



Rethinking research on sexual exploitation of boys: Methodological challenges and recommendations to optimize future knowledge generation

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ABSTRACT

Research and policies on child and adolescent sexual exploitation frequently focus on the sexual exploitation of girls and fail to recognize the experiences of sexually exploited boys, including their potentially unique health care and social support needs. This oversight limits the ability of health care and social service providers to offer both targeted and evidence informed care to sexually exploited boys. As a first step in a larger grant to understand the experiences of sexually exploited boys and to develop interventions for this specific population, we conducted a systematic review to address the question, “What is the state of the research on sexually exploited boys internationally?” As we undertook this review, we faced a number of significant challenges that made the process more difficult than anticipated. In this paper we discuss four key methodological challenges we encountered: lack of a consistent definition of child and adolescent sexual exploitation, difficulties in differentiating sexual exploitation as a specific concept within child sexual abuse, failure to disaggregate data usefully across multiple variables, and limited epidemiological studies to inform prevalence. We reflect on how these challenges limited our ability to systematically analyze, synthesize, and interpret the available research. We conclude by making recommendations to improve the state of the research regarding sexually exploited boys with the aim of better informing future policy and practice.

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1. Introduction

Child and adolescent sexual exploitation is a human rights violation that has serious immediate and long-term physical, mental, emotional, and social health consequences for children of all genders (Edwards, Iritani, & Hallfors, 2006; Mitchell, Finkelhor, & Wolak, 2010; Institute of Medicine & National Research Council, 2013). Sexually exploited youth, as compared to non-sexually exploited youth, report increased rates of sexually transmitted infections, depression, and homelessness (Edwards et al., 2006; Mitchell et al., 2010). Research and policies on this topic, however, often focus on the sexual exploitation of girls alone (Cockbain, Brayley, & Ashby, 2014). This is problematic because it fails to recognize how the experiences, as well

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as health care and social support needs of sexually exploited boys may differ from those of girls. Ultimately, such oversights limit the ability of health care and social service providers to offer both targeted and evidence informed care to sexually exploited boys.

Of the research that has addressed sexual exploitation of both boys and girls, similar rates of exploitation have been reported amongst these two populations. For example, a Canadian study found similar rates of sexual exploitation amongst boys and girls, where more than 1 in 3 street-involved boys aged 19 and under reported sexual exploitation (Saewyc, MacKay, Anderson, & Drozda, 2008). Likewise, Homma, Nicholson, and Saewyc (2012) found that 2% of boys and 3% of girls living in rural British Columbia, Canada reported sexual exploitation in a school-based population health survey. Comparable rates have also been reported in studies conducted with high school students in both Norway and Sweden. In an Oslo study, 2.1% of boys and 0.6% of girls reported selling sex; likewise, 1.8% of boys and 1.0% of girls from a nationally representative Swedish sample reported selling sex for payment (Pedersen & Hegna, 2003; Svedin & Priebe, 2007).

As a first step in a larger grant to understand the experiences of and to develop interventions for sexually exploited boys, we performed a systematic review to address the question, “What is the state of the research on sexually exploited boys internationally?” In conducting this study, we immediately encountered a series of challenges related to the way concepts were defined, and how studies were performed that resulted in a much more extensive and complex systematic review process than was anticipated. Therefore, the purpose of this paper is to identify and describe the key methodological challenges in the literature, in order to inform researchers and clinicians of the limits in the existing research about the sexual exploitation of boys.

The United Nations Convention on the Rights of the Child (UN CRC) is the seminal international agreement on the definition of child and adolescent sexual exploitation. Article 1 of the UN CRC defines child as “every human being below the age of 18 years” (Office of the United Nations High Commissioner for Human Rights, 1989). The UN CRC has three optional protocols, one being *On the sale of children, child prostitution and child pornography*, which further specifies child prostitution as “the use of a child in sexual activities for remuneration or any other form of consideration” (Office of the United Nations High Commissioner for Human Rights, 2000b, Article 2). The optional protocol has been adopted by 173 state parties and is binding in these states (Office of the United Nations High Commissioner for Human Rights, 2016). Another nine states are signatories to the treaty, meaning they have preliminarily endorsed it, are examining it domestically, and are considering its full endorsement. Sixteen states have taken no action.

This paper recognizes that there is a complex relationship between different legal and governmental definitions of sexual exploitation. The UN CRC definition of child sexual exploitation intersects with other definitions of sexual exploitation such as human trafficking, sex trafficking, and the commercial sexual exploitation of children. An example of this overlap is found in the primary United Nations document that defines human trafficking, the Palermo Protocol, which defines ‘trafficking in persons’ as:

the recruitment, transportation, transfer, harbouring or receipt of persons by means of threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power, or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs (Office of the United Nations High Commissioner for Human Rights, 2000a, Article 3)

Our systematic review focused on child and adolescent sexual exploitation. The authors recognize that some older adolescents (18 and over) and young adults experience sexual exploitation, such as those who are involved in sex trafficking. Additionally, some individuals aged 18 and older first experienced exploitation before their 18th birthday. While this paper will not take a position on older adolescent and young adult sexual exploitation, there is value for researchers to study both child and adolescent and older adolescent and young adult populations separately.

2. Methods

2.1. Operational definition

Based on the CRC and its Optional Protocol, in this study we defined child and adolescent sexual exploitation as sexual abuse through trading or exchanging sex or sexual activities (i.e. stripping, exotic dancing, pornographic videoing), for drugs, food, shelter, protection, or other basics of life, and/or for money.

2.2. Search selection

We searched for any published peer-reviewed research that included information about sexually exploited boys. A review protocol was developed and agreed upon by the authors before the review began and was used to guide the review. Studies were included if they met the following inclusion criteria: (a) provided information about child and adolescent sexual exploitation as defined by this study, (b) had male participants, (c) majority of participants were <18 years old, and (d) were published in English. We were interested in research that had been conducted anywhere in the world about this issue, and as a result, there were no geographic limits in our criteria.

Table 1
MeSH headings and keyword search terms used in Medline (OVID) database search.

Category	Sexual Exploitation	Age	Gender
MeSH terms	Child abuse, sexual Prostitution Human trafficking Sex Worker	Child, preschool Child Adolescent Minors Young Adult	Male
Keyword terms	Sex* exploit* Sex* adj10 exploit* Sexual exploitation of children Sex traffic* Human traffic * Commercial sexual exploitation of children Commercial sexual exploitation Trading sex Prostitution Sex work* Selling sex Survival sex Child pornograph* Transactional sex Domestic minor sex work Sex industry	Child* Adolesc* Young adult Young person Youth* Teen*	Boy* Male*

Note: Controlled vocabulary varied slightly among databases and consequently minor adjustments were made to optimize search strategies; "adj10" is controlled vocabulary that searches for these two words within ten words of each other.

We limited our review to studies published from 1990 onwards as this date is after the 1989 signing of the UN CRC. Studies that were focused solely on clients or perpetrators, child sexual abuse that did not explicitly include exchanging or trading sex, incest, and studies about health care or service providers rather than exploited youth were excluded. We also excluded studies that did not have empirical data, case studies, review articles, dissertations, books, book chapters, and conference proceedings.

2.3. Search

In consultation with a health sciences and reference librarian, electronic searches of five medical and social science databases – Medline, PsychInfo, Cumulative Index of Nursing and Allied Health Literature (CINAHL), Sociological Abstracts, and Centre for Agriculture and Bioscience Direct (CAB Abstracts and Global Health) – were conducted on April 13 and 14, 2015, including studies from January 1st, 1990 to the second week of April 2015. Given that no Medical Subject Headings (MeSH) were found specific to child and adolescent sexual exploitation, we used a combination of the available MeSH terms related to sexual exploitation and identified keyword search terms we believe captured our definition of sexual exploitation. The Boolean operators "AND" and "OR" were then used to combine the sexual exploitation; age; and sex search terms (Table 1). Additional searches were performed on two online resources; Google Scholar and the National Institute for Health and Care Excellence (NICE); on April 13; 2015 using the phrase "sexually exploited youth". The first 200 results from Google Scholar and all 99 results from NICE were included.

After duplicates were removed from all identified records, five of the authors participated in two rounds of concordance screening, comprised of 299 articles, to ensure a sufficient degree of agreement. The results of the second screening were 75% concordant. These five reviewers subsequently screened titles and abstracts, and excluded all records that clearly did not meet the inclusion criteria. Next, a methods-level screen of the included articles was performed to ensure studies met our definition of child and adolescent sexual exploitation, reported on exploitation of boys and included participants <18 years of age. Reasons for exclusions at this level included: outcomes not disaggregated by relevant age groupings or by sex, and articles that did not clearly define sexual abuse. Full-text copies of included articles were then obtained and their eligibility assessed by two reviewers. In situations where there was a discrepancy in the inclusion decision between the primary reviewers, an expert reviewer made a definitive decision. A final list of studies to be included was agreed upon. Even though all available resources were utilized to obtain full-text articles, we were unable to locate eight of those included at the methods screening.

3. Results

Our initial search identified 11,829 publications (Fig. 1). After duplicates and non peer-reviewed journal results (i.e. books, book chapters, dissertations/theses, conference proceedings) were removed, 8249 articles remained for title and abstract screening. Further exclusions were made of 6325 records at title and abstract screening stage, and an additional 1707 articles

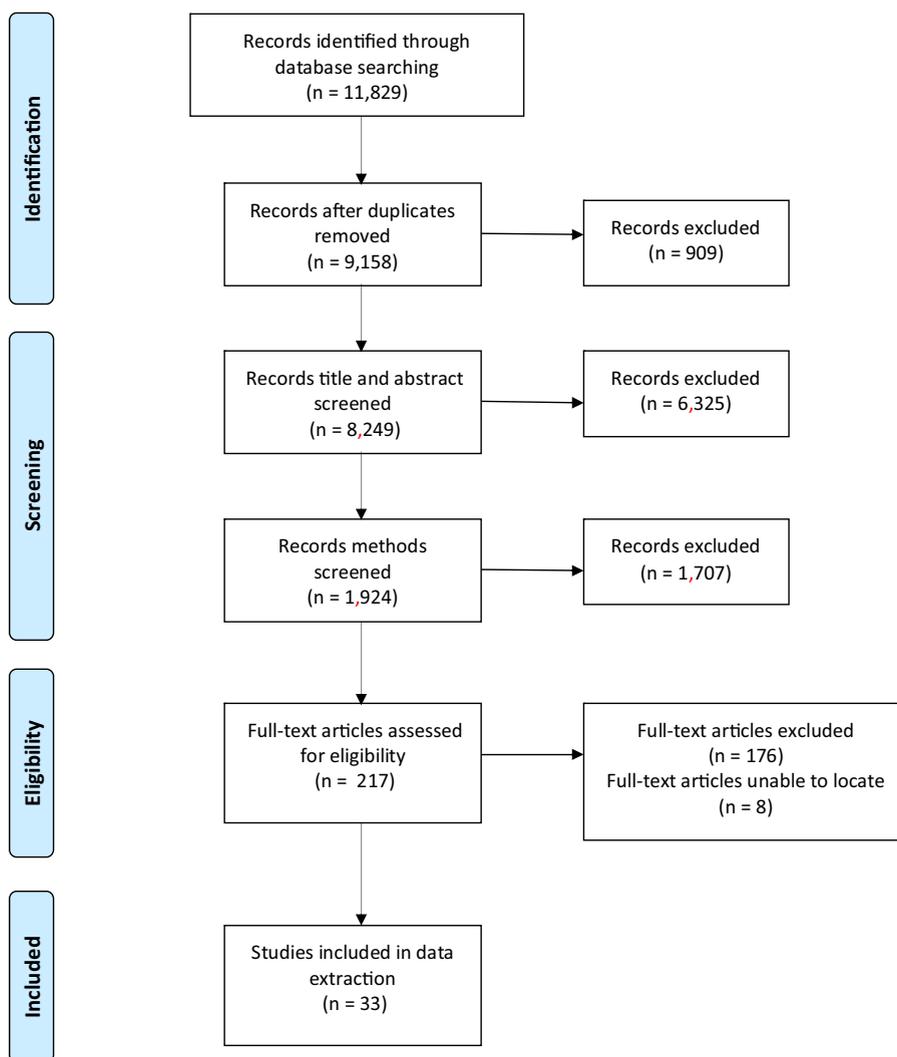


Fig. 1. PRISMA 2009 Flow Diagram.

removed during methods screening. A total of 209 articles were obtained for full-text review; 33 were selected for the final inclusion and data extraction based on the inclusion criteria. The publication date range of the articles included in the review is 1991–2015, and 17 countries are represented.

As is evidenced in the PRISMA diagram, there was a significant funneling effect whereby thousands of articles were identified as possibly containing information on sexually exploited boys, however, only 33 of those articles were found to have relevant information. Further, among this final article list, many articles provided a very limited scope of information about the sexual exploitation of boys, for example only providing prevalence data without any further contextual data. We identified four major challenges throughout the title and abstract, methods and full article screening processes that account for this funneling effect and inform suggestions for future research endeavors with this population. The four challenges are: 1) lack of a consistent definition of child and adolescent sexual exploitation, 2) difficulties in differentiating sexual exploitation as a specific concept within child sexual abuse, 3) failure to disaggregate data usefully across multiple variables, and 4) limited epidemiological studies to inform prevalence data.

3.1. Inconsistent definition of exploitation

Although our review used the definition of child and adolescent sexual exploitation agreed upon by the international community, the UN CRC definition has not been consistently taken up and operationalized within the sexual exploitation literature. To illustrate this difficulty, none of the five large medical and social science databases that were searched have adopted controlled vocabulary specific to the sexual exploitation of children and adolescents. The controlled vocabulary term most applicable to sexual exploitation is 'Human Trafficking' adopted by two of the five databases. Medline introduced

the term in 2014, and define it as, “Recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation” (OVID Technologies Inc., 2016). This definition is based on the UN *Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children, supplementing the UN Convention Against Transnational Organized Crime* (Office of the United Nations High Commissioner for Human Rights, 2000a). PsychINFO incorporated the same term with a similar definition in 2007 (EBSCO Host Industries Inc., 2016); whereas, it is absent from the controlled vocabulary of CINAHL and CAB Abstracts and Global Health. ‘Human Trafficking’ remains unspecific for sexual exploitation alone, as it also includes labour exploitation and persons 18 years of age and older. The lack of a specific controlled vocabulary term for child and adolescent sexual exploitation hinders researchers’ ability to focus on this topic, forcing them to engage in much broader keyword searches in order to find relevant information to inform practice and policy.

A further definitional challenge is the use of other terms to either represent or be inclusive of child and adolescent sexual exploitation. Some of these include: coercion, pressured sex, prostitution, traumatic experiences, child sexual abuse victimization, and childhood maltreatment. These terms often suffer from variability in definitions across authors and fail to clearly and specifically capture the sexually exploited population under age 18. For example, the use of exchange terms often included both sexually exploited youth and adults engaged in selling sex without disaggregating these populations (Dandona et al., 2006; Kidd & Kral, 2002) and were also prone to gendered discussion of females selling sex, with infrequent mention of males, other than as buyers of sex (Njue, Voeten, & Remes, 2011). Age and gender terms were added to our search strategy in an attempt to limit results to our population of interest, however, study methodologies reduced the utility of this approach.

As a result of these various definitional issues, we were forced to use a large number of keyword search terms in an attempt to keep the search broad and gather as much information as possible about sexually exploited boys. This involved complex search strategies including 34–62 search lines in each database and considerable refinement of the search strategy. This approach was neither practical nor timely and will continue to be problematic for clinicians and researchers interested in this topic.

3.2. Differentiating sexual exploitation as a specific concept within child sexual abuse

Related to the definitional difficulties inherent in the literature is the challenge of capturing child and adolescent sexual exploitation, a subtype of child sexual abuse, without incorporating all forms of child sexual abuse. Examples of child sexual abuse subtypes that were excluded from our review include: incest, rape, and forced intrafamilial sexual abuse. Ideally we wanted to exclude the parent term child sexual abuse from our search strategy as it generates numerous results. In our search of Medline the MeSH term ‘Child Abuse, Sexual’ produced 8471 articles. Unfortunately, through trial runs of the search strategy with quality control checks, that included examining results for articles known to be on topic, it became clear that elimination of the child sexual abuse term resulted in exclusion of relevant articles with information on child and adolescent sexual exploitation. Consequently, we felt it was necessary to include the term child sexual abuse, which led to an over-inclusive search strategy. This difficulty further strengthens the argument for researchers, governmental agencies, and non-governmental organizations, who work on sexual exploitation and human trafficking, to call for consensus on a definition of child and adolescent sexual exploitation. Having a clear definition of child and adolescent sexual exploitation would allow for adoption of specific controlled vocabulary within research databases. Subsequently, synthesizing the current state of the literature would be streamlined, as researchers would not have to resort to broad and over inclusive keyword searches.

3.3. Data poorly disaggregated across multiple variables

We encountered significant problems with data disaggregation. Research results often included combined age data, lack of clarity in the differentiation of selling versus buying sex, different conceptualizations of what might be traded or exchanged for sex, and poor division of gender data. All of these issues complicated our assessment of outcome data and make it difficult to compare results across studies.

Based on the UN definition of child and adolescent sexual exploitation, it follows that study designs including both adolescents and young adults should minimally use separate age bands for participants 17 years and younger, and those 18 years and older. Our review screening process identified this as a significant problem, as several articles examined exchanging sex among participants with age bands that crossed 18 years (Biello, Colby, Closson, & Mimiaga, 2014; Pennbridge, Freese, & MacKenzie, 1992; van de Walle, Picavet, van Berlo, & Verhoeff, 2012). Additionally, participant mean or median age was often not provided (Kipke, O’Connor, Palmer, & MacKenzie, 1995; McCarraher et al., 2013), further limiting our understanding of the composition of the study sample. Some articles did include narrower age bands, but outcome data were rarely separated by age bands. Rather, outcome data was often grouped for the whole sample or disaggregated based upon a population of special interest, such as street or drug involved youth who were also selling sex. Finally, a number of authors (Bloor, McKeganey, & Barnard, 1990; Kudrati, Plummer, & Yousif, 2008; Mai, 2011) explain that they had low confidence in the age of sexually exploited participants given societal norms and legal issues impacting age disclosure. This concern was especially

noted for qualitative data focused specifically on exploited populations. In a study of Glasgow rent boys, [Bloor et al. \(1990\)](#) noted that although rent boys endorsed ages between 17 and 20 years:

No reliable data can be provided on the ages of the rent boys contacted in our study since boys who were aged over 23 might be inclined to under report their age whilst rent boys who were aged below 16 might tend to over report their ages (para. 11).

Similarly, [Mai \(2011\)](#) reported:

...as age was a strategic terrain for the negotiation of economic opportunities, social support and regularization, there were often inconsistencies. For instance, interviewees presented themselves as minors when dealing with institutions to access regularization opportunities or to benefit from the 'lighter' measures available to 'offending' minors (p. 1241).

Additionally, [Kudrati et al. \(2008\)](#) had researchers visually estimate the ages of street children, some of whom were sexually exploited, noting that "many street children routinely overestimated their ages to appear older" (p. 440).

Age was not the only variable that was poorly disaggregated in the literature on sexually exploited boys. There were also frequent problems with separating the behaviors of selling and buying sex. Authors were not always explicit about how they asked what role a youth played in exchanging or trading sex ([Chen, McFarland, & Raymond, 2011](#); [Floyd et al., 2010](#); [Patton et al., 2014](#); [Louw et al., 2012](#); [Postmus et al., 2015](#); [Rowley et al., 2008](#); [Steffenson, Pettifor, Seage, Rees, & Cleary, 2011](#)). This was true of articles that directly addressed transactional sex, as well as for others for which exchanging sex was one of many variables examined for a vulnerable population. For example, [Chen et al. \(2011\)](#) focused on heterosexual exchange-sex partnerships where exchange sex was defined as, "money or goods for sex" (p. 236) and exchange individuals were defined as, "respondents who reported at least one opposite-sex exchange partnership" (p. 237). Unfortunately, as the study looked at 'involvement in' exchange sex, it was unclear what role each individual had within an exchange partnership. The term 'transactional sex involvement', which [Patton et al. \(2014\)](#) defined as the number of times within the past month that participants had been paid for sex with money or drugs, or had paid for sex with money or drugs, illustrates how buyers and sellers of sex were not differentiated in the literature. The concept of having a 'transactional sex partner in life time' used by [Louw et al. \(2012\)](#), suffered a similar lack of clarification regarding selling and receiving sex.

Grounded in the gender based violence literature, a further shortcoming of the research methods used to examine transactional sex, were survey items that asked participants whether anyone, "Asked you for sex to get a better grade? Asked you for sex to give you money or help? Asked you for sex to give you uniforms or food or something similar?" ([Postmus et al., 2015, p. 80](#)). The wording of these questions implies exposure to, being at risk of, as well as the possibility of exchanging sex, but does not confirm if the exchange actually took place. In other instances, transactional sex was divided by giving or receiving sex for money or other items, however, giving or receiving sex were collapsed into one 'transactional sex' variable for analysis and reporting of outcomes ([Atwood et al., 2012](#)). Problematically, reflecting a gendered view of child and adolescent sexual exploitation, some research was separated by buying and selling sex based on gender. There was an underlying assumption among some researchers that only females sold sex and only males bought sex ([Norris, Kitali, & Worby, 2009](#); [Schwarcz et al., 1992](#)). In an extreme example [Chatterji, Murray, London, and Anglewicz \(2005\)](#) operationalized this by assuming women responding 'yes' to a transactional sex survey item sold sex, while men answering 'yes' to this question bought sex.

Critically, data disaggregation of children and adolescents on the basis of gender was often neglected, making it difficult to determine if and how boys' exploitation experiences differ from other genders. This challenge took a number of forms. Often the sample breakdown of female and male youth was noted, but the outcomes were reported for both sexes together ([Kipke, Montgomery, & MacKenzie, 1993](#); [Martinez et al., 1998](#); [Miles, 2000](#)). This was frequently the case when the focus of the article was on a specific population. For example, [Gangamma, Slesnik, Toviessi, and Serovich \(2008\)](#) compared HIV risks among gay, lesbian, and bisexual youth versus heterosexual homeless youth, but did not divide the survival sex variable by gender within these groups. At other times, youth who identified as male or as transgender were not disaggregated ([Collumbien, Chow, Qureshi, Rabbani, & Hawkes, 2008](#)). The above examples are instances of articles that by focusing on their key variable of interest, overlooked the opportunity to examine the child and adolescent sexual exploitation experience by gender or sex.

A further methodological difficulty highlighted by our review was the inability to compare the concepts of trading or exchanging across studies due to differences in the definitions of possible goods traded for sex. At times studies did not precisely report what males were trading for sex. This was demonstrated by survey questions that asked only if participants had exchanged sex; in these situations it is unclear how youth interpreted such an open-ended item ([Folayan, Odetoyinbo, Brown, & Harrison, 2014](#)). Rarely was the definition of child and adolescent sexual exploitation or trading sex inclusive of all of the possible goods that might be traded including, money, drugs, shelter, transportation, and other basic life necessities. Without explicit and more comprehensive descriptions of what goods or services potentially could be traded, outcome data on prevalence and the exploitation experience remain incomplete, and may inadvertently exclude a portion of the sexually exploited male population.

3.4. Limited epidemiological studies

Along with the aforementioned definitional and data disaggregation challenges, there is also a paucity of national epidemiological studies that report prevalence of sexually exploited boys. Of the 33 articles that met the review inclusion criteria, only seven contained this data (Edwards et al., 2006; Fredlund, Svensson, Svedin, Priebe & Wadsby, 2013; Kastbom, Sydsjö, Bladh, Priebe, & Svedin, 2015; Mitchell et al., 2010; Svedin, Akerman & Priebe, 2011; Svedin & Priebe, 2007; Svensson, Fredlund, Svedin, Priebe, & Wadsby, 2013). Although other included studies reported prevalence data, the data generalizability is limited due to small numbers of study participants, non-random sampling techniques, and study designs focused on particular vulnerable groups, such as street-involved youth and youth with human immunodeficiency virus. Notably, the available prevalence data suggests that a significant percentage of boys experience sexual exploitation, however, both in research about and services for sexually exploited youth, males remain largely invisible. Only with better prevalence estimates across all international regions will we be able to more comprehensively understand the magnitude of this issue.

4. Discussion

We encountered many methodological challenges while reviewing the state of the literature on sexually exploited boys. Given the increasing recognition of the sexual exploitation of boys and young men, these challenges highlight a need for the research, policy, and clinical community to rethink the research paradigm for this population.

The term child and adolescent sexual exploitation is not consistently defined within the literature. This difficulty is not unique to the exploitation literature, as definitional challenges have also been recognized in the sexual abuse literature (Homma, Wang, Saewyc, & Kishor, 2012). As previously mentioned, adopting the UN CRC definition of child prostitution, as outlined in the Optional Protocol on the *Sale of Children, Child Prostitution and Child Pornography*, to guide future research would increase the efficiency of conducting research in this population. It would also be useful to create 'child and adolescent sexual exploitation' as a controlled vocabulary term in medical and social science databases. We recognize that some young adults may be in sexually exploitative relationships, and may have been sexually exploited before 18 years, but in order to truly understand what is happening with children and adolescents we must disaggregate by 17 years and younger.

A strong female gender bias frequently overlooks male vulnerability to sexual exploitation. Research articles focusing on exploited boys remain limited in number. The design and interpretation of many articles focus on males having agency in their choices regarding sexual encounters, inaccurately assuming they act only as willing participants or exploiters, and therefore, cannot themselves be exploited. Without actively seeking out the voice of sexually exploited boys, there is a real risk of failing to understand what aspects of their exploitation experiences might be unique, and how to best protect their human rights. Given the challenges of engaging this hard to reach population, it would be useful to refine research techniques for their respectful and effective engagement.

Further, when such large numbers of articles are excluded based upon definitional and data disaggregation limitations, there is a loss of understanding regarding both the depth and breadth of the issue. To avoid this problem in the future, we recommend that researchers thoughtfully consider the following suggestions when designing studies: intentionally separate sexually exploited boys from those experiencing other forms of sexual abuse; divide youth by age, with age bands ≤ 17 years and ≥ 18 years; include participant age at first episode of sexual exploitation; avoid study designs at risk of significant recall bias; subdivide analyses by gender identity; avoid aggregating variables of selling and buying sex, even if the same youth is doing both; and dispel the myth that girls and women only sell sex, and boys and men only buy sex (see Table 2). To date, the literature points towards significant harms to health and well-being arising from child and adolescent sexual exploitation. Given our understanding of these negative health and social consequences of sexual exploitation among girls, failing to address the impacts of the exploitation experience amongst boys is particularly alarming.

There is a role for qualitative, quantitative, and mixed methods researchers to conduct research with sexually exploited boys. Specifically, it is worth considering how questions about prevalence of child and adolescent sexual exploitation might be embedded both in already established large epidemiological studies, as well as newer studies being created. It is equally important to: recognize the need for, generate funding to support, and create opportunities to publish studies that gather contextual data on male sexual exploitation. While it is useful to report whether boys and young men have ever traded sex, researchers should also prioritize understanding what these experiences involve, including antecedents to trading, the exploitation experiences themselves, the health and social outcomes, and health service needs.

A limitation in our systematic review process was the lack of inclusion of grey literature. At the outset of the project, a grey literature search was planned; however, based on the volume of peer reviewed literature requiring review, difficulties in pilot testing of grey literature searches, and limited financial and human resources, this search was excluded as impractical within the scope of this project. In future, this is an important area for potential expansion of our understanding of sexual exploitation of boys. Additionally, limiting the systematic review results to English language articles likely excluded research on sexually exploited boys from non-English speaking parts of the world. This may have constrained our assessment of the methodological issues in the complete body of research regarding the sexual exploitation of boys. Incentivizing publication of community data in peer reviewed literature, or dedicating resources to capturing, and interpreting grey literature, as well as comparing the results to those reported in peer literature, are strategies to improve our collective understanding of child and adolescent sexual exploitation of boys and young men.

Table 2
Recommendations for future research with sexually exploited boys.

Challenge	Recommendation
Definition of Sexual Exploitation	Consistently define child and adolescent in research using the UN definition of child prostitution, as outlined in the Optional Protocol on the <i>Sale of Children, Child Prostitution and Child Pornography</i> . Create child and adolescent sexual exploitation as controlled vocabulary term in medical and social science databases
Data Disaggregation	Disaggregate outcome data of sexually exploited children and adolescents: <ol style="list-style-type: none"> 1 From those experiencing other forms of sexual abuse 2 By age – with age bands ≤ 17 years and ≥ 18 year <ul style="list-style-type: none"> • Consider participant age at 1st episode of sexual exploitation • Use caution with overly retrospective analysis 3 By genders – separating out males, females and other genders 4 By selling and buying sex, even if the same youth is doing both <ul style="list-style-type: none"> • Avoid research methods that assume that women only sell and men only buy sex
Prevalence data	Embed questions about prevalence of child and adolescent sexual exploitation in already established large epidemiological studies globally as well as into newer studies being created. At an international level, add child and adolescent sexual exploitation to a list of health indicators to encourage countries to track and report it
Contextual data	Recognise the need for, create funding to support, and opportunities to publish studies that gather contextual data on male sexual exploitation <ol style="list-style-type: none"> 1. Not only reporting if males ever traded sex, but also what do those experiences involve – what are antecedents to trading, what does the exploitation experience involve, what are the health outcomes, and health service priorities specially for sexually exploited boys
Youth Voice	Further develop research methods to engage sexually exploited males, a hard to reach population, so that their voice can be directly represented in research
Peer reviewed publication	Develop incentives and research partnerships to enable community level data on sexually exploited males to be published in the peer reviewed literature

5. Conclusion

Based on our systematic review process, focused on the state of the literature on sexually exploited boys, major challenges with inconsistent definitions of child and adolescent sexual exploitation, distinguishing sexual exploitation as a distinct type of child sexual abuse, meaningful disaggregation of outcome data, and methodological limitations, are particular weaknesses of the current research literature. Based on the current scope of the literature on male sexual exploitation, and an urgent need to improve it, we recommend: adopting the UN definition of child and adolescent sexual exploitation; ensuring appropriate data disaggregation; improving collection of epidemiological data, particularly regarding prevalence; valuing qualitative and mixed methods methodological use; prioritizing research that directly engages exploited youth; and incentivizing peer reviewed publication on this topic, and recognizing the need to gather and synthesize relevant grey literature (Table 2). Moreover, sexual exploitation of boys is not being tracked as a health indicator at an international level. Given the expectation that countries will report on their progress in addressing the UN CRC and Optional protocols, if this indicator is not tracked then it will be hard to demonstrate progress over time.

Currently, the above challenges limit the scope of the literature and significantly reduce our ability to develop focused research questions, to inform public policy, and to create targeted clinical services for sexually exploited boys. A few simple changes in analysis and reporting of studies could materially alter our scope of knowledge about their experiences, and interventions that are effective. And this knowledge, in turn, can help programs and practitioners better meet the needs of sexually exploited boys and young men.

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