to represent a range of depression scores, and purposefully recruited to complete in-depth interviews. The authors justified use of this sampling method to recruit a diverse range of participants for the purpose of developing a representative account of causal beliefs. In keeping with their qualitative stance, an interview guide was developed which explored a range of themes including women's beliefs about mental illness in general, and specific beliefs about depression during pregnancy and in the early postnatal period. Data was thematically analysed and themes clustered into categories using a constant comparative approach. Black Caribbean women subscribed to biopsychosocial theories of postnatal distress, preferring psychological and social over biological explanations. Ten of the twelve women interviewed attributed psychological factors such as experiencing stress, traumatic labour and delivery and lack of emotional stability as a cause of PND. These findings support cognitive theories of depression, specifically, that small stressors leading to small changes in mood can lead to chronic rumination and catastraphozing, precipitating further episodes of depression (Segal, Williams & Teasdale, 2002). In this study, eleven of the mothers described multiple and "overloading" adversity, including financial difficulties and difficulties in personal relationships, as the cause of perinatal distress. Hormones were cited by seven women as the cause of mental distress in general and perinatal depression in particular however these views were often conflicted. Perceived causes of PND are therefore likely to be influenced by the different meanings attached to psychosocial risk factors. Spirituality is potentially an enabling resource for these women, offering practical support and enhancing well-being, particularly during the postnatal period.

Niemi et al (2010) aimed to elicit the Explanatory Models (EMs) of depression and PND from nine mothers and nine health workers in Ba Vi, Northern Vietnam. In contrast to the other qualitative studies reviewed, this was the only paper that conducted semi-structured interviews with mothers and health workers, and thus triangulated their sources. The interview schedule was designed in accordance with the key categories of Kleinman's illness explanatory model framework (Kleinman, 1980). The interviews commenced with a case vignette that

described depression in accordance with the DSM-IV criteria for major depressive disorder and questions were posed regarding the vignette. The same vignette was used to illustrate a case of PND and the same questions were posed with regards to the onset of PND. The interviews were analysed by several researchers using content analysis. The causes of both depression and PND were grouped into four main categories: (1) relational; (2) external; (3) not known; and (4) personal. Relational causes were the largest causal category given by mothers. The husband's behaviour was the most cited subcategory for PND amongst mothers and lack of support was the most common relational cause given by healthcare workers. The most common subcategory of external causes cited by both mothers and healthcare workers was not having a son, with almost all mothers and healthcare workers giving this as a reason for PND. Half of the mothers and two healthcare workers reported not knowing the cause for PND. Personal causes were the least cited factors for PND amongst the mothers, with only two respondents citing thinking as a cause. Health workers did not cite any personal factors as being responsible for PND. The authors conclude that addressing prevalent causal models is of great importance for planning effective services, and the prevention and management of mental health difficulties in Vietnamese women.

In a contrasting approach, Baines et al (2013) carried out a longitudinal correlational questionnaire design study to explore illness perceptions and the psychometric properties of the revised Illness Perceptions Questionnaire (IPQ-R). The IPQ-R was developed in accordance with The Self-Regulation Model (SRM) (Leventhal, Nerenz & Steele, 1984). The authors identified three clear aims for the study: (1) to examine perceptions of mothers experiencing postpartum depression utilising an IPQ-R modified for PPD; (2) to explore relationships between illness perceptions, depression severity and perceptions of maternal bonding and; (3) to assess the psychometric properties within this population. Forty-three mothers with a child under the age of one-year, who screened positive for PPD using the EPDS, were recruited from a range of outpatient and inpatient services across Greater Manchester and MIND centres nationwide. This triangulation of sources enhances the validity of the study by reducing the confounding effect of local institution-specific factors. A clear description of all the statistical analyses, including power calculations, provides confidence in the data by enhancing internal validity however multiple comparisons may have increased the risk of

statistically significant findings. The most frequently endorsed causes of depression following childbirth were stress or worry which was endorsed by 85% of the sample, followed by hormonal changes (75%), own emotional state (75%), family problems (67.5%), mental attitude (62%) and own behaviour (55%). The least endorsed causes were age (12.5%) and accident or injury (10%). Comparative analyses failed to reveal differences in illness perceptions between mothers who experienced past psychological difficulties and those who did not did not. The authors conclude that the IPQ-R is a reliable measure of illness perceptions in PND providing valuable insights into how mothers view their illness.

Patel et al, 2013 recruited a purposive sample of eleven participants either diagnosed with depression post birth, or self-reported depression starting in pregnancy and continuing post birth, from two perinatal services in Northwest England, UK. The authors used the EPDS to ensure that participants were experiencing a similar level of depressive symptomotolgy, rather than to solely identify PND. Grounded theory was used to interpret the findings from semi-structured interviews, drawing on Charmaz's theoretical framework for data collection and analysis (Charmaz, 2006). A theory of PND emerged around six core categories: (1) unmet expectations; (2) identifying stressors in life context; (3) conflict with label; (4) antidepressants: the lesser of two evils; (5) loss of time; and (6) uncertain futures. The second theme related to causes the participants attributed to their PND. Although the women held expressions of uncertainty, a psychosocial aetiology was the dominant framework with trauma, difficulties in adjusting to the parenting role and personal factors all cited as causal factors for PND. Childhood abuse, traumatic pregnancies and traumatic births were also seen by many, as factors underlying PND. Other psychosocial factors included lack of support, weight gain, changes to lifestyle, relationship problems, financial concerns and work-related worries. Personality characteristics, including intrinsic qualities such as blaming themselves, were also attributed as causes of PND. Three participants who had a history of depression attributed personal models of history and vulnerability as the cause of PND. Biomedical factors including genetics, hormones and brain factors were indicated by some participants as additional causes of PND. This study provides an important theoretical understanding of illness perceptions in PND and the findings are carefully interpreted with the support of rich quotes embedded in the text. The construction

of fluid causes of PND is likely to be influenced by personal biographies, new experiences and stages of recovery.

1.4.3. Understanding the Cause(s) of PND from a Social Perspective

Clinical guidelines for the management of PND have acknowledged the role of social factors in its aetiology (NICE, 2007). Social explanations, particularly economic difficulties, featured prominently amongst studies who recruited from socially disadvantaged populations, and these were the most frequently perceived causes of PND in five of these studies (McIntosh, 1993; Rodrigues et al. 2003; Thurtle, 2003; Abrams & Curran, 2009; Matthey, 2009). These included practical aspects of motherhood, baby-care issues, economic difficulties and lack of support.

McIntosh (1993) examined the experiences and perceptions of a group of 60 working-class first-time mothers selected randomly from three antenatal clinics in Glasgow, Scotland. Flexible, semi-structured interviews were conducted on six occasions, once prenatally and five times postnatally, to explore the experience of depression. At the end of the study, participants were asked what they believed had caused their depression, all but one of the interviewees provided at least one explanation, with many giving a combination of explanations. A total of 38 reasons were provided with 28 people stating that the cause of their depression was related to difficulties associated with the experience of motherhood itself. This included the effects of the never-ending demands of infant care, restrictions, loss of freedom, responsibility involved, frequent experiences of loneliness and isolation, absence of assistance and support, and a lack of time to oneself. The study sample was exclusively working-class with twenty-three mothers from social-class IV (partly skilled labourers) and five mothers from social-class V (unskilled labourers). Many of these mothers were living in disadvantaged circumstances and housing problems were the second most frequently cited cause of PND (8), followed by unemployment (6), financial pressure (6), and problems with husband/partner (5). These women described their depression as an inevitable consequence of the intolerable burden and pressures placed upon them. Three women cited hormones as the cause of their depression, one attributed her husband/partner's illness, and one mother stated that she did not know. For the majority of mothers, professional help was not deemed relevant to the solution of the problem as they perceived it, and as far as the mothers in this sample were concerned, their depression had its origin in social and economic difficulties.

Rodrigues et al (2003) identified this gap in the research and provided a clear rationale for undertaking a qualitative study describing the explanatory models of PND, with the aim of studying the cultural validity of the PND biomedical construct. The purposive recruitment of 39 mothers from Goa, both with and without PND, using a validated cut-off score for the EPDS, was a key strength of the study. One researcher conducted interviews with mothers and their husbands to triangulate previous sources of evidence. When asked to list all illnesses associated with childbirth the PND mothers did not express any psychiatric symptoms. Three of the non-PND mothers described *nervachem*, a Konkani term used to describe stress-related emotional difficulties. Some mothers and fathers cited the gender of the baby as a cause for nervous problems and mothers mentioned relationship problems as antecedents of mental distress. Despite reporting many of the symptoms described in Western societies as commonly associated with PND, none of the PND mothers or husbands labelled their distress as depression or perceived this as a biomedical or psychiatric disorder. Illness narratives conducted with the PND mothers supported a psychosocial aetiology for PND, with economic difficulties, particularly unemployment of the husband the most commonly cited cause. This was followed by poor interpersonal relationships particularly with the husband and/or mother-in-law. Poor marital relations were expressed through poor practical and emotional support, violence and a preference for having a boy. The findings of this study provide cross-cultural convergent validity for the PND construct, however the psychiatric label may be less applicable across cultures due to its attached stigma.

Thurtle (2003) recognised the potential stigma attached to PND and the lack of maternal voices on depression and conducted a qualitative study exploring prospectively the perceptions of 14 primiparious women in Sussex, England as they considered their experience of new motherhood and depression. The author reviewed relevant literature findings and participants were interviewed using a semi-structured schedule exploring a range of motherhood experiences including the potential for depression and developing self-confidence. Although the EPDS was not undertaken on all participants, it was used as a continuous scale and the study was strengthened by comparisons of perceived causes for PND by those who had been depressed and those who had not. The combination of subjective viewpoints further strengthened this study. Several themes emerged from the data including the joy and wonder of motherhood, changing levels of responsibility,

availability of practical and emotional support, changes in life/expectations and postnatal depression. All participants were happy to discuss PND and its causes and in line with other studies most of the women saw PND as multifarious with more than one cause. The most frequently cited cause of PND was seen to be a lack of support, particularly as a lone parent. Amongst mothers who had not seen themselves as depressed, hormones and physical causes were the second most cited cause of PND. This was not cited as a cause by the five mothers who felt they had been depressed. For those who did not see themselves as depressed, hormones and physical causes were followed by tiredness/sleeplessness, not coping, specific issues related to the mother (e.g. feeding, bereavement and not wanting a baby), expectations, feeling physically low, having a bad labour, having too much to learn, environment and being stuck in the house. The five mothers who felt they had been depressed cited a lack of support and specific issues related to the mother (e.g. feeding, bereavement and not wanting a baby) most commonly. This was followed by wanting old life/lack of structure and expectations. In accordance with the study's phenomenological origins, the researcher discussed her own position and how this may have influenced the study. Although the author described the low recruitment rate as a limitation (70% of the women who were approached did not take part in the study), they concluded that the dominant view in maternal lay thinking was that social factors, particularly a lack of support, were key contributors to depression in the postnatal period. The relatively good level of available support, associated with a middle-class status, may have contributed to a low level of depression in this sample. The author recommends that levels of support are raised with women during the antenatal period and considered when working new mothers.

Abrams and Curran (2009) acknowledged that despite being at higher risk of PND, low-income postpartum mothers are less likely than their middle-class counterparts to seek or receive mental health treatment. Recognising that qualitative literature on PND has been largely limited to women from White, middle-class backgrounds, the authors used a grounded theory approach to examine how low-income mothers' in the USA understood and constructed their experience of PPD. A clear rationale was provided for undertaking the study acknowledging that popular biomedical and psychiatric explanations of PPD do not explain why low income mothers are at higher risk for PPD or how the social environment factors into the aetiology of PPD. Kleinman's (1980) explanatory

model strengthened this study by providing a theoretical framework from which this research was designed. Nineteen low-income mothers with self-reported postpartum depressive symptoms were recruited to complete open-ended semi-structured interviews which were clearly described and examples provided. Although the authors included women with self-reported PND they justified this by using loosely adapted key concepts from the EPDS. Recruitment, inclusion and exclusion criteria were clearly described and justified. The sample was ethnically diverse and the authors discontinued recruitment once saturation of the data had been reached. The study data was analysed by two researchers using the constant comparative method. The analysis identified five main emergent grounded theory categories including: (1) ambivalence; (2) care-giving overload; (3) juggling; (4) mothering alone; and (5) real life worry. Within these categories the mothers attributed their depression to unplanned or unwanted pregnancies, caring for an infant with health issues, limited childcare assistance, difficulties balancing their work and home responsibilities, significant financial difficulties, material deprivation and realistic concerns about child health and safety. “Mothering is overwhelming” was found to be the core experience in this sample with mothers attributing their PPD symptoms to the larger context and day-to-day realities of mothering under materially difficult and stressful conditions. This study provides a thoughtful account of what PPD is like for those who experience it and the findings are carefully examined and interpreted with the support of rich quotes embedded in the text.

To enable clinicians to assess a client’s perception of the causes of their self-defined PND, Matthey (2009) developed the Reasons for Postnatal Distress Checklist (RPDC). A strength of this study is that the author developed the RPDC from an existing instrument, the Reasons for Depression Questionnaire (RDQ; Addis, Truax & Jacobson, 1995). A full version (RPDC-f) with 68 items was developed for research studies and a brief version (RPDC-b) consisting of 20 categories incorporating these 68 items was developed for clinical settings. The process of generating items for the checklist was given adequate attention and the ways in which the categories were agreed was clearly described. A pilot was undertaken prior to the main study leading to adjustments in the design instrument. The author grouped the items into seven psychological domains: (1) cognitive; (2) behavioural; (3) attachment; (4) baby care; (5) life stress; (6) interpersonal; and (7) adjustment to role change. To examine the psychometric

properties of both checklists the authors first administered the RPDC-f to 342 women with infants from two sources; community settings and baby care treatment services in South West Sydney, Australia. Some of these mothers also completed the EPDS at three different time-points. The RPDC-b and Being a Mother Scale (Matthey, 2011) were then administered to a separate sample of 198 women recruited from early childhood clinics. The psychometric properties of both versions of the RPDC were found to be acceptable however missing data rendered the sample size small for some of the reliability checks. For the community mothers, practical issues for themselves or their infant were the most frequently endorsed causes of PND. For the RPDC-f, the most frequently cited causal stressors for these community mothers who reported difficulty coping for any length of time (n = 181) was feeling exhausted (62.1%) followed by finding it difficult to give attention to other children (35.4%), money worries (31.0%), tried to do too many household chores (31%) the baby's sleep or crying problems (25.4%), feeling guilty for wanting to do things for self (23.2%), feeling others don't understand how much work it was looking after a baby (23.2%), baby's feeding problems (22.1%), worrying that her mood is affecting her baby (22.1%), feeling unattractive (21.7%) and feeling she should be better at mothering (21%). For the RPDC-b, the most frequently endorsed causal stressors for mothers who reported difficulty coping for any length of time (n = 97) was baby-care issues (54%) followed closely by extreme tiredness or exhaustion (53%), own expectations of self (36.3%), practical difficulties (33.4%), health issues (31.2%) and feeling isolated or lonely (17.3%). Using the RPDC alongside the EPDS can enhance the clinical services provided to women with PND by taking into account the broader social context.

1.4.4. Understanding the Cause(s) of PND from Cultural and Religious Perspectives

Existing research has identified unique risk factors for PND within certain cultural-groups and this review indicates differences in the salience of, and meanings attached to these risk factors. Cultural causes featured prominently in all of the studies conducted in Asian cultures (Chan et al, 2002; Niemi et al, 2010; Rodrigues et al, 2003). These factors include powerful and controlling in-laws and the birth of a daughter if a son was preferred. One study identified cultural (including religious) factors as the dominant perceived cause of PND.

Savarimuthu et al (2010) elicited explanatory models of PPD in rural South India using the Tamil version of The Short Explanatory Model Interview (SEMI; Lloyd et al, 1998). The EPDS and a semi-structured clinical interview using ICD-10 criteria were used to identify PND cases. Although the lack of validated cut-off score for the Tamil version of the EPDS poses a limitation, use of a formal diagnostic assessment strengthened the overall study. The aims of the research were clearly stated and the measures used are discussed in some detail. The authors selected villages using a random technique and probability proportion to the size of the expected post-partum women. A qualitative semi-structured interview-based design was employed to examine the factors associated with PPD. This flexible design instrument was divided into five sections to cover: (1) the participant's background; (2) nature of the presenting problem; (3) help-seeking behaviour; (4) interaction with physician/healer; and (5) beliefs related to the mental illness. Based on the ICD-10 criteria, the prevalence of PND in the sample was 26.3%. All of the women who reported health problems during their current pregnancy and childbirth (n=73) were asked to provide causal models for their illness using the SEMI. The study would have been strengthened by eliciting explanatory models from all women allowing for a more meaningful comparison. A higher number of causal models and non-medical causal models were found amongst those diagnosed with PND compared to those without a diagnosis. Belief in Karma was the most cited cause for health difficulties in both depressed and non-depressed mothers, followed by punishment from God and belief in an evil spirit as a cause. The depressed group cited black magic as a cause however none of the women in the non-depressed group held this belief. Two women from each group cited disease as a cause. The findings indicate that PND symptomatology is understood and interpreted in the context of social, cultural and religious factors.

1.4.5. Discussion

This review has shown that despite the significance of causal beliefs, very few studies have explored the perceived causes of PND. One of the main findings of this review is that unlike the biomedical taxonomy, the participants in the studies reviewed did not hold a single explanation for PND. The medical model assumes an underlying pathology to explain mental disorders in a similar way to physical disorders (Leventhal & Antonuccio, 2009). Despite the prevalence of this model, biological explanations were the most frequently perceived causes of PND in only

two articles. In line with existing research, this review identified a prevalence of biological explanations in studies conducted with clinical samples in Western cultures and amongst professionals with mental health training.

The role of psychological and social variables in the aetiology and management of PND have been acknowledged (NICE, 2007). This review identified a preference for psychosocial explanations of PND, particularly amongst individuals from disadvantaged backgrounds. Poverty is a well-established risk factor for a range of mental health problems including depression (Poulton et al, 2002; Carter et al, 2009; Heflin & Iceland, 2009). More recently, relative poverty has been identified as a stronger predictor of a range of mental health outcomes than poverty per se (Wilkinson & Pickett, 2009). Reducing PND to a biomedical psychiatric category can trivialise these social inequalities and dismiss the personal and social contexts of the women living with these difficulties (Savarimuthu et al, 2010). Addressing social and material circumstances, therefore, can make mental health services more meaningful to women from socially disadvantaged backgrounds.

The papers included for review confirm that PND is a complex disorder with a range of causal beliefs. In line with a Common Sense Model of Illness (Leventhal, Nerenz & Steele 1984), these beliefs are influenced by personal biographies and stages of recovery. Addressing prevalent causal models is of great importance for planning effective services and the prevention and management of mental health difficulties. Both the RPDC and IPQ-R measures reviewed in this study have clinical utility and can be used to recognise and take into account a clients' own explanation of their difficulties. Furthermore, psychological formulation is a valuable intervention that can improve outcomes by enabling mothers to develop a more coherent understanding of their difficulties. This review highlights the importance of interpreting these understandings within the context of each individual and exploring the relationship between causal stressors and treatment type. The use of symptoms and context-based terms may be a more acceptable psychosocial approach to the recognition and management of these difficulties.

1.5. Review of the Methodology

1.5.1. Review of Qualitative Studies

The ten qualitative studies (including one mixed-methodology) included in this review have provided rich and valuable insights into, and theoretical

understandings of, causal beliefs of PND. Many studies were conducted according to robust criteria for qualitative studies (Colaizzi, 1978; Strauss & Corbin, 1998; and Charmaz, 2006). However, they shared a number of methodological limitations resulting in reduced trustworthiness. These included inappropriate recruitment strategies, inconsistent conceptualisations and measurement of PND and variability in the description of data collection and analysis.

Research aims and design

The reviewed studies utilised a range of qualitative research designs to address their aims. These approaches can be appropriate for the differing objectives, however a detailed rationale for adopting this methodology was not always provided (Thurtle, 2003; Savarimuthu et al, 2010). Although the studies explored their aims, none of them looked specifically at causal beliefs and little attention was paid to the potential influence of being part of a larger epidemiological study, including participants' privacy and the confidentiality of data (McIntosh, 1993; Rodrigues et al, 2003; Edge & Rogers, 2005). These causal beliefs warrant further investigation because they influence how we might work clinically with people.

Participants

Recruitment strategies were generally appropriate for the aims of the research, however some studies adopted strategies such as randomisation (McIntosh, 1993; Thrutle, 2003) and snowballing (Ugarizza, 2002) which are considered inconsistent with qualitative approaches because they can reduce the theoretical generalisations of the findings (Smith, 2008). The sample sizes were generally appropriate for the different study designs. Exceptions to this were the Chan et al (2010) and Savarimuthu et al (2010) studies which recruited larger samples sizes contributing to an insufficiently penetrative analysis of their data. Some studies failed to provide justifications for their inclusion and exclusion criteria which may have introduced an element of bias and limited the transferability of their findings. These criteria include, the inclusion of only articulate participants (Chan et al, 2002), those between 2-10 weeks postpartum, and those residing in larger villages (Savarimuthu et al, 2010) Several studies failed to provide a detailed description of the sample demographics (McIntosh, 1993; Edge & Rogers, 2005) particularly ethnicity, and none of the authors described the religious beliefs of the participants. A comparison of causal models, based on relevant demographic factors such as culture and ethnicity, is required.

This area warrants further exploration as these factors have consistently been found to have an impact on beliefs about the cause of mental illness (Walpole et al, 2013).

Participants were recruited from a range of healthcare services including mental health services (Chan et al, 2010; Patel et al, 2013). This is likely to have influenced the credibility of elicited causal models, making it difficult to ascertain the direction of the link between depression and explanatory models. Accessing professional advice/and or treatment and receiving a diagnosis can influence causal beliefs towards an "illness-model". Individuals not accessing services may hold alternative perceptions regarding the causes of PND and not conceive them within the context of being an "illness". Research with community samples is required to explore these hypotheses further.

Conceptualisation and measurement of PND

Use of the terms PND/PPD was inconsistent across studies making it difficult to draw meaningful comparisons. Three of the reviewed studies recruited women with self-identified PND (McIntosh, 1993; Ugarriza, 2002; Abrams & Curran, 2009) and two studies reported incorrect use of the EPDS, which measures depressive symptomotology, to identify cases of PND (Rodrigues et al, 2003; Patel et al, 2013). Contributing to this difficulty, Thurtle (2003) conducted interviews ranging from 4 to 12 weeks postpartum and Savarimuthu et al (2010) included women who were 2 weeks post-partum, making it difficult to compare findings and ascertain whether the women were experiencing postnatal blues or PND.

A range of validated and non-validated cut-off scores were used for the EPDS, ranging from 10 (Chan et al, 2010; Patel et al, 2013) to 11/12 (Rodrigues et al, 2003) and 12 (Chan et al, 2002). This lack of consistent measurement makes it difficult to make meaningful comparisons and challenges the credibility of the elicited explanatory models. In studies where participants were asked to describe the causes of their distress, it is possible that the researchers inadvertently elicited explanatory models of other difficulties including baby-blues, another type of depression or sadness. This is supported by findings of the international studies which indicated that the majority of participants did not view their difficulties (Rodrigues et al, 2003; Savarimuthu et al, 2010), or those described to them in accordance with the Western construct of PND (Niemi et al, 2010). Although this may be explained by a lack of culturally specific descriptions, it is more likely due

to the use of measures developed in Western cultures (e.g. EPDS, DSM-IV and ICD-10 diagnostic criteria). Methodological adaptations to such measures need to take into account any cultural differences in the experience and presentation of PND symptomatology

Data Collection

The majority of qualitative studies used face-to-face, semi-structured interviews to elicit explanatory models. Most interviews were conducted by one researcher, however it was unclear who conducted the interviews in the McIntosh (1993) study and an interviewer, bilingual research assistant and first author were all present in the Niemi et al (2010) study which may have confounded the study. Most of the authors described the taping and subsequent transcription of interviews, giving confidence in the collection of accurate and complete data from which analysis took place. An exception to this was the Ugarizza (2002) study in which partipcants were also interviewed by telephone and all interviews were handwritten using pen and paper. This technique poses a limitation to the study as it may have interfered with the interviews and resulted in missing data. Although many of the authors stated that an interview schedule had been produced in advance, limited information was provided about the construction of the questions and/or prompts (McIntosh, 1993; Rodrigues et al, 2003) and the majority of studies failed to make their methods explicit by providing an example of their interview schedule. Furthermore, inconsistent with a qualitative stance, saturation of data/themes was only described by three of the qualitative studies. Savarimuthu et al (2010) modified the Short Explanatory Model Interview (Lloyd et al, 1998) for the purpose of the study however procedures for enhancing transferability and dependability were not described. Detailed methodological descriptions can enable the repetition of qualitative studies, thereby enhancing the dependability of the causal model.

Data Analysis

The adoption of well-established qualitative research methods can ensure credibility of the findings. The majority of studies utilised a specific method of analysis although some studies failed to identify their approach (McIntosh, 1993; Rodrigues et al, 2003) reducing the transferability of their findings. Furthermore, most authors provided only a limited description of this process with Niemi et al (2010) failing to provide the content of all categories and Rodrigues et al (2003) neglecting to describe how their themes were identified.

Several authors did not include second coders or describe any other methods used to enhance the credibility of their findings. A lack of participant quotes in the McIntosh (1993) and Chan et al (2010) studies also minimised fidelity to what the participants were communicating. Furthermore, several studies failed to mention reflexivity by examining their own role and position (McIntosh, 1993; Ugarizza, 2002; Rodrigues et al, 2003; Edge & Rogers, 2005; Savarimuthu et al, 2010). This is inconsistent with their qualitative origin which recognises that the researcher plays an active role in the dynamic research process. Reflexivity in qualitative research is necessary to enhance both the credibility and confirmability of the findings.

Ethical Considerations

Many of the reviewed studies failed to evidence how the research adhered to ethical guidelines of their relevant professional body and it was frequently unclear how ethical safeguards, such as informed consent and confidentiality had been maintained (Ugarizza, 2002; Edge & Rogers, 2005; Savarimuthu et al, 2010). Clarifying whether the necessary permissions and ethical clearances had been obtained enhances credibility, one of the most important factors in establishing the trustworthiness of qualitative research (Shenton, 2004).

1.5.2. Review of Quantitative Studies

The three quantitative studies included in this review contributed to the understanding of PND by providing a systematic investigation of causal beliefs. Unfortunately, the papers shared a number of methodological flaws which threatened reliability and validity, and limited the generalisability of the findings. These flaws included unreliable measurements of causal perceptions, partly arising from a poor conceptualisation of PND and a lack of validity of scales used.

Participants

The reviewed studies differed with regards to the sample participants. Matthey (2009) failed to provide a detailed description of their sample characteristics and Baines et al (2013) neglected to account for all the participants in their description. Baines et al (2013) did not include a power calculation making it difficult to determine whether the sample size was adequate for the purpose of the study. The study populations also differed considerably making it difficult to draw meaningful comparisons across studies. Highet et al (2011) recruited a general population sample, Baines et al (2013) recruited a clinical sample and Matthey (2009) recruited a mixed community and clinical sample. Furthermore, the

conceptualisation of PND differed between the studies using clinical samples, with Baines et al (2013) used the EPDS, rather than a formal diagnostic interview, to identify cases of PND. Bina (2008) highlights the need to set a standard as to how comparisons of PND should be made, including the use of validated EPDS cut-off scores.

Measurement of causal perceptions

Variability was found in the measurement of causal perceptions across studies. Matthey (2009) and Baines et al (2013) modified existing instruments and Highet et al (2011) created a unique measurement of causal perceptions of PND. Matthey (2009) did not mention any issues pertaining to the reliability or validity of the existing instrument, and although Baines et al (2013) found the modified instrument to be a broadly reliable measure of illness perceptions, the sample size was relatively small and issues pertaining to validity were not discussed. Carefully designed and evaluated measures of PND causal beliefs can overcome these difficulties and the make the findings more generalisable.

Ethical Considerations

Matthey (2009) and Highet et al (2011) failed to evidence how the research adhered to ethical guidelines of their relevant professional body and it was unclear how ethical safeguards such as informed consent had been maintained. Consideration of ethical principles enhances the robustness of the research and the ethical validity of the findings.

1.6. Summary and Conclusions

1.6.1. Research Implications

There are clear research implications given the methodological limitations of the studies reviewed. A first step would be to identify and categorise the vast range of perceptions about the causes of PND using a formal qualitative approach. A next step would be to establish, using a rigorously designed mixed-methodology approach, the extent of agreement and/or disagreement with these views amongst both participants with and without a formal diagnosis of PND. This triangulation of methods can enhance the credibility of research by compensating for individual methodological limitations and exploiting their respective benefits. The identification of women with PND requires the use of consistent time-parameters and correct use of standardised screening measurements such as the EPDS, with regionally validated-cut-off scores, alongside formal diagnostic interviews. Furthermore, methodological adaptations to any of these measures need to take

into account any cultural differences in the experience and presentation of PND. Second, there is a need to identify whether interventions, particularly psychological and social interventions, can be adapted to take into consideration causal models, and to identify the acceptability of these interventions to clients. Finally, there is a need to identify the different ways that the causes of PND are understood culturally, particularly with individuals from minority faith and ethnic groups.

1.6.2. Limitations of Literature Review

Causal beliefs represent just one dimension of Kleinman's Explanatory models; it is likely that other dimensions, such as the experience of the illness, or other models, such as the Common Sense Model of Illness (Leventhal, Nerenz & Steele 1984) will have had different implications. The review was conducted by a single researcher who may have influenced the development of themes for the review. Furthermore, the ways in which the reviewed papers explored and reported causal beliefs is also likely to have influenced the findings of the review.

1.6.3. Clinical Implications

The findings of this review highlight a need for health professionals to take a more pro-active role in eliciting and understanding explanatory models with clients. Viewing explanatory models in light of broader social and cultural issues may facilitate normalisation of experiences, provide education, dispel fears and minimise the potential for stigmatisation (DiCiano et al, 2010). Several papers in this review recommend the careful development of interventions based on explanatory models of PND. Such an approach may be particularly relevant when alternative explanations for PND exist, such as social inequalities, cultural or religious explanations. Consideration should be made to the potential role of spirituality as an enabling resource offering practical support, enhancing well-being, and preserving mental health. Similarly, family involvement, particularly that of the husband, could help women cope with these difficulties. Furthermore, professional engagement with explanatory models can be an important way of developing shared understandings and challenging stereotypes, particularly when working with clients from minority groups. Finally, the findings of this review indicate that interventions should address the social and material circumstances of women.

1.6.4. Conclusion

Despite the existence of a wide range of explanations, relatively little research has investigated the perceived causes of PND and the methodological

quality of existing research is generally poor. This review has identified the existence of simultaneous multiple explanatory models, with psychosocial factors being the most commonly attributed causes of PND. The findings challenge the dominant notion that PND is a purely biological and unifactorial illness. All of the reviewed studies cited a combination of perceived causal factors, and it is this unique set of factors, as identified by the woman herself, that is likely to hold the key to her treatment. In line with the Equality Act (2010), the review has highlighted the importance of identifying and understanding the alternative lay causal models, particularly in minority groups. High quality research, particularly mixed-methodology research, is needed in a number of areas to gain a more rigorous understanding of the link between the range of causal beliefs and interventions for PND.

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Part Two

Perceived Causes of Postnatal Depression amongst British Muslim Women of Arab Origin: A Q-methodological Study

Target Journal: Social Science and Medicine

See Appendix 6(b) for Instructions for Authors

Word Count (Excluding abstract, tables, figures and references): 6,409

2.1. Abstract

Postnatal depression (PND) is a depressive episode beginning within or extending to the postnatal period which affects between 10 – 20% of women in the general population. PND has significant economic costs and detrimental effects on maternal and paternal mental health and infant wellbeing. Although the causes of PND are multi-factorial and wide ranging, within Western cultures it is frequently conceptualised as a biomedical disorder requiring pharmacological treatment. The present study aims to clarify these issues by exploring how women from a minority ethnic and faith group understand the causality of PND. Through the use of Q-methodology with a sample of 11 Muslim women of Arab origin, a taxonomy of two clear and distinct accounts is identified: (1) stress-generation; and (2) diathesis-stress, with both accounts clearly embedded in faith and values. These two taxonomies (based on Q factor analysis) are interpreted and discussed in order to identify key explanatory models which services can use to provide culturally sensitive interventions.

2.2. Introduction

2.2.1. Postnatal Depression (PND)

Postnatal depression (PND) is a non-psychotic depressive episode beginning within or extending to the postnatal period, and affecting between 10 – 20% of women in the general population in the year following childbirth (O'Hara & Swain, 1996; Cox, 1999; Miller, 2002). Interestingly, PND is not recognised as being distinct from other mood disorders, despite the identification of differing thought patterns. Negative cognitions are typically focussed on the baby, rather than the self, with negative self-evaluation expressed as guilt for not performing in the maternal role, particularly in relation to other mothers. Similarly, anxious thoughts revolve around the child's vulnerability and well-being, with fears about harming the baby. As with other forms of psychological distress, theories about the aetiology of PND are conflicted, identifying a combination of biological, psychological, social and cultural factors significant in its development (Nicolson, 1996; O'Hara & Swain, 1996; Wieck, 1996; Leung, 2002; Clay & Seehusen, 2004). This is exemplified in a meta-analysis by Robertson, Grace, Wallington & Stewart (2004), who found the following risk factors to be the strongest predictors of PND: depression or anxiety during pregnancy, past history of psychiatric illness, stressful life events, lack of social support and social isolation, previous history of depression, maternal personality characteristics, poor marital relationships, obstetric complications, unplanned pregnancies and socioeconomic deprivation.

PND is a serious public health issue, without effective interventions it can have detrimental effects on maternal and partner mental health and infant wellbeing (Phillips & O'Hara, 1998; WHO, 2000; Miller, 2002; Milgrom, Erikssen, McCarthy & Gemmill, 2006). In addition to the recognised social and psychological implications, PND poses a significant financial burden to health and social services in the UK, with an estimated economic cost of £35.7 million annually (NICE, 2007). Despite this, the organisation and provision of perinatal mental health services across England and Wales is inconsistent, with the majority of women treated in primary care settings (DoH, 2004; NICE, 2007). Clinical guidelines recommend interventions including Cognitive Behavioural Therapy (CBT) and Interpersonal Therapy (IPT), however it is not clear whether these treatments are acceptable to women from minority faith and ethnic communities (Wittkowski, Zumla, Glendenning & Fox, 2011).

2.2.2. PND: A Western Phenomenon?

Early research on PND was largely based on women in the United States, Australia and Europe which led to PND being viewed as a Western phenomenon (Pope, Watts, Evans & McDonald, 1999). Despite increasing recognition of the role of psychological and social factors in its aetiology and management, within Western cultures PND is frequently conceptualised as a biomedical psychiatric condition attributed to genetic, hormonal and biological factors (NICE, 2007; Savarimuthu et al, 2010). Depression has been found equally in low and high income countries, with the symptomatic presentation varying according to culture (Oates et al, 2004), and as such there may be unique risk-factors within particular cultural groups. Despite a lack of research, several identified risk factors for PND, including being a recent immigrant, living in an unfamiliar culture or environment, poor housing, unemployment, lack of information and poor communication, indicate an increased risk for PND amongst women from minority communities.

2.2.3. Ethnic Inequalities in Mental Health Care

According to the 2011 Census in England and Wales, Muslims were the second largest religious group with 2.7 million followers accounting for 5 per cent of the total population. Muslims were the most ethically diverse group and had the youngest age profile of the main religious groups (Office for National statistics; 2013), as such it is important that we understand the cultural needs of this growing population if we are to provide high quality and yet cost-efficient healthcare. Despite this, studies have consistently highlighted ethnic inequalities in mental health care in the UK (DoH, 2005). Women from minority communities are more likely to have their needs unrecognised and/or unmet, are less likely to have been offered talking therapies and more likely to have been referred to secondary care when compared with their White British peers (Onozawa, Glover & Adams, 2003; Edge & Rogers, 2005: Gavin, Gaynes & Lohr, 2005; Gaynes, Gavin & Meltzer-Brody, 2005) To address these inequalities, healthcare providers in the UK must offer culturally appropriate treatment to people from minority ethnic and faith groups, supported by clinical guidelines for the treatment of depression which promote sensitivity to the diversity of culture, ethnicity and religious background of individuals (DoH, 2004; NICE, 2009).

2.2.4. Cultural Competence: Eliciting Explanatory Models

The NICE clinical guidelines encourage clinicians to “ensure competence in using different explanatory models of depression” in order to effectively address

cultural and ethnic differences when developing and implementing treatment plans (NICE, 2009). Explanatory Models (EMs) are “the notions about an episode of sickness and its treatment that are employed by all those engaged in the clinical process” (Kleinman, 1980, p. 105). The importance of eliciting explanatory models (EMs) is highlighted by research which has found that the explanations individuals hold about the cause of mental illness impacts upon their beliefs about treatments and prognosis (Nieuwsma & Pepper, 2010). Professional advice is likely to be appreciated and followed when it is delivered in accord with a mother’s perception of her depression and its causes (McIntosh, 1993). Research is required to identify how PND is understood by individuals, particularly from minority groups, and to explore a possible link between causal beliefs and interventions for PND.

2.2.5. Aim of the Empirical Paper

In examining the social construction of PND, we need to consider how women, particularly those from marginalised groups, construct explanations of PND, in order that services can provide immediate help which is acceptable for women facing these difficulties (Kohen, Holshaw & Hillier, 2000). To date, few studies have explored the perceived causes of PND in the UK (McIntosh, 1993; Thurtle, 2003; Edge & Rogers, 2005; Baines, Wittkowski & Wieck, 2013; Patel, Wittkowski, Fox & Wieck, 2013) and none of those studies have been conducted with women from minority faith groups. One way to begin to identify the distinct differences within groups is to use Q-methodology to understand how the causes of PND are understood specifically by lay Muslim women. Q-methodology was developed by William Stephenson as a means of gaining access to subjective viewpoints, making it an ideal methodology for this study as it allows internal cultural and faith understandings to emerge from the data, rather than being prescribed. The following questions were investigated in order to understand how interventions may most helpfully be delivered to this population:

- Are there shared viewpoints and beliefs about the causes of postnatal depression, in British Muslim women of Arab origin?
- Are there differences in the ways that British Muslim women of Arab origin understand and make sense of postnatal depression?

2.3. Method

2.3.1. Peer Review and Ethical Approval

This research was peer reviewed by Staffordshire University, and full ethical approval was granted in December 2013 (see Appendix 2a). This was in keeping

with the British Psychological Society's criteria for ethical conduct of human research. All data was collected in February 2014. Special consideration was given to debriefing and signposting participants towards culturally appropriate support if needed (see Appendices 3a and 3b).

2.3.2. Overview of Q-methodology

Q-methodology is an exploratory research technique developed by William Stephenson in 1935, which focuses on the subjective viewpoints of participants, aiming to reveal a series of shared perspectives on a specific topic (Watts & Stenner, 2012). Stenner and Stainton Rogers (2004) describe this combination of qualitative and quantitative methods as a "qualiquantological" approach, the systematic study of subjectivity. Within the context of health psychology, Q-methodology has been increasingly used to reveal understandings and explanations that significantly differ from those promulgated by the media and published by experts working in the area (Harper, 2008). Q-methodology's strengths therefore, lie in its ability to understand holistically the range of perspectives that are culturally available around a given topic, particularly complex topics, and its potential to generate data-grounded theory (Stenner, Dancey & Watts, 2000; Harper, 2008).

Q-methodological studies share two central characteristics: (1) data collected in the form of pre-prepared Q-sorts; and (2) the consequent intercorrelation and by-person factor analysis of the collected Q-sorts (Watts & Stenner, 2012). The Q-sort is a collection of items, usually statements, which are sorted by participants according to a subject dimension such as agreement/disagreement, providing a gestalt model of their viewpoint. The different Q-sorts are subsequently compared and contrasted using factor analysis, to identify any shared perspectives.

2.3.3. Developing the Q-sort

The researcher conducted a focus group with six Muslim women from a community-based coffee morning, to survey their understandings about the causes of PND (see Appendices 3a, 3c and 4a). This data was analysed, and perceived causes were categorised into the following themes: (1) biological; (2) psychological; (3) social; and (4) cultural. This process was theoretically informed by a comprehensive review of academic and relevant literature, existing scales, questionnaires and interview schedules. Representative sampling in a Q study is applied to the development of the Q-set rather than selection of the participants

(Harper, 2008). A representative Q-sort was developed, in the form of 65 propositions, each of which stated a point-of-view on the causes of PND (e.g. PND is caused by a lack of practical support). All of the authors reviewed the statements independently to clarify the wording of items and to ensure adequate coverage of all relevant themes; removal of partial repetitions and ambiguous items reduced the initial sample to 49. The researcher completed two pilot Q-sorts with Muslim women resulting in the addition of one statement, and a final Q-sort within the recommended range of 40-80 statements (Curt, 1994). The final Q-set contained 50 statements intended to ascertain the participants' understandings of the causes of postnatal depression (PND) (see Appendix 4c). All statements began with the prefix "PND is caused by…" and standardised examples were provided for many statements (see Appendix 4d for a list of grouped statements including examples).

2.3.4. Participants

Participants were strategically recruited from the Approachable Parenting Programme, a faith-based community organisation in Birmingham, providing a range of parenting and coaching courses and workshops for Muslim families (see Appendix 2b). This non-statutory organisation works with self-selected individuals keen to improve their parenting skills. This strategic approach to recruitment is in accordance with Q-methodological principles, whereby the participants are the variables and the statements in the Q-sort are the cases (Watts & Stenner, 2012). The inclusion criteria for the study were British women who described themselves as Muslim and Arab, and were aged 18 years or over. The decision to recruit women of a similar ethnic origin was made in order to achieve a consistent cultural lens from which causal beliefs could be explored. Participants were not excluded if they were unable to speak English, as the first author is fluent in Arabic and the Q-sort had been translated into Arabic. Potential participants were identified by the programme facilitator and offered an information sheet (see Appendix 3b). The researcher attended the group the following week to discuss the research in further detail. Individuals who were interested in taking part had the choice to contact the researcher directly, or arrange a meeting via the group facilitator. Thirteen women showed interest in taking part however two dropped out due to conflicting demands. The final recruited total was eleven mothers with an age range of 24 to 52 years (mean age = 33.6 years), for full demographic information see Appendix 5a. All of the women were bilingual and able to complete the English

version of the Q-sort; the researcher used Arabic to facilitate some of the discussions. Although personal experiences of PND were not elicited, all of the women spoke openly about their experiences and none had accessed statutory services for PND.

2.3.5. Procedure

Individual Q-sorts were completed at a local community centre with all participants providing informed consent and demographic information on arrival (see Appendices 3d and 3e). The research question and condition of instructions were stated verbally and written copies provided (see Appendix 4b). The researcher ensured that all participants understood the prefix and subsequent statements prior to completing the sort. Statements were randomised and provided on 50 separate and numbered cards, laminated in a single colour with a standard appearance. Participants divided the cards into three provisional ranking categories: (1) statements they definitely agreed with; (2) statements they definitely disagreed with; and (3) statements about which they felt unsure. A blank A3 sorting matrix with an 11-point (+5 to -5) forced quasi-normal distribution was provided as recommended by Brown (1980) (see Appendix 4e). Participants were then asked to allocate each of the category 1 statements to the distribution, relative to one-another, ranging from +5 (most agree) through 0 (neutral) to -5 (least agree). The number of items to be placed in each category was specified in advance and illustrated on the response matrix. Participants proceeded to rank category 2 items and category 3 items in the same way. Once completed, participants were encouraged to look over their sort and make any changes. All completed sorts were recorded by the participant and researcher into a response matrix. A post-sort interview and debrief was conducted to gather supporting data and to provide complementary information regarding knowledge of and preference for PND support services. Participants were also asked to identify any personal barriers to accessing support (see Appendix 3f). The data was then subject to Q-methodology.

2.4. Results

2.4.1. Statistical Overview

The data from the 11 participants were computer analysed using the computer package PQMethod (Schmolck, 2013). All Q-sorts were inter-correlated and reduced by means of a by-person principle components analysis. Principal Component Analysis explores the interrelationships between all variables to

produce a set of orthogonal (not correlated) components accounting for all the variance in the set of observed variables (Clark-Carter, 2010). Table 1 shows an initial inter-correlation matrix of each Q-sort with each other Q-sort.

Table 1: Correlation Matrix: Correlation Coefficients for all Q-sorts

Q-sort	1	2	3	4	5	6	7	8	9	10	11
1	**1.00**	0.28	0.55	0.49	0.22	0.37	0.13	0.20	0.54	0.46	0.35
2	0.28	**1.00**	0.17	0.40	0.26	0.42	-0.05	0.30	0.18	0.32	0.35
3	0.55	0.17	**1.00**	0.52	0.18	0.46	0.07	0.10	0.52	0.49	0.31
4	0.49	0.40	0.52	**1.00**	0.22	0.34	0.21	0.11	0.46	0.40	0.31
5	0.22	0.26	0.18	0.22	**1.00**	0.30	0.22	0.26	0.38	0.34	0.39
6	0.37	0.42	0.46	0.34	0.30	**1.00**	0.34	0.37	0.42	0.53	0.31
7	0.13	-0.05	0.07	0.21	0.22	0.34	**1.00**	0.09	0.12	0.27	-0.10
8	0.20	0.30	0.10	0.11	0.26	0.37	0.09	**1.00**	0.16	0.42	0.32
9	0.54	0.18	0.52	0.46	0.38	0.42	0.12	0.16	**1.00**	0.43	0.56
10	0.46	0.32	0.49	0.40	0.34	0.53	0.27	0.42	0.43	**1.00**	0.44
11	0.35	0.35	0.31	0.31	0.39	0.31	-0.10	0.32	0.56	0.44	**1.00**

Note: Italics indicate a statistically significant correlation (+/- 0.37 or greater).

From the resulting factor pattern matrix (which was varimax rotated), the loading (correlation) of each Q-sort on each factor was examined. Eleven components account for the total study variance, as illustrated in Table 2. Three distinct “factors” or components were extracted; the first factor (factor 1) explained 39.25% of the study variance; the second factor (factor 2) explained a further 11.47%, and the third factor (factor 3) explained an additional 11.03% of the study variance.

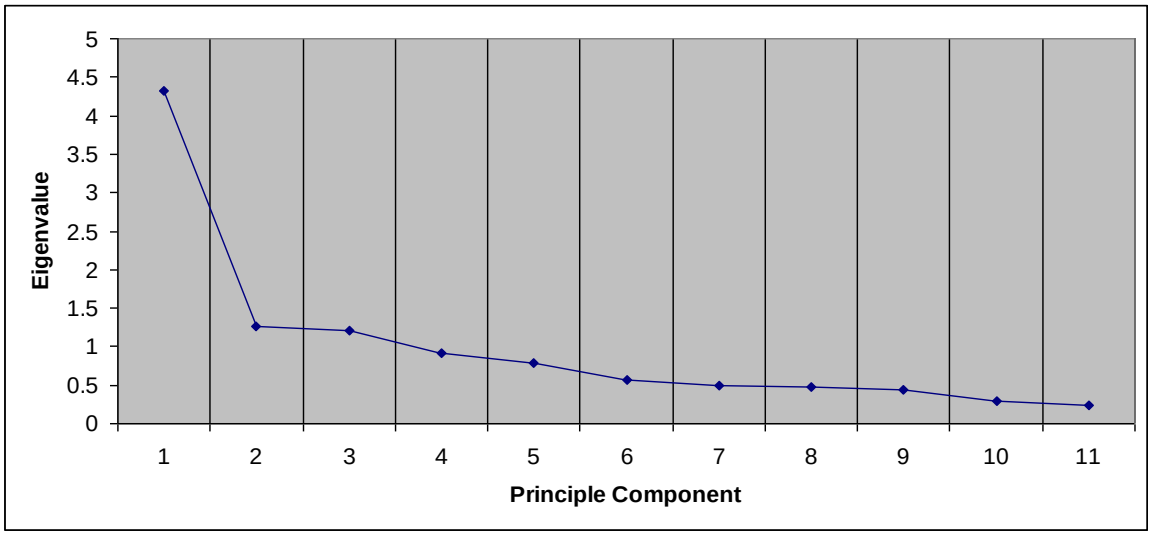
Table 2: Total Variance Explained

Component	Initial Eigenvalues		
	Total	**% of variance**	**Cumulative %**
1	4.3175	39.2499	39.2499
2	1.2619	11.4714	50.7214
3	1.2134	11.0312	61.7526
4	0.9200	8.3633	70.1159
5	0.7867	7.1517	77.2675
6	0.5653	5.1391	82.4067
7	0.4982	4.5293	86.9360
8	0.4826	4.3877	91.3237
9	0.4318	3.9259	95.2495
10	0.2878	2.6165	97.8660
11	0.2347	2.1340	100.0000

Note: Extraction method: principal component analysis.

For a factor to be interpretable, it should have an eigenvalue, indicative of a factor's statistical strength and explanatory power, greater than 1 (Guttman, 1954; Kaiser, 1960). Despite having an eigenvalue of 1.21, Factor 3 was disposed of as it only had only one Q-sort that loaded significantly upon it alone and hence the Humphrey's rule for factor extraction, which states that a factor is significant if the cross-product of its two highest loadings exceeds twice the standard error, could not be applied (Brown, 1980: 223). A scree-test plotting the component eigenvalues (Figure 1) shows a change in the slope after the second factor, supporting the decision to extract two factors (Cattell, 1966). Furthermore, when the unrotated factors were plotted, the distant positions of Q-sorts 9, 1, 4 and 3 compared to Q-sort 8 indicated that a two-factor solution was appropriate (see Appendix 5c).

Figure 1: Scree Test Showing Eleven Principal Components



Q-sorts loading significantly onto the same factor share a similar understanding of the causes of PND. Seven of the 11 Q-sorts loaded significantly onto one of these two factors, factor loadings above +/- 0.37 (2.58 x (1 / √no. of items in Q-set) were significant at the $p<0.01$ level (Brown, 1980: 222-3). Q-sorts which load significantly upon one factor alone are called “factor exemplars”. An analysis of Table 3 shows that participants 1, 3, 4 and 9 exemplify factor 1 (factor loadings range from 0.75 to 0.83) and participants 2, 6 and 8 exemplify factor 2 (factor loadings ranging from 0.58 to 0.78).

Table 3: Rotated Component Matrix Showing Factor Loadings for all Q-sorts

Q-sorts	Component	
	1	**2**
1	0.7661*	0.1733
2	0.2165	0.6376*
3	0.8347*	0.0505
4	0.7298*	0.1500
5	0.1821	0.5831*
6	0.4199	0.5242
7	0.0980	0.0564
8	-0.0529	0.7797*
9	0.7468*	0.2675
10	0.4971	0.5356
11	0.4414	0.5995

Note: Extraction method: principal component analysis

Rotation method: varimax rotation

** indicates significantly loaded factor exemplars*

Principle component analysis provided evidence for the distinctive nature of two shared viewpoints about the causes of PND. The findings therefore, support a two-factor solution that explains a total of 50.72% of the study's variance. According to Klein (1994), combined factor variances in the region of 35-40% or above are considered sound solutions.

2.4.2. Interpretation

The final stage of Q-methodology is factor interpretation which involves the careful and holistic reconstruction of the subjective view point expressed in each factor array using a series of summarising accounts (Harper, 2008). By merging together all Q-sorts that exemplified each factor, it is possible to construct two model Q-sorts, known as a factor arrays (see Figures 2 and 3) using a weighted average procedure (Harper, 2008). Deconstructing the model Q-sorts and comparing them with the originals sorts, and with one another, enabled the researcher to interpret and make meaning from the arrays. Participants' comments are also used to help fully explain the viewpoint captured by the factor and shared by the significantly loading participants (Watts & Stenner, 2012). A description of

each factor and the rankings of relevant items are provided, for example (19: +3) indicates that statement 19 is ranked in the +3 position. Comments by participants are provided where they clarify the interpretation and are indicated in italics. The factors have been given titles for mnemonic reasons.

Figure 2: Factor Array for Viewpoint 1

MOST DISAGREE — MOST AGREE

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
22	12	40	39	21	36	17	23	25	45	2
46	1	16	9	18	42	14	31	35	3	43
	41	50	49	37	38	33	19	24	15	
		47	48	32	7	6	4	13		
			8	34	10	27	20			
				28	30	11				
				44	5	26				
					29					

Factor 1: "PND is caused by a lack of support with the practical demands of motherhood and being far away from family"; "*it's difficult being a mum, especially when your support isn't here with you*"

Factor 1 accounts for 39.25% of the study variance and represents the shared understanding of four participants. For these individuals, PND is best understood by the practical demands of motherhood, namely "lack of sleep and/or exhaustion" (2: +5) and "loneliness and/or isolation" (15: +4). These behavioural factors play a significant role in the context of social and interpersonal factors including a "lack of practical support" (35: +4) and "poor community/social support" (31: +2). For individuals loading onto this factor, PND is caused by "being far away from family" (43: +5) rather than "living with extended families" (48: -2); "*in this country, the society is very different, people are not very close-knit and that's the major reason why people just fall apart. In Muslim cultures all over the world, people are so close and support each other, and its not just families, its communities*".

Despite being aware of a range of services offered in primary care, for individuals loading on this factor, preferred support involves talking to family and friends in order to elicit additional support; *"basically, you just need someone to*

listen to you and the difficulties you're going through, so that you can get it off your chest". Professional support, in the form of talking therapies and/or counselling would only be explored if friends, family and community support were unavailable. Interestingly, the aetiology of PND differs between individuals due to the expectations or "unrealistic expectations" either they, or others, hold about different aspects of motherhood (24: +3); *"the expectation, here, is that you come home from hospital and that's it, you know, everyone just expects you to get on with the rest of your work as normal, back-home you're not expected or even allowed to do anything for forty days. Muslim women would feel more isolated because your expectations are different in terms of the support you expect"*. Psychological factors, particularly cognitive factors such as a "negative thinking style" (13: +3), a "mother's personality traits" (25: +3) and "lack of confidence/self-esteem" (19: +3) also play a very important causal role and are likely to be related to the earlier described practical issues. These factors, particularly confidence and cognitive distortions such as minimisation and rationalisation, are important barriers to accessing support. In contrast, enduring and difficult attachments indicated by ambivalence towards one's own parents (22: -5) and to a lesser extent the baby (16: -3) do not play any role in the aetiology of PND for these women.

Even when PND is perceived to arise from within, the explanation has powerful religious connotations and "lack of faith" is a very important causal factor (45: +4); *"they always say, if you're close to Allah [God], you can't be depressed",* with faith being viewed as a coping mechanism for all difficulties, providing hope and promoting a proactive approach to coping; *"Islam protects you against depression, even though you get the same feelings as the other person, you get through it in a different way because you know that you're valued and rewarded, even if not by the people around you, by your creator, which is the most important"*. This is in contrast to other religious causes, PND is not a fatalistic test from God (47: -3) nor is it due to an "inability to maintain religious practices" such as the obligatory prayers or fasts (40: -2); *"the forty day rest period [and exemption from religious obligations], in a way, is a blessing and helps you to adjust to the changes".* For individuals loading onto this factor, faith support seems to be important to psychological wellbeing and recovery; *"it's difficult being a mum, it's a personal jihad [struggle], but being a Muslim gives you more mental strength, and you accept all these difficulties, because you know that your reward is greater".*

Importantly, in contrast to the Western biomedical conceptualisation of mental illness, neurophysiological "changes to brain chemicals" (12: -4), abnormal genetics (1: -4), and to a lesser extent "past history of depression" (8: -2) does not play any role in the development of PND.

Figure 3: Factor Array for Viewpoint 2

MOST DISAGREE										MOST AGREE
-5	**-4**	**-3**	**-2**	**-1**	**0**	**+1**	**+2**	**+3**	**+4**	**+5**
45	42	22	40	19	16	29	17	6	27	23
46	41	18	11	34	28	21	47	36	26	5
	50	25	30	31	7	33	12	37	3	
		9	39	4	43	35	2	8		
			32	49	14	13	44			
				48	20	38				
				10	24	1				
					15					

Factor 2: PND is caused by external stressors and a predetermined vulnerability; *"whatever situation you're in, the reason you're depressed is something you can't control"*

Factor 2 explains 11.47% of the study variance and represents the shared understanding of three participants. For these individuals, the "stressful life events/experiences" (23: +5) and "multiple caregiver demands" (36: +3), often associated with minority communities are some of the most important causal factors for PND; *"it's the strain of having an extra person when your juggling everyone's needs and having to do a lot for different people at the same time"*. In addition, external pressures such as a "pressure to return to work" (37: +3), rather than "unemployment" (32: -3) or "lack of education" (9: -3) is an important causal factor for PND; *"it's very much get back to work as soon as possible and that's why we have all these incentives, because they want the mothers to go back to work"*. These stressors are exacerbated by external baby-care difficulties including a "baby's poor physical health" (5: +5) and "breast/feeding difficulties" (6: +3) which are both very important causal factors.

Although all these situations, including PND, are due to God's will and decreed as a "test of faith" (47: +2), for those loading onto this factor it is not a "lack of faith" (45: -5) or "failure to observe resting rituals" (42: -4) that causes PND*; "if Allah [God] chooses you to go through the process, so you learn something from it, that is a reason and it doesn't matter how spiritual you are, you are always going to go through that".* Despite the fact *that "being a mother is so valued and elevated in Islam whereas here, we all know, it's a cop-out"*, PND is not thought to be caused by conflict between religious/cultural values and "Western" values (50: -4) or to a lesser extent, by the "undervalued role of a mother" (49: -1). *"in this [Western] culture, people value working more than being a mother, but even if people around you don't value what you're doing, Islam does, and that's most important".*

Although intra-psychological factors related to cognition such as "poor confidence/self-esteem" (19: -1), a "mother's personality traits" (25: -3) or "dissatisfaction with body-shape" (18: -2), do not cause PND, interpersonal factors such as "poor marital relations" (27: +4) and "difficult relations with in-laws" (44: +2) are a very important cause of PND. "Lack of emotional support" (17: +2) also plays a causal role and this is likely to be lacking in the context of difficult marital and family relations.

For individuals loading onto this factor, preferred support for PND involves counselling and talking therapies, but only when this addresses relational difficulties and is delivered in a couple, family or wider group setting. Despite a limited awareness of services available in primary care, there exists awareness of specialist services such as in-patient psychiatry; *"a lot of things [support/interventions] are happening and Muslim women don't even know, they don't have a clue".* For individuals loading onto this factor, concerns about the involvement of powerful statutory forces resulting in constant monitoring and potential removal of the infant are barriers to seeking help, even when the need for support is recognised; *"i would be scared from the system getting involved in my life, not giving women space, and taking children away".*

It is important to note that existing or prior mental health difficulties such as a "mother's anxiety" (26: +4) and a "past history of depression" (8: +3) play a very important causal role and vulnerability*; "if there's a family history, then your risk of getting it will be higher"*, combined with biological factors such as

neurophysiological “changes to brain chemicals” (12: +2) and abnormal genetics (1: +1).

2.5. Discussion

Q-methodology was used to identify different ways of understanding the cause(s) of PND amongst a community sample of 11 British, Muslim women of Arab origin. In line with previous research and contrary to the biomedical model, the women in this study did not hold a single explanation for PND (McIntosh, 1993; Ugarizza, 2002; Thurtle, 2003; Highet, Gemmill & Milgrom, 2011; Patel et al, 2013). The findings confirm the existence of wide ranging biopsychosocial perceptions of cause for PND, which are clearly embedded in faith and values. The results provide some empirical grounds from which to generate informed hypotheses, based on the perceptions of PND in a general community sample. Two distinct and competing viewpoints emerged from the data: (1) stress-generation; and (2) diathesis-stress; despite there being little differences in the demographic characteristics of the two groups.

In common with other lay groups, the first viewpoint described a dominant psychosocial aetiology which supports the stress-generation theory of depression (Edge & Rogers, 2005). This theory postulates a reciprocal relationship between stress and depression: depression develops when individuals, with certain personal attributes, including negative cognitive styles and personality traits, inadvertently generate excessive stress (Hammen, 1991; Liu & Alloy, 2010). Some cognitive theorists have argued that women are at higher risk due to the impact female culture has upon beliefs, behaviours and emotional reactions (Davis & Padesky, 1989). In accordance with much of the existing literature, social explanations including the practical demands of motherhood, a lack of practical support and frequent experiences of loneliness and isolation were some of the most agreed causes of PND (Highet et al, 2011; McIntosh, 1993). This finding is supported by previous research highlighting the importance of family and community links for Bangladeshi mothers living in the UK (Hanley, 2007). This first viewpoint also attributed psychological factors such as a negative thinking style, alongside personal factors such as a mother’s personality traits and lack of confidence/self-esteem, which supports experimental research which has consistently found that individuals with depression hold a range of maladaptive assumptions, negative schema, cognitive distortions and information-processing biases (Carr, 2012). Despite this, it is important to note that psychological theories

such as attachment theory and psychodynamic theory, circulating around early life experiences and ambivalence towards parents and infant were rejected, favouring cognitive models of aetiology. Psychodynamically-based interventions are unlikely to have relevance amongst women endorsing this viewpoint, and they may do better with a cognitive-behavioural approach to treatment. In line with the work of Patel et al (2013) unrealistic expectations were attributed within this viewpoint and many women described this in terms of unmet expectations following childbirth, particularly in the context of being far away from immediate and extended families. This finding also provides support for the self-discrepancy theory which postulates that individuals, particularly females, experience distress when they experience their capacities, characteristics and behaviour as not meeting their self guides (the ideal self and the ought self) or goals (Higgins, 1987). Importantly, this viewpoint rejected the dominant biochemical and genetic models of depression, favouring hormonal aetiological factors.

The second viewpoint described a competing biosocial theory of aetiology which supports the stress-diathesis theory of depression. This theory proposes that depression develops when individuals with a biological vulnerability to mood disorders are exposed to stressful life events (Joiner & Timmons, 2009; Joorman, 2009; Levinson, 2009). In comparison to the first viewpoint, PND was attributed to external factors, rather than personal factors, including the demand of baby-care, stressful life events and pressure to return to work. Similarly to Abrams and Curran (2009), care-giving overload was an important causal factor for these women. Personal factors such as a mother's personality and poor confidence/self-esteem were not thought to contribute to the aetiology. In line with existing research, this second viewpoint acknowledged the causal influence of relational difficulties, particularly interpersonal relationships with husbands and in-laws (Rodrigues, Patel, Jaswal & de Souza, 2003; Matthey, 2009, Niemi et al, 2010). This attachment and affiliation within current relationships has been described by relational theorists as an important aspect in the development of the female sense of self, rendering them more vulnerable to the impact of loss and disruption of interpersonal ties (Kaplan, 1986). In contrast to the first viewpoint, personal models of history and vulnerability, including current anxiety and a past history of depression, were very important. This is related to a biological vulnerability, namely a genetic predisposition and changes to brain chemicals which were also cited as important causes of PND. This view of vulnerability is supported by

research which has found that that the higher prevalence of depression in women is attributable to the increased frequency of co-morbidity of anxiety and depression (Angst et al, 1997).

In contrast to existing literature, the women in this study had all heard of PND and were happy to discuss issues related to PND, and mental health more broadly. Neither viewpoint held any supernatural explanations for PND (e.g. Jinn or black-magic), and both strongly rejected the idea that PND is a punishment from God or caused by conflicting cultures/values such as a preference for male infants, with many women stating that this belief is evident within other cultures and faiths.

Religion was an important component for all of the women in this study, with both viewpoints clearly embedded in faith and values. It is clear from examining this theme of faith, that each of the viewpoints operated with a subtly different interpretation of the role of faith in relation to PND. Factor A viewed PND as spiritual in part, caused by a lack of faith, rather than a test of faith. For these women, faith was a source of strength which provided proactive coping strategies to counter depressive feelings (Walpole et al, 2013; Edge & Rogers, 2005). In contrast, Factor B, rejected the notion that PND is caused by a lack of faith, accepting that PND is a biosocial test of faith. For these women, faith was a source of comfort and support which enabled an acceptance of adversity. Both viewpoints provided evidence of role of faith as a coping mechanism and its importance in enhancing psychological well-being.

2.5.1. Researcher

It is important to understand the relationship that the researcher has with the data, and what they brought to the process of administering the Q-sort that may have influenced the factors that emerged. The main author (AM), collected, analysed and interpreted all of the data under supervision. As the primary researcher, she was acutely aware of the similarities and differences between herself and the participants, she was a 26-year-old, married British-Iraqi woman without any children. Therefore, there may be a possibility of bias towards cultural or religious themes. It is important to note that exploration of the researcher's Q-sort indicated that the study analysis did not simply impose the researcher's meanings onto the data. Furthermore the data analysis was checked by the second author and an independent reviewer, the former sharing neither the same cultural nor religious group. At the end of the study, participant feedback was

obtained using open-ended questions to ensure that their views were not misinterpreted and to highlight any suppressed/neglected causes of PND. All participants stated that the Q-sort was sufficiently representative and many reported finding the research process both interesting and educational; *"i found it interesting", "i feel like I've learned and processed a lot",* and *"i found it quite educational and it made me think about things I hadn't considered".* It is important to note that several participants believed that the causes of PND would differ between individuals; *"the causes for everyone are different and sometimes I wasn't sure if I was talking about me or others"*, and *"i can see how different things can cause depression for different people"*. These findings support previous research which has suggested that psychosocial risk factors may carry different meanings and have different salience as potential triggers for depression, in with women from minority communities (Edge & Rogers, 2005).

2.5.2. Clinical Implications

These findings highlight the need for mental health services to understand and engage with the religious identity of Muslim patients. Although practitioners should avoid making assumptions about the homogeneity of minority communities, psychological services need to consider that many of the values they hold about the goals of therapy are culture-specific (e.g. taking responsibility for self). Perinatal services should routinely assess what community and family resources are available and this should be considered alongside the client's expectations. The findings identify a need for therapists to create a safe space for Muslim clients to discuss and explore their explanatory models in order that they can develop shared understandings and provide culturally appropriate interventions. Psychological formulation can facilitate these conversations, normalising experiences and challenging stereotypes. Regarding intervention, researchers have suggested working within a client's framework of belief, including the incorporation of Islamic teachings and healing practices into therapy, to the level of the clients' conviction (Ansari, 2002). The extent, to which religion can play a positive role within treatment, is largely dependent on how religious teachings are interpreted by the individual clients (Pargament et al, 2005). This is likely to be the case for therapists too, hence clinical supervision should be utilised to reflect upon the therapist's values and to explore any concerns they may have about working with alternative value frameworks. The findings also highlight the importance of social context, particularly family and community to the women in this study.

Neglecting the cultural context of someone's life and the resources available to them involves the imposition of one's particular reality onto another (Davies & Bhugra, 2004). Practitioners should consider that Muslim clients may want family members including husbands, to be involved in this process. Services will also need to identify ways of working collaboratively with religious organisations, particularly for clients wanting to engage with both religious and clinical services.

2.5.3. Strengths

This exploratory research has enabled knowledge to emerge in a field with relatively little previous research. The use of Q methodology provides a holistic and rigorous analytical framework which can be replicated to inform the development and testing of more comprehensive theoretical accounts. These findings undermine established preconceptions about women from BME communities; that they "somatise" mental illness and are the "passive" recipients of oppressive practices within their families and religion (Davies & Bhugra, 2004). A key strength of this study was that it enabled engagement with Muslim women to create new accounts of the perceived causes of PND, and to identify their related needs. Recruiting from a community sample minimised bias by reducing the influence of professional advice and/or treatment on causal beliefs (Baines et al, 2013). Furthermore, the triangulation of different methods and independent inter-rater comparisons of the Q-sorts further enhanced the validity of the study (Smith, 2008).

2.5.4. Limitations

Q-methodology aims to identify and describe the range of viewpoints rather than making claims about their occurrence in the general population, thus studies using a relatively small number of carefully selected participants can be powerful, provided they are fewer than the number of items in the Q-set (Watts & Stenner, 2012). Nonetheless, only a small number of participants took part in this study and further studies should be completed to identify any similarities and differences, both between Muslim women, clinical practitioners and service providers. This could highlight any discrepancies between what services currently provide and what minority communities want them to provide. Additionally, recruiting from a parenting group may have biased the findings. Although participants had attended a range of introductory and short courses which did not address mental health, it is possible that the women recruited for this study had heightened interest, and shared similar beliefs, about issues related to motherhood. Despite efforts to

provide adequate time for informed consent, discussing issues pertaining to confidentiality and anonymity and maximising privacy by completing Q-sorts in a neutral environment, there is a possibility that the participants may have felt less able to express their feelings to a Muslim researcher. It is also possible that the different viewpoints reflected different difficulties; however, given that all of the women reported a familiarity with the term PND, it is more likely that the viewpoints reflect different ways of relating to and making sense of PND.

2.5.5. Conclusion

The aim of this study was to identify shared viewpoints about the causes of PND with the aim of addressing cultural differences when developing and implementing treatment plans. Two distinct viewpoints emerged from the study, with both viewpoints clearly embedded in faith and values. The diversity in explanatory models revealed in this study may be a decisive factor influencing the relationship between Muslim women and perinatal services, and more research is required on this matter. For practitioners, in line with clinical guidelines, eliciting and understanding explanatory models, and their associated cultural values, can help to engage clients from minority communities and provide acceptable support in accordance with their own beliefs and values. The findings suggest that the women who participated in this study located these difficulties within their biochemistry, individual psyche and wider context. In line with previous research, membership of a minority ethnic and minority faith group can have both a protective and vulnerable effect. All of the women in this study acknowledged that despite a recognised importance, motherhood was given a low status within Western society. Many of the women reported feeling liberated by the Islamic value placed upon motherhood and the cultural context within which they practice this. This study makes no claim to have exhausted all possible accounts of the causes of PND. Further research should be conducted to ascertain whether the dominant narratives differ amongst people belonging to different ethnic and faith groups and whether similar groups of women, self-reported and formally diagnosed with PND, would produce any distinct accounts.

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Part Three

A Reflective Paper

Word Count: 1,901

3.1. Abstract

In the course of carrying out a systematic literature review of the perceived causes of Postnatal Depression and an empirical, Q-methodological exploration of these beliefs amongst eleven British Muslim women, a reflective journal was kept by the researcher. The purpose of this paper is to discuss these observations and to offer critical reflections on the research process and the personal impact of the research on the researcher, as a Muslim woman. Limitations of the research will be explored and suggestions made for improvements to the present study, and future research.

3.2. Introduction

In partial fulfilment of the requirements of the Doctorate in Clinical Psychology Programme at Staffordshire and Keele Universities, doctoral trainees are required to submit a three-part thesis. This comprises a systematic literature review, an original empirical research paper and a reflective paper. I decided to systematically review the perceived causes of Postnatal Depression (PND), and carry-out a Q-methodological study of these beliefs with eleven British Muslim women of Arab origin. The reflective journal which I kept throughout this process highlighted several questions, for me, my research, and the participants. The aim of this current paper is to highlight and explore these questions and to consider the wider implications of these reflections.

3.3. Reflecting on the Literature Review

3.3.1. Why postnatal depression?

Despite being a serious health problem, Postnatal Depression (PND) is lacking in psychological research when compared to other forms of mood disorders. I became aware of this gap whilst I was researching PND for a client I was working with as part of my clinical training. I found a great deal of research dedicated to the aetiological role of biological factors, with a much smaller body of qualitative research considering the role of psychological and social factors. I was especially interested in the social risk factors identified in the literature, and I wondered this meant that women from minority communities would be at an increased risk of PND.

3.3.2. Why causal beliefs?

Through personal experiences, particularly when working with inner-city faith-based organisations, I had realised that there was a wide range of alternative explanatory models for mental distress. I often wondered about the extent to which these beliefs influenced the support that individuals accessed and were willing to accept from statutory services. Furthermore, throughout academic teaching, I frequently found myself questioning the relevance of some psychological models, to myself, and to individuals with non-Western value-frameworks. This made me think about the relationship between causal models and engagement with statutory services.

3.4. Reflecting on the Research Report

3.4.1. Why Muslim women?

Throughout clinical training, and my previous experiences as an assistant psychologist, I had never worked directly with a Muslim client. My interest in PND, combined with my desire to work with individuals from minority groups, led me to consider an elective placement in a specialist perinatal mental health service in the West Midlands. The local mental heath trust had published a report detailing the under-representation of women from BME communities in the perinatal mental health services and I was interested in the reasons for this. Informal conversations with psychologists identified similar beliefs about why Muslim women didn't access mental health services, including; somatising mental distress; stigma acting as a barrier to accessing services; preferring religious and pharmacological interventions over psychosocial interventions and, not being "psychologically minded". I felt that these beliefs had the potential to perpetuate unhelpful

stereotypes about religious groups and were likely to maintain the marginalisation and exclusion of women from services. Furthermore, the beliefs described are likely to contribute to the limited representation of Muslim women in psychological research. The British Psychological Society's (BPS) code of Ethics and Conduct states that its members must respect cultural differences, including the nine protected characteristics (which include religion) as identified in the Equality Act (2010). In line with this, and the programme's core philosophy and ethos, it felt appropriate to take a critical look at perinatal mental health provision and to identify ways of working flexibly with individuals who are "hard to reach" through traditional services. Rather than making dangerous assumptions about the homogeneity of religious groups, I felt it was important to give Muslim women a voice and exploring the range of explanatory views through this thesis was one way to do this.

3.4.2. Why Q-Methodology?

Although I had not used Q-methodology, I was excited about developing a research skill which had both quantitative and qualitative dimensions. Most importantly, it enabled me to explore the diversity of opinions in a systematic and rigorous way, and this fits with my epistemological stance. Q-methodology has been used with service users in many areas with little research, and to understand the perceived causes of complex physical illnesses such as Irritable Bowel Syndrome (IBS). Within my cohort, two other trainees were also using Q-methodology and this fostered a sense of security and support, with group-based supervision creating a safe space to share thoughts, ideas and concerns. Although I was unfamiliar with the Q-methodological process, my supervisor was very experienced and extremely knowledgeable, encouraging me to have confidence in my own ability and trusting my instincts throughout the research process.

3.4.3. Limitations of Q-methodology

Despite Q-methodology being an ideal approach for the area that I was looking at, being neither quantitative nor qualitative, I struggled to find comprehensive methodological guides, instead having to rely on existing studies that had employed the technique. Efforts were made to keep the statements clear and simple, yet it is possible that the statements were understood in different ways by different participants. This was limited by piloting the statements and providing standardised examples. Q-methodology has been described as a method of impression which enables participants to impose their own meanings onto the

items through the sorting process, however imposing a forced-choice distribution is likely to have limited this.

In keeping with my undergraduate and postgraduate quantitative research, with its positivist tradition, I expected bias to have a minimal role within my research. On numerous occasions, participants asked me what I thought were the causes of PND, and although I tried to avoid answering this question, I wondered how the process might have been had I not been a Muslim woman; would being unable to assure mothers that we shared some similar beliefs have reduced what they were willing to disclose? In order to reduce the impact of my position and beliefs on the interpretation of factors, I compensated by having all interpretations checked by my supervisor, who did not share the same religious beliefs, or cultural background.

3.4.4. How was the experience for the participants?

All of the participants were happy to talk about PND and although it was not elicited, many were keen to share their personal experiences, undermining the above preconceptions about Muslim women. Hearing these stories confirmed that individuals held different beliefs about the triggers for their difficulties, which were firmly embedded in their faith and values, highlighting the importance of the research. Many of the participants stated that the causes of PND differed between individuals, confirming differences in the salience of, and meanings attached to risk factors, as identified in the literature review. Participants repeatedly reported finding the process enjoyable, with many stating that it was an educational process. All of the participants reported finding statements which accurately captured their viewpoints and I was really impressed by how thoughtful and conscientious the participants were about the decisions they made. There is no doubt that the research process was time-consuming and I was extremely touched by the generosity of all of the women who took part. All of the women were interested in the findings and I will be providing a summary report of the findings to all participants. I am thankful to the Approachable Parenting Programme for the considerable amount of time they spent supporting the recruitment of participants, and I have agreed to present a summary of the findings to the trainers.

3.5. Reflecting on the process

3.5.1. How was the experience for me?

Professional learning

I have always enjoyed research and this experience was no exception. Prior to training I had considered completing a PhD in psychological research and this experience has reignited my passion for clinical research. This process has taught me the value of Q-methodology, within both research and clinical practice. The experience has emphasised the importance of conducting research with “hard to reach” communities. In addition it has encouraged me to think about novel ways of using Q-methodology to measure the process of change that occurs during psychological therapy.

Personal Learning

Since starting my Doctoral training in Clinical Psychology in 2011, most of my time has been consumed by my position as a Doctoral student; however, like many other trainees from minority communities, this is only one of my many roles. I am a wife, a daughter, a daughter-in-law, a sister, a community worker and, of most value and importance to me, I am a Muslim woman. Holding onto these valued roles, whilst juggling the multiple roles of a trainee clinical psychologist, has challenged my patience and been the most demanding aspect of my training experience. There is no doubt that these challenges had a significant impact on my developing research and clinical interests. Throughout academic teaching and clinical training, I noticed that words related to race and religion triggered particular roles (dismissing/dismissed, superior/inferior, powerful/powerless) and associated feelings of fear, anxiety and guilt resulting in a range of behaviours including avoidance and attacking. Throughout this process, I spent much time reflecting on how these roles had become internalised and embedded within the profession, and whether this had contributed to the under-representation of individuals from these minority race and religious backgrounds within the profession. Noticing and naming my own feelings and understanding my own roles (including those expected of me) have helped me to understand and deal with many of these conflicts.

3.5.2. What would I do differently?

Whilst efforts were made to safeguard the anonymity of all participants, the small number of women recruited from a minority group could result in the identification of participants. A larger number of participants may have resolved this problem and enabled a deeper understanding and comparison of the viewpoints between participants. In retrospect, a free-choice, or non-standardised

distribution may have given the participants greater freedom and captured different viewpoints.

3.6. Future directions

This research identified two distinct viewpoints about the causes of PND amongst British Muslim women of Arab origin. These findings can be extremely useful when developing and implementing culturally-sensitive treatment plans. It was clear from the literature review that clinical samples held different explanatory models from community samples, and future research should explore this further. Professional advice is likely to be appreciated when it is delivered in accord with an individual's explanatory model and Q-methodology can be an appropriate means of examining the relationship between all of the explanatory model domains, and preferred treatments for PND.

3.7. Conclusions

My journey through this research has been challenging, yet immensely rewarding and I am grateful to everyone who took part in, and supported this research. This process has taught me many things, in particular, the importance of understanding my own role and position within research. This paper calls for clinicians and researchers alike, to consider the influence that their value framework, and associated explanatory models, has on their practice, and to consider the impact these may have on individuals who may not share the same beliefs.

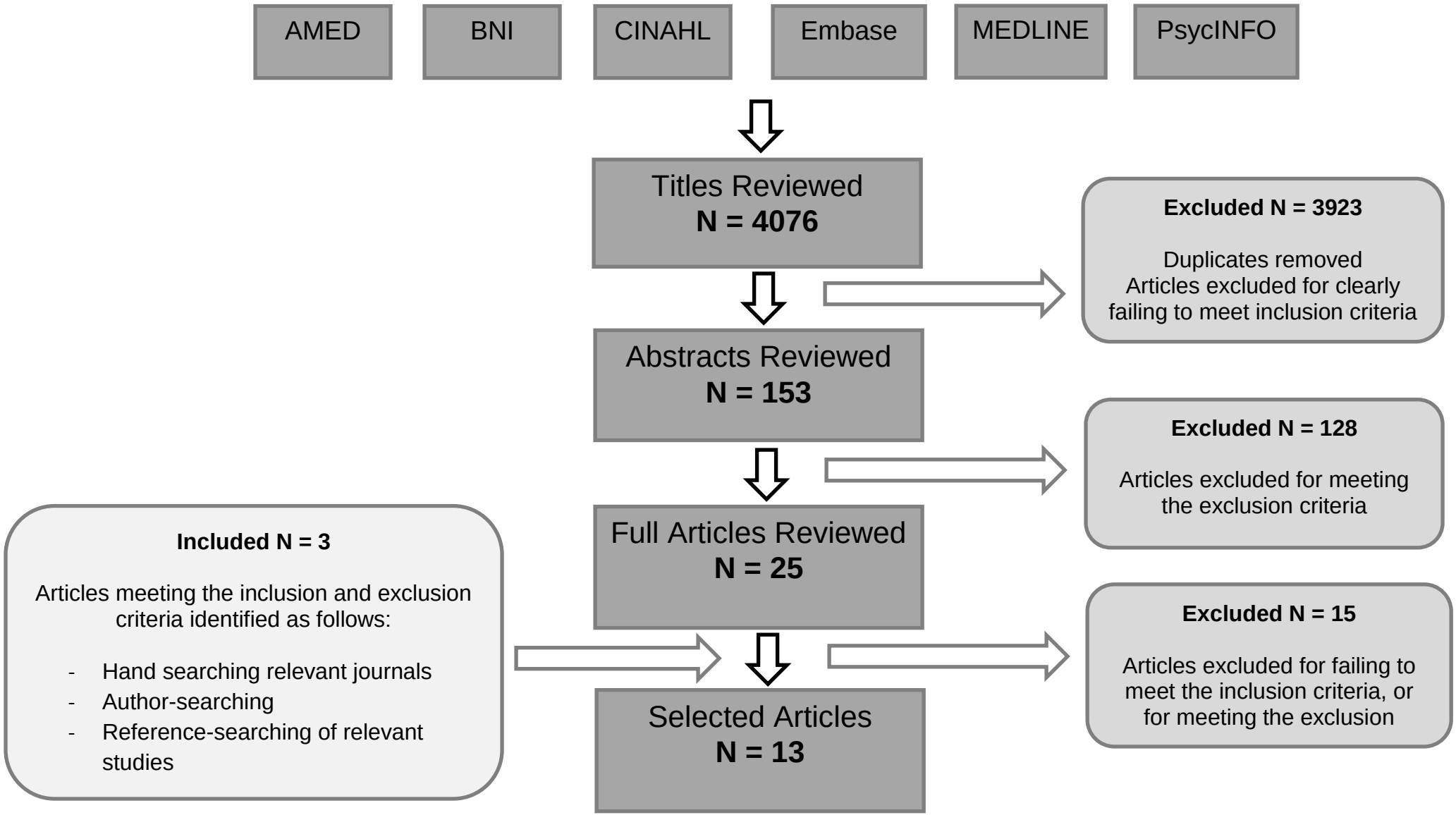
Appendices

Appendix 1: Literature Review

a) Literature Search Strategy

b) Overview of Selected Literature

Literature Search Strategy



Author	Design	Sampling Design	Sample Size	Setting(s)	Population	Data Collection	Data Analysis	Causal beliefs
Ugarriza , 2002 **USA**	Qualitative	Snowball sampling	30 mothers	Nurse/midwife practices and healthcare providers	Self-identified post-partum depressed women	Interviewed by telephone or in person in accordance with Kleinman's illness explanatory model framework	Content analysis	Hormonal changes Role change Breastfeeding issues Difficult birth experience
Highet et al. (2011) **Australia**	Cross-sectional, correlational survey	Random sampling	1201	Sample Pages database	General population (315 men and 886 women)	26-item telephone survey	Percentage responses and Differences in responses between demographic groups using Chi-Square statistic	Biological causes Unpreparedness for transition to parenthood Lack of support Not coping with infant's demands Stress/pressure Fatigue/Lack of sleep
Chan et al. (2002) **Hong Kong**	Qualitative	Purposive sampling	35 mothers	PND clinics	Formally diagnosed major or minor PND	Interviewed in person	Colaizzi's (1978) phenomenological methodology	Controlling and powerful in-laws Gender of the baby Marital difficulties Lack of support from husband Ambivalence towards baby
Niemi et al (2010) **Vietnam**	Qualitative	Purposive sampling	18	Health epidemiology laboratory, communal medical centres and	9 mothers and 9 health workers who meet with mothers in the postnatal	Interviewed in person in accordance with Kleinman's illness	Content Analysis	Husband's behaviour Lack of support Not having a son Thinking

				district hospital	period	explanatory model framework		
McIntosh (1993) **Scotland**	Qualitative	Random sampling	60	Antenatal Clinics	Mothers with self-defined depression in the postnatal period	Interviewed in person	Not mentioned	Aspects of motherhood Housing problems Unemployment Financial pressure Problems with husband/partner Hormonal Husband's illness
Rodrigues et al. (2002) **Goa, India**	Qualitative	Purposive sampling	39	District Hospital	19 women with a formally diagnosed PND, 20 women without PND, and 27 of their husbands	Mothers with PND interviewed in person and their husbands interviewed separately	Not mentioned	Economic difficulties Poor relationship with husband Violence Lack of support Poor relationship with mother-in-law Birth of a girl
Thurtle (2003) **England**	Qualitative	Self-selected	14	Health visitors and General Practice	First time mothers (1 scored over 12 on EPDS, 5 self-defined PND)	Interviewed in person	Constant comparative method (Pope, 2000), associated with a grounded theory framework (Glaser & Straus, 1967)	Lack of support Hormones Tiredness/Sleeplessness Not coping Wanting old life/lack of structure Expectations Low physically Bad labour Too much to learn Environment Stuck in house Issues related to mother (feeding, bereavement)

Abrams and Curran (2009) **USA**	Qualitative	Purposive sampling	19	Women, Infant and Children (WIC) federal nutrition sites	WIC recipients with self-reported PPD symptoms	Interviewed in person person in accordance with Kleinman's illness explanatory model framework	Constant comparative method (Strauss & Corbin, 1998) associated with a grounded theory framework (Charmaz, 2006)	Material and social deprivation Ambivalence about pregnancy Multiple caregiver demands Multiple responsibilities Multiple stressors Limited childcare assistance Mothering alone
Matthey (2009) **Australia**	Cross-sectional correlational survey	Not mentioned	342	Community-based settings and a specialist out-patient PND service	Community mothers (N=235), baby-care mothers (N=131) and mothers being treated for postnatal mood disorders (N= 21)	Postal survey, Reasons for Postnatal Distress Checklist (RPDC-f and RPDC-b)	Frequency (%) of endorsed causal stressors by community mothers who reported some period of difficulty coping on the RPDC-f (N=181) and RPDC-b (N = 97)	Feeling exhausted Difficult to give enough attention to all children Money worries Trying to do too many household chores Baby sleep/crying issues Feeling guilty Feeling others don't understand Baby's feeding problems Worried mood affecting baby Felt unattractive Felt should be better at mothering Mother's poor physical health Felt wasn't looking after self Feeling she used to be able to cope Feeling stuck at home Uncomfortable with others

								looking after baby Lacks support/help from partner/family/friends
Savarimuthu et al. (2010) **India**	Qualitative	Random sampling	137	Large villages in catchment area of community health surveillance monitoring system	Post-partum (2-10 weeks) women. Prevalence of PPD using formal diagnostic criteria, N= 36	Explanatory models elicited using Short Explanatory Model Interview (SEMI) with 73 women who self-reported health problems	Frequency (%) responses and differences in responses between those with and without PPD, using Chi-Square statistic	Belief in Karma as a cause Belief in punishment by gods as a cause Belief in black-magic as a cause Belief in evil spirit as a cause Belief in disease as a cause Belief in magic as a cause
Edge & Rogers (2005) **England**	Mixed-methodology	Purposive sampling	12	Hospital and community antenatal clinics	Black Caribbean women theoretically sampled to represent a range the range of depression scores using the EPDS	Interviewed in person	Thematically analysed using a constant comparative method (Glaser, 1978)	Severe stress Experience of traumatic labour and delivery Lack of emotional stability Social adversity Financial problems Difficulties in close relationships Hormonal factors
Patel et al (2013) **England**	Qualitative	Purposive sampling	11	Perinatal clinics	Women formally diagnosed with PND or whose depression started in pregnancy	Interviewed in person	Charmaz's (2006) grounded theory methodology	Trauma Adjustment difficulties Personality characteristics Childhood abuse Traumatic pregnancies Traumatic births Lack of social support Weight gain

					and continued post-birth.			Changes to lifestyle Relationship problems Financial concerns Work-related worries Biomedical factors
Baines et al (2013) **England**	Longitudinal, correlational survey	Not mentioned	43	Perinatal clinics (out-patient and in-patient), children and parent services and community services(health visitors, children's centres and MIND centres)	Women screened positive for PPD using EPDS	Postal/online survey, Illness Perceptions Questionnaire revised (IPQ-R)	Frequency (%) of agreement (either agreed or strongly agreed) calculated for each causal item	Stress or worry (85%) Hormonal changes (75%) Own emotional state (75%) Family problems (67.5%) Mental attitude (62%) Own behaviour (55%) Age (12.5%) Accident or injury (10%)

Appendix 2: Ethical Approval

a) Staffordshire University Ethical Approval

b) Approachable Parenting Recruitment Approval

Staffordshire University Ethical Approval

STAFFORDSHIRE UNIVERSITY

Faculty of Health Sciences

ETHICAL APPROVAL FEEDBACK

Researcher name:	**Aula Meki**
Title of Study:	**Meanings of postnatal depression to Muslim women as measured by a Q-sort.**
Award Pathway:	**DClinPsy**
Status of approval:	**Approved**

Action now needed:

Your project proposal has now been approved by the Faculty's Ethics Panel and you may now commence the implementation phase of your study. You do not need to approach the Local Research Ethics Committee. You should note that any divergence from the approved procedures and research method will invalidate any insurance and liability cover from the University. You should, therefore, notify the Panel of any significant divergence from this approved proposal.

You should arrange to meet with your supervisor for support during the process of completing your study and writing your dissertation.

Comments for your consideration:

Thank you for forwarding the amendments requested by the Panel

pp: **Signed**: Professor Vish Unnithan
Chair of the Faculty of Health Sciences Ethics Panel

Date: 5th December 2013

Approachable Parenting Recruitment Approval

Approachable Parenting CIC

Approachable Parenting CIC
Meadowcroft
38 Linthurst Road
Blackwell
B60 1QH
18.06.13
Kathleen Roche-Nagi
Director

To whom it may concern

Re: "Meanings of Postnatal Depression to British Muslim women of Arab origin, as measured by a Q-sort"

I have been requested by Ms Aula Meki to write to you to confirm that Approachable Parenting has agreed and are willing to allow her to recruit parents from our organisation for the purpose of her doctoral research project. If you require further information please do not hesitate to contact me.

Yours Faithfully

K Roche-Nagi

Kathleen Roche-Nagi

Approachable Parenting

www.approachableparenting.com

07702 744379

info@approachableparenting .com

Appendix 3: Participant Paperwork and Handouts

a) Participant Information Sheet: Focus Group

b) Participant Information Sheet: Q-study

c) Consent Form: Focus Group

d) Consent Form: Q-study

e) Demographic Questionnaire: Q-study

f) Debrief Questionnaire: Q-study

Participant Information Sheet: Focus Group

You are being invited to take part in a research study conducted by Aula Meki, Trainee Clinical Psychologist at Staffordshire and Keele Universities. It is important that you take time to read and understand this information sheet before you decide whether to participate.

Study Title: Meanings of Postnatal Depression to British Muslim women of Arab origin as measured by a Q-sort.

What is the aim of this study?
To identify the beliefs held amongst Muslim women about Postnatal Depression and to gain insights into views about the causes of these difficulties.

Why have I been contacted and do I have to take part?
You have been asked to take part because you are a Muslim woman of Arab origin and we are keen to discover the opinions of people who could be directly affected by this condition.

Do I have to take part?
Participation is entirely voluntary and if you decide to take part you will be asked to sign a consent form. If you decide not to take part, we will respect your decision and it will not affect the healthcare you receive in any way. If you decide to take part, you are still free to withdraw from the study at any time and without giving a reason.

Which research methods are being used?
This study will use a mixed (quantitative and qualitative) research methods technique called Q methodology to identify viewpoints. The study will take place in The Bordesley Centre and it is anticipated that between 10 women will participate.

How will I be affected if I decide to take part?
You will be presented with a set of approximately 50 statements and asked to sort and rank the statements according to your beliefs. The completed sorts will be analysed to identify a number of shared viewpoints. These viewpoints will be interpreted and you will be asked to check the researcher's interpretations before the study is presented.

What are the possible disadvantages and risks of taking part?
The study will take up to a maximum of 1 hour. Although there are no anticipated risks associated with taking part in this study, it is possible that the discussion of sensitive material may cause some distress. Details of support agencies have been provided below.

What are the possible benefits of taking part?
The proposed study aims to identify the range of beliefs that Muslim women of Arab origin hold about Postnatal Depression. Although there are no direct benefits to you taking part, your participation can help us to plan more acceptable mental health and support services for women which take into account their background and beliefs. This is an opportunity for you to make a valuable contribution to academic research. This study forms the research component of a Clinical Psychology Doctorate and will be written up as part of a Research Thesis. It is likely that this project will be published in a journal article. A summary of the research findings

will be made available to everyone who participates.

Will my taking part in this study be kept confidential?

All personal information and collected date will be kept strictly confidential and will not be used to identify you within the study or any other work related to the study. To protect your identity any information will have your name removed, and an ID assigned so that you cannot be recognised from it. Codes connecting your individual identity to the data you provided will be stored separately. All data will be stored confidentially and securely destroyed 10 years after the end of the research study, or on your withdrawal from the study in accordance with the Data Protection Act 1998.

Participation Details

If you are interested in participating in this study or have any further questions regarding the study please contact Aula Meki on 07989324317 or email m038829a@student.staffs.ac.uk.

Additional Information

If you need any additional support or advice you can contact these independent organisations:

Muslim Community Helpline
0208 904 8193/www.muslimcommunityhelpline.org.uk

The Muslim Community Helpline, formerly The Muslim Women's Helpline, aims to provide any Muslim woman in a crisis with a free, confidential listening and support service.

The Lateef Project
0121 301 5392/ http://www.lateefproject.com/index.htm

The Lateef Project is a community led charity providing confidential emotional support and Islamic counselling for the Muslim community in Birmingham.

Acacia
0121 301 5992/www.acacia.org.uk

This Birmingham-based charity offers local support services to mothers and their families affected by the symptoms of Postnatal Depression.

The Association for Postnatal Illness
0207 386 0868/www. apni.org

This charitable organisation provides a telephone helpline, information leaflets and a network of volunteers who can offer advice and support.

Stepping Stones
0121 753 5556/ www.sstones.org.uk

This Birmingham-based charity offers practical and emotional support and information for women and their families in accordance with individual, cultural and religious backgrounds.

Homestart. Telephone
0800 068 63 68/www.home-start.org.uk

This family charity offers national support and practical help for families with at least one child less than 5 years of age.

Thank you for taking the time to consider your participation in this research.

Participant Information Sheet: Q-study

You are being invited to take part in a research study conducted by Aula Meki, Trainee Clinical Psychologist at Staffordshire and Keele Universities. It is important that you take time to read and understand this information sheet before you decide whether to participate.

Study Title: Meanings of Postnatal Depression to British Muslim women of Arab origin as measured by a Q-sort.

What is the aim of this study?
To identify the beliefs held amongst Muslim women about Postnatal Depression and to gain insights into views about the causes of these difficulties.

Why have I been contacted and do I have to take part?
You have been asked to take part because you are a Muslim woman of Arab origin and we are keen to discover the opinions of people who could be directly affected by this condition.

Do I have to take part?
Participation is entirely voluntary and if you decide to take part you will be asked to sign a consent form. If you decide not to take part, we will respect your decision and it will not affect the healthcare you receive in any way. If you decide to take part, you are still free to withdraw from the study at any time and without giving a reason.

Which research methods are being used?
This study will use a mixed (quantitative and qualitative) research methods technique called Q methodology to identify viewpoints. The study will take place in The Bordesley Centre and it is anticipated that between 10 women will participate.

How will I be affected if I decide to take part?
You will be presented with a set of approximately 50 statements and asked to sort and rank the statements according to your beliefs. The completed sorts will be analysed to identify a number of shared viewpoints. These viewpoints will be interpreted and you will be asked to check the researcher's interpretations before the study is presented.

What are the possible disadvantages and risks of taking part?
The study will take up to a maximum of 1 hour. Although there are no anticipated risks associated with taking part in this study, it is possible that the discussion of sensitive material may cause some distress. Details of support agencies have been provided below.

What are the possible benefits of taking part?
The proposed study aims to identify the range of beliefs that Muslim women of Arab origin hold about Postnatal Depression. Although there are no direct benefits to you taking part, your participation can help us to plan more acceptable mental health and support services for women which take into account their background and beliefs. This is an opportunity for you to make a valuable contribution to academic research. This study forms the research component of a Clinical Psychology Doctorate and will be written up as part of a Research Thesis. It is

likely that this project will be published in a journal article. A summary of the research findings will be made available to everyone who participates.

Will my taking part in this study be kept confidential?
All personal information and collected date will be kept strictly confidential and will not be used to identify you within the study or any other work related to the study. To protect your identity any information will have your name removed, and an ID assigned so that you cannot be recognised from it. Codes connecting your individual identity to the data you provided will be stored separately. All data will be stored confidentially and securely destroyed 10 years after the end of the research study, or on your withdrawal from the study in accordance with the Data Protection Act 1998.

Participation Details
If you are interested in participating in this study or have any further questions regarding the study please contact Aula Meki on 07989324317 or email m038829a@student.staffs.ac.uk.

Additional Information
If you need any additional support or advice you can contact these independent organisations:

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Homestart. Telephone
0800 068 63 68/www.home-start.org.uk
This family charity offers national support and practical help for families with at least one child less than 5 years of age.

Thank you for taking the time to consider your participation in this research.

Research Consent Form: Focus Group

Study Title: Meanings of Postnatal Depression to British Muslim women of Arab origin as measured by a Q-sort.

Name of Researcher: Aula Meki

Please tick the box

1. I confirm that I have read the understood the Participant Information Sheet for the above study and have had the opportunity to ask questions ☐

2. I understand that my participation is voluntary and I am free to withdraw from the research at any time, for any reason and without my rights being affected ☐

3. I understand that I will be tape recorded and that the researcher and others attached to this research study will have access to a written copy of the interview ☐

4. I have been informed that the confidentiality of the information I provide will be safeguarded and I agree to the processing of personal data for purposes connected with this research project as outlined to me ☐

5. I agree to reports of the research being published ☐

6. I have been provided with a copy of this Research Consent Form and Participant Information Sheet ☐

7. I agree to take part in a focus group for the above research study ☐

Name of participant (print)…….....Signed……..….Date…….....

Name of researcher (print)…… ……Signed……..…. Date…….....

Research Consent Form: Q-study

Study Title: Meanings of Postnatal Depression to British Muslim women of Arab origin as measured by a Q-sort.

Name of Researcher: Aula Meki

Please tick the box

1. I confirm that I have read the understood the Participant Information Sheet for the above study and have had the opportunity to ask questions ☐

2. I understand that my participation is voluntary and I am free to withdraw from the research at any time, for any reason and without my rights being affected ☐

3. I agree that the researcher and others attached to the research will have access to my completed Q-sort ☐

4. I have been informed that the confidentiality of the information I provide will be safeguarded and I agree to the processing of personal data for purposes connected with this research project as outlined to me ☐

5. I agree to reports of the research being published ☐

6. I have been provided with a copy of this Research Consent Form and Participant Information Sheet ☐

7. I agree to take part in the above research study ☐

Name of participant (print)…….....Signed……..…Date…….....

Name of researcher (print)…… Signed……..…. Date…….....

Demographic Questionnaire

Study Title: Meanings of Postnatal Depression to British Muslim women of Arab origin as measured by a Q-sort.

Name of Researcher: Aula Meki Participant Number: _____

Please complete the following information;

Date of Birth: _____

Country of origin: _____

Country of birth: _____

If born outside UK, how many years have you lived in the UK? _____

Religion: _____

Highest level of education: _____

Occupation: _____

Marital status: _____

Do you have children? _____

If so, how many children do you have? _____

How old are they? _____

Had you heard of postnatal depression before this study?

_____
_____
_____
_____

Debrief Questionnaire

Study Title: Meanings of Postnatal Depression to British Muslim women of Arab origin as measured by a Q-sort.

Name of Researcher: Aula Meki Participant Number: _____

Thank you for taking part in this study, please answer the following questions;

How did you find the research process?

_____
_____
_____

Were there any additional statements or causes that you think are important/would have expected to see?

_____
_____
_____

Do you know of any support, services or treatment for postnatal depression?

_____
_____
_____

If you were suffering from postnatal depression, what support would you want/accept?

_____
_____
_____

Is there anything that would stop you from seeking help?

_____
_____
_____

Any other questions, comments, feedback or suggestions?

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Appendix 4: Study Materials

a) Interview Schedule and Prompts: Focus Group

b) Condition of Instruction: Q-study

c) Statements for Q-sort (n =50): Q-study

d) List of Grouped Statements including Standardised Examples: Q-study

e) Blank Sorting Matrix: Q-study

Interview Schedule and Prompts: Focus Group

1. **Understanding of the term Postnatal Depression**

   Familiarity with diagnosis
   Alternative descriptions or labels
   Associated difficulties, signs or symptoms

2. **Understanding of causes of Postnatal Depression**

   What causes Postnatal Depression and why?
   Biological/Psychological/Social/Environmental/Religious explanations
   Vulnerability or risk factors
   Protective factors
   Impact of religious/cultural beliefs on this understanding

3. **Understanding of treatment of Postnatal Depression**

   Available/recommended treatments
   Medical/Psychological/Cultural/Social/Religious- based interventions
   Alternative treatments
   Advantages and disadvantages of different treatment options
   Impact of religious/cultural beliefs on this understanding

4. **Understanding help-seeking behaviour**

   Ways of coping (Helpful/Unhelpful)
   Available support services
   How to access services - referral process
   Barriers to accessing formal treatment/support
   What would make it easier to access support services?
   Impact of religious/cultural beliefs on help-seeking behaviour

Condition of Instruction: Q-study

Thank you for agreeing to take part in this Q-methodological study. The study is divided into the following four sections:

1) Information and Consent Forms;
2) A Demographic Information Questionnaire;
3) Completing the Q-sort task, including 50 item cards and a blank sorting distribution;
4) A post-sorting Debrief Questionnaire.

Please complete all of these sections in **numerical order**. Sections 1, 2 and 4 are self-explanatory and the researcher will help you to complete these. The instructions for section 3 appear below. Please follow them as carefully as possible and ask the researcher if you have any further questions or comments.

Section 3: The Q-sorting task

The materials provided for this section are as follows:

- 50 statement cards
- A blank A3 sorting distribution with an 11-point distribution ranging from +5 (most agree) through 0 (neutral) to +5 (most agree).

Step 1: Take the pile of 50 statements. You now need to read each item in turn, one at a time, and divide them into the following three provisional ranking categories:

- Category 1 = Items which you definitely agree with. Please position these in a single pile to the right-hand side of the distribution (above +5)
- Category 2 = Items which you definitely disagree with. Please position these in a single pile to the left-hand side of the distribution (above -5)
- Category 3 = Items which you feel unsure about. Please position these in a single pile in the middle of the distribution (above 0)

There are no limits to the number of items that can be placed in any of these three categories, just be faithful to your own viewpoints and feelings.

Step 2: You should now have 3 separate piles. Take the pile of items that you definitely agree with and spread them out so that you can see them all at once. Your job is to position each of these items in an appropriate ranking position at the right-hand (or agree) end of the blank distribution provided. The highest rankings should be given to the items with which you agree most strongly. So, in line with the limits imposed by the distribution provided, the two-items you find most agreeable should be awarded a ranking of +5. When you have identified these two items place them in the spaces below the card indicating the +5 ranking value. The next three most agreeable items should be given a ranking of +4, the next four a ranking of +3 and so on until you have positioned all of the cards in the pile. Don't worry if your definitely agree items cross over into the negative rankings.

Step 3: To continue sorting, you need to follow the same procedure used for step 2, but this time for the pile of items you definitely disagree with. Spread them out so that you can see them all at once. These items need to be allocated rankings positions at the left-hand (or disagree) end of the blank distribution provided. The lowest rankings should be given to the items that you most strongly disagree with. So, start at the left-hand side of the distribution and allocate the two items you find most disagreeable a -5 ranking. Keep going until you have positioned all of the items you disagree with in an appropriate ranking.

Step 4: You now need to complete the Q-sort using the items that you felt unsure about. Again, spread the items out so that you can see all of them at once and simply allocate the highest available rankings to the items that with which you feel most agreement, and the lowest to those which you feel most disagreement. Keep going until you have positioned all of your unsure items in an appropriate ranking.

Step 5: You have now finished sorting and should have a complete Q-sort sitting in front of you! At this stage, have one final look at the whole thing and please feel free to make any adjustments. Ensure that all 50 items have been allocated to the distribution and that the correct number of items has been allocated to each raking value. Once you're happy, let the researcher know so that we can write the appropriate into the blank sorting distribution.

Thank you!

Statements for Q-sort: Q-study

PND is caused by genetics	**PND is caused by lack of sleep or exhaustion**	**PND is caused by hormonal changes**
PND is caused by a mother's poor physical health	**PND is caused by a baby's poor physical health**	**PND is caused by breast/feeding difficulties**
PND is caused by a difficult pregnancy/birth	**PND is caused by a previous history of depression**	**PND is caused by a low level of education**
PND is caused by an unhealthy lifestyle	**PND is caused by a difficult baby**	**PND is caused by changes to brain chemicals**
PND is caused by a negative thinking style	**PND is caused by inexperience**	**PND is caused by loneliness/ isolation**
PND is caused by mixed feelings about the baby	**PND is caused by lack of emotional support**	**PND is caused by dissatisfaction with body shape**
PND is caused by poor confidence/ self esteem	**PND is caused by difficulty adjusting to motherhood**	**PND is caused by poor treatment by professionals**

PND is caused by mixed feelings about own parents	**PND is caused by stressful life events**	**PND is caused by unrealistic expectations**
PND is caused by a mother's personality traits	**PND is caused by a mother's anxiety**	**PND is caused by poor marital relations**
PND is caused by poor housing	**PND is caused by financial difficulties**	**PND is caused by a dangerous environment**
PND is caused by poor community /social support	**PND is caused by unemployment**	**PND is caused by single motherhood**
PND is caused by a mother's age	**PND is caused by a lack of practical support**	**PND is caused by multiple caregiver demands**
PND is caused by pressure to return to work	**PND is caused by being stuck at home**	**PND is caused by birth of daughter if son was preferred**
PND is caused by inability to keep religious practices	**PND is caused by jinn, envy and/or black-magic**	**PND is caused by not observing resting rituals**

PND is caused by being far away from family	**PND is caused by poor relations with in-laws**	**PND is caused by lack of faith**
PND is caused by God as an act of punishment	**PND is caused by God as a test of faith**	**PND is caused by living with extended families**
PND is caused by the undervalued role of a mother	**PND is caused by conflicting cultures/values**	

Grouped Statements Including Standardised Examples: Q-study

Biological Causes	
No.	**Statement**
1	PND is caused by genetics
2	PND is caused by lack of sleep or exhaustion
3	PND is caused by hormonal changes
4	PND is caused by a mother's poor physical health (e.g. thyroid disease, pain)
5	PND is caused by a baby's poor physical health
6	PND is caused by breast/feeding difficulties
7	PND is caused by a difficult pregnancy/birth (e.g. emergency c-section, obstetric risk)
8	PND is caused by a past history of depression
9	PND is caused by a low level of education
10	PND is caused by an unhealthy lifestyle (e.g. poor diet, lack of exercise, substance abuse)
11	PND is caused by a difficult baby (e.g. crying, not sleeping, temperament)
12	PND is caused by changes to brain chemicals (e.g. neurotransmitters)

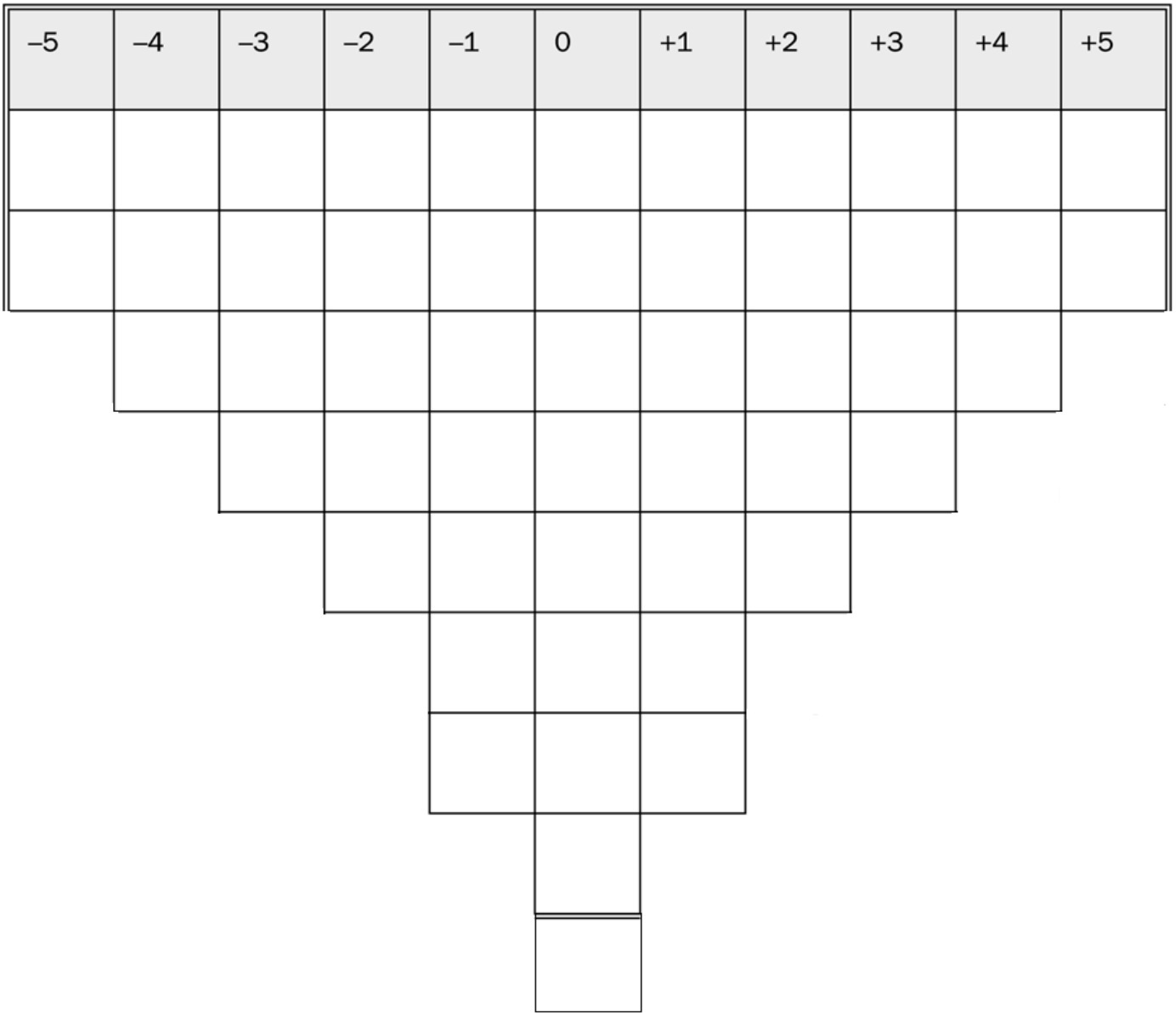
Psychological Causes	
No.	**Statement**
13	PND is caused by a negative thinking style
14	PND is caused by inexperience (e.g. first baby)
15	PND is caused by loneliness and isolation
16	PND is caused by mixed feelings about the baby (e.g. unplanned pregnancy)
17	PND is caused by a lack of emotional support (e.g. no-one to confide in)
18	PND is caused by dissatisfaction with body shape
19	PND is caused by poor confidence /self-esteem
20	PND is caused by difficulty adjusting to motherhood
21	PND is caused by poor treatment by health professionals
22	PND is caused by mixed feelings about her own parents or childhood
23	PND is caused by stressful life events (e.g. bereavement)
24	PND is caused by unrealistic expectations (from self/culture/others)
25	PND is caused by a mother's personality traits (e.g. perfectionism, controlling, inflexible)
26	PND is caused by a mother's anxiety
27	PND is caused by poor marital relations (e.g. absent husband, unsupportive husband, domestic abuse, husband's depression)

Social Causes	
No.	**Statement**
28	PND is caused by poor housing
29	PND is caused by financial difficulties (e.g. loss of earnings)
30	PND is caused by a dangerous environment (e.g. violence)
31	PND is caused by poor community/social support (e.g. lack of organised social activities)
32	PND is caused by unemployment (e.g. mother's/father's unemployment)
33	PND is caused by single motherhood
34	PND is caused by a mother's age (e.g. older mother, younger mother)
35	PND is caused lack of practical support (e.g. housekeeping, childcare)
36	PND is caused by multiple caregiver demands (e.g. other young children, elderly family members)
37	PND is caused by pressure to return to work (e.g. internal pressure, external pressure)
38	PND is caused by being stuck at home (e.g. not getting out with the baby, weather)

Cultural/Religious Causes	
No.	**Statement**
39	PND is caused by the birth of a daughter if a son was preferred
40	PND is caused by inability to keep religious practices (e.g. prayer, reading Quran, attending classes)
41	PND is caused by jinn, envy and/or black magic
42	PND is caused by not observing resting rituals (e.g. 40 day *nifaas* period)
43	PND is caused by being far away from family (e.g. far from mother, immigrant)
44	PND is caused by poor relations with in-laws (e.g. mother-in-law)
45	PND is caused by lack of faith
46	PND is caused by God as an act of punishment
47	PND is caused by God as a test of faith
48	PND is caused by living with extended families (e.g. interference)
49	PND is caused by the undervalued role of a mother (e.g. British culture)
50	PND is caused by conflicting cultures/values (e.g. Eastern *vs.* Western)

Blank Sorting Matrix: Q-study

Most Disagree **Most Agree**



Appendix 5: Data

a) Description of Participants: Q-study

b) Raw Data: Q-study

c) Plotted Unrotated Factors Indicating the Appropriateness of a Two-Factor Solution: Q-study

Description of Participants: Q-study

Participant	DOB	Ethnic Origin	Country of birth	Religion	Years lived in UK	Marital status	Number of children	Age/s of children	Highest level of education	Employment status
1	05/09/1988	Yemeni	UK	Islam	n/a	Married	1	7 months	Further education	Part-time student
2	01/01/1962	Yemeni	Yemen	Islam	32 years	Married	9	30;29; 26; 25; 20;16; 13; 11; 8	Primary education	Part-time employment
3	17/05/1982	Yemeni	Yemen	Islam	25 years	Married	3	7; 4; 2	Bachelor's Degree	Unemployed
4	26/10/1982	Yemeni	Yemen	Islam	9 years	Married	2	8; 4	Secondary education	Unemployed
5	30/06/1989	Egyptian	Egypt	Islam	15 years	Married	1	1	Bachelor's Degree	Unemployed
6	19/04/1982	Algerian	Algeria	Islam	15 years	Married	4	13;11;9;4	Secondary education	Part-time employment
7	29/01/1976	Algerian	Algeria	Islam	7 years	Married	3	12; 7; 4	Master's Degree	Part-time student
8	18/11/1988	Libyan	UK	Islam	n/a	Married	1	2	Bachelor's Degree	Part-time student
9	30/09/1973	Yemeni	Yemen	Islam	31	Married	3	18;13;11	Bachelor's Degree	Part-time employment
10	25/04/1982	Yemeni	Yemen	Islam	30	Married	2	10;5	Bachelor's Degree	Unemployed
11	20/11/1977	Egyptian	Egypt	Islam	7	Married	3	11;9;2	Bachelor's Degree	Unemployed

Raw Data: Q-study

Factor Scores with Corresponding Rank

No.	Statement	Factor 1	Factor 1	Factor 2	Factor 2
1	PND is caused by genetics	-1.48	47	0.40	21
2	PND is caused by lack of sleep or exhaustion	1.88	1	0.65	14
3	PND is caused by hormonal changes	1.39	4	1.29	5
4	PND is caused by a mother's poor physical health	0.72	14	-0.37	33
5	PND is caused by a baby's poor physical health	-0.13	28	1.48	2
6	PND is caused by breast/feeding difficulties	0.57	18	1.22	6
7	PND is caused by a difficult pregnancy/birth	-0.07	26	0.26	23
8	PND is caused by a past history of depression	-0.96	41	1.04	9
9	PND is caused by a low level of education	-0.79	38	-1.36	45
10	PND is caused by an unhealthy lifestyle	-0.06	25	-0.83	38
11	PND is caused by a difficult baby	0.51	20	-0.83	38
12	PND is caused by changes to brain chemicals	-1.28	46	0.79	12
13	PND is caused by a negative thinking style	1.03	9	0.49	18
14	PND is caused by inexperience	0.65	16	0.14	26
15	PND is caused by loneliness/isolation	1.38	5	0.01	29
16	PND is caused by mixed feelings about the baby	-1.04	43	0.42	19
17	PND is caused by lack of emotional support	0.68	15	0.88	11
18	PND is caused by dissatisfaction with body shape	-0.38	31	-1.04	41
19	PND is caused by poor confidence/self esteem	0.81	12	-0.04	30
20	PND is caused by difficulty adjusting to motherhood	0.72	13	0.12	27
21	PND is caused by poor treatment by healthcare staff	-0.34	30	0.50	17
22	PND is caused by mixed feelings about own parents	-2.01	49	-1.05	42
23	PND is caused by stressful life events	0.97	10	1.72	1
24	PND is caused by unrealistic expectations	1.17	8	0.12	28
25	PND is caused by a mother's personality traits	1.26	6	-1.22	44
26	PND is caused by a mother's anxiety	0.36	21	1.45	3

27	PND is caused by poor marital relations	0.54	19	1.43	4
28	PND is caused by poor housing	-0.51	35	0.23	24
29	PND is caused by financial difficulties	-0.26	29	0.53	15
30	PND is caused by a dangerous environment	-0.10	27	-0.93	39
31	PND is caused by poor community/social support	0.93	11	-0.38	34
32	PND is caused by unemployment	-0.45	33	-1.06	43
33	PND is caused by single motherhood	0.63	17	0.40	22
34	PND is caused by a mother's age	-0.49	34	-0.26	31
35	PND is caused by a lack of practical support	1.25	7	0.50	16
36	PND is caused by multiple caregiver demands	0.23	22	1.20	7
37	PND is caused by pressure to return to work	-0.42	32	1.08	8
38	PND is caused by being stuck at home	0.17	24	0.41	20
39	PND is caused by birth of daughter if son is preferred	-0.71	37	-1.04	40
40	PND is caused by inability to keep religious practices	-0.99	42	-0.69	37
41	PND is caused by jinn, envy and/or black-magic	-1.80	48	-1.55	46
42	PND is caused by not observing resting rituals	0.22	23	-1.58	48
43	PND is caused by being far away from family	1.53	2	0.17	25
44	PND is caused by poor relations with in-laws	-0.53	36	0.68	13
45	PND is caused by lack of faith	1.42	3	-1.68	49
46	PND is caused by God as an act of punishment	-2.21	50	-2.62	50
47	PND is caused by God as a test of faith	-1.17	45	0.96	10
48	PND is caused by living with extended families	-0.88	40	-0.41	35
49	PND is caused by the undervalued role of a mother	-0.87	39	-0.34	32
50	PND is caused by conflicting cultures/values	-1.08	44	-1.58	47

Factor Scores (z-scores) for Factor One

No.	Statement	z-score
2	PND is caused by lack of sleep or exhaustion	1.878
43	PND is caused by being far away from family	1.528
45	PND is caused by a lack of faith	1.416
3	PND is caused by hormonal changes	1.392
15	PND is caused by loneliness/isolation	1.383
25	PND is caused by a mother's personality traits	1.259
35	PND is caused by a lack of practical support	1.253
24	PND is caused by unrealistic expectations	1.174
13	PND is caused by a negative thinking style	1.032
23	PND is caused by stressful life events	0.973
31	PND is caused by poor community/social support	0.931
19	PND is caused by poor confidence/self esteem	0.811
20	PND is caused by difficulty adjusting to motherhood	0.722
4	PND is caused by a mother's poor physical health	0.721
17	PND is caused by lack of emotional support	0.683
14	PND is caused by inexperience	0.648
33	PND is caused by single motherhood	0.628
6	PND is caused by breast/feeding difficulties	0.566
27	PND is caused by poor marital relations	0.544
11	PND is caused by a difficult baby	0.507
26	PND is caused by a mother's anxiety	0.357
36	PND is caused by multiple caregiver demands	0.227
42	PND is caused by not observing resting rituals	0.221
38	PND is caused by being stuck at home	0.172
10	PND is caused by an unhealthy lifestyle	-0.055
7	PND is caused by a difficult pregnancy/birth	-0.065
30	PND is caused by a dangerous environment	-0.098

5	PND is caused by a baby's poor physical health	-0.126
29	PND is caused by financial difficulties	-0.257
21	PND is caused by poor treatment by healthcare staff	-0.342
18	PND is caused by dissatisfaction with body shape	-0.382
37	PND is caused by pressure to return to work	-0.423
32	PND is caused by unemployment	-0.454
34	PND is caused by a mother's age	-0.493
28	PND is caused by poor housing	-0.514
44	PND is caused by poor relations with in-laws	-0.529
39	PND is caused by birth of daughter if son is preferred	-0.707
9	PND is caused by a low level of education	-0.790
49	PND is caused by the undervalued role of a mother	-0.875
48	PND is caused by living with extended families	-0.880
8	PND is caused by a past history of depression	-0.957
40	PND is caused by inability to keep religious practices	-0.989
16	PND is caused by mixed feelings about the baby	-1.045
50	PND is caused by conflicting cultures/values	-1.084
47	PND is caused by God as a test of faith	-1.169
12	PND is caused by changes to brain chemicals	-1.282
1	PND is caused by genetics	-1.484
41	PND is caused by jinn, envy and/or black-magic	-1.804
22	PND is caused by mixed feelings about own parents	-2.014
46	PND is caused by God as an act of punishment	-2.209

Factor Scores (z-scores) for Factor Two

No.	Statement	z-score
23	PND is caused by stressful life events	1.719
5	PND is caused by a baby's poor physical health	1.476
26	PND is caused by a mother's anxiety	1.454
27	PND is caused by poor marital relations	1.431
3	PND is caused by hormonal changes	1.290
6	PND is caused by breast/feeding difficulties	1.223
36	PND is caused by multiple caregiver demands	1.200
37	PND is caused by pressure to return to work	1.076
8	PND is caused by a past history of depression	1.042
47	PND is caused by God as a test of faith	0.964
17	PND is caused by lack of emotional support	0.884
12	PND is caused by changes to brain chemicals	0.789
44	PND is caused by poor relations with in-laws	0.682
2	PND is caused by lack of sleep or exhaustion	0.653
29	PND is caused by financial difficulties	0.530
35	PND is caused by a lack of practical support	0.496
21	PND is caused by poor treatment by healthcare staff	0.495
13	PND is caused by a negative thinking style	0.490
16	PND is caused by mixed feelings about the baby	0.423
38	PND is caused by being stuck at home	0.406
1	PND is caused by genetics	0.400
33	PND is caused by single motherhood	0.400
7	PND is caused by a difficult pregnancy/birth	0.259
28	PND is caused by poor housing	0.231
43	PND is caused by being far away from family	0.169
14	PND is caused by inexperience	0.135
20	PND is caused by difficulty adjusting to motherhood	0.124
24	PND is caused by unrealistic expectations	0.118

15	PND is caused by loneliness/isolation	0.012
19	PND is caused by poor confidence/self esteem	-0.040
34	PND is caused by a mother's age	-.0265
49	PND is caused by the undervalued role of a mother	-0.343
4	PND is caused by a mother's poor physical health	-0.372
31	PND is caused by poor community/social support	-0.383
48	PND is caused by living with extended families	-0.406
10	PND is caused by an unhealthy lifestyle	-0.530
40	PND is caused by inability to keep religious practices	-0.693
11	PND is caused by a difficult baby	-0.829
30	PND is caused by a dangerous environment	-0.930
39	PND is caused by birth of daughter if son is preferred	-1.037
18	PND is caused by dissatisfaction with body shape	-1.042
22	PND is caused by mixed feelings about own parents	-1.053
32	PND is caused by unemployment	-1.059
25	PND is caused by a mother's personality traits	-1.217
9	PND is caused by a low level of education	-1.358
41	PND is caused by jinn, envy and/or black-magic	-1.555
50	PND is caused by conflicting cultures/values	-1.577
42	PND is caused by not observing resting rituals	-1.583
45	PND is caused by lack of faith	-1.679
46	PND is caused by God as an act of punishment	-2.620

Differences Between Factors One and Two

No.	Statement	Type 1	Type 2	Difference
45	PND is caused by lack of faith	1.416	-1.679	3.095
25	PND is caused by a mother's personality traits	1.259	-1.217	2.477
42	PND is caused by not observing resting rituals	0.221	-1.583	1.805
15	PND is caused by loneliness/isolation	1.383	0.012	1.372
43	PND is caused by being far away from family	1.528	0.169	1.359
11	PND is caused by a difficult baby	0.507	-0.829	1.336
31	PND is caused by poor community/social support	0.931	-0.383	1.314
2	PND is caused by lack of sleep or exhaustion	1.878	0.653	1.224
4	PND is caused by a mother's poor physical health	0.721	-0.372	1.092
24	PND is caused by unrealistic expectations	1.174	0.118	1.056
19	PND is caused by poor confidence/self esteem	0.811	-0.040	0.851
30	PND is caused by a dangerous environment	-0.098	-0.930	0.831
35	PND is caused by a lack of practical support	1.253	0.496	0.757
18	PND is caused by dissatisfaction with body shape	-0.382	-1.042	0.660
32	PND is caused by unemployment	-0.454	-1.059	0.605
20	PND is caused by difficulty adjusting to motherhood	0.722	0.124	0.598
9	PND is caused by a low level of education	-0.790	-1.358	0.568
13	PND is caused by a negative thinking style	1.032	0.490	0.542
14	PND is caused by inexperience	0.648	0.135	0.513
50	PND is caused by conflicting cultures/values	-1.084	-1.577	0.494
10	PND is caused by an unhealthy lifestyle	-0.055	-0.530	0.474
46	PND is caused by God as an act of punishment	-2.209	-2.620	0.410
39	PND is caused by birth of daughter if son is preferred	-0.707	-1.037	0.330
33	PND is caused by single motherhood	0.628	0.400	0.229
3	PND is caused by hormonal changes	1.392	1.290	0.102
17	PND is caused by lack of emotional support	0.683	0.884	-0.201
34	PND is caused by a mother's age	-0.493	-0.265	-0.229
38	PND is caused by being stuck at home	0.172	0.406	-0.234

41	PND is caused by jinn, envy and/or black-magic	-1.804	-1.555	-0.250
40	PND is caused by inability to keep religious practices	-0.989	-0.693	-0.296
7	PND is caused by a difficult pregnancy/birth	-0.065	0.259	-0.325
48	PND is caused by living with extended families	-0.880	-0.406	-0.474
49	PND is caused by the undervalued role of a mother	-0.875	-0.343	-0.532
6	PND is caused by breast/feeding difficulties	0.566	1.223	-0.657
28	PND is caused by poor housing	-0.514	0.231	-0.744
23	PND is caused by stressful life events	0.973	1.719	-0.746
29	PND is caused by financial difficulties	-0.257	0.530	-0.787
21	PND is caused by poor treatment by healthcare staff	-0.342	0.495	-0.837
27	PND is caused by poor marital relations	0.544	1.431	-0.887
22	PND is caused by mixed feelings about own parents	-2.014	-1.053	-0.960
36	PND is caused by multiple caregiver demands	0.227	1.200	-0.973
26	PND is caused by a mother's anxiety	0.357	1.454	-1.097
44	PND is caused by poor relations with in-laws	-0.529	0.682	-1.212
16	PND is caused by mixed feelings about the baby	-1.045	0.423	-1.468
37	PND is caused by pressure to return to work	-0.423	1.076	-1.499
5	PND is caused by a baby's poor physical health	-0.126	1.476	-1.602
1	PND is caused by genetics	-1.484	0.400	-1.884
8	PND is caused by a past history of depression	-0.957	1.042	-1.999
12	PND is caused by changes to brain chemicals	-1.282	0.789	-2.071
47	PND is caused by God as a test of faith	-1.169	0.964	-2.134

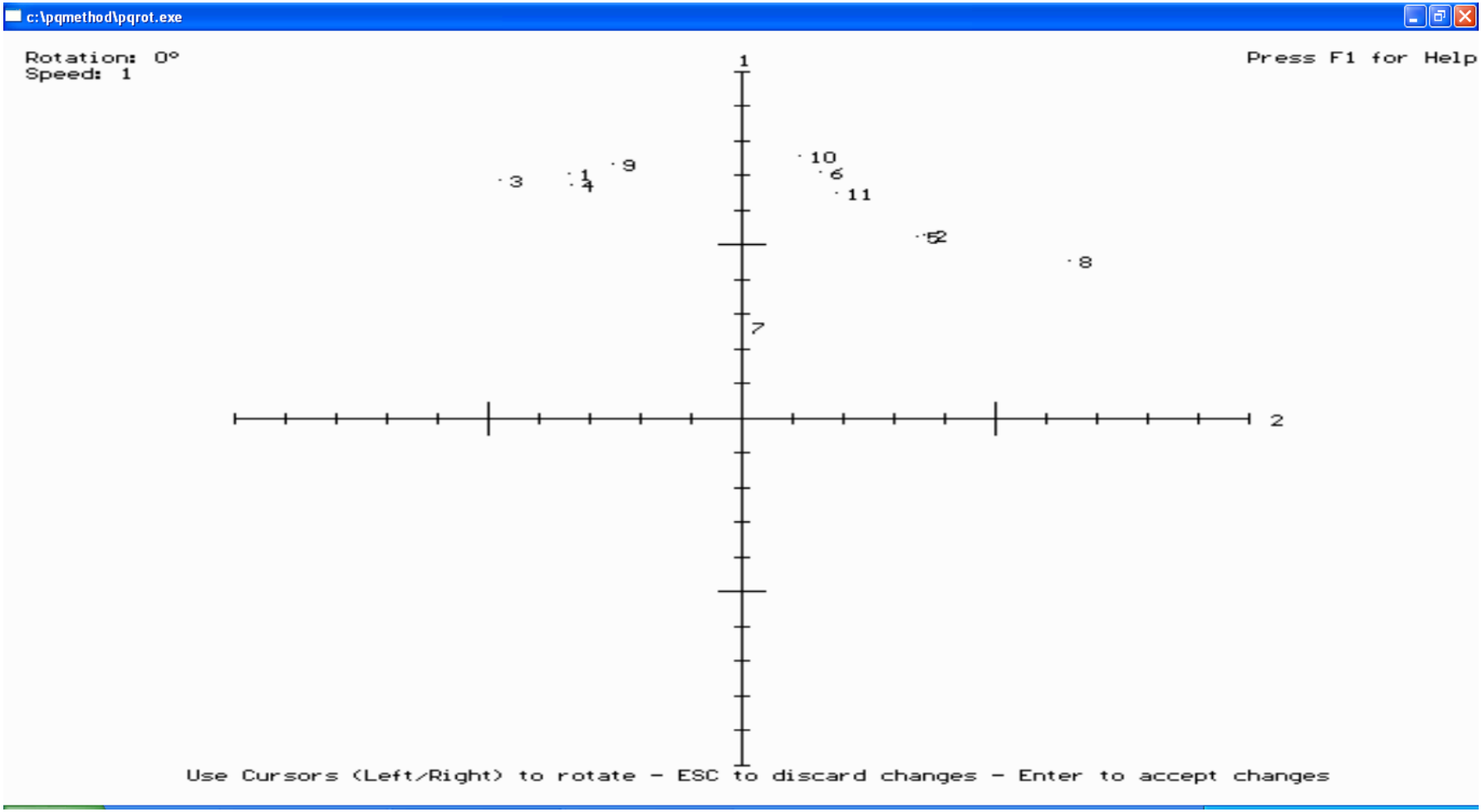
Factor Q-Sort Values for Each Statement

No.	Statement	Factor Array 1	Factor Array 2
1	PND is caused by genetics	-4	1
2	PND is caused by lack of sleep or exhaustion	5	2
3	PND is caused by hormonal changes	4	4
4	PND is caused by a mother's poor physical health	2	-1
5	PND is caused by a baby's poor physical health	0	5
6	PND is caused by breast/feeding difficulties	1	3
7	PND is caused by a difficult pregnancy/birth	0	0
8	PND is caused by a past history of depression	-2	3
9	PND is caused by a low level of education	-2	-3
10	PND is caused by an unhealthy lifestyle	0	-1
11	PND is caused by a difficult baby	1	-2
12	PND is caused by changes to brain chemicals	-4	2
13	PND is caused by a negative thinking style	3	1
14	PND is caused by inexperience	1	0
15	PND is caused by loneliness/isolation	4	0
16	PND is caused by mixed feelings about the baby	-3	1
17	PND is caused by lack of emotional support	1	2
18	PND is caused by dissatisfaction with body shape	-1	-2
19	PND is caused by poor confidence/self esteem	2	-1
20	PND is caused by difficulty adjusting to motherhood	2	0
21	PND is caused by poor treatment by healthcare staff	-1	1
22	PND is caused by mixed feelings about own parents	-5	-3
23	PND is caused by stressful life events	2	5
24	PND is caused by unrealistic expectations	3	0
25	PND is caused by a mother's personality traits	3	-3
26	PND is caused by a mother's anxiety	1	4
27	PND is caused by poor marital relations	1	4
28	PND is caused by poor housing	-1	0

29	PND is caused by financial difficulties	0	1
30	PND is caused by a dangerous environment	0	-2
31	PND is caused by poor community/social support	2	-1
32	PND is caused by unemployment	-1	-3
33	PND is caused by single motherhood	1	0
34	PND is caused by a mother's age	-1	-1
35	PND is caused by a lack of practical support	3	1
36	PND is caused by multiple caregiver demands	0	3
37	PND is caused by pressure to return to work	-1	3
38	PND is caused by being stuck at home	0	1
39	PND is caused by birth of daughter if son is preferred	-2	-2
40	PND is caused by inability to keep religious practices	-3	-2
41	PND is caused by jinn, envy and/or black-magic	-4	-4
42	PND is caused by not observing resting rituals	0	-4
43	PND is caused by being far away from family	5	0
44	PND is caused by poor relations with in-laws	-1	2
45	PND is caused by lack of faith	4	-5
46	PND is caused by God as an act of punishment	-5	-5
47	PND is caused by God as a test of faith	-3	2
48	PND is caused by living with extended families	-2	-1
49	PND is caused by the undervalued role of a mother	-2	-1
50	PND is caused by conflicting cultures/values	-3	4

Variance = 6.440; Standard Deviation. = 2.538

Plotted Unrotated Factors Indicating the Appropriateness of a Two-Factor Solution: Q-study



Appendix 6: Journal Instructions for Authors

a) Healthcare for Women International: Literature Review

b) Social Science and Medicine: Empirical Paper

Journal Instructions for Authors: Healthcare for Women International

Instructions for authors

Please note that Health Care for Women International uses CrossCheck™ software to screen papers for unoriginal material. By submitting your paper to Health Care for Women International you are agreeing to any necessary originality checks your paper may have to undergo during the peer review and production processes.

Tips for Publishing Success

How is My Work Reviewed? Style Guide for Reviewers

International Appeal Requirements

http://journalauthors.tandf.co.uk/preparation/writing.asp

Submission of Manuscripts

The editor-in-chief of Health Care for Women International requires that manuscripts be submitted electronically via their Manuscript Central website located at http://mc.manuscriptcentral.com/uhcw. Manuscript Central allows for rapid and easy submission of original and revised manuscripts, as well as reviewing and internal communication between authors, editors and reviewers via a web-based platform. Authors are urged to submit manuscripts as MS Word or Adobe PDF files. Authors are responsible for verifying all files have uploaded correctly. Note that Scholar One Manuscript Central will automatically assign each page a running head and footer, as well as page numbers and line numbers to your manuscript. Best online viewing results for authors and reviewers will be obtained with original files that DO NOT contain page numbers, line numbers, or any information in the manuscript header or footer. Please consult our guidance on keywords here .

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Launch your web browser (Internet Explorer 5 or higher or Netscape 6 or higher) and go to the Manuscript Central homepage (http://mc.manuscriptcentral.com/uhcw). Log-in or click the “Create Account” option if you are a first-time user of Manuscript Central.
If you are creating a new account:
After clicking on “Create Account” enter your name and e-mail information and click “Next”. Your e-mail information is very important.
Enter your institution and address information as prompted then click “Next.”
Enter a user ID and password of your choice (we recommend using your e-mail address as your user ID) and then select your area of expertise. Click “Finish” when done.
Log-in and select “Author Center.”

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After you have logged in, click the “Submit a Manuscript” link in the menu bar.
Enter data and answer questions as prompted
Click on the “Next” button on each screen to save your work and advance to the next screen.
Your will be prompted to upload your files:
Click on the “Browse” button and locate the file on your computer.
Select the description of the file in the drop down next to the Browse button.
When you have selected all files you wish to upload, click the “Upload” button.
Review your submission (in both PDF and HTML formats) before sending to the Editors. Click the “Submit” button when you are done reviewing.

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All manuscripts must have all author identifying features removed. This includes removing information in your manuscript (including footnotes and acknowledgements) that could identify you, and disguising all references to personally identifiable information such as the research institution where your work was carried out. In addition, many word processing programs include author names as part of the file properties, which should also be removed before submitting your work. To delete, right click on your file, select ‘Properties’ and under ‘Details’ please remove any identifying information stored. For more information on blinding work for peer review, visithttp://journalauthors.tandf.co.uk/preparation/writing.asp and scroll to 'Anonymous Peer Review’.

All parts of the manuscript should be double-spaced, with margins of at least one inch on all sides. Manuscripts should have manuscript pages numbered consecutively throughout the paper. Authors should also supply a shortened version of the title suitable for the running head, not exceeding 50 character spaces. Each article should be summarized in an abstract of not more that 100 words. Avoid abbreviations, diagrams, and reference to the text.

Figures, tables, and references should conform to the style of the Publication Manual of the American Psychological Association, 6th ed., available from the American Psychological Association, 750 First Street, NE, Washington, D.C. 20002-4242.

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Revised manuscripts should be submitted through Manuscript Central in the same manner as the original submission. Be sure to include a cover letter that references your manuscript number. You must also submit a letter noting how you have addressed reviewers concerns. You may provide an argument for not following the reviewers suggestions, but you may not ignore their recommendations. You should note the pages and paragraphs that contain new text in this letter, in addition to marking the text in the file (perhaps by changing the font color).

References

Cite in the text by author and date (Smith, 1983). Prepare reference list in accordance with the Publication Manual of the American Psychological Association, 6th ed. Examples:

Journal : Brierly, D. (2007). Emotional memory for words: Separating content and context. Cognition & Emotion , 21 , 495–521.

Book: Smith, E., & Mackie, D. (2000). Social psychology . Philadelphia, PA: Psychology Press.

Contribution to a Book: Tanner, W. P., & Swets, J. A. (2001). A decision-making theory of visual detection. In S. Yantis (Ed.),

Visual perception (pp. 48–55). Philadelphia, PA: Psychology Press.

Illustrations

Illustrations submitted (line drawings, halftones, photos, photomicrographs, etc.) should be digital files. Digital files are recommended for highest quality reproduction and should follow these guidelines: 300 dpi or higher; sized to fit on journal page; EPS, TIFF, or PSD format only; submitted as separate files, not embedded in text files. Color art will be reproduced in color in the online publication at no additional cost to the author. Color illustrations will also be considered for print publication; however, the author will be required to bear the full cost involved in color art reproduction. Please note that color reprints can only be ordered if print reproduction costs are paid.

Print Rates: $900 for the first page of color; $450 per page for the next three pages of color. A custom quote will be provided for articles with more than four pages of color. Art not supplied at a minimum of 300 dpi will not be considered for print.

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Tables and figures should not be embedded in the text, but should be included as separate sheets or files. A short descriptive title should appear above each table with a clear legend and any footnotes suitably identified below. All units must be included. Figures should be completely labeled, taking into account necessary size reduction.

Proofs

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Journal Instructions for Authors: Social Science and Medicine

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As part of the Your Paper Your Way service, you may choose to submit your manuscript as a single file to be used in the refereeing process. This can be a PDF file or a Word document, in any format or lay-out that can be used by referees to evaluate your manuscript. It should contain high enough quality figures for refereeing. If you prefer to do so, you may still provide all or some of the source files at the initial submission. Please note that individual figure files larger than 10 MB must be uploaded separately.

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There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct.

Formatting requirements

There are no strict formatting requirements but all manuscripts must contain the essential elements needed to convey your manuscript, for example Abstract, Keywords, Introduction, Materials and Methods, Results, Conclusions, Artwork and Tables with Captions.
If your article includes any Videos and/or other Supplementary material, this should be included in your initial submission for peer review purposes.
Divide the article into clearly defined sections.

Figures and tables embedded in text
Please ensure the figures and the tables included in the single file are placed next to the relevant text in the manuscript, rather than at the bottom or the top of the file.

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Use of word processing software
Regardless of the file format of the original submission, at revision you must provide us with an editable file of the entire article. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier:http://www.elsevier.com/guidepublication). See also the section on Electronic artwork.
To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

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The Cover Page should **only** include the following information:

• **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible and make clear the article's aim and health relevance.
• **Author names and affiliations in the correct order.** Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
• **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address. Contact details must be kept up to date by the corresponding author.**
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was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.
• **Any acknowledgements** Include if appropriate. These should be as brief as possible and not appear anywhere else in the paper.

Text
In the main body of the submitted manuscript this order should be followed: abstract, main text, references, appendix, figure captions, tables and figures. Author details, keywords and acknowledgements are entered separately during the online submission process, as is the abstract, though this is to be included in the manuscript as well. During submission authors are asked to provide a word count; this is to include ALL text, including that in tables, figures, references etc.

Title
Please consider the title very carefully, as these are often used in information-retrieval systems. Please use a concise and informative title (avoiding abbreviations where possible). Make sure that the health or healthcare focus is clear.

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An abstract of up to 300 words must be included in the submitted manuscript. An abstract is often presented separately from the article, so it must be able to stand alone. It should state briefly and clearly the purpose and setting of the research, the principal findings and major conclusions, and the paper's contribution to knowledge. For empirical papers the country/countries/locations of the study should be clearly stated, as should the methods and nature of the sample, the dates, and a summary of the findings/conclusion. Please note that excessive statistical details should be avoided, abbreviations/acronyms used only if essential or firmly established, and that the abstract should not be structured into subsections. Any references cited in the abstract must be given in full at the end of the abstract.

Research highlights

Research highlights are a short collection of 3 to 5 bullet points that convey an article's **unique contribution to knowledge** and are placed online with the final article. We allow 85 characters per bullet point including spaces. They should be supplied as a separate file in the online submission system (further instructions will be provided there). You should pay very close attention to the formulation of the Research Highlights for your article. Make sure that they are **clear, concise and capture the reader's attention**. If your research highlights do not meet these criteria we may need to return your article to you leading to a delay in the review process.

Keywords

Up to 8 keywords are entered separately into the online editorial system during submission, and should accurately reflect the content of the article. Again abbreviations/acronyms should be used only if essential or firmly established. For empirical papers the country/countries/locations of the research should be included. The keywords will be used for indexing purposes.

Methods
Authors of empirical papers are expected to provide full details of the research methods used, including study location(s), sampling procedures, the date(s) when data were collected, research instruments, and techniques of data analysis. Specific guidance on the reporting of qualitative studies are provided here.

Footnotes

Footnotes should be used sparingly. Number them consecutively throughout the article. Many wordprocessors build footnotes into the text, and this feature may be used. Should this not be the case, indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.
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• Use a logical naming convention for your artwork files.
• Indicate per figure if it is a single, 1.5 or 2-column fitting image.
• For Word submissions only, you may still provide figures and their captions, and tables within a single file at the revision stage.
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Ensure that each illustration has a caption. A caption should comprise a brief title (**not** on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

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Number tables consecutively in accordance with their appearance in the text. Place footnotes to tables below the table body and indicate them with superscript lowercase letters. Avoid vertical rules. Be sparing in the use of tables and ensure that the data presented in tables do not duplicate results described elsewhere in the article.

References

Citation in text

Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full at the end of the abstract. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal (see below) and should include a substitution of the publication date with either "Unpublished results" or "Personal communication" Citation of a reference as "in press" implies that the item has been accepted for publication.

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As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

References in special issue articles, commentaries and responses to commentaries
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List: references should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters 'a', 'b', 'c', etc., placed after the year of publication.
Examples:
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Van der Geer, J., Hanraads, J. A. J., & Lupton, R. A. (2010). The art of writing a scientific article. Journal of Scientific Communications, 163, 51–59.
Reference to a book:
Strunk, W., Jr., & White, E. B. (2000). The elements of style. (4th ed.). New York: Longman, (Chapter 4).
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The following list will be useful during the final checking of an article prior to sending it to the journal for review. Please consult this Guide for Authors for further details of any item.
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One author has been designated as the corresponding author with contact details:
• E-mail address
• Full postal address
• Telephone
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• Keywords
• All figure captions
• All tables (including title, description, footnotes)
Further considerations
• Manuscript has been 'spell-checked' and 'grammar-checked'
• All references mentioned in the Reference list are cited in the text, and vice versa
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• Color figures are clearly marked as being intended for color reproduction on the Web (free of charge) and in print, or to be reproduced in color on the Web (free of charge) and in black-and-white in print
• If only color on the Web is required, black-and-white versions of the figures are also supplied for printing purposes
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Guidelines for Qualitative Papers

There is no one qualitative method, but rather a number of research approaches which fall under the umbrella of 'qualitative methods'. The various social science disciplines tend to have different conventions on best practice in qualitative research. However SS&M has prepared the following general guidance for the writing and assessment of papers which present qualitative data (either alone or in combination with quantitative methods). General principles of good practice for all research will also apply.

Fitness for purpose

Are the methods of the research appropriate to the nature of the question(s) being asked, i.e.

- Does the research seek to understand social processes or social structures &/or to illuminate subjective experiences or meanings?
- Are the settings, groups or individuals being examined of a type which cannot be pre-selected, or the possible outcomes not specified (or hypothesised) in advance?

Methodology and methods

- All papers must include a dedicated methods section which specifies, as appropriate, the sample recruitment strategy, sample size, and analytical strategy.

Principles of selection

Qualitative research is often based on or includes non-probability sampling. The unit(s) of research may include one or a combination of people, events, institutions, samples of natural behaviour, conversations, written and visual material, etc.

- The selection of these should be theoretically justified e.g. it should be made clear how respondents were selected
- There should be a rationale for the sources of the data (e.g respondents/participants, settings, documents)
- Consideration should be given to whether the sources of data (e.g people, organisations, documents) were unusual in some important way
- Any limitations of the data should be discussed (such as non response, refusal to take part)

The research process

In most papers there should be consideration of

- The access process
- How data were collected and recorded
- Who collected the data
- When the data were collected
- How the research was explained to respondents/participants

Research ethics

- Details of formal ethical approval (i.e. IRB, Research Ethics Committee) should be stated in the main body of the paper. If authors were not required to obtain ethical approval (as is the case in some countries) or unable to obtain attain ethical approval (as sometimes occurs in resource-poor settings) they should explain this. Please anonymise this information as appropriate in the manuscript, and give the information when asked during submission.
- Procedures for securing informed consent should be provided

Any ethical concerns that arose during the research should be discussed.

Analysis

The process of analysis should be made as transparent as possible (notwithstanding the conceptual and theoretical creativity that typically characterises qualitative research). For example

- How was the analysis conducted
  - How were themes, concepts and categories generated from the data
  - Whether analysis was computer assisted (and, if so, how)
  - Who was involved in the analysis and in what manner
- Assurance of analytic rigour. For example
  - Steps taken to guard against selectivity in the use of data
  - Triangulation
  - Inter-rater reliability
  - Member and expert checking
  - The researcher's own position should clearly be stated. For example, have they examined their own role, possible bias, and influence on the research (reflexivity)?

Presentation of findings

Consideration of context

The research should be clearly contextualised. For example

- Relevant information about the settings and respondents/participants should be supplied
- The phenomena under study should be integrated into their social context (rather than being abstracted or de-contextualised)
- Any particular/unique influences should be identified and discussed

Presentation of data:

- Quotations, field notes, and other data where appropriate should be identified in a way which enables the reader to judge the range of evidence being used
- Distinctions between the data and their interpretation should be clear
- The iteration between data and explanations of the data (theory generation) should be clear
- Sufficient original evidence should be presented to satisfy the reader of the relationship between the evidence and the conclusions (validity)
- There should be adequate consideration of cases or evidence which might refute the conclusions

Amended February 2010