Promoting and Sustaining Sexual Health as a Health Resource in Prisons - A Scoping Review

*ADA SVARSTAD SOLBERG (1,2), EMBLA VALDE (2,6), KJERSTI HELGELAND (5), LILJA MARLEN JOHANNESSEN (3), MALENE WØHLK GUNDERSEN (3), KRISTINA ARESKOUG JOSEFSSON (2,4).

Abstract

Sexual health is a neglected topic in prisons, even though sexual health is a basic human need that includes physical, mental, social and spiritual aspects. There is limited knowledge concerning how to promote and sustain the sexual health of prisoners. The aim of this study was to increase knowledge of sexual health promotion as a health resource in prisons. By conducting a scoping review, we searched for sexual health-promoting activities, approaches or experiences from prisons globally. The findings included sexual health interventions covering conjugal visits and sexual health promotion through education and collaboration. There are connections between mental health and sexual health for prisoners, and sexual health also influences quality of life. In conclusion, it is evident that there is a significant imperative for further research, interventions and measures in this domain to ensure holistic rehabilitation for prisoners.

Keywords: health promotion, health resource, prison, sexual health, scoping review

* 1. Department of Nursing and Health Promotion, Oslo Metropolitan University, Norway, 2. Department of Behavioral Sciences, Oslo Metropolitan University, Norway, 3. University Library, Oslo Metropolitan University, Norway, 4. Department of Health Sciences, University West, Sweden, 5. Sustainable Passions, Norway, 6. Oslo welfare administration, Pro Sentret, Norway.

This is an Open-access article under the terms of the Creative Commons Attribution 3.0 Unported License (http://creativecommons.org/licenses/by/3.0/), permitting all use, distribution, and reproduction in any medium, provided the original work is properly cited.
1. Introduction

1.1 Sexual health in prisons

Experience from practice in Norway suggests that sexual health seems neglected in prisons despite prisoners being overrepresented in statistics for sexual abuse, both as victims and perpetrators (Revold, 2015). Many prisoners struggle with compound and complex problems (Helsedirektoratet, 2019), which can affect their sexual health, in addition to their health being affected by their imprisonment. This complex situation requires a comprehensive approach towards health when working with prisoners. The Norwegian government emphasises the importance of good rehabilitation, including a holistic view of health (Departementene, 2017).

Sexual health is a basic need for all people. It includes mental, physical, social and emotional aspects (World Health Organization [WHO], n.d.), and is important for quality of life (Flynn et al., 2016; Helse- og omsorgsdepartementet, 2016). Sexual health also includes ensuring opportunities for safe sexual experiences free from violence, discrimination and coercion (WHO, 2015). This article is based on the broad working definition of sexual health, written by WHO (n.d.), and it should be mentioned that there are contextual differences in how sexual health is understood. Also, prisons differ from one to another, both within the same country and across borders. Such differences must be considered when viewing the article's findings and perspectives. A prison is an institution where a prison sentence is carried out, and people who are imprisoned have the same rights as the rest of the population, with the exception of deprivation of liberty (Evensen et al., 2024). In the article the context ‘prison’ is seen as a facility where people are confined against their will and denied a variety of freedoms under the authority of the state, generally as punishment for various crimes. Prisons differ regarding restrictions, as there are different levels depending on crime severity. There are also national variations in restrictions, like the denial/allowance of conjugal visits, and this is specified in relation to the different articles if it occurred. However, the more closed a prison is, sexual health issues are likely to be more present and thus actions to promote sexual health should be viewed in relation to the level of confinement and restrictions of the prison. The article will not discuss any further how prisons as an institution vary, but restrictions related to sexual health and prisons will be brought forward when described in the included articles.

1.2 Sexual health promotion

Worldwide, there is an increased focus, recognition and support for sexual health and rights and an understanding that sexual health is a human right (United Nations, 2023; United Nations Association of Norway, 2023; WHO, 2015). In recent years, there has also been strong support for sexual health as part of public health and as a central aspect of human health, through the spreading of a holistic view of the
human being where the focus is sexual health promotion (Coleman, n.d.). Health promotion, including sexual health promotion, is about having access to knowledge and information, and being given the opportunity and tools to make good health choices for oneself (Centers for Disease Control and Prevention [CDC], 2010). Sexual health is thus a natural part of public health. To work with sexual health promotion requires both national and local measures, adopted in a holistic and inclusive way. By presenting sexual health promotion as a public health need, this can also lead to de-stigmatisation of sexual minorities or people seeking information or treatment concerning sexual health (CDC, 2010).

1.3 Sexual health in prison

Sexual behaviour in prisons has historically been a taboo subject (Horley, 2019). However, it is known that sexual activities do take place in prisons among prisoners. A recent quantitative study from a Finnish prison found that the desire for partnered sex did not seem to diminish greatly when a person is incarcerated (Gunst et al., 2022). Few studies have been conducted on access to sexual health services for prisoners (WHO, 2015). People who are deprived of or do not have access to health services or information related to sexuality risk having poor sexual health. There is also reported lower levels of sexual desire for prisoners compared with the general population (Gunst et al., 2022).

Consensual sexual relations occur in prisons despite prohibitions, and male prisoners have a higher risk of sexually transmitted diseases (STD) than men outside prison (Horley, 2019). Causal links to this risk are described both through risk factors in life before the imprisonment and in interactions with fellow prisoners. The diversity of sexual behaviour makes the situation in prison complex, but recognising and being open to this complexity can lead to a safer prison environment for both prisoners and prison staff (Horley, 2019). There are also differences related to sexual health and quality of life depending on if there are men and women in the same prison, and if the prisoners can have heterosexual partners in prison (Carcedo et al., 2012; Carcedo et al., 2011).

Prisoners depend on the correctional service taking responsibility for providing or supporting access to sexual health services. In the Norwegian guide for health and care services for prisoners (Helsedirektoratet, 2016), it is stated that prisoners must have equal health services as the rest of the population. Furthermore, the guide points out that the service for STDs must include ‘mapping, investigation, treatment, guidance and information for prisoners’ (p. 27). Sexual health is not mentioned in any other way in the guide, thus it is likely that sexual health is under-communicated when focusing on sexual health related to the sexual well-being of prisoners from a broader perspective.
A general health promoting aspect for prisoners is seen in the Norwegian project PRISONHEALTH, which studies how prisons can be both health promoting and contribute to personal growth and development for their prisoners (Ugelvik, 2023). Further, it has in recent years been seen a focus on gaining knowledge surrounding health topics within substance use, mental and physical health as well as human rights in Norwegian prisons (Bukten et al., 2016; Lundeberg and Smith, 2023; Rognlien and Ikdahl, 2023; Svendsen et al., 2023; Ugelvik et al., 2023). Despite this, we see that there is a lack of research on sexual health promotion in Norwegian prisons. However, in the past few years, two qualitative surveys concerning sexual health in prison have been conducted. One survey covered employees and showed that staff consider prisoners' sexuality and sexual health to be an important topic, but not as a focus of their work (Høyborg and Urdal, 2015). The second survey was with male prisoners, who said that having a functioning sex life in prison was important for their mental health and ability to relax (Kvalevåg, 2017). In addition, it was found that closeness, emotional contact and a relationship with a partner were topics that the prisoners were interested in and wanted to talk about.

In this scoping review, we want to explore sexual health as a health resource for prisoners. The purpose is to gather an overview of research articles focusing on a positive approach to sexual health in prisons, explore prominent themes further and pinpoint areas that need further research. These could be sexual health-promoting activities, approaches or experiences from prisons globally. One positive approach towards sexual health could for example be to allow prisoners to focus on sexual well-being, intimate relationships and sexual health rights. To identify and explore research articles containing sexual health as a health resource for prisoners, the following research questions were chosen:

- What is known about the concept of sexual health as a health resource in prison?
- How can sexual health promotion be done in prison?

The article starts out from how sexual health can be understood broadly and in light of the World Health Organization's working definition of sexual health, thereby placing sexual health in the context of health promotion in prison. The methods of this scoping review are described in the article's second chapter. Further, the results from the literature search are written and set up individually before being summarised and linked to the research questions. The findings will be discussed in light of existing knowledge in the area, and the need for further research.
2. Methods

2.1 General remarks about the method

This review follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018). The method is based on the framework originally presented by Arksey and O’Malley (2005) and further developed by Levac et al. (2010). The protocol was registered with the Open Science Framework: https://osf.io/q6taf (Date created: 12.25.2022. Date modified: 02.24.2023).

2.2 Literature search

The literature search was conducted by university librarians and designed in cooperation with the other members of the research group. The peer-reviewed literature search was executed in February 2023, in the following databases and online resources: Medline (Ovid) to cover general healthcare articles, APA PsycINFO (Ovid) for mental and sexual health, Criminal Justice Abstract (EbscoHost) for criminology, Epistemonikos for systematic reviews, as well as the multidisciplinary database Academic Search Ultimate (EbscoHost) (see Appendix 1 for the full electronic search strategy for the PsycINFO database). Additional searches were conducted in Google Scholar. To ensure the identification of Scandinavian studies published through local channels, complementary searches were carried out in Scandinavian resources such as the library catalogue Oria, and Norart (the Norwegian and Nordic index for periodical articles), SwePub and Research Portal Denmark. Finally, experts were contacted to identify potentially missing but relevant studies.

The search strategy was developed to identify studies on positive sexuality and prisoners, e.g.: ‘prisons’, ‘prisoners’, ‘correctional institutions’, ‘jails’, ‘inmates’ combined with ‘sexual health’, ‘sexuality’, ‘reproductive health’, ‘sexual aids’, ‘intimacy’. The search syntax included subject headings where available, and text words such as title, abstract and author keywords throughout the databases. The literature search was limited to publication date from 2002 and was in a few cases limited to journal publications. No limitations on language were applied. EndNote® (Clarivate Analytics, https://endnote.com/) was used to remove duplicates before the references were uploaded to Rayyan® (Rayyan, https://www.rayyan.ai/) for screening. The selection process from the literature search is presented in the flowchart in Figure 1, together with numbers of articles screened, duplicates removed, and full-text documents screened.
Research articles were considered for inclusion if they focused on the following criteria: prisoners or those who had retrospective experiences of life in prison, adults, positive sexuality, measures with the intention to promote positive sexual health. The literature search was limited to articles published in or after 2002. Articles written in English, Norwegian, Swedish or Danish languages were included.

Additional inclusion and exclusion criteria were: Adolescents/youths under 18 years, youth institutions, current sexual health of people who had been previously incarcerated, experiences of life after prison, arrest (short time), articles that concerned...
STD reduction without any further approach towards sexual health promotion. The following publication types were excluded: non-peer-reviewed articles, reviews, book reviews, letters, videos, commentaries, letters to editors.

Articles found in the literature search were screened by the project group through Rayyan. The article screening was done blindly by the researchers in teams of two, based on the inclusion and exclusion criteria. The complementary literature search in central Scandinavian resources did not lead to any articles being included after screening of titles and abstracts.

Reading of the remaining full-text articles was performed by two researchers independently. Thereafter, they discussed their reason for inclusion/exclusion of the papers until consensus was reached. All selected papers were also critically appraised by those two authors to identify methodological shortcomings and potential biases in order to assess their credibility. Articles that did not meet the inclusion criteria after a full-text reading were marked and documented in an Excel file, with descriptions of why they were not included further in the study. Key characteristics of each article included were documented in the Excel file. Subsequently, the rest of the research group read all the included articles for the data extraction.

The quality of the included articles was assessed with the Mixed Methods Appraisal Tool (MMAT) (Hong et al., 2018) by two of the researchers independently. The MMAT was chosen as it covers the assessment of various methodologies. After the independent assessments, the assessing researchers had a consensus meeting to resolve any discrepancies. The quality assessment showed that all the included articles were of high quality, as all but one article achieved positive responses to all assessment questions. One article (Carcedo et al. 2008) had one response of ’Can't tell’ on the question of ‘Is the risk of non-response bias low’.

2.2 Data extraction

Data extraction was carried out manually by four of the researchers separately. Study method, participant group, year, purpose of the study, findings and other information related to this study’s research questions were extracted. After the individual data extraction by the researchers, there was a consensus meeting to ensure agreement on the extracted data prior to analysis.

2.3 Data analysis and presentation

The characteristics of interest for each source of evidence were presented, together with a narrative analysis to answer the research questions. This was done by two of the researchers and thereafter discussed with the research group to reach consensus.
3. Results

3.1 Included articles and key findings

Due to the lack of research in this field only 10 articles are included in the analysis. It’s important to note that some of these articles come from the same researchers. These articles are presented sequentially below for a comprehensive review of the topic.


Participants and study location: 211 adult female prisoners from a midwestern department of corrections, USA.

Purpose: The study aimed to understand how romantic relationships affect the wellbeing and behavior of female prisoners, focusing on the perceived relationship satisfaction and social support provided by the relationship.


Key findings: The study found that incarcerated females in romantic relationships, especially same-sex or prison-based, experienced increased anger, hostility and disciplinary issues. While reporting satisfaction and support from their relationships, these factors did not predict well-being. Further research is needed to explore the complex dynamics of romantic relationships in the prison context.

Article 2. Carcedo et al. (2008). ‘Men and women in the same prison: Interpersonal needs and psychological health of prison inmates’

Participants and study location: 118 male and 70 female prisoners, Spain.

Purpose: The study aimed to investigate the gender differences in the state of interpersonal needs and psychological health of male and female prisoners who live in the same prison.


Key findings: The study discovered that nationality and age aren’t significant factors in prisoners’ psychological health. Lower levels of social loneliness and higher levels of sexual satisfaction is related to higher levels of psychological health for prisoners. Women report lower social loneliness and romantic loneliness and higher sexual satisfaction than men.


Participants and study location: 70 male and 70 female prisoners, Spain.

Purpose: This research aimed to explore differences in loneliness, sexual satisfaction and quality of life among three groups of prisoners: those in a heterosexual relationship with a fellow prisoner, those with a partner outside prison and those without a partner.

Key findings: The study found that not having a partner were strongly linked to romantic loneliness. Prisoners with a heterosexual partner inside prison had lower level of romantic loneliness and a higher level of sexual satisfaction and global, psychological and environmental quality of life, than prisoners with a partner outside (which they could meet in conjugal visits) or without a partner.

Article 4. Carcedo et al. (2012). ‘Heterosexual romantic relationships, interpersonal needs, and quality of life in prison’
Participants and study location: 55 male and 64 female prisoners, Spain.
Purpose: The study aimed to investigate the moderating effect of having versus not having a heterosexual romantic partner inside the prison on the relationship between interpersonal needs and quality of life.
Key findings: The study found that lower social loneliness and higher sexual satisfaction are linked to better overall quality of life for prisoners. These factors are significant for prisoners without a partner, whereas only social loneliness matters for those with a partner inside. Sexual satisfaction notably affects global quality of life, psychological health and environmental quality. Lower sexual satisfaction is associated with lower levels of quality of life for single prisoners. Prisoners with a partner inside are moderately sexually satisfied, while those without express high dissatisfaction.

Participants and study location: 91 male and 82 female prisoners, Spain.
Purpose: The purpose of the study was to investigate the relationship between sexual satisfaction and psychological health for prisoners. The study specifically focuses on two main aspects: 1. Association between sexual satisfaction and psychological health. 2. The moderating effects of heterosexual activity level (abstinent vs. non-abstinent) and gender on the relationship between these two variables.
Key findings: Sexual satisfaction significantly predicted psychological health in abstinent prisoners. Heterosexually abstinent prisoners had lower levels of sexual satisfaction than the heterosexually active ones. Factors linked to higher psychological health included being a foreign prisoner, lower social loneliness, a shorter time to parole and higher sexual satisfaction. The study underscores the importance of sexual relationships for prisoners’ psychological well-being, and the prison provides support through condom distribution, sexual education, STD/HIV testing and relationship supervision to prevent violence.
Article 6. Carcedo et al. (2019). ‘Sexual satisfaction and mental health in prison inmates’

Participants and study location: 110 male and 113 female prisoners, Spain.
Purpose: The primary aim of this study was to explore the connection between sexual satisfaction and mental health, with a focus on two significant moderators: partner status and sexual abstinence.
Key findings: The study found that sexually abstinent prisoners had lower levels of sexual satisfaction than those with a partner outside or inside prison, and lower mental health independently of the current romantic status, than sexually active prisoners. Among those with a partner outside or inside prison, the sexually abstinent group had lower levels of sexual satisfaction and mental health than sexually active prisoners. Low sexual satisfaction (only for prisoners with a partner outside or inside the prison) correlated with poorer mental health. Increase in sexual satisfaction was related to an improvement in mental health. The prison houses both women and men. Most of the sexual relationships took place in the visiting rooms, but other non-facilitated parts of the prison were also used, such as the kitchen, the gym, the laundry room or out on probation. The findings are self-reported by the prisoners and shows no apparent facilitation for sexual relations outside of the use of prison visiting rooms.


Participants and study location: 8 female prisoners, Israel.
Purpose: Identify and analyse female inmates’ attitudes toward conjugal visits, describe the dynamics of conjugal visitations and examine the meaning of conjugal visitation programs to the participants.
Method: Qualitative in-depth semi-structured interview.
Key findings: Conjugal visits were seen as a positive program in prison, providing emotional vitality, relaxation and renewal for prisoners. While the sexual aspect was important, personal dialogues took precedence. Tensions arose around prisoners’ love for their partners, fears of abandonment and pressure for sexual compliance. Concerns included the need for universal access, improvements in visitation conditions and a desire for more frequent and longer visits.


Participants and study location: RFSU (Riksförbundet för sexuell upplysning) educators: 3 male, 5 female, and SPPS staff: 3 male, 3 female. Sweden.
Purpose: To explore how RFSU educators experienced their work, and of how staff within SPPS experienced sex education provided to young, incarcerated men, via
a project initiated by and in cooperation with the Swedish Prison and Probation Services (SPPS).

*Method:* Qualitative exploration by doing interviews.

*Key findings:* All the participants appreciated the value of the project. Sex educators underwent specific training relevant to the task of providing sex education in prison. There were experienced homo- and transphobic, racist and sexist attitudes among the prisoners. There was a challenge in maintaining trust and filling knowledge gaps. The teachers found large knowledge gaps; in both general topic areas and specific issues such as consent. The program also provided specific advice for sex education in prison:
- Give affirmation: let the young men feel competent.
- Have the right prison staff present during the sessions. The absence of prison staff was a concern for some teachers. Talk to prison staff before the session and establish the rules of the game.

*Article 9.* Robinson et al. (2022). ‘Addressing sexual and reproductive health and rights with men in prisons: Co-production and feasibility testing of a relationship, sexuality and future fatherhood education program’

*Participants and study location:* 47 young male prisoners from two national young offender institutes of Northern Ireland and Scotland, United Kingdom.

*Purpose:* Report the process of co-production and feasibility testing of a novel, gender transformative RSE programme with young male offenders to encourage positive healthy relationships, gender equality and future positive fatherhood.

*Method:* A sequential research design of needs analysis, co-production and a feasibility pilot.

*Key findings:* The men appreciated the opportunity to talk about sex, intimacy and relationships and saw the benefit of including this in the programme. Suggestions for improving themes in the program were: more complex challenges, shared parenting, ‘being a man’, respect for women, consent, parenthood, etc. Delivery partners and prison staff confirmed the value of addressing issues by providing knowledge/skills training on relationships and sexuality. The prison managers thought the program seemed feasible and wanted to include it in their educational program.

*Article 10.* Templeton et al. (2019). ‘Developing a sexual health promotion intervention with young men in prisons: A rights-based participatory approach’

*Participants and study location:* 14 participants. 6 prisoners, 1 person consultant Nurse in Sexual health, 4 HBW Nurses, 1 Participation facilitator Media Company Representatives, United Kingdom.

*Purpose:* To create an innovative sexual health promotion intervention, made for and with young men in prisons, to encourage them to avail of regular sexual health checkups.

*Method:* The study used a rights-based participatory approach, with three coproduction workshops within a Northern Ireland prison. Before this, nurses received a specialised
3-day training. Workshops aimed to refine content, design, tone, and the medium for a Web-based intervention targeting young, incarcerated men. 

**Key findings:** A human rights-based approach to co-creation can add value to interventions that can empower prisoners to make positive, healthier decisions about their (and partners) lives, thereby supporting rehabilitation. The intervention also gave nurses better engagement in and understanding of the prisoners’ sexual health and developed their attitudes to assessing asymptomatic sexual health challenges and communication. Strong collaborations between academics, health care, prison management and the prisoners can be formed to support learning and competence development and improve rehabilitation.

### 3.2 Research question 1: What is known about the concept of sexual health as a health resource in prison?

Sexual health as a health resource can be seen as a broad concept, encompassing for example sexual health knowledge, pleasure and satisfaction. There are a few studies focusing on sexual health interventions. The subjects that are covered are conjugal visits and sexual health education to promote sexual health.

The included articles show connections between mental health and sexual health for prisoners (Carcedo *et al.*, 2008; Carcedo *et al.*, 2019; Carcedo *et al.*, 2015; Carcedo *et al.*, 2011), and that sexual health influences quality of life (Carcedo *et al.*, 2012; Carcedo *et al.*, 2011). However, as few articles are included in the analysis, and several of the articles are by the same researchers, the results must be treated with caution.

According to Beer *et al.* (2007), satisfaction with romantic relationships did not predict well-being or institutional behaviour. Instead, female prisoners involved in romantic relationships showed increased anger, hostility and disciplinary infractions, especially prisoners involved in relationships with females within the prison compared to with males outside prison. In addition to the findings described by Beer, romantic relationships were also experienced as supportive and satisfying (Beer *et al.*, 2007) and it was found that sexual satisfaction can be important for mental health (Carcedo *et al.*, 2008; Carcedo *et al.*, 2019; Carcedo *et al.*, 2011). However, the results of Beer *et al.* should be seen through the lens that same-sex relationships may be more stressful as they are less accepted in the prison context of the research, as also Beer *et al.* (2007) mentions.

There are differences between female and male prisoners regarding sexual health with women in prison presenting a better state than men with respect to social, family, romantic loneliness and sexual satisfaction (Carcedo *et al.*, 2008). Differences have been found between female and male prisoners related to social loneliness, romantic loneliness and level of sexual satisfaction (Carcedo *et al.*, 2008) but at the same time, another study (Carcedo *et al.*, 2015) showed no differences in sexual satisfaction scores between male and female prisoners. For prisoners having their heterosexual
partner in the same prison, sexual satisfaction was higher and romantic loneliness was lower than for other prisoners. Not having a partner at all resulted in higher levels of romantic loneliness than for those who had a partner inside or outside prison (Carcedo et al., 2011).

Sexual satisfaction is associated with quality of life, especially for those not having a partner, where low sexual satisfaction is related to lower quality of life (Carcedo et al., 2012), and those with a partner inside prison had higher quality of life (Carcedo et al., 2011). The level of sexual satisfaction predicted the psychological health of the sexually abstinent prisoners; the more sexually satisfied the prisoners were, the better their psychological health (Carcedo et al., 2015). Prisoners with a partner inside were moderately sexual satisfied, whereas the prisoners without a partner were very unsatisfied (Carcedo et al., 2012), and abstinent prisoners reported lower levels of sexual satisfaction than those who were sexually active (Carcedo et al., 2015). Low sexual satisfaction, for prisoners with a partner outside or inside the prison, correlates with poorer mental health (Carcedo et al., 2019). Sexual activity level among prisoners was significantly associated with sexual satisfaction, and greater sexual satisfaction was related to better psychological health for sexually abstinent prisoners (Carcedo et al., 2019). Those who had a partner, but did not have access to sexual relationships were in the worst position as they had lower levels of both sexual satisfaction and mental health than the sexually active prisoners (Carcedo et al., 2019). However, for female prisoners in heterosexual relationships, there is also fear of losing the partner and thus they can feel obliged to have sexual activities when having conjugal visits (Einat and Rabinovitz, 2013).

Female prisoners considered conjugal visits as positive and important, and that those visits could strengthen the relationship with the partner (Einat and Rabinovitz, 2013). The conjugal visits consisted of both dialogues with the partner and a sexual part, where the latter was seen as a source of love and sexual satisfaction. The practical setting of the rooms for conjugal visits was not always considered to enhance sexuality, and the policy relating to the frequency and length of conjugal visits could affect the experience of them.

There is little knowledge of collaborative, holistic and rights-based sexual education in prisons, but homo- and transphobic, racist and sexist attitudes exist among young male prisoners (Larsdotter et al., 2023). Staff who are going to perform sexual health education in prison often need extra education and training (Larsdotter et al., 2023; Templeton et al., 2019). The teachers had to avoid using a lecture perspective that reminded the young men too much of school-based education. The teachers found large knowledge gaps, concerning both general topic areas and specific issues such as
consent among the young men (Larsdotter et al., 2023). Well-structured sexual health education can lead to prisoners taking greater responsibility for safer sex practices, such as self-referring for sexual health check-ups (Templeton et al., 2019).

3.3 Research question 2: How can sexual health promotion be done in prison?

3.3.1 Health promotion in prison

The included articles show three different ways in which health promotion can be done in prison: Addressing sexual health along with mental health, facilitating sexual and romantic relationships and collaboration in sexual health education. The positive approaches towards sexual health and sexuality in prison are scarce, but a key finding is that collaboration between sexual health educators, health care staff in prison and prison staff can be seen as positive approaches.

3.3.2 Acknowledging the importance of relationships, collaboration and education in prisoners’ sexual health

Beer et al. (2007) suggest that acknowledging the importance of specific relationships when assessing prisoners’ mental health can be linked to sexual health promotion. Practical suggestions to facilitate sexual and romantic relationships for prisoners include making contact possible between male and female prisoners who are in the same prison (Carcedo et al., 2008; Carcedo et al., 2012; Carcedo et al., 2015; Carcedo et al., 2011), more frequent and lengthier conjugal visits and fostering safe sex practices (Carcedo et al., 2011; Einat and Rabinovitz, 2013) as well as improving the conditions for conjugal visits (physical appearance of the room, increased privacy) (Einat and Rabinovitz, 2013). In addition, policies that ease access to romantic and sexual relationships are important (Carcedo et al., 2019).

Collaboration in designing and implementing sexual health education was brought forward as important to ensure successful learning outcomes. Collaboration with non-government organisations (NGOs) working with sexual health issues can promote sexual health knowledge (Larsdotter et al., 2023), but extra training for the collaborators from the NGOs may be necessary to ensure optimal possibilities for safe collaboration. Co-production and participatory sexual health education design that includes prisoners can provide more appropriate education for the prisoners and therefore provide better outcomes than traditional sexual health education (Robinson et al., 2022; Templeton et al., 2019).

3.2.3 Presence of positive approaches towards sexual health and sexuality in prisons

None of the included studies specifically described examples of positive approaches towards sexual health and sexuality in prison. However, a key finding is collaboration between sexual health educators, health care staff in prison and prison staff (Larsdotter et al., 2023; Robinson et al., 2022; Templeton et al., 2019). Cooperation between youth
service providers and prison staff can support young male prisoners’ sexual health and well-being but can also support the well-being of the prisoners’ partners and children (Robinson et al., 2022). Rights-based sexual education in prisons was valued by the young male prisoners, the staff and the educators (Larsdotter et al., 2023; Templeton et al., 2019), and can be seen as a positive approach to sexual health and sexuality in prison. Larsdotter et al. (2023) presented the value of giving affirmation and letting the men feel competent, which is key to having a conversation on the participants’ own terms. The rights-based approach from the study of Templeton et al. (2019) enabled the participation of the young prisoners and they experienced being heard and seen sharing their stories.

Competence development, such as short training courses for nurses working in prisons, can increase understanding and engagement between nurses and help the nurses better understand and engage with prisoners on sexual health matters. The experienced changes were firstly in the way they approached the topic with the prisoners, and secondly that sexual health promotion in group settings worked well and assisted in normalising sexual health among a high-risk population in an accessible and meaningful way (Templeton et al., 2019).

The prison in the studies by Carcedo et al. (2008, 2011) allowed prisoners access to conjugal visitation rooms, however with the proviso that the couple had been in a stable romantic relationship of at least six months. The prison also provided prisoners with condoms monthly, offered sexual education courses, provided STD and HIV testing and supervised relationships to prevent violence (Carcedo et al., 2015). Carcedo et al. (2011) also state that prisoners without a partner would benefit from having a partner to help alleviate their romantic loneliness, reduce sexual dissatisfaction, and improve their quality of life. This is in line with Einat and Rabinovitz (2013), who bring forward the importance of prisoners having opportunities to communicate with their partners and renew their intimacy.

There were examples that linked to a more positive approach to sexual health in prisons, for example, to assess relationship factors along with mental health issues to gain additional knowledge of links between those factors (Beer et al., 2007).

4. Discussion

4.1 Brief summary

The global focus on sexual health and rights and sexual health promotion in public health (Coleman, n.d.) also concerns prison health. Sexual health promotion can be done using both local and national measures, in a holistic way (CDC, 2010). This project seeks to increase knowledge about sexual health in prisons and share knowledge about positive approaches to sexual health in prisons. Positive approaches to sexuality and sexual health are experienced to be a neglected topic within criminal
care, and therefore a small number of relevant articles was expected. The small number of relevant articles may be because the topic is taboo and not focused on in correctional care (Horley, 2019). During the literature search for sexual health promotion in prisons it was observed that there were many articles which dealt with the negative side of sexuality and sexual health of prisoners, such as STDs, sexual risk-taking, coercive behaviour and sexual abuse in prisons. Statistics show that prisoners are overrepresented when it comes to abuse - both as perpetrators and victims (Revold, 2015). In prisons where sexual contacts are allowed there is risks of sexually transmitted diseases and sexual abuse, therefore issues related to sexual health promotion needs to encompass those issues. There is need for more research to evaluate how and if sexual health promotion has effect prevalence of sexually transmitted diseases and sexual abuse. In this article however our angle is to reveal new research and create a knowledge base focusing on positive sexual health and interventions related to the promotion of sexual health.

The discussion will further focus on highlights from the results: the meaning of relationships generally and for health; gender differences; the role of context; and how collaboration and education can be sexual health-promoting.

4.2 Relationships and their meaning for health
Romantic/sexual relationships and conjugal visits represent the main topic in the findings, to a great extent from research done in Spanish prisons by Carcedo et al. (2008; 2019; 2012; 2015; 2011) These results imply that there should be a greater focus on prisoners in romantic/sexual relationships, whether the partner is inside or outside the prison. Relationships can be a positive part of sexuality and part of both human basic needs and rights (WHO, n.d.), and seen as a resource for health. Research conducted in both Spain and USA found a connection between permission to live out one's sexual health through relationships with others, inside or outside the prison, and mental health (Beer et al., 2007; Carcedo et al., 2008; Carcedo et al., 2011).

Satisfaction with romantic relationships does not predict well-being among female prisoners (Beer et al., 2007), and the same article showed increased anger and hostility among female prisoners towards relationships with women inside the prison than towards male relationships outside. The reason for this difference was not explained, but a possible reason could be stress linked to being part of a sexual minority. Sexual minorities in Swedish and Australian prisons have expressed experiencing pressure about how they handle and reveal their own sexual identity and sexuality, as the environment in prison is often masculine and heteronormative (Larsdotter et al., 2023; Yap et al., 2020). To meet the diversity of sexual behaviour it is important to be open and recognise the complexity in health of prisoners to ensure a safer prison environment (Horley, 2019).
Beer et al. (2007) also mentions that women in prison having a romantic relationship experienced that the relationship were supportive and important for them. How the women experience their own situation is a central and important finding, even though the behaviour is found to be angry and hostile. Having a functioning sex life could affect the sexual and mental health of prisoners as seen in a Norwegian study (Kvalevåg, 2017), and having conjugal visits can reduce depressive symptoms among women and younger men (Horley, 2019). Also, the study done in Israel by Einat and Rabinovitz (2013), shows the importance of conjugal visits for strengthening the relationships between female prisoners and their partners. Less violation of rules by prisoners having conjugal visits has previously been seen (Horley, 2019). The prisoners have also suggested how the facilitation of conjugal visitations should be maintained and improved, both for those with and without a partner (Carcedo et al., 2011). As the findings present a focus on conjugal visits from a variety of countries, it would be of interest to further research how conjugal visits are experienced by both prisoners and visiting partners, in prison facilities with different restrictions, and how the setting for conjugal visits can be improved.

Prisoners with no partner at all had it worse than those who had a partner outside the prison whom they could receive conjugal visits from, as they experienced both romantic loneliness and lack of sexual satisfaction (Carcedo et al., 2011). These findings support the assumption of the importance of having relationships. Research concerning how prisoners find new partners outside prisons and how novel relationships can be part of sexual health promotion was not included in the explored articles. Quality of life and sexual satisfaction are associated for prisoners. Those without a partner showed lower sexual satisfaction and lower quality of life in two of the studies done in Spain (Carcedo et al., 2012; Carcedo et al., 2011). Further in the Spanish studies, they found that interactions between male and female prisoners were positive, highlighted as it could help fulfilling the prisoners need, male or female (Carcedo et al., 2008; Carcedo et al., 2011). The prison also offered measures related to disease prevention and violence prevention to prisoners in relationships (Carcedo et al., 2015). These Spanish examples (Carcedo et al., all articles) should be seen in the light of differences between countries, cultures and systems. Further, we must also acknowledge that there are differences in cultures, religions or values regarding sexual health in the same prison or country. As of the Spanish findings, it shows one way of how sexual health can be done, in that specific prison.

There are more men than women imprisoned, and in Norway the women's prisons are spread all over the country, with long distances between the institutions (Lundeberg and Smith, 2023). This leads to a longer distance to close relatives, while for men there are many more prisons, and the men can therefore probably be closer to their loved ones. In the Spanish prison where Carcedo et al. conducted their research, men and women were given the opportunity to interact with one another through conjugal visits (Carcedo et al., 2008; Carcedo et al., 2019; Carcedo et al., 2012; Carcedo et al.,
2015; Carcedo et al., 2011) or by meeting up in different areas of the prison (Carcedo et al., 2019). This can be seen as a positive approach towards sexual health, but the articles does not reveal what values or principles this practice is based upon. However, as this example does not cover non-heterosexual couples, there is a need to ensure that sexual health interventions for prisoners are inclusive and not discriminatory against non-binary or non-heterosexual groups.

Being able to have an intimate relationship is in general of great importance to most people, and for persons in prison it may influence one's rehabilitation and stay in prison. Practical suggestions to facilitate both sexual and romantic relationships include female and male prisoners having the opportunity to interact (Carcedo et al., 2008; Carcedo et al., 2012; Carcedo et al., 2015; Carcedo et al., 2011), as well as policies that ease access to romantic and sexual relationships (Carcedo et al., 2019). The Norwegian government emphasises the importance of good rehabilitation, including a holistic view of health (Departementene, 2017). Currently, the Norwegian prison system, as in many other countries, separates male and female prisoners (Kriminalomsorgen, n.d.-b). It must also be noted that women make up a small proportion of the total prison population, however the number of women in prisons is increasing (Cúñico and Lermen, 2020). In Norway, over a long period of time approximately six percent of the inmates were women (Kriminalomsorgen, n.d.-b).

A Norwegian report (Likestillings- og diskrimineringsombudet, 2017) revealed that women incarcerated with men experience unwanted sexual attention surrounding the sale of sexual services, harassment and violence. The report pointed out that the women’s rights, safety and needs and their right to proper rehabilitation were not adequately accommodated compared to male prisoners. If the model they use in some Spanish prisons can teach us something, it might be the mentioned positive aspects of accepting interaction between male and female prisoners, but this must also be seen in the context of possible unwanted sexual contact. Thus, it is necessary to assess measures to meet the challenge of unwanted sexual contact and explore how the mixing of sexes could be facilitated in an institution. This is a knowledge gap, and more research is needed.

By summarising these findings, we find that relationship satisfaction with partners inside and outside prison varies, but due to the moderate number of research articles, an interpretation of the findings could be difficult. A person’s sexual and mental health should be regarded as individual, and the different articles have not focused on the same areas in relationships between people. However, this scoping review can highlight the breadth of the challenge; both having and not having romantic or sexual relationships inside as well as outside prison can affect a person’s emotions and behaviour.
4.3 Gender and prison context

Some findings show differences between female and male prisoners (Carcedo et al., 2008) which is in line with previous research outside prisons where there are differences between men and women concerning sexual satisfaction and quality of life (Stephenson et al., 2021). Previous research has shown gender differences concerning research focus, where the research of women in prison focused on their relationships beyond prison and life trajectories of violence. As for men in prison, research has focused on dynamics from inside the prisons and men are given roles as perpetrators (Cúnico and Lermen, 2020). These findings regarding research focus can affect how sexual health promotion is addressed in prison, as they relate to present norms.

No differences in sexual satisfaction were found between male and female prisoners in a later study conducted by Carcedo et al. (2015). To have a sexual relationship affects prisoners’ mental health, regardless of whether they are male or female (Carcedo et al., 2015). The differences presented are mainly from the same research group, and there is a need for additional research to gain more knowledge on female and male prisoners. The findings can however present a picture of what is currently researched in this field.

The findings should also be reflected upon from the perspective of the social and legal structures relevant in the setting of each study. Both gender norms and social norms affect health prevention work, which mean that they also play a relevant role in sexual health promotion (Cislaghi and Heise, 2020) - for example, whether or not the setting concerns prisons in which men and women are segregated, and how non-heterosexual persons are accepted and cared for in the setting. Previous research has shown that in studies with mixed penal populations, the view of gender is dichotomous (Cúnico and Lermen, 2020). The dichotomous gender view can also affect how sexual health promotion is constructed, as persons who do not define themselves as men or women fall outside the scope. The included articles do not cover sexual health promotion for persons defining themselves as other than women or men, and thus this is a field in urgent need of research. This is especially important as persons who define themselves as non-binary or non-heteronormative are already at risk of decreased health due to a lack of sexual health support and social structures, hindering their ability to live out their sexuality.

4.4 Sexual health promotion through collaboration and education

Promotion of sexual health in prison is essential as sexual health is part of overall health, including for incarcerated individuals (CDC, 2010; Coleman, n.d.; Thom and Burnside, 2018), and should therefore not be neglected. Sexual well-being is known as a resource and a protective factor which promotes quality of life and coping skills (Helse- og omsorgsdepartementet, 2016).
Sexual health can be promoted in different ways, and in the studies of Robinson et al. (2022) and Templeton et al. (2019) we see examples of how prisoners can collaborate with employees and support staff, and thereby promote their competence regarding sexual health. They suggest among other things, a co-production and a participatory education design to make sexual education more appropriate for the prisoners. The cooperation was experienced as supportive of male prisoners’ sexual health and well-being, as well as their partners and children. Rights-based education, which was valued by its contestants (Larsdotter et al., 2023; Templeton et al., 2019), was also seen as a positive approach. An example of this came from Templeton et al. (2019) who described how competence development changed the way prison nurses addressed sexual health in meetings with prisoners, and how group settings, with the intention of promoting sexual health, led to a normalisation of sexual health.

Collaboration between sexual health educators, health care staff and prison staff, was a key finding in the results (Einat and Rabinovitz, 2013; Larsdotter et al., 2023; Robinson et al., 2022; Templeton et al., 2019) and is considered to be a positive approach towards sexual health by focusing on rights and involvement, and increasing sexual health competence (CDC, 2010). Co-producing sexual health education with prisoners and involving them in the design process can lead to more effective and relevant education. This approach includes training knowledgeable prisoners as peer educators, making the information they provide more relatable and reducing stigma. There are examples of how co-production has been used in prisons related to other areas than sexual health, such as drugs and mental health (Thom and Burnside, 2018). However, co-production is closely linked to power, trust and self-efficacy (Areskoug Josefsson et al., 2021), all concepts that may be complex in the prison setting.

In the co-production process, the commitment and focus of participants play a crucial role. In a prison setting, a co-production can be challenging due to the uncertain duration of an individual’s stay in prison and the potential for transfers between prisons. An additional challenge is being able to meet and openly communicate about a taboo issue like sexuality, as there may be restrictions for meetings. There may also be ethical concerns, related to limitations of possibilities and options for interventions that could improve prisoners’ sexual health. The level of motivation and trust among participants is related to their willingness and activity in co-production (Fledderus et al., 2014). If prison staff lack knowledge of how sexual health can serve as a resource for health, they may be less motivated to co-produce in interventions to promote sexual health for and with prisoners and thus oppose co-production of relevant interventions in this field. Co-production is already recognised and is used with other groups in the field of sexual health and is important for the Norwegian Directorate of Health, municipalities and other actors (Helse- og omsorgsdepartementet, 2016; Larsdotter et al., 2023).
Prisoners are overrepresented in statistics on sexual abuse (Revold, 2015), thus there should be all the more emphasis on safeguarding and increasing knowledge about sexual health among this group. According to Larsdotter et al. (2023) there has been an influx of young men linked to sexual offence cases due to changes in consent laws. Handling this has become challenging because these individuals often lack understanding, as they are not well-informed (Larsdotter et al., 2023). Recently, there has been increasing worry about sexual assault in custodial settings (Horley, 2019). The consequences include physical health issues such as STDs and psychological problems like depression and PTSD. The fear of assault in custody can also cause anxiety disorders. This issue requires continuous attention and interventions to protect the well-being of incarcerated individuals and to address its broader societal impact (Horley, 2019). Overall, it acknowledges the importance of tailoring sexual health education to the specific needs of prisoners, involving them in the educational process (Larsdotter et al., 2023).

As there is a lack of research on sexual health promotion with a positive approach, it is likely that prison staff may lack the knowledge and motivation to engage in activities that promote sexual health as a health resource for prisoners. Therefore, prison staff should be educated concerning the importance of a positive approach towards sexual health, how this can be done in prison and why. Larsdotter et al. (2023) also found that educators stressed the importance of involving the right prison staff during the sessions. They believed that the presence of supportive and appropriate prison staff positively influenced the sessions. However, they also faced challenges when prison staff did not participate effectively or added to the problems. In such competence development, collaboration with health care professionals, sexologists, NGOs, prisoners and prison staff could be beneficial to ensure holistic and relevant competence development in sexual health for prisoners. This is especially important as staff consider prisoners’ sexuality and sexual health to be an important topic, but not a focus of their work (Høyborg and Urdal, 2015).

Partnering with NGOs specialising in sexual health can significantly enhance sexual health knowledge, as suggested by Larsdotter et al. (2023). Non-profit organisations and user interest groups are valuable partners in this effort, bringing expertise and user-centred perspectives. It is also important to ensure user participation and reach vulnerable groups through peer-to-peer services like anonymous testing, and through educational materials (Helse- og omsorgsdepartementet, 2016). The Swedish Association for Sexuality Education (RFSU) has been providing sex education to young, incarcerated men in cooperation with the prison and probation services. The prison staff reported positive outcomes as a result of visits from sexual health educators from the RFSU in terms of developing a broader skillset for both the prison staff and young male prisoners (Larsdotter et al., 2023).
4.5 Current knowledge and future needs

Sexual health for prisoners should be a current and updated topic in both Nordic and other prisons in the world. To the extent that it is actualised as of now, it is to a high degree through negative aspects of sexuality, such as in the areas of abuse and STDs. This problem-oriented focus is too narrow concerning sexual health as a resource for general health, well-being and rehabilitation. In future research and practice, the focus should be on a more holistic and health-promoting view of the prisoners’ health and rights in the prison system, including sexual health.

WHO (2015) and the UN (2023; UNA Norway, 2023) have in recent years had an increased focus on sexual health, acknowledging ethnic and cultural background related to perspectives within, for example, outlook on life, religion and culture in the understanding of sexual health among the population. Prison populations in most countries accommodate a great diversity regarding ethnicity and cultural background. The diversity can increase the challenge of promoting sexual health in prisons. Thus, basic knowledge of sexual health and how to talk about it in an inclusive and sensitive way is vital for sexual health promotion in prisons.

Living in prison is different from living outside in society, but we want to emphasise that having a positive approach to sexual health can be positive for both general health and quality of life, as the Norwegian government promotes (Helse- og omsorgsdepartementet, 2016). Gaining knowledge in the field of positive sexuality, addressing sexual health as a basic human need and facilitating better sexual health among prisoners will promote their general health. There is a need for development and evaluation of interventions to improve sexual health for prisoners. Increased knowledge of sexual health-promoting interventions in prisons can also be used in education within correctional care and for those who work with prisoners. However, in Norway (Areskoug Josefsson and Solberg, 2022) and Sweden (Areskoug Josefsson et al., 2019), there is a low presence of SRHR (sexual and reproductive health and rights) indicators in basic education in health, social and law. Therefore, it is likely that staff in prison also lack SRHR competence.

Prisoners receive different lengths and restrictions of imprisonment in a broad spectre of institutions, and this may affect how they feel about their own health and relationships with partners inside and outside prison. The effect of serving time in relation to the level of sexual health would be interesting to explore in future research. This review is a first attempt to gain knowledge on the topic of sexual health in prison – with a positive approach and with sexual health as a resource in life.

There is an international focus on sexual health rights for all people (UN, 2023; UNA Norway, 2023), thus this should include prisoners. Forming knowledge that is generally applicable based on articles from different countries is challenging considering the limited number of articles. On the other hand, this new knowledge can describe how other countries and institutions have implemented sexual health measures. This new
knowledge can be reflected upon each country’s context in prison, for example the Nordic context. This may strengthen and create a wider knowledge base which in turn benefits the prisoners in the Nordic countries, with regard to safeguarding their sexual health in prison. In a Nordic and modern context, prisoners have the right to receive the same healthcare services as the rest of the population (Helsedirektoratet, 2016). With only one Scandinavian study in this scoping review, as well as the described experiences, it will be difficult to draw conclusions about what can be useful sexual health promotion interventions in a Norwegian context. However, there are ongoing projects regarding sexual health for prisoners, all funded by the Ministry of Health in Norway, namely:

- **Røverradion:** a weekly radio show for and by prisoners, which has received funding to promote sexual health in prisons through information campaigns.

- A method book on sexual health for prison health services. The Norwegian Association for Clinical Sexology has received funding to develop this tool.

- An online continuing education programme. The Correctional Services Educational Centre KRUS has received funding to create an online training course on sexual health for prison officers and other related staff.

In addition, the Norwegian Directorate of Health is currently revising the guide for municipal health services to prisoners. Sexual health is for the first time mentioned as a goal in itself: The municipal health and care service must offer prisoners the necessary health services for sexual and reproductive health. The plan has been submitted for public consultation and is expected to be published in 2024.

This scoping review has a small number of included articles, and the lack of research in the field emphasises the need for further study.

### 4.6 Methodological strengths and limitations

Before starting the scoping review, a protocol was developed to guide the review process to ensure rigour and transparency. The small number of included articles is a limitation but occurred despite a thorough and systematic literature search from a broad range of databases covering journals in disciplines such as health, social sciences, mental health, criminology and correctional services. By including local databases, library catalogues covering Scandinavian research, institutional archives and using an internet search engine we increased the likelihood of identifying research carried out in a Scandinavian context. Additionally, experts in the field were contacted to identify studies that might have been missed by the literature search, but this strategy did not result in further inclusions. Even if quality assessment is not standard for scoping reviews, the authors considered the quality assessment procedure valuable in order to further ensure consensus of a fellow understanding of the articles.
Even though the literature search aimed for a high level of sensitivity, there is a chance that the focus on positive sexual health might have resulted in relevant studies being missed. Since no single definition applies to positive sexual health as it may be operationalised in a literature search, it remains uncertain if additional relevant articles could have been identified by broadening the search further to encompass elements such as STDs or same-sex sexual health. Another limitation to the search is the possibility of relevant studies being published as grey literature, for example as research reports published directly to institutional archives or on research institutions’ websites.

5. Conclusion
There is a need for more research, but also development of interventions and measures for evaluation in the researched field. There is still limited knowledge of how sexual health can be a health resource for prisoners. We can assume that sexual health is still a taboo and receives little attention in prisons and there is a need for further research concerning sexual health as a health resource for prisoners. As the social and legal structures are important, there is a need for context-specific research to better understand how sexual health can be best promoted in prisons in various settings.

6. Funding
This review is part of a larger ongoing project in the Norwegian correctional services, Seksualomsorg i kriminalomsorgen / Sexual Health in Norwegian Correctional Service (Kriminalomsorgen, n.d.-a). The overall goal of this project is to contribute to a better quality of life, a sense of mastery and a better return to society for prisoners in Norway.

The project Seksualomsorg i kriminalomsorgen / Sexual Health in Norwegian Correctional Service is funded by the Norwegian Directorate of Health. Additional funding for this project is from the following partners: Oslo Metropolitan University Department of Behavioural Science and Sustainable Passions.

7. Conflicts of interest
The authors declare no potential conflicts of interest with the research, authorship and/or publication of this scoping review.
References

Literature


### Appendix 1

APA PsycInfo <1806 to November Week 2 2022>, executed 11.18.2022

<table>
<thead>
<tr>
<th>#</th>
<th>Searches</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prisons/</td>
<td>8068</td>
</tr>
<tr>
<td>2</td>
<td>Prisoners/</td>
<td>11685</td>
</tr>
<tr>
<td>3</td>
<td>Correctional Institutions/</td>
<td>3241</td>
</tr>
<tr>
<td>4</td>
<td>(prison* or jail* or incarcerat* or imprison* or inmate* or ((correction* or probation*) adj2 service*) or ((penal or correction*) adj2 (institution* or facilit* or center* or centre*)) or penitentiar* or secure state care or ((place* of or solitary) adj1 confine*) or carceral* or detention* or correctional*).tw.</td>
<td>49322</td>
</tr>
<tr>
<td>5</td>
<td>or/1-4</td>
<td>50043</td>
</tr>
<tr>
<td>6</td>
<td>sexuality/</td>
<td>17752</td>
</tr>
<tr>
<td>7</td>
<td>intimacy/</td>
<td>8557</td>
</tr>
<tr>
<td>8</td>
<td>love/</td>
<td>7291</td>
</tr>
<tr>
<td>9</td>
<td>romance/</td>
<td>6652</td>
</tr>
<tr>
<td>10</td>
<td>sexual health/</td>
<td>3078</td>
</tr>
<tr>
<td>11</td>
<td>psychosexual behavior/</td>
<td>27203</td>
</tr>
<tr>
<td>12</td>
<td>sexual aids/</td>
<td>86</td>
</tr>
<tr>
<td>13</td>
<td>“sexual intercourse (human)”/</td>
<td>3163</td>
</tr>
<tr>
<td>14</td>
<td>safe sex/</td>
<td>1773</td>
</tr>
<tr>
<td>15</td>
<td>sexual partners/</td>
<td>5170</td>
</tr>
<tr>
<td>16</td>
<td>sexual satisfaction/</td>
<td>1761</td>
</tr>
<tr>
<td>17</td>
<td>reproductive health/</td>
<td>4012</td>
</tr>
<tr>
<td>18</td>
<td>contraceptive devices/</td>
<td>1172</td>
</tr>
<tr>
<td>19</td>
<td>Contraception behavior/</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>“diaphragms (birth control)”/</td>
<td>33</td>
</tr>
<tr>
<td>21</td>
<td>intrauterine devices/</td>
<td>191</td>
</tr>
<tr>
<td>22</td>
<td>oral contraceptives/</td>
<td>1026</td>
</tr>
<tr>
<td>23</td>
<td>condoms/</td>
<td>4261</td>
</tr>
<tr>
<td>24</td>
<td>sex education/</td>
<td>4032</td>
</tr>
<tr>
<td>25</td>
<td>sexual fantasy/</td>
<td>524</td>
</tr>
<tr>
<td>26</td>
<td>Líbido/</td>
<td>883</td>
</tr>
<tr>
<td>27</td>
<td>Sex Drive/</td>
<td>726</td>
</tr>
<tr>
<td>28</td>
<td>sexual attitudes/</td>
<td>5857</td>
</tr>
<tr>
<td>29</td>
<td>Sexual Arousal/</td>
<td>2798</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>30</td>
<td>sexology/</td>
<td>406</td>
</tr>
<tr>
<td>31</td>
<td>pornography/</td>
<td>2602</td>
</tr>
<tr>
<td>32</td>
<td>(((sexual* adj2 (health* or wellbeing or well being or right* or pleasure* or activit* or behavio* or practice* or intercourse* or relation* or fantas* or excitement or drive or attitude* or arousal or attraction or desire*)) or (reproductive adj2 (health or right* or behavio*))) or “sexual and reproductive health and rights” or SRHR or sexuality or (sex* adj1 (consensual or consent* or safe or unsafe or research or life or lives or privation or depriv* or education* or counsel* or experienc* or knowledge* or empowerment* or satisfaction* or relation* or partner* or motivation or energy or behavio* or drive* or desire* or arousal)) or (sex* adj1 (toy* or aid or aids or lubricant* or device* or tool*)) or porn* or conjugal or condom* or contracepti* or birth control or diaphragm* or (intrauterine adj (device* or system*)) or (dental adj (dam or dams)) or flirt* or lust or love or courtship* or psychosexual* or sociosexual* or intimacy or libido or masturbat* or orgasm* or erotic* or coitus*).tw.</td>
<td>171992</td>
</tr>
<tr>
<td>33</td>
<td>or/6-32</td>
<td>186552</td>
</tr>
<tr>
<td>34</td>
<td>5 and 33</td>
<td>2575</td>
</tr>
<tr>
<td>35</td>
<td>limit 34 to yr=&quot;2002 -Current&quot;</td>
<td>1845</td>
</tr>
<tr>
<td>36</td>
<td>(“0200” or “0240” or “0280”).pt. or “Review-Book”.dt.</td>
<td>644588</td>
</tr>
<tr>
<td>37</td>
<td>35 not 36</td>
<td>1497</td>
</tr>
</tbody>
</table>