

Healthcare interventions for sex workers: protocol for a scoping review

Hallett, Nutmeg; Christie, Christine; Docherty-Smith, Jack; Welborn, Heather; Wright, Hannah; Molloy, El; Chandan, Joht; Croxford, Sara; Taylor, Julie; Bradbury-Jones, Caroline

DOI:

[10.1136/bmjopen-2023-074983](https://doi.org/10.1136/bmjopen-2023-074983)

License:

Creative Commons: Attribution-NonCommercial (CC BY-NC)

Document Version

Publisher's PDF, also known as Version of record

Citation for published version (Harvard):

Hallett, N, Christie, C, Docherty-Smith, J, Welborn, H, Wright, H, Molloy, E, Chandan, J, Croxford, S, Taylor, J & Bradbury-Jones, C 2023, 'Healthcare interventions for sex workers: protocol for a scoping review', *BMJ open*, vol. 13, no. 8, e074983. <https://doi.org/10.1136/bmjopen-2023-074983>

[Link to publication on Research at Birmingham portal](#)

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

- Users may freely distribute the URL that is used to identify this publication.
- Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.
- User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?)
- Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.



When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.

BMJ Open Healthcare interventions for sex workers: protocol for a scoping review

Nutmeg Hallett ¹, Christine Christie,² Jack Docherty-Smith,¹ Heather Welborn,¹ Hannah Wright,¹ Eleanor Molloy,³ Joht Singh Chandan,³ Sara Croxford,^{3,4} Julie Taylor ^{1,5} Caroline Bradbury-Jones¹

To cite: Hallett N, Christie C, Docherty-Smith J, *et al.* Healthcare interventions for sex workers: protocol for a scoping review. *BMJ Open* 2023;**13**:e074983. doi:10.1136/bmjopen-2023-074983

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2023-074983>).

Received 22 April 2023
Accepted 17 July 2023



© Author(s) (or their employer(s)) 2023. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

¹School of Nursing and Midwifery, College of Medical and Dental Sciences, University of Birmingham, Birmingham, UK
²Chanon Consulting, Epsom, UK

³Institute of Applied Health Research, College of Medical and Dental Sciences, University of Birmingham, Birmingham, UK

⁴Mersey and West Lancashire Teaching Hospitals NHS Trust, Prescot, UK

⁵Birmingham Women's and Children's Hospital NHS Foundation Trust, Birmingham, UK

Correspondence to

Dr Nutmeg Hallett;
n.n.hallett@bham.ac.uk

ABSTRACT

Introduction Sex workers, who provide sexual or erotic acts in exchange for payment, often experience multiple disadvantages, including mental ill health and substance misuse. Mainstream healthcare services are generally not configured to facilitate engagement with sex workers and therefore, services are needed that are accessible to this population. The aim of this scoping review is to understand the evidence base for approaches, services and interventions that are aimed at addressing sex workers' health needs.

Methods and analysis Nine databases, CINAHL, Embase, EThOS, Google Scholar, Health Management Information Consortium, MEDLINE, ProQuest Dissertations and Theses, PsycINFO and Web of Science (Core Collection), will be searched, with results limited to English language publications and those published from 2003 onwards. De-duplication, study selection and data extraction will be conducted using Covidence software. Included studies will describe or evaluate approaches, services or interventions that address the health needs of sex workers who offer services that involve physical contact with a client.

Ethics and dissemination No ethical review is needed. The final report will be shared with Birmingham City Council as part of ongoing work and will be disseminated by peer-reviewed publication.

Study registration Open Science Framework (doi: 10.17605/OSF.IO/N7WSX).

INTRODUCTION

For the purposes of this research, we are defining sex work as 'the provision of sexual or erotic acts or sexual intimacy in exchange for payment or other benefit or need'¹ excluding work that takes place solely online. We recognise that the sex worker population is exceptionally diverse in terms of socioeconomic status, and location and methods of working. The number of sex workers in the UK is estimated to be around 72 800²; the majority are female. In England and Wales, the sale and purchase of sexual services between consenting adults are legal. However, soliciting, kerb-crawling, brothel-keeping and various forms of exploitation are illegal. Government attempts to tackle sex work via criminalisation have marginalised many sex

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ The review team is of sufficient size (n=10) to independently conduct each stage of the review, and with regular planned meetings to address inconsistencies in the process and to resolve disputes through whole team discussions.
- ⇒ The inclusion of grey literature means that publication bias is reduced and will enable a wider examination of the interventions that have been described or evaluated outside of the academic literature.
- ⇒ One of the review team members developed the methods, now widely used, that will be adopted during data analysis.
- ⇒ Use of the Effect, Mechanism, Moderator, Implementation, Economic framework allows for a thorough examination of interventions.
- ⇒ The primary goal of this scoping review is to map the existing literature and identify knowledge gaps; while this breadth of coverage is useful for identifying studies overall, it may prioritise quantity over quality, meaning that equal weight is given to studies of varying quality and significance.

workers,² displacing them to isolated areas and rendering them vulnerable to violence and poor health.³

The Sexual Offences Act 2003 introduced significant changes to UK sex work laws. It aimed to modernise and clarify the legal framework surrounding sex work while addressing issues related to exploitation and protecting individuals involved in the sex trade. The changes in the law aimed to strike a balance between addressing exploitation and protecting vulnerable individuals while recognising the complexity of issues surrounding prostitution. The act did not attempt to eradicate or criminalise sex work but sought to provide legal safeguards and address the harm associated with exploitation.

While some sex workers engage in risky behaviours, such as unprotected sex, condom use has increased among sex workers in the past three decades, leading to a decrease in HIV cases.⁴ The prevalence of other sexually transmitted infections (STIs) among sex

workers is low, even though the potential for transmission is high.⁴ Sex workers also face high levels of physical, sexual and verbal violence in almost all sex work settings, and sexual violence may be associated with inconsistent condom use and thus, an increased risk of STIs.⁵ The consequences of physical violence can often lead to poor physical health, as well as poor mental health due to trauma. Research into sex work and mental health is scarce but a study of female sex workers in Zurich (on and off-street) found that the violence they experienced could lead to high levels of anxiety, stress and post-traumatic stress disorder.⁶

Many sex workers do not misuse drugs or alcohol, but those who do are highly marginalised. Sex work and substance misuse can be mutually reinforcing; drugs and/or alcohol are used by some to cope with selling sex and the associated violence and abuse, and some individuals sell sex to support their addiction.⁷ Sex workers may experience barriers to accessing drug treatment services including long waiting lists, service inflexibility and service providers not understanding the reality of their situations.⁸

Moreover, sex work is associated with high levels of social stigma.⁴ Fear of stigmatisation and/or criminalisation means that sex workers who are victims of violence do not commonly identify themselves as sex workers when they attend emergency services.² Fear of stigmatisation and/or criminalisation also results in reduced contact with the wider range of health services and other providers of support, exacerbating increased stress, mental health problems and feelings of isolation and contributing to social exclusion.⁴

'Multiple disadvantages' has been defined as people experiencing two or more of the following issues: mental ill health, substance misuse, homelessness and current or historical offending.⁹ Sex workers are an adult cohort likely to be experiencing these adversities, and effective healthcare provision for them will likely be limited by the fact that mainstream health and well-being services are generally not configured to facilitate engagement with sex workers (particularly street sex workers).

Most health services targeted at sex workers provide support for sexual health and substance misuse. However, these services do not meet the wider health needs of sex workers, which are likely to be the same as anyone's, including acute physical and mental health needs, preventive health screening and monitoring of long-term conditions. Sex workers are potentially less likely to access generic health services as a result of fear of criminalisation, stigmatisation, escalation of untreated vulnerabilities and due to additional adversities (outside of the scope of this review, but related to poor health outcomes) such as homelessness, lack of qualifications and poverty.¹⁰ There are very few studies that look at the general health needs of commercial sex workers and the range of healthcare support they can and do access to help them improve their health.

A recent systematic review identified the barriers and facilitators that sex workers experience when accessing health services which include health information, stigma, the quality of healthcare, and available, accessible and affordable services.¹¹ In terms of health outcomes, a large systematic review of the international literature found that in countries where sex work is legalised or decriminalised, sex workers had a greater awareness of health conditions and health risk behaviours compared with criminalised jurisdictions.¹² Scoping searches of Google Scholar, the Cochrane Database of Systematic Reviews, Joanna Briggs Institute (JBI) Evidence Synthesis and PROSPERO identified no current or proposed systematic or scoping reviews examining services aimed at addressing the health needs of sex workers. The aim of this scoping review is to summarise the evidence base for approaches, services and interventions that are aimed at addressing sex workers' health needs.

METHODS AND ANALYSIS

A scoping review design has been chosen as this is less restrictive than a systematic review, thus allowing a broad scope and the inclusion of literature from academic and non-academic sources.¹³ This review is part of a wider project, designed to identify opportunities to prevent ill health; reduce demand and need for services; identify good practice, enablers and barriers to access; identify gaps in National Health Service (NHS) or NHS-commissioned services; and recommend clinically and cost-effective options to meet sex workers' needs. Accordingly, in addition to the scoping review, data and intelligence from service and stakeholder organisations will be gathered, along with insights from engagement with sex workers themselves and the organisations and services they use. The project is commissioned under the Birmingham City Council Public Health, Inclusion Health Groups objective, and reflects work done by the Public Health Team in relation to single adults experiencing multiple complex needs.

The review will be conducted in accordance with the JBI framework for scoping reviews¹³ and will be reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews checklist.¹⁴

In January 2023, preliminary searches of Google Scholar, Cochrane Database of Systematic Reviews, JBI Evidence Synthesis and PROSPERO were conducted to ensure that there were no published or ongoing scoping reviews on this topic. This scoping review commenced in January 2023 and is due to be completed by July 2023.

Review question

The Population, Concept, Context (PCC) framework was used to develop the primary review question,¹³ where the population is sex workers and the concept is approaches, services and interventions aimed at addressing health needs.

Table 1 Inclusion criteria by PCC framework

Inclusion criteria	
Population	Sex workers aged 18 years and above who offer services that involve physical contact with a client. Including: female, male, trans, non-binary and those offering services for same or opposite-sex clients.
Concept	Any approach, service or intervention that addresses health needs. Either solely for sex workers or aimed at sex workers and other groups deemed high risk, for example, men who have sex with men, intravenous drug users.
Context	Relevant to the UK
Types of evidence sources	Any source that describes or evaluates the concept including, but not limited to, primary research studies (including from letters, conference proceedings, posters where there is enough detail to extract data), meta-analyses, audits, service evaluation, and local government or charity reports/documents, guidelines, websites. Relevant literature reviews will be examined to identify primary sources.
PCC, Population, Concept, Context.	

If national research is insufficient (<20), then international findings will be included, from countries that have healthcare systems and laws related to sex work that are similar to the UK context. Our search strategy is stratified to allow for this. The primary review question is:

What is the evidence base for approaches, services and interventions that could address the health needs of sex workers in the UK?

Inclusion criteria

Eligibility criteria are based on the PCC framework (see [table 1](#)).

Search strategy

The search strategy is designed to capture published and unpublished literature, using the three-step approach described by JBI.¹³ First, search terms will be trialled in MEDLINE (see online supplemental file 1 for MEDLINE search strategy, with search results up to 20 March 2023), and relevant papers accessed to identify additional subject headings and synonyms. A second search using all identified terms will be conducted in the following databases: CINAHL, Embase, EThOS, Google Scholar, Health Management Information Consortium, MEDLINE, ProQuest Dissertations and Theses, PsycINFO and Web of Science (Core Collection). Finally, identified reports and articles will be searched for additional sources. This search will be supplemented with Google searches to identify further sources not captured within the databases.

To ensure that findings are contemporary and relevant, results will be limited to 2003 onwards, when the Sexual Offences Act came into force, and published in English.

Source of evidence selection

Results will be uploaded to Covidence systematic review software (available at www.covidence.org). Covidence automatically removes duplicates and the number of reviewers required for each stage can be set within the software (to be set at two for each stage of this review),

meaning that all members of the reviewing team can work on the review simultaneously without duplication of work.

To address the aim of the study, a stratified approach to screening will be undertaken. Initially, titles and abstracts will be screened, according to the inclusion criteria detailed in [table 1](#), without consideration of context, that is, all relevant results will be included at this stage regardless of the country or context of the intervention. The whole review team will meet regularly to discuss conflicts and where necessary to make modifications to the eligibility criteria.

At the full-text review stage, results will be tagged within Covidence as 'UK' or 'not UK' to identify whether there are sufficient studies at the national or international level; context inclusion criteria will be based on the lowest level with sufficient results (<20). Full texts will be accessed and screened against the full inclusion criteria, including context.

Data charting, extraction and analysis of the evidence

A bespoke data extraction form will be created in Covidence. A draft form will be developed to include, at a minimum, title of the paper, authors, country of study, more granular location, for example, city/county, aim of study, type of paper (descriptive/evaluative), study design, start and end date, funding sources, population description, inclusion/exclusion criteria, recruitment methods, number of participants, participant characteristics and description of the intervention. The form will be piloted with all reviewers extracting data from two included studies, and the form adapted as needed. Data will be extracted by two independent reviewers.

The analysis will be conducted using a two-stage process. First, the Effect, Mechanism, Moderator, Implementation, Economic (EMMIE) framework will be used to extract and map data on the interventions¹⁵ (see [table 2](#)).

In a second analytical step, we will capture the components of the EMMIE framework in the form of a table that

Table 2 EMMIE framework for data extraction

	Description	Data to be extracted
Effect	Overall effect size and direction of effect	Outcome(s) studied, effect size and direction
Mechanisms	How the intervention produces its effects	Breakdown of elements of interventions
Moderators	Contexts that moderate if mechanisms will be activated to generate the intended effect	Contextual conditions for the intervention
Implementation	Barriers and facilitators of the intervention	Documented barriers/facilitators
Economic	Is the intervention cost-effective; cost–benefit analysis	Any analysis of costs
EMMIE, Effect, Mechanism, Moderator, Implementation, Economic.		

focuses on Patterns, Advances, Gaps, Evidence for practice and Research recommendations (PAGER).¹⁶ PAGER was developed by one of the review team and colleagues and is gaining popularity in health and social research for its clarity in presenting the results of scoping reviews.

Patient and public involvement

The project team plans to invite people with lived experience of sex work to comment on the findings and review conclusions and would like to acknowledge that contribution in advance.

Ethics and dissemination

As this is a scoping review, no ethical review is needed. A report of the review, detailing the methods, results and recommendations, will be produced and presented to the wider project team. It is anticipated that the findings from the review will feed into the data and intelligence-gathering phases of the project. The review will also be written up for publication in a peer-reviewed journal.

The review protocol has been published on the Open Science Framework (doi: 10.17605/OSF.IO/N7WSX).

Twitter Julie Taylor @bulawayojulie

Contributors NH, CC, EM, JSC, SC, JT and CB-J have all made substantial contributions to the conception or design of the work. NH, CC, JD-S, HWe and HWr have all made substantial contributions to the acquisition of data for the work. All authors have been involved in drafting the work or revising it critically for important intellectual content, have had final approval of the version to be published and agree to be accountable for all aspects of the work in ensuring that questions related to accuracy or integrity of any part of the work are appropriately investigated and resolved.

Funding This review is part of a wider project designed to identify and address sex workers' health needs. The whole project is funded by Birmingham City Council.

Disclaimer The views expressed in the submitted article are those of the authors and not an official position of the authors' institution(s) or the study funder(s).

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design or conduct of this review but the project team plans to invite people with lived experience of sex work to comment on the findings and review conclusions.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; externally peer reviewed.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been

peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iDs

Nutmeg Hallett <http://orcid.org/0000-0003-3115-8831>

Julie Taylor <http://orcid.org/0000-0002-7259-0906>

REFERENCES

- Hester M, Mulvihill N, Matolcsi A, *et al*. The nature and prevalence of sex work in England and Wales today. Bristol University of Bristol; Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/842920/Prostitution_and_Sex_Work_Report.pdf
- House of Commons Home Affairs Committee. Prostitution: third report of session 2016–17. London: House of Commons. n.d. Available: <https://publications.parliament.uk/pa/cm201617/cmselect/cmhaff/26/26.pdf>
- Krüsi A, Pacey K, Bird L, *et al*. Criminalisation of clients: reproducing vulnerabilities for violence and poor health among street-based sex workers in Canada—a qualitative study. *BMJ Open* 2014;4:e005191.
- Balfour R, Allen J. A review of the literature on sex workers and social exclusion. n.d. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/303927/A_Review_of_the_Literature_on_sex_workers_and_social_exclusion.pdf
- Deering KN, Bhattacharjee P, Mohan HL, *et al*. Violence and HIV risk among female sex workers in Southern India. *Sex Transm Dis* 2013;40:168–74.
- Rössler W, Koch U, Lauber C, *et al*. The mental health of female sex workers. *Acta Psychiatr Scand* 2010;122:143–52.
- DrugScope. The challenge of change: improving services for women involved in prostitution and substance use. n.d. Available: https://avaproject.org.uk/wp-content/uploads/2016/08/Challenge-of-change_full-report.pdf
- Sagar T, Jones D, Symons K. Sex work, drug and alcohol use: bringing the voices of sex workers into the policy and service development framework in Wales. n.d. Available: <https://www.gov.wales/sites/default/files/publications/2019-02/sex-work-drug-and-alcohol-use-bringing-the-voices-of-sex-workers-into-the-policy-and-service-development-framework-in-wales.pdf>
- Fulfilling Lives. Changing systems for people facing multiple disadvantage. n.d. Available: <http://meam.org.uk/wp-content/uploads/2019/06/MEAMJ7105-Fulfilling-lives-publication-WEB.pdf>

- 10 Jeal N, Salisbury C. A health needs assessment of street-based prostitutes: cross-sectional survey. *J Public Health (Oxf)* 2004;26:147–51.
- 11 Ma PHX, Chan ZCY, Loke AY. The socio-ecological model approach to understanding barriers and facilitators to the accessing of health services by sex workers: a systematic review. *AIDS Behav* 2017;21:2412–38.
- 12 McCann J, Crawford G, Hallett J. Sex worker health outcomes in high-income countries of varied regulatory environments: a systematic review. *IJERPH* 2021;18:3956.
- 13 Peters MDJ, Godfrey C, McInerney P, et al. Scoping Reviews. In: *JBIM Manual for Evidence Synthesis*. 2020. Available: <https://synthesismanual.jbi.global>
- 14 Tricco AC, Lillie E, Zarin W, et al. PRISMA extension for scoping reviews (PRISMA-SCR): checklist and explanation. *Ann Intern Med* 2018;169:467–73.
- 15 Johnson SD, Tilley N, Bowers KJ. Introducing EMMIE: an evidence rating scale to encourage mixed-method crime prevention synthesis reviews. *J Exp Criminol* 2015;11:459–73.
- 16 Bradbury-Jones C, Aveyard H, Herber OR, et al. Scoping reviews: the PAGER framework for improving the quality of reporting. *Int J Soc Res Methodol* 2022;25:457–70.

Ovid MEDLINE(R) ALL <1946 to March 20, 2023>

- 1 prostitute.mp. 454
- 2 sex worker.mp. or Sex Workers/3513
- 3 Health Services/ 27436
- 4 NHS.mp. 39298
- 5 National Health Service.mp. 16149
- 6 exp General Practitioners/ or GP.mp. 56135
- 7 Primary care.mp. or Primary Health Care/ 177316
- 8 Community Health Services/ or Community health services.mp. 33942
- 9 Outreach.mp. 17660
- 10 Drop-in.mp. 29086
- 11 Walk in.mp. 2906
- 12 Treatment cent*.mp. 14200
- 13 Third sector.mp. 436
- 14 Voluntary sector.mp. 473
- 15 Charities/ 3994
- 16 non-profit.mp. 2867
- 17 gum clinic.mp. 199
- 18 sexual health clinic.mp. 555
- 19 genitourinary medicine.mp. 1475
- 20 (accident and emergency).mp. [mp=title, book title, abstract, original title, name of
substance word, subject heading word, floating sub-heading word, keyword heading word, organism
supplementary concept word, protocol supplementary concept word, rare disease supplementary
concept word, unique identifier, synonyms, population supplementary concept word, anatomy
supplementary concept word] 11682
- 21 emergency department.mp. or Emergency Service, Hospital/ 148697
- 22 1 or 2 3927
- 23 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20
or 21 538033
- 24 support group.mp. or exp Self-Help Groups/ 13552
- 25 exp Mental Health Services/ 104824
- 26 exp Substance Abuse Treatment Centers/ 5425
- 27 exp Early Intervention, Educational/ 3489
- 28 exp Crisis Intervention/ 6179
- 29 exp Harm Reduction/ 4048
- 30 exp Community Mental Health Services/ 19018
- 31 24 or 25 or 26 or 27 or 28 or 29 or 30 133549
- 32 23 or 31 652078
- 33 22 and 32 431