

Sexual health and COVID-19: Protocol for a scoping review

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Abstract

Background: Global responses to the COVID-19 pandemic have exposed and exacerbated existing socioeconomic and health inequities that disproportionately affect the sexual health and well-being of many populations, including people of color, ethnic minority groups, women, and sexual and gender minority populations. Although there have been several reviews published on COVID-19 and health disparities across various populations, none have focused on sexual health. We plan to conduct a scoping review that seeks to fill several of the gaps in the current knowledge of sexual health in the COVID-19 era.

Methods: A scoping review focusing on sexual health and COVID-19 will be conducted. We will search (from January 2020 onwards) CINAHL, Africa-Wide Information, Web of Science Core Collection, Embase, Gender Studies Database, Gender Watch, Global Health, WHO Global Literature on Coronavirus Disease Database, WHO Global Index Medicus, PsycINFO, MEDLINE and Sociological Abstracts. Grey literature will be identified using Disaster Lit, Google Scholar, governmental websites and clinical trials registries (e.g. ClinicalTrials.gov, World Health Organization, International Clinical Trials Registry Platform and International Standard Randomized Con-trolled Trial Number registry). Study selection will conform to Joanna Briggs Institute Reviewers' Manual 2015 Methodology for JBI Scoping Reviews. Only English language, original studies will be considered for inclusion. Two reviewers will independently screen all citations, full-text articles, and abstract data. A narrative summary of findings will be conducted. Data analysis will involve quantitative (e.g. frequencies) and qualitative (e.g. content and thematic analysis) methods.

Discussion: Original research is urgently needed to mitigate the risks of

COVID-19 on sexual health. The planned scoping review will help to address this gap.

Background

Global responses to the COVID-19 pandemic have exposed and exacerbated existing socioeconomic and health inequities that disproportionately affect the health and well-being of people of color, ethnic minority groups, women, and sexual and gender minority populations [1, 2, 3]. Many sub-populations may experience worse sexual health during COVID-19. Sexual health research, broadly defined, is the study of an individuals' physical, emotional, mental and social well-being in relation to sex- uality; it goes beyond the absence of disease, dysfunction, or infirmity [4]. In this respect sexual health has psycho-social dimensions, in addition to physical dimen- sions. Sexual health research includes studies that center on sexual minorities as a population and comprises sexual behavior and access to high-quality sexual health care. For the purposes of the planned review, due to a lack of research and that sys- tematic reviews on these areas are currently being conducted, reproductive health, intimate partner violence and gender-based violence will not be considered compo- nents of sexual health. Guidelines to stay at home, the resulting economic impact on individuals and families, and the need to shift healthcare resources

(including money, clinic space, and staff) to the COVID-19 response are likely to affect sexual behavior, sexual health, and access to quality sexual health care. Research suggests that a reduction in economic opportunities may impact sexual healthcare access for women [5]. Similarly, during health crises, sexual health resources may be diverted to the pandemic response, with the potential to increase maternal mortality, and limit abortion care and contraception access [6, 7]. Sex workers worldwide may see clients in person, risking infection and perhaps not seeking medical care due to reduced healthcare provision [8]. In some countries, like the USA, the LGBTQIA community is also less likely to have health insurance [9], increasing negative economic impacts if they contract COVID-19. These factors may widen socioeconomic inequity and further reduce access to sexual health services. Key populations experience unique challenges in the wake of the pandemic including delays in seeking treatment due to fear of stigma, discrimination and involuntary outing of sexual orientation or immigration status through contact tracing and isolation [10].

Several published reviews have focused on COVID-19 and health outcomes across various populations [11, 12]. However, these reviews did not center on sexual health, an area of health and well-being potentially negatively affected by the pandemic. Sexual health is key to overall human health and well-being, and to the socioeconomic development of communities and countries [13]. Moreover, people of color, women and ethnic and sexual minorities likely face greater negative impacts from the pandemic, especially sexual health. The planned scoping review seeks to compile published evidence in the field to identify gaps in current understanding of sexual health and COVID-19. We will conduct a scoping review rather than use other methods of research synthesis because scoping reviews are appropriate for mapping an area of research [14]; we will not be examining the effect of an intervention on an outcome of interest, and it thus does not make sense to assess risk of bias, as per a systematic review; and sexual health research outcomes are likely not sufficiently similar to each other to warrant pooling or formal meta-analysis regarding a specific outcome. The review will include and contrast research detailing sexual health and COVID-19 among individuals of all genders and sexual identities [4]. This review will also include research that has examined a broad range of outcomes and studies related to sexual health and well-being (e.g. testing, risk behaviors, treatment, PrEP use, vaccination, gender-based violence, selling sex).

The planned scoping review will build on existing reviews around COVID-19 and a range of other populations and health outcomes. Our review will chart the change in sexual health research, such as shifts in topics of focus and research technique (e.g. qualitative versus quantitative), to determine if some research areas are tied to changes in pandemic progression. Key to the development of interventions that improve sexual health amid COVID-19 is a comprehensive understanding of the current status of evidence around sexual health during the COVID-19 era. The planned scoping review seeks to understand gaps in the current knowledge base on sexual health and COVID-19, especially in marginalized groups such as sexual minorities and people living with HIV. The planned scoping review seeks to provide this evidence by contributing an evaluation of available literature about sexual health in relation to COVID-19, with the goal of identifying gaps in research.

Methods/design

The review protocol has been registered within the Open Science Framework database (osf.io/PRX8E) and is being reported in accordance with the reporting guidance provided in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Protocols (PRISMA-P) statement [15] (see checklist in Additional file 1). The proposed scoping review will be reported in accordance with the reporting guidance provided in the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) extension for Scoping Reviews (PRISMA-ScR) [16]. Research objectives, inclusion criteria, and methodological techniques will be determined before study commencement using the Joanna Briggs Institute Reviewers' Manual 2015 Methodology for JBI Scoping Reviews [17]. This process will adhere to the indicated framework: 1) identifying research question; 2) developing comprehensive search strategy; 3) identifying relevant studies; 4) selecting studies; 5) charting data; and 6) collating, summarizing and reporting results. The study team will develop a search strategy as recommended by the 2015 Methodology for JBI Scoping Reviews.

This scoping review will be conducted by 13 individuals: 12 researchers from several universities worldwide, from a range of disciplines (e.g. medicine, sociology, demography, public health, criminology, economics, psychology, epidemiology), and an informationist from the Harvey Cushing/John Hay Whitney Medical Library at Yale University. The objective of the scoping review is to develop a better understanding of the current research landscape around sexual health and COVID-19 by investigating existing studies and gaps in the research. The broad research questions are “what has been reported on sexual health in the COVID-19 era?” and “what are the gaps in the current knowledge base on sexual health and COVID-19 across diverse populations, including marginalized groups?” The search strategy will be performed in line with techniques that enhance methodological transparency and improve the reproducibility of the results and evidence synthesis.

Information sources and search strategy

The primary source of literature will be a structured search of electronic databases (from January 2020 onwards): MEDLINE, EMBASE, CINAHL, PsycINFO, Web of Science Core Collection, Africa-Wide Information, Gender Studies Database, Gender Watch, Global Health, WHO Global Literature on Coronavirus Disease Database, WHO Global Index Medicus, and Sociological Abstracts. The secondary source of potentially relevant material will be a search of preprint servers (e.g. medRxiv.org, PsyArXiv.org), Disaster Lit, Google Scholar (e.g. the first five pages will be searched), governmental websites and clinical trials registries (e.g. Clinical-Trial.gov, World Health Organization International Clinical Trials Registry Platform and International Standard Randomized Controlled Trial Number registry). The references of included documents will be hand-searched to identify any additional evidence sources. The search strategy will be designed by a research librarian and peer reviewed by using the Peer Review of Electronic Search Strategies (PRESS) checklist [18]. A draft search strategy for MEDLINE is provided in Additional file 2. We will use search terms similar to our main search to find articles for inclusion.

The same keywords for the main search will be used to search grey literature each time. All grey literature will be compiled in a folder and reviewed similarly to articles obtained from our database searches. EndNote, a bibliographic software, will be used to store, organize, and manage all references [19].

Eligibility criteria

We will include all studies with all study designs involving COVID-19 and sexual health. Only English language studies will be considered for inclusion. Past work indicated that excluding non-English language records from a review seemed to have a minimal effect on results [20, 21].

Inclusion criteria

Published research (peer reviewed and grey literature where primary data was collected such as reports, research letters and briefs) investigating sexual health and COVID-19 in all populations, settings and study designs e.g. studies with small samples, quantitative and qualitative studies, will be eligible for inclusion. We will include studies focusing on sex workers, LBTQIA persons, and persons at risk for HIV, even if these studies do not examine sexual health specifically. Primary outcomes will include how the COVID-19 pandemic affects sexual health, both effects of the lockdown and the biological impact of the virus on sexual health and how the COVID-19 pandemic affects sexual minorities. Primary outcomes will not include reproductive health, intimate partner violence and gender-based violence alone.

There will be no restrictions on age, region, or gender.

Studies reported only as conference abstracts will be included, only if we do not have access to the full paper. Conference abstracts are often left out of systematic reviews as they may not contain adequate information to conduct quality assessment or a meta-analysis. Here, we will include conference abstracts as they are often published earlier than full manuscripts [22], which is key to a thorough scoping review on an ongoing phenomenon.

Exclusion criteria

Commentaries, correspondences, case reports, case series, editorials, and opinion pieces will be excluded. Case reports and case series often contain relatively limited evidence [23].

Governmental or other agency guidelines will be excluded.

Reviews such as systematic reviews and scoping reviews will be excluded, but we will review the references in these for inclusion, if applicable.

Screening and selection procedure

All reports identified from the searches will be screened by two reviewers independently. First, titles and abstracts of articles returned from initial searches will be screened based on the eligibility criteria outlined above. Second, full texts will be examined in detail and screened for eligibility. Third, references of all

considered articles will be hand-searched to identify any relevant report missed in the search strategy. Any disagreements will be resolved by discussion, or if necessary, with a third reviewer. A flow chart showing details of studies included and excluded at each stage of the study selection process will be provided. We will contact authors where necessary if the abstracts do not provide sufficient information [22]. Covidence will be used to manage the title/abstract and full-text screening phases [24].

Data extraction

Reviewers will undergo a practice exercises till they have a high level of agreement (>0.8 kappa) and then independently extract data from studies. Reviewers will abstract the data using a pretested data extraction template. We will use a standardized coding protocol to collect information such as: title of study, authors, date published; author affiliation as a measure to ascertain the discipline focus of the study and collaborating institutions; study setting; study design; description of methodology; description of study sample; definition or type of sexual health studied (if any); measurements and scales used; main findings; funder information; journal title; submission variant (research letter, short report, original article etc.). Even though a formal risk of bias is not planned for this scoping review, we will note which studies are pre-prints, and thus, have not been formally peer reviewed.

Data synthesis

Outcomes and other information collected regarding selected studies will be synthesized using quantitative (e.g. frequencies) and qualitative (e.g. content and thematic analysis) methods, with a narrative summary of findings conducted. Synthesis will be presented in tables, summary data in graphs, and individual data for each study in tables. The broad goal of the synthesis is to identify gaps in research and present recommendations for future research agendas.

Discussion

The strength of the planned scoping review is the use of a transparent and reproducible procedure for a scoping literature review. We state the data sources, search strategy, and data extraction [25]. Through publishing this research protocol, we strengthen the clarity of the search strategy.

There have been few studies which compile available evidence from various settings in relation to sexual health and COVID-19. Our review will provide an overview of these studies, synthesizing evidence. There is much anecdotal work around sexual health and COVID-19, with few published studies. The planned review will highlight areas of research focus and gaps which require more attention. Moreover, the COVID-19 context is quickly changing [26] likely affecting sexual health in a rapidly shifting fashion. Results will thus provide high-level information to inform, support, and customize design of interventions to mitigate reduced sexual health outcomes in this setting. As researchers attempt to minimize the harms from COVID-19, especially for marginalized populations (e.g. people of color, ethnic minority groups, women, and sexual and gender minority populations), they need to be aware of scientific evidence to develop interventions to achieve their aim. The planned scoping review seeks to provide this evidence by

contributing an evaluation of what is currently known about sexual health in relation to COVID-19, with the goal of identifying gaps in research and presenting recommendations for future research foci.

Any amendments to this protocol will be documented in the final published scoping review with reference to saved searches and analysis.

Results of the review will be disseminated in a peer-reviewed journal and likely in other media such as: conferences, seminars, symposia. The protocol and final review article will be made open access upon publication. As per PRISMA-ScR guidelines, we will present results in a user-friendly format [27].

Limitations

Our planned review should be read in line with some limitations. Although we plan to search several databases and gray literature sources, we may miss some studies. Not all authors we reach out to may respond and we may thus miss some unpublished work. We may not be able to make policy recommendations due to the lack of quality appraisal of studies [28].

List Of Abbreviations

PrEP: Pre-Exposure Prophylaxis

LMICs: low- and middle-income countries

PRISMA-ScR: PRISMA Extension for Scoping Reviews JBI: Joanna Briggs Institute

COVID-19: Coronavirus Disease 2019

LGBTQIA: lesbian, gay, bisexual, transgender, queer or questioning, intersex, and asexual or allied

HIV: human immunodeficiency virus STI: sexually transmitted infection

Declarations

Ethical Approval and Consent to participate Not applicable

Consent for publication

All authors approved submission.

Availability of supporting data

Available from authors at reasonable request.

Competing interests

The authors declare that they have no competing interests.

Funding

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Author's contributions

NK and KJ wrote the first draft. NK, KN, KJ, LF, DC, VM, JS, JMF, SMV, MU, WHZ, AK, ECL, JTE, JDT contributed to the manuscript write-up and review.

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Appendix

Search strategy

1 exp Coronavirus/

2 exp Coronavirus Infections/

3 (coronavirus* or corona virus* or OC43 or NL63 or 229E or HKU1 or HCoV* or ncov* or covid* or sars-cov* or sarscov* or Sars-coronavirus* or Severe Acute Respiratory Syndrome Coronavirus*).mp.

4 (or/1-3) and ((20191* or 202*).dp. or 20190101:20301231.(ep).) [this set is the sensitive/broad part of the search]

5 4 not (SARS or SARS-CoV or MERS or MERS-CoV or Middle East respiratory syndrome or camel* or dromedar* or equine or coronary or coronal or covidence* or covidien or influenza virus or HIV or bovine or calves or TGEV or feline or porcine or BCoV or PED or PEDV or PDCoV or FIPV or FCoV or SADS-CoV or canine or CCov or zoonotic or avian influenza or H1N1 or H5N1 or H5N6 or IBV or murine corona*).mp.

[line 5 removes noise in the search results]

6 ((pneumonia or covid* or coronavirus* or corona virus* or ncov* or 2019-ncov or sars*).mp. or exp pneumonia/) and Wuhan.mp.

7 (2019-ncov or ncov19 or ncov-19 or 2019-novel CoV or sars-cov2 or sars-cov-2 or sarscov2 or sarscov-2 or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or coronavirus-19 or covid19 or covid-19 or covid 2019 or ((novel or new or nouveau) adj2 (CoV on nCoV or covid or coronavirus* or corona virus or Pandemi*2)) or ((covid or covid19 or covid-19) and pandemic*2) or (coronavirus* and pneumonia)).mp.

8 COVID-19.rx,px,ox. or severe acute respiratory syndrome coronavirus 2.os.

9 ("32240632" or "32236488" or "32268021" or "32267941" or "32169616" or "32267649" or "32267499" or

"32267344" or "32248853" or "32246156" or "32243118" or "32240583" or "32237674" or "32234725" or "32173381" or "32227595" or "32185863" or "32221979" or "32213260" or "32205350" or "32202721" or "32197097" or "32196032" or "32188729" or "32176889" or "32088947" or "32277065" or "32273472" or "32273444" or "32145185" or "31917786" or "32267384" or "32265186" or "32253187" or "32265567" or "32231286" or "32105468" or "32179788" or "32152361" or "32152148" or "32140676" or "32053580" or "32029604" or "32127714" or "32047315" or "32020111" or "32267950" or "32249952" or "32172715").ui.

[Articles not captured by this search when created in April 2020, pending further indexing by NLM]

10 or/6-9 [Lines 6 to 9 are specific to Covid-19] 11 5 or 10

12 11 and 20191201:20301231.(dt).
13 (covid* or ncov* or 2019-novel CoV or SARS-CoV2 or SARS-CoV-2 or SARSCoV2 or SARSCov-2 or "severe acute respiratory syndrome coronavirus 2").mp.
14 (coronavirus* or corona virus*).mp. and 2020*.dp.
15 ((novel or new or "2019" or "19" or pandemic or crisis or outbreak or Wuhan or China) adj3 (coronavirus* or corona virus*)).mp.
16 Covid-19.rx.
17 coronavirus infections/ and 2020*.dp.
18 Pneumonia, Viral/ and 2020*.dp. 19 or/13-18
20 12 or 19
21 [from the CADTH hedge]
22 (coronavirus/ or betacoronavirus/ or coronavirus infections/) and (disease outbreaks/ or epidemics/ or pan- demics/)
23 (nCoV* or 2019nCoV or 19nCoV or COVID19* or COVID or SARS-COV-2 or SARSCOV-2 or SARSCOV2 or Severe Acute Respiratory Syndrome Coronavirus 2 or Severe Acute Respiratory Syndrome Corona Virus 2).ti,ab,kf,nm,ot,ox,rx,px.
24 ((new or novel or "19" or "2019" or Wuhan or Hubei or China or Chinese) adj3 (coronavirus* or corona virus* or betacoronavirus* or CoV or HCoV)).ti,ab,kf,ot.
25 ((coronavirus* or corona virus* or betacoronavirus*) adj3 (pandemic* or epidemic* or outbreak* or crisis)).ti,ab,kf,ot.
26 ((Wuhan or Hubei) adj5 pneumonia).ti,ab,kf,ot. 27 or/22-26
28 limit 27 to yr="2019 -Current"
29 [let's compare]
30 20 [homegrown]
31 27 [CADTH]
32 [additional pandemic terms]
33 (pandemic* or quarantine* or social* distan* or lockdown*).mp.
34 exp disease outbreaks/ 35 20 or 27 or 33 or 34
36 limit 35 to yr="2019 -Current" [confirm this]
37 [sexual health]

38 sexual health/
39 exp sexually transmitted diseases/
40 exp sexual behavior/
41 sexual health.mp.
42 ((sexually transmitted or venereal) adj1 (disease* or infection*)).mp.
43 (std or stds or sti or stis).mp.
44 (gonorrhea or chlamydia or syphilis or herpes).mp.
45 (HIV or human immunodeficiency virus).mp.
46 (AIDS or acquired immunodeficiency syndrome).mp.

47 sexual behavio*.mp.
48 (safe* sex or courtship* or masturbat* or abstinem* or unsafe sex).mp.
49 sexualit*.mp.
50 (sex adj1 (work* or industr*)).mp.
51 prostitut*.mp.
52 (sex and client*).mp.
53 escort*.mp.
54 (brothel* or strip club*).mp.
55 exp sex offenses/
56 domestic violence/ or spouse abuse/
57 ((spouse* or spousal or wife or wives or husband* or partner* or boyfriend* or girlfriend* or domestic) adj2 (abus* or violen*)).mp.
58 (dv or ipv).mp.
59 coercive control.mp.
60 (rape* or rapist*).mp.
61 (sex* adj1 (offen* or violen* or abus* or exploit*)).mp.
62 traffick*.mp.
63 (dating or romantic* or intimate or sexual* or sext* or seksbudd* or sex budd*).mp.
64 sex* partner*.mp.
65 sexual partners/
66 Pre-Exposure Prophylaxis/
67 Post-Exposure Prophylaxis/
68 (exposure prophylaxis or PrEP or PEP or truvada).mp.
69 Emtricitabine, Tenofovir Disoproxil Fumarate Drug Combination/
70 [my search from the Sarah Abboud project]
71 (gender* adj2 nonconform*).mp.
72 (gender* adj2 non-conform*).mp.
73 (trans adj (female* or male* or man or men or women or woman or boy* or girl*)).mp.
74 (trans adj (population* or patient* or participant* or subject* or adolescent* or teen* or child* or individual* or people or person* or youth*)).mp.
75 agender*.mp.
76 bicurious.mp.
77 bigender*.mp.
78 bisexual*.mp.
79 cross sex.mp.
80 crossgender.mp.
81 DSD.mp.
82 gay.mp.
83 gays.mp.
84 gender change.mp.

85 gender crossing.mp.
86 gender dysphori*.mp.
87 gender fluid*.mp.
88 gender identit*.mp.
89 gender incongruen*.mp.
90 gender minorit*.mp.
91 gender neutral.mp.
92 gender queer.mp.
93 gender transition*.mp.
94 gender varian*.mp.
95 genderless.mp.
96 genderqueer*.mp.
97 GLB.mp.
98 GLBQ.mp.
99 GLBs.mp.
100 GLBT.mp.
101 GLBTQ.mp.
102 heteroflexible.mp.
103 homosexual*.mp.
104 intersex*.mp.
105 lesbian*.mp.
106 lesbigay*.mp.
107 LGB.mp.

108 LGBQ.mp.
109 LGBS.mp.
110 LGBT*.mp.
111 men who have sex with men.mp.
112 mostly-heterosexual.mp.
113 MSM.mp.
114 MSMW.mp.
115 nonbinary.mp.
116 non-binary.mp.
117 nonheterosexual*.mp.
118 non-heterosexual*.mp.
119 queer.mp.
120 queers.mp.
121 same gender loving.mp.
122 same sex couple*.mp.
123 same sex relations*.mp.

124 same-sex attract*.mp.
125 sexual identit*.mp.
126 sexual minorit*.mp.
127 sexual orientation*.mp.
128 sexual preference*.mp.
129 SGM.mp.
130 third gender*.mp.
131 transboy*.mp.
132 transex*.mp.
133 transfemale*.mp.
134 transfeminine.mp.
135 transgender*.mp.
136 transgirl*.mp.
137 transmn.mp.
138 transmasculine.mp.
139 transmale*.mp.
140 transsex*.mp.
141 trans-sex*.mp.
142 trans-spectrum.mp.
143 transwomn.mp.
144 two-spirit*.mp.
145 women loving women.mp.
146 women who have sex with women.mp.
147 WSW.mp.
148 WSWM.mp.
149 exp "sexual and gender minorities"/
150 bisexuality/
151 transsexualism/
152 exp homosexuality/
153 gender identity/
154 health services for transgender persons/
155 gender dysphoria/
156 exp "Disorders of Sex Development"/
157 [not in Sarah's search]
158 gender affirming.mp.
159 or/37-157
160 [summation]
161 36 and 159
162 limit 161 to yr="2020"
163 limit 162 to english language

Supplementary Files

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