

**“You don't have to be a survivor of abuse to be worried about smears”:  
Cervical screening experience of forensic inpatients.**

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**Conflict of Interest**

The authors declare no conflict of interest.

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**Data Availability Statement**

The raw data from the interviews that support the findings of this study are securely stored within Nottinghamshire Healthcare NHS Foundation Trust and are available from the corresponding authors upon reasonable request. The data are not publicly available due to privacy or ethical restrictions.

**Author Contribution**

Gemma Hurst: Conceptualisation; analysis writing – original draft; writing – review and editing, supervision; Jennifer Taylor: Conceptualisation; analysis writing – original draft; writing – review and editing, supervision; Karen Rodham: Conceptualisation; analysis writing – original draft; writing – review and editing, supervision; Jessica Lewis: Conceptualisation; writing – review and editing, supervision; Trevor Gedeon: Conceptualisation; writing – review and editing; Samantha Akiens: Conceptualisation; analysis writing – original draft; writing – review and editing and supervision.

**Funding Information**

This research was sponsored by University of Staffordshire as part of the Professional Doctorate in Health Psychology. The first author was employed and received funding from Nottinghamshire Healthcare NHS Foundation to complete a Professional Doctorate in Health Psychology, where this analysis formed part of her work and contributed to her doctoral portfolio.

**Conflict of Interest**

The authors declare no conflict of interest.

**Ethical Approval**

Ethics approval was granted by the Health Research Authority, Research Ethic Committee [REC: 22/WS/0120] and University of Staffordshire and adhered to the British Psychology Society's Code of Ethics and Conduct. The local NHS Trust of the participating research sites also provided study approval.

**Consent to Participate**

Informed consent was obtained from all participants, no deception was involved. Participants Responsible Clinicians (Consultant Forensic Psychiatrist) also provided written approval that participants were deemed to have capacity to provide informed consent for their participation in the research.

**Abstract:**

*Purpose:* Childhood trauma, especially sexual abuse is linked to higher health risks including cervical cancer. Forensic inpatients often have complex trauma histories placing them at increased risk of cervical cancer. The uptake of screening in patient forensic inpatient services is sub-optimal, although little is known about their experiences. This study focuses on the cervical screening experiences of people nursed in forensic service inpatients. This group present with unique health challenges and are an under-researched and vulnerable population with a higher risk of cervical cancer

*Method:* A qualitative study used purposive sampling to recruit eight participants from two NHS secure forensic services. All participants were inpatients detained under the Mental Health Act (1983, revised 2007) in Women's pathways. Data was collected through semi-structured interviews and was analysed using Interpretive Phenomenological Analysis.

*Results:* Two superordinate themes were developed: (1) Internal Conflict linked past experiences to screening beliefs, and (2) Manufacturing Control showed how individuals employed strategies to feel psychological ready for screening.

*Conclusion:* This study aimed to understand the facilitators and barriers to cervical screening among forensic in-patients and identify ways to improve their experiences to increase engagement in screening. The results identify how participants experiences prior to and within forensic services impact cervical screening uptake. Forensic inpatients require psychological readiness and feelings of control and safety to engage in cervical screening to minimise examinations reminding or re-enacting their trauma history. Systemic factors can enhance safety perceptions and encourage screening in this group.

Abstract word count - 241

**Key Words**

*trauma, cervical screening, forensic, control, safety, readiness*

**Word count – 6378**

## **Introduction**

Cervical cancer affects approximately 570,000 people globally and 3,152 in the UK annually (Wilding et al., 2020; WHO, 2023; Cancer Research UK, 2023a). High-risk human papillomaviruses (HPV), transmitted sexually, cause cell changes in the cervix leading to cancer cells if untreated (Cancer Research, 2023b). In the UK, effective primary (HPV vaccination) and secondary prevention approaches (screening) can prevent most cases (WHO, 2023).

The NHS cervical screening programme checks for high-risk HPV in the cervix, saving about 4,500 lives yearly in England (Peto et al., 2004). Despite being effective in reducing cervical cancer cases, attendance has been below the 80% target (NHSCSP, 2018, Public Health England, 2017) due to worries about embarrassment, convenience, and pain (Waller et al., 2009; Wilding et al., 2020). Efforts to increase attendance have been successful, with 3.5 million attendees in 2021/22, up from 3.2 million the previous year (NHS Digital, 2021; NHS England, 2023).

In forensic settings, patients often have complex trauma histories (Clarke, Williams, Siddall & Lewis, 2023), adverse sexual experiences, and use healthcare services less. Survivors of abuse, tend to have more partners (Dickerson et al., 2004), encounter coercive sex (Coverdale et al., 1997, 2000), avoid contraception (Alspaugh, Barroso, Reibel, & Phillips, 2020; Govender, Naidoo, & Taylor, 2020), engage in risky behaviours during pregnancy (Mosack et al., 2010; Cadman et al., 2012), and experience birth complications (Tarasoff et al., 2020). As a result, they can experience a range of gynaecological health issues (Latthe et al., 2006; London et al., 2017; Farrow et al., 2018). In addition, they are at greater risk of cervical cancer due to early exposure to HPV and precancerous lesions from sexual abuse.

Imprisoned women therefore have a higher prevalence of HPV infection, abnormal cervical screening results and cervical cancer (Escobar & Plugge, 2020; Hearn 2023; Manz, Odayar, & Schrag, 2021), but they also have a lower screening attendance (Aggarwal, Pandurangi & Smith, 2013; Farrow et al., 2018; Gesink & Nattel, 2015; Graham, 2018; Werneke, 2006). There is limited research on cervical screening barriers in secure services. However, a secure service in London identified obstacles to screening attendance, including the absence of clear screening pathways for patients, a lack of routine screening offers, no in-house GP services to conduct screening and external hospital referrals being declined due to perceived risks (Hearn 2023). Additionally, women in secure service are often subject to Ministry of Justice restrictions when leaving the service, requiring them wear handcuffs and be escorted by staff, which further complicates their access to essential healthcare outside secure settings.

Furthermore, existing research indicates that barriers to screening for this population include the procedure replicating past trauma, e.g., penetration, the lack of control, and the language used, like "open your legs" or "it'll be quicker if you relax" (Graham, 2018). This can trigger Post Trauma Stress Disorder (PTSD) responses (Ackerson, 2012) and individuals may exhibit distress, shame and dissociation (Farrow et al., 2018). This population has also reported non-routine invasive examinations causing distress, (Stevens et al. 2017) which increases the likelihood of them declining future examinations in order to avoid trauma symptomology (Bibbins-Domingo et al., 2017; O'Laughlin et al., 2021). Therefore, understanding forensic patients' screening experiences in the context of their trauma history is crucial for informing practice.

Individuals in forensic secure services often have a history of trauma, making the adoption of trauma-informed care (TIC) in these settings crucial. TIC improves patient engagement and treatment outcomes, including responsiveness to preventative healthcare (Miller & Najavits, 2012; Simjouw, de Vogel, & de Ruiten, 2024). TIC is based on six key principles:

safety, trustworthiness, choice, collaboration, empowerment, and cultural considerations (Office from Home Health Improvement and Disparities, 2022). It also emphasises recognising signs of trauma and the risk of re-traumatisation. In forensic settings, environmental factors and restrictions can inadvertently contribute to re-traumatisation, even during preventative healthcare processes. Integrating TIC may help mitigate these risks and support better care outcomes.

Specialised programmes in UK prisons (NICE Guideline, 2016) are well positioned to provide screening and engage this population (Martin et al., 2008; Plugge & Fitzpatrick, 2004). Moreover, forensic clinicians who are aware of forensic patients' trauma histories would be well-suited to provide trauma-informed gynaecological care to improve outcomes (DeMaria et al., 2022; Grillo et al., 2021; Kirkner, Lorenz, & Ullman, 2021; Quinn, 2022). Public Health England (PHE; 2021) have provided guidelines on improving engagement in preventative healthcare for those in prisons and secure settings. Therefore, seeking an in-depth understanding of this populations' screening experiences will enable the identification of barriers and facilitators that impact screening. Specifically, we asked, 'what are people's experiences of screening in a forensic setting?' and 'how have experiences of trauma influenced these experiences?'

## **Method**

Design: This study used a qualitative research design. Given the sensitivity of participants' trauma histories, semi-structured individual interviews were conducted with people in inpatient forensic services. The interviews allowed for collecting detailed and personal exploration of each participant's lived experience of screening.

Setting: Secure forensic services, in England, are classified into high, medium, and low-security levels to manage risks to others, with varying security measures to ensure appropriate



treatment, safety, and care for individuals, staff, and the public. These services offer specialised assessment, treatment, and risk management for adults with mental health needs detained under the Mental Health Act (1983, revised 2007). Participants (aged over 18) were recruited from two NHS hospitals (a National High Secure Healthcare Service for Women (NHSHSW) and a Medium Secure Unit (MSU). All participants were detained under the Mental Health Act (1983, revised 2007). The NHSHSW, the only high-secure service for women in England and Scotland comprises of five wards. The MSU that provides care for those who pose serious risks across two wards including the Women's Enhanced Medium Secure Service (WEMSS) ward, which is one of three enhanced units for women with a history of significant self-harm. Both services offer gender-sensitive care, addressing the distinct needs and challenges faced by women in secure.

Participants: Eight participants took part (five from the MSU). Seven identified as female, one as a transgender male. On average, participants had been in secure services for 13 years, 2 months, and in their current service for 8 years 4 months. Table 1 summarises participants demographic and clinical characteristics. A purposive sampling approach was employed to ensure a targeted selection of participants. Smith, Flowers, and Larkin (2009, p. 56) note, "*there is no right answer to the question of sample size*" in the context of Interpretative Phenomenological Analysis (IPA). However, Clarke (2010) recommends a sample size of between 4 and 10 participants for research within professional doctorates. Therefore, the sample size in this study was deemed appropriate for the research aims.

[INSERT TABLE 1]

### Procedure

Clinical teams, comprising of Consultant Forensic Psychiatrists, Practitioner Psychologists, Occupational Therapists, Forensic Social Worker, and Registered Mental Health Nurses,

identified eligible participants, using the study's criteria (Table 2), who were given an invitation letter and information sheet which was reviewed with the participant. After 48 hours, potential participants were asked if they were interested in taking part. Those that were gave their informed consent.

*[INSERT TABLE 2]*

The first author, a trainee health psychologist at the time of the study who was working as a clinician within secure services, used inpatient files to gather participant histories (e.g., trauma and gynaecological exams history, including cervical screening). Thus, sensitive data was gathered with consent, minimising participants' direct need to disclose this to the researcher. The first author conducted in-person interviews between December 2022 to January 2023. Following the interview, participants were debriefed and met their psychologists to address any emotional impacts from interview.

Interviews ranged from 26 to 65 minutes. One interview was repeated due to a technical recording issue. An interview guide based on the Theoretical Domains Framework (TDF; Cane, O'Connor & Michie, 2012; Michie et al., 2005) informed the interviews. This integrative framework synthesises psychological theories and includes fourteen theoretical domains covering physical and social environment, motivational, and capability factors.

### Ethical Approval

The research received approval from the Health Research Authority, Research Ethic Committee [REC: 22/WS/0120] and University of Staffordshire. The local NHS Trust of the participating research sites also provided study approval.

### Analyses

The interviews were digitally audio-recorded and transcribed verbatim. Data was analysed using Interpretative Phenomenological Analysis (IPA; Smith 2004, 2009, 2021). IPA is an appropriate methodological approach for this research as it facilitates the ideographical interpretation of participants' lived experiences of personally significant events (Smith et al., 2009, 2021). IPA is particularly suited for exploring phenomena related to participant's historical trauma or past experiences of gynaecological care. It seeks to understand both the individual's lived experience and their interpretation of it which aligns with the research questions. Table 3 summarises the IPA process:

*[INSERT TABLE 3]*

The robustness of the analysis was maximised through regular bracketing conversations (Le Vasseur, 2003), with co-authors focusing on the process and development of themes. In acknowledging the “double hermeneutic” (Smith et al. 2009, 2021), researchers recognised their biases about the data informed based on their prior experiences. A reflexive approach allowed the authors to critically engage with and address key ethical considerations throughout the study, ensuring participant confidentiality, obtaining informed consent, and being mindful of participant vulnerability and gender differences. This fostered an ethically sound and transparent research process which also accounted for the 'dual relationship' (Braun & Clarke, 2013) of the first author who worked within the clinical setting, with careful attention to professional boundaries and participants' perceptions of these dual roles. To maintain rigour, the lead author maintained detailed reflexive notes on interview content and emotional responses during data collection and analysis for discussion with co-authors to ensure findings were grounded in the data, rather than shaped by personal interpretation. Furthermore, coding procedures, themes and participant quotes were shared with co-authors, experts in qualitative research and clinicians within secure settings, providing broader insight and transparency.

Given that IPA cautions against member checking and inter-judge reliability (Smith et al. 2009) this collaborative approach helped ensure interpretations remained logical and well-supported by the data.

## **Results**

Table 4 summarises two superordinate (and related sub-ordinate) themes that were generated. 'Internal Conflict' encapsulates how past trauma experiences have shaped beliefs about screening and 'Manufacturing Control' captures the participant's need to be in control to feel psychologically safe during the screening process.

[INSERT TABLE 4]

### ***Internal Conflict:***

#### *Influences of earlier experiences:*

Screening (anticipation and actual) evoked historical trauma and distress reminders; and was identified as a significant barrier in participants' narratives. For example, Robin shared an adolescent screening experience after social services removed them from their abusers:

*"...it was the first smear test. I just went there with the staff [social workers], you obviously don't do these things when you're younger. She clamped it open and she took this scrape [sample from cervix], and this water came out. I didn't suspect anything as I'd never been that before. I've never been aware of anything. And then obviously as the years went by, and I learned about miscarriage, and I thought to myself, I thought oh my god, they've given me a ummm, they've given me a miscarriage. I thought to myself oh no, I lost a baby. I thought they'd given me an illegal, an illegal miscarriage. Then that's why, it probably contributed to the reasons why I wouldn't want to go smear"* (Robin, 3, 115-129)

Robin repeatedly emphasised their lack of knowledge before the examination, stating, “*never been aware of anything*”, which was a common feeling among participants. The screening circumstances (following removal from an abusive situation) and Robin's confusion was core in developing their fear and sense of regret as represented by “*oh my god, what have I done*”. Robin’s lack of knowledge led them to believe the examination caused harm.

For Riley, their association of screening to sexual trauma was evident by their use of the term “*self-explanatory.*”

*“It’s pretty much self-explanatory...it’s painful, it’s triggering, erm contaminated and it just makes it makes you feel dirty as well because all I’ve known is from the first experience that someone was gonna go down and was when I was 7 and ... that’s always what’s gonna stick inside my head” (Riley, 9, 385-387)*

Both Bailey and Ricky found certain aspects of the screening (e.g., the position, speculum, and the pain) distressing and triggering; reinforcing their negative beliefs that screening was painful, uncomfortable, and intrusive.

*“the pain because when I had erm sex first it was really, really painful and I...and he [abuser] just carried on and carried on and carried on and then when I had smear test and I got pain up there and it just triggers something in your head...” (Bailey, 5, 189-192)*

*“negative experiences of being abused as a kid ... and having things inserted into me” (Ricky, 7, 249)*

These beliefs hindered future engagement. For example, Paige declined screening, fearing its impact on triggering trauma symptoms:

*“Just from a past trauma...and my main fear was that if I was to have a smear, I’d have a flashback or dissociate... there’s a chance that I might lash out and hurt someone... I don’t kind of want to do that, so that’s one of the major barriers ...”*  
(Paige, 2, 60-64)

Paige’s concern was the vulnerability precipitating aggression which was similarly shared by Robin that *“it just puts you in a really vulnerable position.... because obviously this area is exposed and it’s a bit, bit unpleasant.”* (Robin, 5, 213-214) which elicited feeling unsafe. Robin and Paige's fear of triggering trauma and their potentially aggressive reaction to that trauma prevented them from attending screening.

Previous gynaecological examinations unrelated to cervical screening that had been unpleasant because of the interaction with health professionals also impacted:

*“Having an abortion, that whole thing affected me quite badly...the reaction to that first doctor who said no I’m not going to do...it did put me off having anything to do with any GP or anything...”* (Charlie, 8, 334-336)

*“... I put something in there [vagina] and the doctors said next time use ice. And I thought, like, erm, and stuff like that can completely put you off as well. When people say stuff like that”* (Bailey, 3, 124-126)

Bailey and Charlie experienced shame and felt degraded by clinician’s use of language. In addition, participant's foundational experiences elicited worry and mistrust of the screening process and clinicians:

*“I suppose like you want it done but you don’t want it done. You don’t want to go with people and your worried about something happening...want a female nurse because if she were going to do anything, she would be less inclined to” (Lindsey, 3, 96-98)*

In addition, earlier experiences influenced embarrassment, humiliation, and self-consciousness, representing participant’s inner conflict:

*“I think there is the embarrassment... self-conscious and worry... I think that’s because it’s an intimate area and strangers in it” (Ashley, 4, 167-169)*

*“Quite embarrassed...just because the whole process of it because obviously it’s different to being in a relationship and actually having sex ... because that’s kinda of, not normal but that’s what happens in a relationship...” (Paige, 4, 153-157)*

Ashley felt uncomfortable by repeatedly using the term “self-conscious”, while Paige felt insecure and viewed genital exposure as “*not normal*” outside sex.

However, Charlie and Bailey were able to separate their trauma from the procedure. Charlie described disconnecting from their past to encourage screening uptake. Reframing helped Charlie remember that it was ‘*not being personal*’:

*“It comes back to that thing, we’re don’t take it personal, we understand that it’s a procedure and these are the reasons why this procedure needs to be done. And it’s in your best interest at the end of the day...” (Charlie, 7, 295-298)*

#### Importance of cervical screening role models

Participants recognised screening participation was vital for physical health and “*that you kind of need it doing, to save your life*” (Paige, 10, 419) but acknowledged it could detrimentally affect their mental well-being:

*“... to be honest with you, it's not really something that I'd happily want... I don't think it's a good thing for me [mental health], but I do think it is important” (Robin, 7, 276-278)*

The beliefs about screening and its value varied between participants. Lindsey reflected, *“I think probably younger ones don't realise how important it is today ... they choose not to go even though; obviously, everyone should have it done” (Lindsey, 7, 251-252)*. Whereas Ashley shared how their perspective of screening shifted:

*“...I think it's only the last few years that I've realised actually how important it is and... having a scare with one of mine coming back positive. It made me realise” (Ashley, 1, 15-17)*

However, it was clear that family members fulfilled a valuable role in shaping participant's perception of screening through communication and support, emphasising its importance and encouraging uptake. Ashley explained, *“my family have always told me how important it is to have it done, so it's kind of like stuck with me. If they hadn't... [I] would have probably just brushed it aside” (Ashley, 8, 342-344)*. In addition, Charlie suggested that screening was *“dependent on whether your mum has done it [screening]” (Charlie, 11, 474)* and whether or not you had support: *“I had my mum there to support me” (Charlie, 11, 238)*. Ashley and Charlie reflected on their mother's messages about screening importance and behaviour modelling. Lindsey, was a mother herself and was mindful that in having the screening she was being a positive role-model for her daughter:

*“To be safe and get tested because she's important to me. I want to make sure she hasn't got anything wrong with her... and catch it quicker” (Lindsey, 8, 285-286)*

In contrast, Ricky shared:



*“... As a youngster and my mum went for it. But no one mentioned smears to me before...bearing in mind my mum was having cervical cancer tests. So, my sister didn't mention it to me, my dad didn't mention it to me and so it was [paused] not really talked about” (Ricky, 2, 69-72)*

Ricky's repetition of “*didn't mention*” implies poor communication at home about screening, potentially influencing their views and uptake. Paige, similarly, shared “*I haven't really done anything about smears*” (Paige, 2, 47) with their beliefs based on others “*hearsay*”.

*“...why I've been put off having a smear is because people say it hurts...they can bleed a lot... it's from hearsay and ...it kind of puts you off and it makes you think, like, can I put myself through that? (Paige, 5, 227 – 230)*

Paige's admission to mental health services in adolescence limited their learning about screening at home, which was a common experience among other participants. Paige's lack of engagement in screening highlights the impact of inadequate discussion opportunities with influential family members.

### ***Manufacturing Control***

#### ***Facilitating Empowerment***

A common experience for survivors and those in forensic settings is disempowerment (Baker, 2017), therefore, facilitating control during screening is core to minimising individual's sense of vulnerability. Participants said “*I like to be in control of things*” (Lindsey, 8, 313). Control could be achieved in a range of ways.

The choice to engage with or decline screening was important. It fostered safety and facilitated empowerment:

*“... I’m glad because I don’t feel pressured because the big thing for me ... while I’m not having it done, I’m in control, but then when I do feel like I’m ready to have it done, again I’m in control. That’s, that’s a biggie for me.” (Paige, 6, 257-259)*

Sometimes participants were not psychologically ready (as explained by Paige above), other times they decided that if they were having a bad time and ‘behaving horrible’ they would decline screening for fear that the health professional would seek retribution for the poor behaviour. Being able to decline, kept them feeling safe:

*“...If I am behaving horrible and kicking off and ... risk towards others ...obviously then I’m not going to go because obviously I’m not safe... they’ll be thinking I’ve been treating people like absolute crap so why should they not do the same back. So, I’d just say no.” (Robin, 9, 373-378)*

It was not surprising that Robin was concerned about how staff may respond to their poor behaviour. After all, many participants recalled past experiences where their needs had not been respected: *“because of our past abuse...and obviously wanting people to stop and...they didn’t, so that’s always in the back of my head” (Paige, 2, 85-86)*. Knowing that there was an option to change their mind during the screening process was also an important form of empowerment:

*“I’d say stop before I was like properly exposed... if you just say don’t want to go, then you don’t have to go; I don’t have to go” (Robin, 3, 107-110)*

Participants also spoke of having familiar nursing staff as chaperones because this helped them feel in control and supported during the vulnerable procedure:

*“I went with a member of staff, and I got on very well with her...she kept tapping me on the shoulder to let me know that she was still there, and I was crying all the way through the procedure” (Riley, 3, 134-136)*

*“...sounds silly but a chaperone and that don't mind you, holding their hand and squeezing a bit of support... in my head I really want to hold someone's hand right now.” (Robin, 11, 475-479)*

Physical contact in forensic services is uncommon due to boundary issues and risk, yet touch, with patient choice and consent allows empowerment during screening. Furthermore, equipment, position, and adaptive coping skills provided control and empowerment during examinations. Riley shared feeling empowered learning about alternative screening positions, to reduce their vulnerability, feel in control and detach from trauma reminders:

*“...I don't lie on my back or my belly because of trauma. So, if I knew that I could do on the side, I think it would have been okay, so now if in future, when I do need them, I know I don't have to go back to trauma. I know I can have it laying on my side...” (Riley, 14, 630-634)*

Choice about the screening environment was also important. Participants emphasised having the test on the ward “*would basically contaminate my room*” (Riley, 12, 613) and “*trigger memories.*” (Bailey, 7, 310). Off-ward examinations were experienced as providing safety and privacy, and avoided the potential for negative environmental associations:

*“...for me that would stick out in my head thinking, oh I was in here when I had this done on the ward it's not very private...so that staff will come in not knowing that*

*someone's having that done. So, I think it's more personalised having it done at the meds centre [off-ward].” (Paige, 5, 199-203)*

Maintaining dignity was vital as participants felt more vulnerable during screening: “*you’ve exposed yourself*” (Robin, 7, 299). For Ricky, having the staff acknowledge how embarrassing screening was and put in place strategies to minimise the embarrassment was important:

*“I’ve got a bit embarrassed about stripping off and having my body shown. But they were very understanding, and they shut the curtains so you can get undressed...until you say you’re ready. I stripped off, I sat on the bed, put a blanket over me and then they asked can we come in now and I said yes, I’m ready. Then they did the examinations...” (Ricky, 8, 276-280)*

Whether or not there was a choice in whom conducted the screening was important. Some (exemplified by Bailey) preferred a female health professional, whereas others (e.g. Lindsay) focused on liking the person. In essence, this was about how much they trusted the health professional, whether that be on the grounds of gender, or instinctive response. For this group, the instinctive response could be triggered by their previous trauma:

*“if you’ve got a male doctor, you want a female doctor, you’ve got the right to say that” (Bailey, 11, 477)*

*sometimes you can just meet someone... [you] automatically know something about that person [clinician], I do not like them” (Lindsey, 3, 145).*

Paige summed this up by bringing the focus back to dignity and respect. Nothing complicated, simply feeling that you were seen and heard and of sufficient value to have the health

professional introduce themselves and build a therapeutic relationship for the duration of the screening process.:

*“...I'm not saying I want a fantastic relationship... just coming introduce themselves...I understand your concerns and your worries and stuff like that...”*

*(Paige, 7, 301-305)*

However, sometimes having a positive relationship with a health professional is a barrier for forensic patients. Robin pointed out that if screening is completed on-site by clinicians that forensic patients interact with daily, it can feel awkward to have them complete the intimate procedure. For some then, external hospital visits were seen as ‘more dignified’:

*“we see these people these people day-to-day and... if you just go to the hospital, they don't, you're just another person to them...but the staff here it's just a bit raw; I don't know if it's more dignified.” (Robin, 6, 235-239)*

Individual choice and collaborative patient-clinician discussions are vital for participants to feel safe, in control, and empowered during screening processes.

### Psychological Readiness

Creating a sense of safety through feeling in control enabled individuals to feel empowered to engage in screening. There were two parts to this, receiving the invitation and then preparing for screening.

The invitation for screening impacted on participants' psychological readiness. Upon receipt of the invite, the emphasis was on the participants to tell the staff about the appointment, and to proactively raise any worries. This could be challenging:

*“unless you tell the staff I've got an appointment booked...they won't really know. So, you need to literally need to come forward first and say I am worrying about this”*  
(Ashley, 6, 266-269).

Ricky highlighted the importance of having time to prepare for screening. They were unaware that they had a screening appointment. The shock of being informed of the appointment and the lack of time to prepare for it meant that Ricky refused the appointment. This highlights the importance of being ready to engage in screening:

*“They kept trying to coax me to go up and....said you've got an appointment and I wasn't even ready, and I didn't even know it was on that day...I said I can't I'm not ready, I'm not prepared...and they just tried to coax me to go and I said no, no.”*  
(Ricky, 5, 156-159)

Ricky shared their experience of having an appointment sprung on them and then being “coaxed” to engage with screening despite repeatedly saying “no”. They emphasised the need for staff to recognise patient’s psychological readiness, and to let patients know in advance so that they can begin to prepare for the appointment. This highlights the significance of clinicians understanding patients’ readiness and respecting patients when not ready to participate in their screening.

A solution to arranging appointments was suggested, one that was collaborative and supportive, but also more time consuming for health professionals:

*“Just basically have someone come down and be like your smear is due whatever and just go through the form with you...trying to encourage you but at the same time, be understanding if I say look, I can't go through with it because this, this and this”* (Paige, 5, 188-190)

For this group, the significance of historical trauma was closely related to their psychological readiness and preparedness to engage in screening:

*“If I was...having flashbacks again, then I would become unsettled...and I obviously then there's the concern about hurting other people if they stop me from hurting myself. So, it's just like, trying to keep myself stable but I fear that I have the smear, and something goes wrong, then that I feel like all the progress that I've made is just completely gone” (Paige, 3, 98-102)*

*“My mental health can go down pretty quick because if I'm taking you back to a place of serious trauma, and that literally throw me off all the progress that I have made. ...with like self-harm or aggression or mental health worries...” (Riley, 3, 441-446)*

Paige and Riley reflected on the negative effects of being unprepared. For Paige, the resultant deterioration of their mental health was both internally and externally expressed, whereas Riley turned in on themselves. The significant link between historical trauma and readiness in treatment was shared repeatedly by participants and is exemplified by Robin below:

*“...I think the trauma, how that's affected and where we are in treatment and how we look at things yeah, because obviously people look at things in different ways. I think if people relate it to trauma and getting it wrap up in their brain, then it could possibly de-stabilise you...” (Robin, 9, 402-206)*

Therefore, advanced planning was valued and helped individuals feel ready psychologically to engage in screening by managing trauma symptoms. However, preparation for psychological readiness takes time and involves different stages for different participants. For example, Robin shared the benefits of developing a screening plan as a way of positively reconceptualising the process:

*“ I think I just need to grow on the feelings inside that actually they are trying to help, they're not doing anything wrong. They're trying to help ...I think I could value from growing on my thoughts, the positive thoughts about it, you know, rather than just trying to bury the negative one all the time” (Robin 5, 219-223)*

This reflected the importance of screening intention and proactively shifting their focus from negativity to positive thinking. In contrast, Paige had spoken to a health professional and had written their concerns down, but was not yet ready to share them:

*“I spoke to my named nursed about it I and when I did this booklet, I did put that in there [concerns]...I've never went as far as sharing the booklet with the meds centre staff because I didn't like, follow up kind of thing”. (Paige, 2, 73-75)*

Whereas Riley collaborated with health professionals who talked through the different parts of the screening visit and process, clarifying available options at each step:

*“I didn't know how I was going to be... but I thought when “staff member X” said I am taking you...and she was just very like, gradually, talking and saying I can do this, and we will do that, if you need this, if you need help or if you need a shower. Literally prepared the whole thing.” (Riley, 16, 706-713)*

The joint planning through talking was appreciated greatly, not least because it was done gradually at Riley's pace. Riley felt informed and able to make their own decisions. Similarly, although Ricky had mentioned a negative experience where staff had sprung an appointment and then coaxed Ricky to attend, they also spoke about how a compassionate, personalised approach with planning made them feel in control and psychologically prepared:

*“This time was very helpful, the people and the advice...if you want me to come down to the wards and talk to you, I'll come talk to you. If you want to go up there, sit and*



*have a drink and talk about your smear and that and if you don't want to have it done you can go back down to the ward until you find a better place in your mind to have it done.” (Ricky, 3, 80-84)*

Screening preparation fosters psychological readiness, promoting successful and safe uptake which provides participants with “*a sense of achievement*” (Paige, 7, 284) and “*not scared to have it done anymore*” (Bailey, 5, 207). This is a powerful process in reconceptualising historical distress associated with screening and can improve future uptake:

*“Probably put me at ease like thinking after everything that's happened to my past that I kind of have been strong enough to go through something I have never been strong enough to go through.” (Paige, 7, 291-293)*

#### Learning, knowledge and having a shared experience

Participants' history and prior experiences were essential in allowing for psychological readiness, fostering safety for empowerment and control in screening uptake. Participants' views on peer support in the ward varied. Some felt “*I wouldn't ask for peer support...I wouldn't think that would make it any better*” (Robin, 11, 470), while others found it motivational for attending screenings. Ricky and Ashley shared their experiences of being supported or supporting others:

*“My friend went... “patient x” said, go, it doesn't hurt ...you'll be fine, and I thought, right, I'll go and I went and...it was fine” (Ricky, 2, 39-42)*

*“...now when I hear people saying, oh no I don't want to go. Now I tend to be like no you need to...you kind of pass it on [laughs]. But like talk to me and then I so it comes in like the support.” (Ashley, 8, 353-358)*

Ricky initially hesitated but their peer's reassurance motivated their screening uptake, whereas Ashley assumed the role of encouraging others by emphasising the importance of the examination. There are recognised benefits of shared experience in promoting engagement by peers, but how support is delivered is a fine balance between "*encourage each other without overstepping*" (Charlie, 11, 489). Participants shared ideas for supporting peers to engage in screening:

*"I think you should make a book with other patients that have had this smear test and how it's gone and if there is other patients coming in from a different hospital or somewhere else and they can read it and see it's not actually that bad and have it done"* (Bailey, 12, 84-487)

Bailey described sharing positive experiences of screening uptake, with Charlie similarly highlighting mutual understanding as the key to encouraging others, emphasising "*someone who was more relative*" (Charlie, 4, 142). Ultimately, patients felt empathy and connection with others "*knowing that everyone is going through it, all-female staff, patients...*" (Bailey, 8, 346-347), which aided their engagement and sense of understanding.

Furthermore, participants sought to deepen their screening knowledge collectively as they became aware of their prior lack of access to information. The more they learned, the more they were able to question their assumptions and past behaviour. For example, Robin had avoided screening due to fear of potential damage to their body:

*"Never even thought that it doesn't go near that area [womb]...that changes everything really"* (Robin, 4, 172-174).

Robin and Paige highlighted not just the lack of information, but the lack of accessible information:

*“judging on information I’ve got which isn’t [laughs] a lot is...I think there should be a bit more information available because I don't actually know a lot really” (Robin, 14, 620-622)*

*“some of the information [in the service] wasn’t completely easy to read” (Paige, 4, 178).*

Participants in both services appreciated new learning initiatives like screening promotion, booklets, and group-based education for optimal and collaborative learning in a safe environment:

*“in like the group...Like people get embarrassed when you say that a word like that vagina and... they don't want to come to groups because of it. But ...use slides and then talk about it, a little laugh and joke about it. But at the same time, be serious and like people like feel free to ask any questions. And if we do you or if you still want to talk about it before if we do we can before we move on. So, it really helps because people don't understand it” (Bailey, 5, 220-226)*

In addition, participants noted that individuals often enter forensic services from other hospital or forensic settings, some from a young age. They felt strongly that there was a responsibility on the part of the health setting to ensure that in-patients were educated about health protective behaviours:

*“Basically, when people come in... people come here at the age of 18, and I just feel like the more people know about stuff like this, then sometimes the easier it can be for them. Like I say, mentally preparing themselves” (Paige, 9, 384-386)*

Proactively providing supportive education opportunities can begin the process of helping individuals to feel sufficiently psychologically prepared and supported to be able to access screening.

## **Discussion**

This study to understand how the trauma history of those in forensic settings affects their screening experiences and perceptions. Using IPA analysis, eight semi-structured interviews generated two superordinate themes "Internal Conflict" and "Manufacturing Control".

The 'internal conflict' theme reflected how past trauma influenced participants beliefs about screening which impacted screening uptake. Participants spoke about how the screening process could trigger memories of past distress which contributed to their conflicted views about screening. The reported experiences of intrusive thoughts, dissociation and emotional distress during examinations are also found in research focusing on those who have experienced interpersonal trauma (e.g. Ackerson 2012), adolescents menopausal women, women with disabilities and those with a history of trauma (e.g. Bates, Carroll & Potter, 2011), survivors of sexual abuse (e.g. Cadman et al., 2012) and survivors of childhood sexual abuse (e.g. Farrow et al., 2018).

Our participants recognised the importance of screening uptake, but struggled with barriers including the examination triggering past trauma, being intrusive, feeling embarrassed and self-conscious and fears that the screening would harm their body. This is consistent with previous research conducted with survivors (Farrow et al., 2018 Waller et al., 2009; Wilding et al., 2020). Research has also shown that survivors report experiencing psychological distress from nonroutine-examinations (Stevens et al. 2017). Our participants had similar negative experiences from other gynaecological examinations post self-harm, assault, or pregnancy.

These experiences in-turn increase distress and affect participants' subsequent screening participation (Watson, 2016).

The theme 'manufacturing control' illustrated how participants were able to (or wanted to) find ways of creating control in an environment where they had little control. Being able to do this, supported the development of psychological readiness and empowered participants to engage in screening. This finding is consistent with prior research on compassionate care by healthcare professionals for survivors during screening (Gesink & Nattel, 2015).

Our participants highlighted the importance of empowerment and feeling in control at all stages of the screening process. This aligns with the provision of trauma-informed gynaecological care (DeMaria et al., 2022; Grillo et al., 2021; Kirkner, Lorenz, & Ullman, 2021). Therefore, the role of control and feeling safe is core to the successful and continued screening uptake (e.g. Gesink & Nattel., 2015). This is particularly pertinent for our participants who historically have had control removed from them.

Understanding patients prior experiences and being willing to listen and adapt procedures to maximise the comfort of the patient is core to developing psychological readiness and increasing uptake of screening. Indeed, Clarke et al. (2023) noted that there was a high prevalence of historical sexual abuse in forensic hospital patients recorded in clinician's notes. This indicates that professionals are familiar with participants' backgrounds. However, recording information in notes is not the same as exploring the impact with each individual. Our study shows how individual narratives are core in understanding attitudes and behaviours towards screening and resonates with the work of Quinn (2022) who wrote about increasing uptake through trauma informed care. Developing ways for clinicians to enhance their understanding of the impact of participants' reproductive health backgrounds is essential and an area of development.

Another aspect of trauma-informed gynaecological care involves professionals offering targeted, individualised, and holistic approaches (Raja et al., 2015). For example, support from familiar staff members was identified as being essential. Our study emphasised the role of regular staff as chaperones, opportunities for patient to build relationships with practitioners and conducive screening settings (also see Gesink & Nattel, 2015). The opportunity to prepare in advance, receive peer support, and increase their knowledge was valued by our participants.

### Clinical Implications and future research

The study focuses on the screening experiences of those in forensic services, a notably underrepresented population. We are mindful of the current reality of service provision in this time of economic crisis and offer recommendations for enhancing screening uptake in this population that we believe could be implemented with minimal costs (financial and time). Indeed, increasing the psychological readiness of patients to take up screening, will remove the need for repeated appointments and will reduce the triggering reported by our participants. We suggest four key areas: policy development, individualised support plans, education and resources and staff training (Table 5) to allow and enhance trauma-informed cervical screening practices.

*[INSERT TABLE 5]*

People in secure services are hard to reach and are underrepresented in research. This study focused on participants from two national services and two security levels, making findings transferable to other medium or low-security levels challenging. We are also mindful that participation bias may occur since those open to discussing their experiences are more likely to take part. Our participants were mainly Caucasian females; more research on intersectional factors such as race, gender identity, sexual orientation, socioeconomic status, and those with neurodiversity is needed. Exploring how these intersectional factors influence individuals'

perceptions of and access to cervical screening would help to identify additional barriers or facilitators specific to diverse subgroups within this population. This could inform tailored interventions that not only improve the screening process but also ensure that it is inclusive and responsive to the diverse needs of forensic inpatients. By considering these dimensions, future research has the potential to deepen our understanding of how various factors contribute to healthcare experiences and outcomes, ultimately enhancing the effectiveness of cervical cancer prevention efforts among this vulnerable group.

### **Conclusion**

Our study deepens our understanding of the screening experiences (challenges and facilitators) of forensic patients, an underrepresented, under-researched population. The experiences of our participants highlight how we can both improve their experiences and increase uptake of cervical screening. This is particularly important for this population who are at significantly greater risk of developing cervical cancer.

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Table 1: Sample Characteristics

Participant	Age	Last Offered Cervical Screening	Current Cervical Screening status	Other Gynaecological Examinations	Trauma History	Primary Mental Health Diagnosis
Riley	33	2022***	Accepted ◊	Y- after sexual assault	Physical, Sexual & Emotional abuse	Emotionally Unstable Personality Disorder
Bailey * ▼	32	2022***	Accepted ◊	Y – self-harm	Physical, Sexual, Neglect & Emotional abuse	Emotionally Unstable Personality Disorder
Charlie **	46	2022	Accepted	Y – STI, Birth, Routine medical	Termination of pregnancy & abusive intimate relationship	Schizophrenia
Lindsey	41	2022	Accepted	Y - Birth	Physical, Sexual & Emotional abuse & abusive intimate relationship	Schizoaffective and Emotionally Unstable Personality Disorder
Robin * ▼	31	2021***	Declined	Y – after sexual assault, routine medical	Physical, Sexual, Neglect & Emotional abuse & Abusive intimate relationship	Schizophrenia and Post Traumatic Stress Disorder (PTSD)
Ashley	31	2021***	Accepted	/	Bullied by others, termination of pregnancy & Abusive intimate relationship	Emotionally Unstable Personality Disorder
Ricky **	54	2022***	Accepted ◊	Y – Self-harm	Physical, Sexual & Emotional abuse & Abusive intimate relationship	Emotionally Unstable Personality Disorder
Paige* ■	27	2022***	Declined	/	Physical, Sexual, & Emotional abuse, miscarriage & Abusive intimate relationship	Emotionally Unstable Personality Disorder

\*Eligible for HPV vaccination; ■ HPV offered/ accepted; ▼ declined/ not offered HPV vaccination; \*\* (peri) menopause; \*\*\* offered first cervical screening in forensic services; ◊ previously declined cervical screening

**Table 2: Study's inclusion and exclusion criteria**

<b>Inclusion Criteria</b>	<b>Exclusion Criteria</b>
<ul style="list-style-type: none"> <li>• Inpatients who were assigned female at birth</li> <li>• Eligible for cervical cancer smear tests (by age or medical reasons)</li> <li>• Considered by the Responsible Clinician (RC) to have capacity give written informed consent</li> <li>• Ability to speak and read English to provide written consent and engage in an interview</li> <li>• 1 to 1 escort ratio (to allow interviews to be completed solely by the Principal researcher without the presence of other individuals)</li> <li>• To be within the Containment, Control and Regulation, Exploration and Change or Integration and Synthesis stage of their treatment which aligns with the trauma-informed therapeutic treatment model of both research sites.</li> <li>• The clinical team have assessed the patient's ability to demonstrate and use adaptive coping strategies to cope with the possible emotional responses that the interview may evoke. This will have been assessed by patients having completed the skills-based treatment (e.g., grounding techniques, distress tolerance, emotional regulations, communication skills, distress signature, sensory interventions as some examples) and using the developed skills which forms as part of usual care pathways for the women.</li> <li>• A history of trauma which will be assessed through patient clinical records (although patients will not be required to discuss this).</li> </ul>	<ul style="list-style-type: none"> <li>• Not eligible for Cervical cancer smear tests (due to age, e.g., &lt;25 years)</li> <li>• Not considered by the Responsible Clinician to have capacity to provide written informed consent</li> <li>• Unable to speak and read English to provide written consent or engage in an interview</li> <li>• Acutely unwell where higher intensity nursing is required, e.g., being nursed in seclusion or Long-Term Segregation, Mechanical Restraint</li> <li>• Pending criminal charges</li> <li>• Within the Safety stage of treatment</li> <li>• A formal diagnosis of Intellectual Disability which would impact the ability to provide consent and participate in the interview</li> <li>• The clinical teams have assessed that the interview is likely to cause a deterioration in mental state (e.g., limited adaptive coping strategies)</li> <li>• The clinical team have assessed that participation in the interview is likely to increase the risk to self (e.g., self-harm) or others (e.g., violence)</li> <li>• Undertaking Trauma Therapy relating to historical abuse</li> <li>• Active investigations around gynaecological care</li> </ul>

Table 3: IPA Process

<b>Steps</b>	<b>Description of the analytic process</b>
<b>1. Initial Coding</b>	Each transcript was read at least twice, facilitating immersion in the data. The analysis involved attending to each case, line-by-line annotations (exploratory coding) identifying descriptive, linguistic, and conceptual aspects to develop an in-depth understanding of individual accounts (Smith et al., 2009).
<b>2. Experimental statements</b>	Codes were grouped to form experimental statements
<b>3. Personal experimental themes (PETs)</b>	Connections across the experimental statements were searched for to form personal experimental themes. This allowed for broader superordinate themes and subordinate themes to be developed. The idiographic approach of IPA aims to offer insights into each participant's narrative, and therefore, analysis was completed for each individual in turn.
<b>4. Group experimental themes (GETs)</b>	Once all transcripts had been individually attended to, exploring how the themes connected across participants was undertaken to develop master superordinate themes (group experimental themes). This allowed identifying convergence and divergence within the data.

Table 4: Overview of themes

Master Subordinate Themes	Sub-Themes
<p><b>1. Internal Conflict</b></p> <p>This theme encapsulates how past trauma experiences have shaped beliefs about screening. This is illustrated through two subthemes representing influences of earlier experiences and the importance of screening role models. This theme shows how previous traumatic experiences and understanding the value of screening can create an internal personal tug-of-war experience for individuals, affecting screening uptake.</p>	<p><b>Influences of earlier experiences</b></p> <p>This subtheme focuses on the influences of foundational gynaecological examination experiences in shaping beliefs and engagement with healthcare professionals.</p> <p><b>Importance of cervical screening role models</b></p> <p>Although historical experiences hindered screening engagement, participants recognised the health benefits of screening. This theme focuses on personal beliefs about the value of screening, including external influences combined with the personal tensions creating barriers to screening uptake.</p>
<p><b>Manufacturing Control</b></p> <p>This theme captures how participant's need to seek to feel in control of their cervical screening experience in order to feel psychologically safe. Sub-themes include facilitating empowerment, psychological readiness, learning, knowledge and having a shared experience. This theme illustrates how services create a sense of safety which facilitates psychological safety and empowerment as well as opportunities to learn about screening and feel support by their peers. Individuals implement strategies to feel empowered and in control during the screening process as well as feeling mentally prepared to have their screening. The absence of these factors can have detrimental impacts on participants' mental health, recovery, and risk and can contribute to feeling disempowered and powerless about screening.</p>	<p><b>Facilitating Empowerment</b></p> <p>This subtheme highlights the significance of empowerment in the screening process as a means of fostering a sense of safety. Empowerment is understood as the process through which an individual gains a strong sense of control over their circumstances, enabling them to actively engage in the screening process.</p> <p><b>Psychological Readiness</b></p> <p>This sub-theme emphasises participants' psychological readiness for screening, ensuring it aligns with their recovery to, not compromise progress or adversely impact their mental health, and to support ongoing preventive healthcare participation.</p> <p><b>Learning, knowledge and having a shared space</b></p> <p>This sub-theme emphasises the power and importance of learning about cervical screening, sharing experiences, and receiving support from peers.</p>



Table 5: Clinical Recommendations

<b>Clinical Recommendations</b>	<b>Recommendation Description</b>
<i>Policy Development:</i>	<p>We are mindful that experiences of screening may differ between services. We suggest that a formalised Forensic Division Policy, within the NHS Trust of the hospitals and local service procedures with user involvement are developed. To enhance cervical screening practices, the policy should be informed by six principles of trauma informed care which would support trauma-informed processes for planning and monitoring screening. The policy would enable the coordination of physical health, clinical, and nursing teams to reduce ad-hoc appointments and ensure effective trauma-informed screening. Suggested actions that may wish to be integrated into the policy include:</p> <ul style="list-style-type: none"> <li>• Screening environments should be in a private space, away from the ward to enhance patient dignity and reduce potential distress. These spaces should be designed to feel safe and welcoming while also allowing patients to have access to personal items (like blankets or soothing materials) to support a sense of control and comfort.</li> <li>• Appointment flexibility to enable appointments to be scheduled at times that minimise disruption to the patient’s routine and allows for sufficient preparation time to reduce anxiety and offering the ability to reschedule if needed. This would prevent the experience from feeling rushed or invasive.</li> <li>• Build trust by initiating clear and supportive communication well in advance of the invitation process. Explain the purpose clearly, and in a non-pressuring way, provide tailored information to meet individual needs, and offer patients the opportunity to ask questions, and discuss concerns with staff prior to the appointment to promote collaborative care.</li> <li>• Effective coordination among clinical, nursing, and MDTs to ensure patients physical and psychological needs are met and enables planning which minimises last-minute appointments, reducing patient distress. This may also include post screening support with a designated clinician to assist patients in processing distressing emotions triggered by the screening.</li> <li>• Culturally Adapted Practices recognising the diverse backgrounds including gender, ethnicity, and communication needs of forensic patients.</li> <li>• Ongoing monitoring and regular review of trauma-informed screening practices, involving staff and patients, should be included in the policy to ensure responsiveness to patient needs and timely addressing of gaps or challenges.</li> </ul>
<i>Individualised Support Plans:</i>	<p>Individualised screening support plans collaboratively developed by patients within the service are recommended. This would allow individual preparation before the examination, facilitate choice and empowerment, and increase self-efficacy and uptake. The importance of choice and collaboration during screening has been identified as critical by survivors. Each plan should aim to capture the individual’s broader reproductive history, check their understanding</p>

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of the screening process, highlight where they have choice (e.g., speculum, position of the procedure etc). This aims to minimise distress, re-enacting trauma, fear, and anxiety during the examination. This could be extended to include other gynaecological examinations where appropriate.

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*Education and Resources:*

The Royal College of Obstetricians and Gynaecology (2019) recommends access to reliable and clinically age-appropriate information on women's health, including on screening. Developing and embedding educational resources about screening are recommended. Accessible co-created resources should be provided for individuals.

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*Staff Training:*

Nurses have reported feeling anxious about screening causing harm and distress to survivors. Specialist training is recommended so staff feel equipped to offer adequate, trauma-informed support to survivors during screening. Training should cover understanding trauma, the importance of cervical screening, and practical skills to recognise patient's emotional distress and how to respond appropriately. Continuous support, such as mentoring, supervision, and ongoing professional development can aid patient care quality and staff well-being and staff anxiety while increasing their confidence, to enhance patient screening experiences.

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