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A Content Analysis of Sexuality-Related Scholarship for Sexual Minorities

Chelise Fox

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Science

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Sexual minority individuals face disparities of treatment from clinical and medical health professionals. In particular, there is a dearth of research and training surrounding human sexuality topics for sexual minorities. Research on sexual minority groups in this area can contribute to reducing treatment disparities. Consequently, the proposed study is a content analysis of social science literature in order to gauge trends in the amount of research focused on the intersection of sexual minorities and sex research. Articles from a database search of relevant keywords were coded for several variables, including overall level of focus on sexual minorities and human sexuality topics, study sample composition, research funding sources, and whether the article offered any clinical implications. The study aims, with its results, to suggest possible directions for social science and sex research, in the hopes that future research will be better able to assist professionals in meeting the needs of an increasingly diverse population.

Keywords: content analysis, sexual minorities, sex research, sexology
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A Content Analysis of Sexuality-Related Scholarship for Sexual Minorities

There is a shortage of studies examining sexual minorities in both basic and applied bodies of social science literature (Hargons et al., 2017). In fact, despite recent strides, marital/couples therapy retains a heteronormative focus (Hudak & Giammattei, 2014) and sex research in particular starkly reflects this bias. Although research on LGBT populations and on LGBTQ+ sexual health (lesbian, gay, bisexual, transgender, queer, etc.) has increased since the turn of the century (Hartwell et al., 2012), very few studies positively address LGBTQ+ sexuality.

In the last 10 years, two content analyses have examined the shortage of research on LGBTQ+ populations, and noted some degree of improvement in the basic social and clinical sciences (Hartwell et al., 2012; Moradi et al., 2016). For instance, Hartwell et al. (2012) noted that in 17 marriage and family therapy journals, there was a considerable increase in total LGB content from 1996-2010, compared to an earlier review of publications during the 1975-1995 timespan. Similarly, a ten-year review of The Counseling Psychologist likewise found an upward trend in the amount of literature on transgender people and issues (Moradi et al., 2016). However, while these upward trends are promising, there remains a significant dearth of information on LGBTQ+ populations in social science literature (Hartwell et al., 2012; Pelts et al., 2014; Scherrer & Woodford, 2013; van Eeden-Moorefield et al., 2018; Zrenchik & Shonda, 2016).

There is a particular dearth, too, around certain specific sexual minorities (e.g., lesbian and bisexual women, Lee & Crawford, 2007; transgender populations, Blumer et al., 2012; bisexuals, Pollitt et al., 2018), because research on gay men predominates (Lee & Crawford,
This suggests that even within the larger research literature focused on sexual minorities, certain classes are privileged (i.e., cisgender males). This relative lack of attention to certain populations can be viewed as both reflecting and reinforcing societal biases and inequities. These oversights and/or biases are worrisome in that the least researched populations (i.e., transgender individuals) are more likely to face severe discrimination, and higher rates of violence and hate crimes (Sanchez & Vilain, 2009), while bisexual women (another similarly understudied group) are at a higher risk for depression, anxiety, and suicide (Shearer et al., 2016). Tragically, the populations that need the most significant help from clinicians are those for whom such professionals have the least amount of information.

Given the overall lack of information and its potential consequences for these populations, the aim of this study is to examine to what extent social science literature (basic and clinical) in the last 20 years has focused on sexuality-related research for sexual minorities. The study also seeks to examine which needs of these populations are being researched (and which ignored), which populations are best represented, what kind of sex research funding exists for sexual minorities, and what kind of clinical implications are being offered to clinical and medical professionals.

**Literature Review**

Content analysis is a methodological approach that seeks to identify trends and patterns in research publications. Krippendorff (2012) defined content analysis as “a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use” (p. 24). It is an ideal methodological approach for reviewing large bodies of

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1 Unless otherwise noted, for the purposes of this paper, terms such as “men,” “male,” “women,” and “female” will refer to cisgender men and women. Transgender women and men will be specifically noted.
research (Evans, 2013). By coding material in order to identify patterns across significant bodies of research, content analyses can reveal research trends across journals, research areas, and disciplines, as well as identify key gaps in the literature. Additionally, by noting research trends and analyzing them in the light of the needs of practitioners, content analysis can assist in bridging the research-practice gap (Parker et al., 2016).

Previous content analyses have noted a dearth of research for sexual minorities in social science literature in general, with Hartwell et al. (2012) reporting that only 2% of articles contained any sort of LGBTQ+ content. They noted that this amount of LGBTQ-devoted content is inadequate to the needs of practitioners (Hartwell et al., 2012), especially given the proportion of MFT clients who are LGBTQ+. Sexual minorities make up nearly 5% of the general U.S. population (Gallup Organization, 2018), and likely make up an even larger percentage of an average MFT’s practice, given higher rates of mental health services utilization for these groups (Bieschke et al., 2000). This suggests that the available research literature is thus disproportionate to the need, a suggestion corroborated by other MFT journal content analyses (e.g., Pelts et al., 2014; Scherrer & Woodford, 2013; Zrenchik & Shonda, 2016). A 2016 analysis by Zrenchik and Shonda (2016) found that 2.2% of content in the top 10 highest ranked MFT journals was LGBT-focused, and a 2018 analysis of top-ranked family science journals from 2000 to 2015 found that less than 3% of articles of content attended to LGBTQ+ issues (van Eeden-Moorefield et al., 2018). Social work analyses have reported similar figures (Pelts et al., 2014; Scherrer & Woodford, 2013). Specifically, Scherrer and Woodford (2013) found in a survey of six social work journals from 1998 to 2007 that 2.6% of articles were focused on LGBTQ+ issues. Individual journals ranged from 0% to 5% in their focus on LGBTQ+ populations. Another review found a significant reduction in LGBTQ+ content, from 3.9% in
four social work journals from 1988 to 1997, to 2.4% in the same journals from 1998-2012 (Pelts et al., 2014).

As mentioned earlier, some sexual minority groups have historically fared better than others in terms of research representation. According to Lee and Crawford (2007), gay men are studied more often than lesbian and bisexual women. Reviewing research from 1975 to 2001, they found that while sexual minorities were included in less than 1% of articles, representation was even worse for bisexuals, who were represented in only 0.2% of published research. Percentages are worst of all for transgender populations, as noted by Blumer et al. (2012) in their content analysis of MFT journals, where they found that only .0008% of published articles included transgender issues as a variable in their study. Similarly, Goodrich et al. (2015) found in their review of *Journal of LGBT Issues in Counseling* that transgender and intersex populations were under-represented compared to other sexual minority populations. While progress in the representation of gay men is promising, the underrepresentation of certain sexual minority groups both misrepresents the diversity of the United States population and fails to meet the needs of a considerable portion of this population.

Regrettably, the already limited body of literature on LGBTQ+ populations is even more pronounced in the specific area of sex research (or “sexology,” defined to “encompass terms such as sex, sexuality, and sexual health,” Hargons et al., 2017, p. 529). Previous content analyses have noted that while a reasonable amount of sex research focuses on sexual minorities, most studies treat LGBTQ+ sexuality through a lens of preventive health and sexual risk, and largely ignore eudaemonic and sex-positive topics such as sexual functioning and sexual satisfaction (Hargons et al., 2017). In the specific case of counseling psychology journals, despite an increase in published research on LGBTQ+ populations—a full 38% of sex-focused
articles in the leading journals (*Counseling Psychologist* and *Journal of Counseling Psychology*) were focused on sexual minorities—articles on these populations were overwhelmingly organized using a negative lens (Hargons et al., 2017). Almost universally, eudaemonic and sex-positive studies are absent, and sexuality is treated primarily using a medical model, focused on preventive health and sexual risk (Hargons et al., 2017; Simoni et al., 2002). For instance, one content analysis found that of the articles with gay and lesbian content (less than 4% of the articles surveyed), almost two-thirds focused on HIV/AIDS (Van Voorhis & Wagner, 2002). This leaves a dearth of research surrounding sexual functioning, sexual pleasure, and other eudaemonic and sex-positive topics. For instance, while research on STIs and other prohibitive factors abounds, far fewer studies adopt an LGBT sex-positive lens, whereby the focus could include topics such as a lesbian couple’s satisfaction, or sexual practices among gay men. This suggests that despite recent strides, and the removal of homosexuality from the DSM, sexology maintains an implicit belief that homosexual sexuality is aberrant or at least inferior in nature (Nichols, 2014). As recently as 2012, sex research has speculated over whether homosexuality is a “paraphilia” (Cantor, 2012). This lack of sex-positive, eudaemonic sex research for marginalized groups reflects an implicit de-sexualization of these groups, perpetuating heteronormative discourses and imbalances of privilege.

Coinciding with the lack of sexuality-related studies of LGBTQ+ populations is a general lack of funding (especially federal) for all sexuality research in the United States. It has been suggested that funding considerations for sex research are rife with politics and ideology (Bancroft, 2004; Clay, 2003). In one particularly pointed example of this ongoing struggle, legislation was proposed in 1991 to “[prohibit] funding for any future surveys of sexual behavior” (Bancroft, 2004, p. 11). In the realm of private funding, some sex researchers have
noted that funding is much more abundant for issues such as HIV/AIDS, since such studies invite the interest of pharmaceutical companies (Clay, 2003). This is a very probable explanation for why gay men and HIV/AIDS topics have received the bulk of the research attention and why other sexuality topics are not so well funded. In fact, one researcher noted that this limitation has “been somewhat of a stymie to people doing sexuality education research” (Clay, 2003, p. 57).

This difficulty with funding is exacerbated in the realm of LGBTQ+ research (Clay, 2003). Historically, this issue has been particularly rife, with federal funding often denied to LGBTQ+ sex research on political grounds (see Bancroft, 2004; Clay, 2003). Since funding is a reflection of priorities, and may also serve as a tide marker for cultural acceptance, it is important to understand these trends. Furthermore, if social science research is to improve in its treatment of sexual minorities, both researchers and policy makers will need to understand how much research into sexual minorities is being funded, and by whom. However, little research has been done into funding trends for LGBTQ+ sex research. For this reason, more research is needed to determine the current state of such funding.

There is little question that research on these vulnerable populations should be a priority. The relative lack of focused attention on sexual minorities in sex research could have significant consequences for these groups, including inadequate care from clinical and medical professionals. After all, sexual minorities face a number of health disparities in treatment, including lack of health insurance or need-specific coverage (such as for gender-transitioning individuals), stigma and discrimination, lack of provider knowledge and education regarding their specific needs, and, inevitably, outcome disparities (Hswen et al., 2018; Institute of Medicine, 2011). Professionals’ heteronormative bias often contributes to making sexual minority populations invisible, silencing their unique concerns, and desexualizing these groups.
For instance, a survey of members of the Sexual Medicine Society of North America found that only 51.7% routinely asked patients about sexual orientation, suggesting that the other 41.9% believe their patients’ sexual orientation is not relevant to their patients’ care (Kashaf et al., 2018). Literature in the mental health services field has likewise noted that increased understanding of sexual minority needs is crucial in social science research in order to inform practice by therapists and medical professionals. Henke et al. (2009) found in a survey of marriage and family therapists that the therapists they surveyed were ill-equipped to work with LGBTQ+ clients, and generally lacked awareness of the mental health needs of those clients (see also Corturillo et al., 2016; Hudak & Giammattei, 2014). Even among clinicians with LGBT-affirmative attitudes, a lack of knowledge and skills related to working with LGBTQ+ populations persists (Farmer et al., 2013), in the form of lack of skills-based and experiential training in culturally informed interventions, lack of familiarity with issues pertinent to these populations, especially bisexual and transgender people, and lack of exposure to case studies or other observation of cases involving LGBTQ+ individuals (Farmer et al., 2013; Inch, 2017). Scholars also suggest that clinicians without sufficient information and training on LGBTQ+ issues may even be harmful to sexual minority clients (e.g., Long, 1996). This is particularly problematic in the domain of sex research, where in addition to lack of knowledge on sexual minorities, there is a general lack of knowledge and training among medical professionals and clinicians (Kleinplatz, 2015).

In order to better equip therapists to meet the needs of LGBTQ+ individuals and families, more research is needed. In addition, in order to bridge the research-practice gap, research on sexual minorities needs to offer specific recommendations to practicing professionals. Previous content analyses on minority representation in research have concluded that articles focusing on
minorities often fail to provide specific, actionable clinical recommendations. For instance, Seedall et al. (2014) found that less than 2% of MFT articles “examined intervention effectiveness while focusing on at least one aspect of diversity” (p. 148), with diversity defined broadly to include racial/ethnic and sexual minorities. Targeting sexual minorities specifically and expanding the analysis beyond a singular scholarly area (e.g., MFT), this study was designed to help evaluate the available literature to confirm/challenge whether clinical practitioners have the knowledge to appropriately and competently serve these groups.

In summary, clinical and sexuality research fields have a vested interest in the level of representation of sexual minorities in their research literature. In order to better serve an increasingly diverse population, an increased understanding of sexual minority needs is critical. Because sex research can inform practice by therapists and medical professionals, it has great potential to contribute to the ability of professionals to understand and serve minority needs. Previous research has concluded that while progress has been made in this arena, there still is not sufficient representation of sexual minorities in sex research. Additionally, even research that focuses on these minorities often fails to reach its full potential impact by offering specific recommendations to practicing professionals. Therefore, this study seeks to investigate to what extent sex research in the last 20 years has focused on sexual minorities, examining several key research questions:

1. Which specific sexual minority populations are addressed in sex research?
2. What kind of funding goes toward sex research for sexual minorities?
3. What topics were examined or discussed in the articles? What needs of sexual minorities are being addressed in sex research, and which neglected?
4. In articles focused on human sexuality topics for sexual minorities, to what degree are clinical implications being offered for clinical and medical health practitioners? What type of clinical implications are being offered?

**Method**

**Article Qualification**

Consistent with other LGBT-focused content analyses (see, for example, Lee & Crawford, 2007; Scherrer & Woodford, 2013), a database search was conducted in order to identify the broadest possible range of relevant content. Using PsycINFO database (American Psychological Association, 1967), a search was conducted utilizing key terms for sexual minorities (i.e., lgbt or lgb or lgbtq or lesbian or gay or homosexual or bisexual or transgender or homosexual or queer or "sexual minority" or “same-sex relationship” or “same-gender relationship”) and terms relevant to human sexuality (i.e., "sexual dysfunction" or "sexual difficulty" or "sexual problems" or “sexual satisfaction” or “sex therapy” or “sex counseling”). Search results were restricted in PsycINFO by “Document Type,” targeting full journal articles (empirical and conceptual), thereby excluding book reviews, editor’s notes, and feedback pieces. Across the twenty-year timespan (2000-2019), this comprehensive search yielded 296 initial results, 29 of which were eliminated from consideration for not being English-language articles.

The remaining 267 were reviewed by coders (the first and second authors) in terms of their respective titles, abstracts and PsycINFO subjects in order to determine whether articles were focused on both sexual minorities and human sexuality topics. This resulted in a sample of 131 articles. From these, one article was removed when it was found to be a duplicate, and six articles were removed post-coding when they were found upon closer examination not to be
topic-“focused” according to the definitions below. This resulted in a final sample of 124 articles.

**Topics Coding**

Beginning with the categories of “human sexuality topics” defined by Hargons et al. (2017), an initial series of codes was specified. These initial codes were used to determine whether an article was “focused” on human sexuality topics, based on whether they offered knowledge, awareness, or treatment information concerning sexual function or dysfunction, sexual problems, sexual satisfaction, sexual counseling, sexual practices, or sexual development. Topics were then refined from the original Hargons et al. (2017) topics in order to better suit the purposes of this study, resulting in the following modifications: (a) SS (sexual satisfaction) separated from sexual functioning, in order to provide for further differentiation in these major categories; (b) SO (sexual orientation) changed to SI (sexual identity) in order to focus on issues specifically relevant to this paper; and (c) STI (sexually transmitted infection) was also omitted as a category. While a large body of research exists on these topics, the purpose of this study was to look more specifically at sexuality topics, especially eudaemonic and sex-positive topics, rather than the prevention and risk-focused medical and pharmaceutical topics that have so dominated the literature. Relevant literature that focused largely on STIs (e.g., research on sexual functioning in gay men with AIDS) was instead coded under the SR (sexual risk) category. Lastly, the SP (sexual practices) and PSY (psychometrics) categories were added, after an initial review of relevant literature, in order to provide categorization for articles deemed “focused” that did not fit under other categories.

Following coding under the initial specification of categories, the list of human sexuality topics was further defined. First, members of the research team consulted to develop a list of
human sexuality topics, based on a review of current sex research. After article coding, article
titles, abstracts, and variables of focus were reviewed by the first author, and articles were
defined by theme and grouped into one or more topic categories. During this process, the initial
category list was inductively expanded in order to ensure sufficient theme development. For
instance, a review of the data showed that the Hargons et al. (2017) method of collapsing sexual
functioning and sexual satisfaction into a single category would not suit this project, as it would
obscure patterns in the data. Following this category list expansion, topics were collapsed and
regrouped based on lack of occurrence or similarity, until 10 category topics remained. These
topics included SA (sexual abuse, objectification, or victimization), SF (sexual functioning and
dysfunction), SS (sexual satisfaction and pleasure, sexual desire), SI (sexual identity), SE (sexual
esteem and cognitive-affective response), SC (sexual contexts), SCE (sexual counseling,
education, and therapy), SB (sexual behaviors, roles, and practices), SR (sexual risk), PSY
(psychometrics, i.e., validating measures for sexual minorities) and DEM (demographics, e.g.,
research focused specifically on African American individuals). Thorough descriptions for each
of these categories are provided in Table 1.

Coding Method

As a coding method, in order to be considered “focused” on sexual minorities, sexual
minorities had to be examined in the article as the central aspect of the study’s design or
conceptual discussion. This was determined by whether the article’s title, PsycINFO subjects, or
abstract indicated a focus on sexual minorities or a specific minority group (e.g., gays or
lesbians). Articles were deemed “not focused” if sexual minorities did not appear as a primary
part of the research sample or conceptual discussion. Articles were deemed “involved” or
partially focused if sexual minorities appeared as part of the study’s design or conceptual
discussion, but were not the sole focus (e.g., a comparative sample looking at both heterosexual and gay men).

Studies were deemed “not focused” in terms of human sexuality if they failed to deal with these topics, or if they were insufficient in providing additional knowledge, awareness, or treatment information. Studies deemed “not focused” included studies that researched topics from a prominently biological approach rather than the more holistic and contextually-valuable biopsychosocial perspective. For example, these “not focused” studies examined biological-based sexual health (e.g., focused on the medical experience of gender transition surgery without discussion of sexual function) or on neurological arousal patterns without application to sexual function, satisfaction, or practice.

Lastly, studies were deemed to be “involved” or “partially focused” on human sexuality topics if they included one of the above topics as a study variable, but not as the primary subject of study. For example, studies were deemed “involved” if they dealt primarily with a non-focused subject such as medical sexual health, while also including discussions on human sexuality topics such as sexual function (e.g., discussing the experience of gay men with prostate cancer, while adding a discussion about sexual functioning, or discussing the medical results of vaginoplasty, while adding a discussion about sexual satisfaction). Such articles were not primarily sex research, but included relevant sex research topics as a portion of the discussion.

Journal articles were coded independently by the author and another graduate student coder. To determine inter-rater reliability, the author compared the pair’s responses, and marked differences in coding for each individual variable. Overall inter-rater reliability was calculated by tallying the number of congruently coded variables across all articles. Overall, the inter-rater
reliability percentage was calculated to be 97.1%. Coding discrepancies were reconciled through a review of the original article, during which the two coders reached consensus.

The following variables were coded for each article in the analysis: (a) journal title, (b) publication year, (c) article title, (d) location of study, (e) content of abstract, (f) PsycINFO subjects, (g) total number of funding agencies, (h) funding type, (i) funding agencies, (j) article type (conceptual, quantitative, qualitative, etc.), (k) sexual minority of focus, (l) human sexuality topics addressed, and (m) clinical implications. Finally, overall level of focus on sexual minorities, as well as on human sexuality topics, was coded as explained above.

Clinical implications were coded into two basic categories: implications for clinician knowledge and awareness, and implications for clinician action. Implications for clinician knowledge and awareness included guidelines and suggestions for what clinicians should understand or factor in when working with LGBTQ+ populations. Implications for clinician action included observable activities, such as recommendations for factors to assess, for treatment strategies and interventions, or for models to employ.

Results

1. Which Specific Sexual Minority Populations Are Addressed in Sex Research?

124 articles were coded for the sample, with a quarter of studies focused on gay men (32 articles, 25.8%), and 11 (8.9%) on lesbian women. Another 25 articles (20.2%) studied gay and bisexual men together, 15 articles (12.1%) studied lesbian and bisexual women together, and a total of eight articles (6.5%) focused on bisexual populations only. Other articles included combinations of populations such as gays and lesbians, featured together in 11 (8.9%) articles. A few articles lumped several classes of sexual minorities together, such as LGBT (3, 2.4%) or LGB (9, 7.3%). One article (.8%) focused on asexual populations, and six articles (4.8%)
focused specifically on transgender populations. Sexual minority populations were the sole focus (i.e., were ruled “focused”) in 85 of the 124 articles in which they appeared. In the remaining 31.5%, sexual minorities were at the “involved” level, generally through comparative analysis with heterosexual individuals or couples.

Of the articles focused on sexual minority populations, most (102, 82.3%) were empirical studies. Of these, 76 (61.3%) were quantitative studies, 20 (16.1%) were qualitative studies, and 3 (2.4%) used mixed methods. An additional 19 (15.3%) articles were coded as conceptual. Most of the empirical studies (96, 94.1% of empirical studies) used human research samples. The remaining 6 (5.9%) were meta-analyses or comparative analyses of previous sex research on sexual minorities.

Of the studies reviewed, about a third (45 articles, 36.3%) were conducted exclusively in the United States, with another 17 articles (13.7%) employing a combination international/U.S. sample. The remaining 62 articles (50.0%) were conducted outside the United States utilizing international (non-U.S.) samples. Research originated in a wide range of countries. Most came from Portugal (13 articles, 10.5%) and Canada (11 articles, 8.9%). Several came out of the United Kingdom (10 articles, 8.1%), Australia (6 articles, 4.8%), or the Netherlands (6 articles, 4.8%). Several articles also came out of southeast Asia, with India contributing 2 (1.6%) and China contributing 3 (2.4%). Other articles came out of Poland (2, 1.6%), Belgium, Croatia, Finland, Germany, Ireland, Israel, Italy, Spain, and New Zealand (1 each, .8%).

The majority of research was published in specialty journals—either journals specializing in sex research, or journals specializing in sexual minorities. A total of 92 articles (74.2%) came from such journals, with 75 (60.4%) coming from sex research journals, and 17 (13.7%) coming from LGBTQ journals. Among sex research-specialized journals, top publishers of LGBT sex
research included Archives of Sexual Behavior (14 articles, 11.3%), Journal of Sexual Medicine (13 articles, 10.5%), Sexual and Relationship Therapy (13 articles, 11.3%), Journal of Sex Research (11 articles, 8.9%), and Journal of Sex & Marital Therapy (9 articles, 7.3%). Among LGBT journals, top publishers included the Journal of Bisexuality (4 articles, 3.2%), Psychology of Sexual Orientation and Gender Diversity (3 articles, 2.4%), and Journal of Gay & Lesbian Psychotherapy (3 articles, 2.4%).

About a quarter of articles (32, 25.8%) came from journals that were not specialized in this way. These, however, were largely specialized in other topics, such as AIDS (6, 4.8%), women’s health (5, 4.0%), oncology (4, 3.2%), men’s health (1, .8%), or pediatrics (1, .8%), leaving only 18 articles (14.5%) for more general psychology and therapy journal coverage. These included journals such as the Journal of Family Psychotherapy (1), the Journal of Family Psychology (1), and Cognitive Therapy and Research (2). Of the 16 journals in this category, 3 were international. Of the remaining 13 U.S. publications, none was a “top” or mainline journal as determined by impact factor—none had an impact factor of 4 or higher, and the average impact factor was 1.76 (Academic Accelerator, 2019). Only three articles came from journals published by the American Psychological Association (one each from Health Psychology, Journal of Family Psychology, and the Canadian Journal of Behavioural Science). In total, these represented 2.4% of total articles, and 4.4% of United States research.

2. What Kind of Funding Goes Toward Sex Research for Sexual Minorities?

Most of the articles examined in this study reported no funding for their research, given that only about a third (46, 37.1%) were funded in any way. Even among empirical, quantitative studies, less than half received funding, including 33 (43.4%) of the purely quantitative studies, and one mixed methods study. A slightly larger proportion of qualitative research studies were
funded, with 9 of the 20 (45.0%) receiving funding. Two conceptual articles (10.5% of these) reported funding, as did one (16.7%) of the meta-analyses. Studies were more likely to receive funding if they were only partially focused on sexual minorities—articles in which sexual minorities were only “involved” received funding in 17 out of 39 articles (43.6%), while articles in which sexual minorities were the sole focus received funding in 29 out of 85 articles (34.1%).

Of those that were funded, only eight (6.5% of total studies) were federally funded by the United States government. Another seven studies (5.6% of total studies, and 15.2% of funded studies) were funded by private organizations in the U.S., including the American Sexually Transmitted Diseases Association and the Susan G. Komen Breast Cancer Foundation. Four studies (2.9% of total articles, and 8.7% of funded studies) received funding from a U.S. university. All the remaining funded research was developed and funded internationally, with more than half of funded studies (26 studies, 21.0% of total studies, 56.5% of funded studies) coming from outside the United States.

As can be seen in Table 2, the largest proportion of the funded studies (n=10) focused on gay men, making up 31.2% of gay men studies, and 21.7% of total funded studies. Only two studies focused on lesbians were funded, making up 20% of lesbian studies, and 4.3% of total funded studies. On the whole, comparing studies on gay and/or bisexual men to studies on lesbian and/or bisexual women, roughly twice as much funding went to men’s studies. Over half of funded studies (24, 52.2%) focused on sexual minority men, while about a quarter of funded studies (13, 28.3%) focused on sexual minority women.

Articles on bisexual and transgender populations received reasonable funding proportional to the overall number of articles on these populations, but only a very small percentage of total funding. In total, 4 funded articles focused on bisexual populations, making
up 50% of such articles, but only 8.7% of total funded studies. Of these, most focused on bisexual men; none of the funded studies focused on bisexual women. Additionally, two of the six studies focused on transgender populations were funded, making up 33% of such articles, but only 4.3% of total funded studies.

3. What Topics Were Examined or Discussed in the Articles? What Needs of Sexual Minorities Are Being Addressed in Sex Research, and Which Neglected?

As can be seen in Table 3, the majority of focused articles were focused on aspects of sexual functioning (61, 49.2%) and sexual satisfaction (40, 32.3%). A fair number of articles (26, 20.1%) also dealt with sexual behaviors and practices from a sex-positive lens, but of total articles focused on sexual behavior, eight out of the 34 (23.5%) focused on sexual risk. Notably, only eight (6.5%) focused specifically on sexual counseling, education, and therapy. Of these, only three included therapeutic case studies. A handful (5 articles, 4.0%) focused on psychometrics, validating measures for LGBTQ+ populations. Sadly, very few (4 articles, 3.2%) focused on unique demographics or aspects of intersectionality (e.g., ethnic minorities as sexual minorities).

Funding by Topic

Table 3 offers a breakdown of article funding by topic category. Of the articles that were funded, the majority focused on three categories: 24 (52.2% of funded articles) focused on sexual functioning, 16 (34.8%) on sexual satisfaction and pleasure, and 18 (39.1%) on sexual behaviors and practices. Of the 26 internationally funded studies, most (15 studies, 57.7%) focused on sexual function. After this, internationally funded research was most focused on the sex-positive topics of sexual satisfaction (8, 30.8%) and sexual esteem (8, 30.8%). Only two internationally funded articles focused on the negative lens of sexual risk (7.7% of total internationally funded).
In striking contrast, the U.S. federally-funded research overwhelmingly focused on sexual behaviors and practices (5 out of 8 total funded articles, 62.5%), and especially sexual risk (3 of the behavior-focused articles, and 37.5% of total funded). A small number of federally funded articles focused on sexual functioning (3), sexual satisfaction (2), sexual identity (1), or sexual contexts (1). None focused on sexual esteem. No federally funded studies, or studies with U.S. funding sources, focused on specific demographics or intersectionality. No U.S.-funded studies focused on sexual counseling, education, and therapy. No U.S.-funded studies focused on sexual abuse and victimization.

**Topics Across Populations**

Table 4 presents a breakdown of article topic by population. Frequency of article topic varied somewhat across genders and populations. The eudaemonic topics of sexual functioning and sexual satisfaction prevailed among LGB populations, though they were somewhat differently distributed between men and women. 37 (60.7% of the total 61) of the articles focused on sexual functioning were focused on gay men or sexual minority men generally; 12 (19.7%) were focused on lesbians, bisexual women, or sexual minority women generally. This topic represented 61.7% of the 60 articles focused on sexual minority men, and 41.4% of the 29 articles focused on sexual minority women. Proportionally more articles on sexual satisfaction were focused on minority women, with 11 articles focused on sexual minority women, and 12 focused on sexual minority men. While there were more total articles focused on men, this topic represented 37.9% of the articles focused on sexual minority women, and 20.0% of the articles on sexual minority men.

Although sexual functioning and satisfaction were popular topics with lesbian and gay populations, of the eight articles focused on bisexual populations, only two focused on sexual
functioning, and only two focused on sexual satisfaction. At 25% each, this is a notably smaller percentage than articles on these topics devoted to lesbians and gays, and sexual minority men and women in general. In total, of 61 articles focused on sexual functioning, only 3.3% focused on bisexuals, and of 40 articles focused on sexual satisfaction, only 5.0% focused on bisexuals. No articles at all were found that focused on sexual functioning or sexual satisfaction specifically for bisexual men; those that focused on these topics were either focused on bisexual populations in general, or specifically on bisexual women.

Of the six articles focused on transgender populations, the majority (four articles, 66.6%) focused on aspects of sexual and gender identity (including minority stress), while three (50%) focused on sexual functioning and sexual satisfaction, and three (50%) focused on sexual behavior and practices. Articles focused on sexual functioning and satisfaction were overwhelmingly medically focused, with two of three (66.6%) focusing on the effects of vaginoplasty. No articles were focused on psychometrics or validating measures for transgender populations. No articles looked at specific demographics within the transgender population. None focused on sexual esteem, or the intersection of body image and sexuality. Lastly, no articles on sexual counseling, education, and therapy were written specifically about transgender populations.

4. In Sex Research Articles Focused on Sexual Minorities, to What Degree Are Clinical Implications Being Offered for Clinicians? What Type of Clinical Implications Are Being Offered?

In articles coded as focused, less than half (57, 46.0%) offered any kind of implications for clinicians. Only about a quarter included implications specifically for clinician action (32 articles, 25.8%), while a slightly larger percentage (36, 29.0%) included implications that
clinicians should be aware of or consider during treatment. However, even of the articles offering clinical implications, many included only one or two sentences, and most were unspecific (e.g., noting that “treatment might benefit from” focusing on a specific factor, but neglecting to offer assessment factors, treatment models, or intervention strategies for doing so). Twenty-one (58.3%) of the articles offering recommendations for clinician knowledge and awareness and 17 (53.1%) of the articles recommending clinical action discussed these recommendations in a substantive fashion (>2 sentences). Of the clinical action articles, only 11 (8.9% of total articles) were also specific in their recommendations, offering specific interventions and treatment strategies, specific therapeutic models, or specific factors to evaluate in assessment. In total, only seven (5.6% of total articles) offered specific, substantive treatment strategies and interventions.

Guided by these findings, the 38 articles offering substantive recommendations were further analyzed according to the sexual minority population of the sample. The largest portion of research studies with substantive clinical implications were focused on sexual minority men, with eight out of the 17 (47.1%) offering recommendations for action and 12 out of the 21 (57%) offering recommendations for knowledge and awareness focused on male populations. Five articles offering action recommendations and four with knowledge recommendations were focused on female sexual minorities, a total of 23.7% of the substantive recommendations. Two articles with action recommendations were geared towards bisexual populations, and none of the articles with knowledge recommendations. In total, only 5.2% of the articles with substantive recommendations focused on bisexual populations. No substantive recommendations for action or for knowledge and awareness were focused on transgender populations.
Discussion

Studied Populations

This study found that, in sex research as in other psychological disciplines (see Lee & Crawford, 2007), representation of sexual minority populations is vastly unequal. Stark differences separate populations across lines of gender, sexual orientation, and gender identity. First, the study found a significant difference in research representation by gender. The present study found that gay men are studied in sex research nearly three times as much as lesbian women (32 articles/25.8% of were focused on gay men, and 11 articles/8.9% were focused on lesbian women). Overall, including articles focused partly or wholly on bisexual populations, sexual minority women were the focus of 29 articles (23.4%), and sexual minority men were the focus of 60 (48.4%). Men were studied fully twice as often as women. These results corroborate the findings of Lee and Crawford (2007) that while LGB populations are largely excluded from psychological research, even between groups, the level of exclusion varies in ways that privilege some groups over others. Some populations are more excluded than others, with gay men much more likely to be studied than lesbian women. Lee and Crawford (2007) also found, however, that bisexual men are more likely to be studied than bisexual women. The present results did not corroborate this finding, as bisexual women were studied as often as bisexual men (3 articles each). This may be due, however, to the miniscule sample size of articles focused specifically on bisexual populations. Despite this difference, the basic inequality remains stark. Interpreting this result, Lee and Crawford (2007) suggest that “male remains a normative category even when it is coupled with a minority sexuality category” (p. 113). Even when bias against sexual minority status is overcome, gender bias remains.
Results also corroborate the findings of Lee and Crawford (2007) regarding the lack of literature focused on bisexual populations. While bisexual men or women were addressed in 38.8% of articles, this number is potentially deceptive. In most of the articles focused on this population, bisexual populations were collapsed into study samples with gay or lesbian populations. Ultimately, bisexuals were lumped in with other populations in 83.3% of the research articles in which they appeared—40 out of 48 articles. In only 8 articles (6.5% of total articles) were bisexuals addressed solely and specifically. This also corroborates the results of Kaestle and Ivory (2012), who found in a review of medical literature that fewer than 20% of articles involving bisexual populations actually analyzed data for these populations separately. They note dismally the problematic tendency to collapse bisexuals into study samples with gay or lesbian populations “based on a need to increase sample sizes, a desire to simplify analyses, or an assumption that bisexuality is just a transitional phase between heterosexuality and homosexuality” (p. 36).

This inequality is highlighted and intensified by the fact that bisexuals make up the largest share of LGBTQ+ Americans, with estimates ranging from 40% (Pew Research, 2017) to more than half (Williams Institute, 2020). Furthermore, there is evidence that bisexuals face higher levels of mental health problems such as anxiety, depression, suicidal behavior, and substance use, and may also face more violence and victimization (Jorm, et al., 2002; Udry & Chantala, 2002). Nor are the needs of bisexual individuals simply reducible to the needs of LGB populations in general. While bisexuals face the same minority stress as lesbian and gay individuals, they also face the invisibility and the challenge to the validity of their identity that issues from a dualistic social concept of sexuality and gender (Kaestle & Ivory, 2012). Their health needs, their mental health needs, and their sexual health needs are not reducible to the
needs of lesbian and gay populations—however, social science research spends almost no time exploring these needs and how to meet them.

These results also corroborate the findings of Blumer et al. (2012) regarding transgender populations. Although transgender individuals make up nearly 10% of the LGBT population in the United States (Williams Institute, 2020), these results found that they were only represented in 4.8% of sex research on LGBTQ+ minorities. Blumer et al. (2012) found that transgender issues were only addressed in 0.0008% of published articles. While the current study results might seem like an improvement, it must be remembered that Blumer et al.’s study did not limit their analysis to LGBT research, looking instead at MFT journals in their entirety. Transgender populations remain extremely under-researched. Furthermore, of the six articles focused on transgender populations, only one was conducted in the United States. This lone article was not conducted with a human sample, as it was a meta-analysis. While there have been studies focused on transgender individuals in terms of medical issues related to their transitions (e.g., the results of vaginoplasty), it is noted here that no sex research study (focused on topics such as pre- or post-transition sexual functioning, sexual satisfaction, or sexual esteem and body image) has been conducted in the United States with a sample of transgender individuals in 20 years.

These findings are somewhat troubling, given that lower rates of research participation among these sexual minority populations forces clinicians to make under-informed decisions about treatment and intervention. As a result, populations which are already alienated and underserved become even more so. This likely decreases both the rates of inclusion in clinical treatment and the quality of care given to individuals receiving treatment. Increasing sexual minority representation in research studies could help the field of sex research to understand barriers to treatment and improve services to sexual minority groups. In turn, increasing cultural
competency and access to sex therapy resources and treatment may lead to higher rates of minority participation in clinical studies.

It is notable, too, that the majority of research was published in specialty journals (74.2% from sex research or LGBT journals, and 11.3% from other specialized journals). On the one hand, it stands to reason that specialized outlets publish much of this specialized research. They help it to reach its target audience—specialty journals have a clear role in continually educating and updating the specialists who are targeted by said journals. Unfortunately, many sexual minority clients are dependent on the non-specialist clinician who may only have access to, or interest in, studying the articles and resources available to them in the form of the general scholarship outlets in their clinical discipline. For an example, the sample of articles on bisexual populations illustrates this problem—of the eight articles written on bisexuals, nearly half (3 articles) came from the Journal of Bisexuality. All of the remaining articles came from sexology journals. Because this research appears primarily in specialized publications, what little LGBTQ+ sexuality research there is likely remains invisible or inaccessible to many of the clinicians who might benefit from it. This is compounded by the fact that overall, less than 3% of articles, and less than 5% of United States articles, were published in APA journals. More LGBTQ+ sex research needs to appear in accessible, mainline, high-impact forums.

Research Funding

These results indicate a disappointing lack of funding for sex research on sexual minorities. This holds especially in the United States, and with regards to federal funding. Only 20 research articles (16.1% of total articles) were developed and funded in the United States. Of these, only eight (6.5% of all articles) reported federal funding. For comparison, in a content analysis examining trends on racial and ethnic minority representation in four family science
journals across 14 years, Bean et al. (2002) found that of the articles focused on ethnic minorities, fully 55.7% were funded. Of these, most (58.8%) received federal funding. It is difficult to say, however, whether the stark lack of funding reflects a greater lack of financial interest in research on sexual minorities, or on sex therapy research in general. It should be noted, though, that the finding that articles were more likely to be funded if they also included heterosexual individuals and did not focus solely on sexual minorities may point toward the former conclusion.

It seems indisputable that some level of bias is present specifically against LGBT sexuality when it comes to funding. Historically, such bias has even been publicly displayed in the political arena. For instance, one proposed national study aiming to study adult sexuality and reproductive health was challenged by a U.S. congressman on the grounds that tax money should not be spent to “reduce the social stigma associated with sexual deviance,” or, in other words, homosexuality (Bancroft, 2004, p. 10). Such funding struggles continue. More recently, one professor’s research on lesbian and bisexual women “attracted the ire” of a United States senator, who “publicly denounced” the NICHD-funded study as “an example of misguided research priorities” (Clay, 2003, p. 57). It is possible, however, that cultural shifts towards LGBTQ+ inclusion over the past decade are having some effect. Interestingly, of the U.S. studies that were federally funded, the majority were published in the last 10 years. This may suggest some reason for optimism—a slow political shift might reflect a shift in values. If so, this change, while promising, needs to be accelerated.

Allocation of research funding also reflected some of the same inequality found in the amount of representation of individual populations. Again, inequalities were reflected across lines of gender, sexual orientation, and gender identity. Male-focused research was funded far
more than female-focused research. While more than 20% of total funding went to studies on gay men, less than 5% went to studies on lesbian women. Overall, including research involving bisexual populations, nearly twice as many male-focused studies were funded as women-focused studies, with 52.2% of funded studies focused on sexual minority men, and 28.3% focused on sexual minority women. This inequity is especially pronounced in terms of U.S. federal funding—of the eight research studies funded by the federal government, all but one were focused on sexual minority men.

This inequality might be due to several factors. It is likely that at least part of its basis is simple gender bias—a matter of (white) male privilege. However, it may also be related to the fact that the national consciousness regarding LGBTQ+ populations/issues has been heightened by AIDS/HIV—infections that are very much aligned (medically and societally) with gay men. In this way, the bias toward gay men might not reflect privilege, but the reverse—it may be a pathology-based bias, inherent in much of social science, and particularly pronounced with sexual minorities, in which a lot of attention is paid to the problems that people have rather than ways to improve their lives. This is also supported by the amount of literature that focused specifically on sexual function and dysfunction among sexual minority men—61.7%, almost two thirds of articles focused on sexual minority men.

Additionally, examining funded studies as a proportion of total population-focused studies yielded a surprising and positive finding. Proportionally speaking, 40% (24 of 60 articles) of all studies on male populations were funded, but a slightly higher percentage (13 of 29 articles, 44.8%) of studies on sexual minority women were funded. Funding interest for women-focused articles was represented equally between the United States and international sources, with 7 of the 13 studies receiving U.S. funding (primarily private, not federal), and 6 receiving
international funding. Compared to the findings of Lee and Crawford (2007) that lesbian and bisexual women are largely neglected in research, this funding trend indicates an unexpected level of interest and investment in research on sexual minority women that is greatly encouraging.

Proportionally, research on bisexual populations was also fairly well funded. Of the eight studies in this category, half were funded—two were federally funded, one was privately funded, and one was internationally funded. This suggests that the lack of research on these populations may not be due to a lack of available funding. Additionally, while this brings the proportion of bisexual research funding to 50%, the raw data is still stark—only four sex research studies for bisexual populations have been funded in the last two decades. In addition, there was some funding inequality reflected in gender differences. Of the three studies for bisexual men, all were funded. Of the three studies for bisexual women, none were. With such a small sample size, it is difficult to tell whether this reflects a larger pattern, but either way, the disparity is troubling. Research on bisexual populations is vital for clinicians, as these are some of the populations at greatest risk for victimization, for mental health difficulties, and for suicide (Shearer et al., 2016). Bisexual women especially are likely to be marginalized and made invisible (Lee & Crawford, 2007). In order to decrease inequities and to better serve populations that badly need access to clinical resources, more research should be done on these populations, and government and policy-making officials should take note of the need of funding for such research.

Similarly, the proportion of transgender research that was funded seems somewhat encouraging, with 33.3% of such studies finding funding. However, the raw data looks less promising—overall, in 20 years of sex research, only 2 articles focused on transgender populations were ever funded. It should be noted, too, that both of these were funded
internationally—no studies at all on transgender populations were funded in the United States (which is unsurprising, as only one was conducted). This lack of attention to this population is worrisome, as it leaves professionals such as sexual medicine professionals and therapists without resources to treat a vulnerable population. Like bisexual populations, transgender individuals are more likely to face severe discrimination, violence, and victimization (Sanchez & Vilain, 2009). They are at increased risk for depression and for attempted suicide. (Su et al., 2016). Because of this, they have unique mental health needs. It is likely, by the same token, and by their status as a sexual minority, that they have unique sexual health needs. However, what these might be, and what might be done in order to provide competent, affirmative, and effective treatment for these needs, has scarcely been studied. In order to begin to rectify this oversight, government and policy-making officials should mark the need for research funding for this vulnerable population.

Given the insistent political opposition to funding for sex research (Bancroft, 2004), funding agencies, particularly government ones, might wonder whether sex research provides enough value to be worthy of the investment. Data suggests that it does (Armstrong & Donaldson, 2005; Balon, 2017; Goldstein et al., 2019). Sex research can contribute considerable value to societies by improving quality of life, and should therefore be a funding priority within health research. One review of economic evaluations of sexual health services noted a vast array of potential benefits, including greater life satisfaction; improved sex and relationship education; improved ability to work or study; greater self-esteem; reduction in infections; improved access to resources; equality of access, benefits, and standards of care; and improved skills of clinicians (Armstrong & Donaldson, 2005). These societal benefits merit more funding for sex research.
Further, as noted by the Institute of Medicine (2011), a more significant portion of federal support for health research should go to LGBTQ+ minorities.

Additionally, the poor sexual health of citizens places a legitimate economic burden on societies. One study in the United Kingdom estimated that erectile dysfunction alone cost 53 million pounds in 1997-1998 (the current equivalent of roughly 122,827,400 U.S. dollars) (Balon, 2017). Adjusting for a larger population in the U.S., this amounts to a potential cost of over $330 million dollars (Vinopal, 2019). Some estimates run considerably higher—urologist Dr. Judson Brandeis estimates the cost of E.D. to the U.S. economy at over $5 billion (Vinopal, 2019). Such a number may seem difficult to account for, but the effect of ED on productivity and absenteeism is well-documented. An international study spanning Brazil, China, France, Germany, Italy, Spain, the U.K. and the U.S. found that men with ED reported higher absenteeism, higher “presenteeism”/reduced workplace functioning, impairment of work productivity, and lower Mental and Physical Component Summary scores (Goldstein et al., 2019). The impact of absenteeism alone is considerable—it was estimated that E.D. cost the U.K. a total of 19,630 lost days from work per year, a significant productivity loss (Balon, 2017). These are just the rates for a single sexual dysfunction. Balon (2017) notes that the impact of premature ejaculation has not been studied, but is likely to be comparable. Further, these numbers reflect only the impact of poor sexual quality of life for men—the economic burden of female sexual dysfunction was estimated to be potentially even higher (Balon, 2017). Funding agencies—particularly government ones—should take note of the potential impact of improving sexual quality of life for all citizens.
Topics Studied

That most articles on sexual minority sexuality focused on aspects of sexual functioning (49.2%) or sexual satisfaction (32.3%) is very promising. Also promising is the fairly equal distribution of such research among genders—articles that focused on these eudaemonic, sex-positive topics were more or less equally focused on sexual minority men and women, with a slight majority of sexual satisfaction studies focused on sexual minority women. Proportionally, research on these two topics made up 81.7% of studies focused on sexual minority men, and 79.3% of studies focused on sexual minority women. This suggests a positive trend toward more research on sex-positive topics, and more research on previously underrepresented categories (sexual minority women).

However, this study is unable to directly compare results with Van Voorhis & Wagner (2002), who noted that of articles with gay and lesbian content, almost 66% focused on HIV/AIDS. This study omitted articles focused only on medical sexual health, and so did not examine articles focused solely on preventive health and sexual risk. However, a cursory PsycINFO search of journal articles using the intersection of sexual minority search terms and “sexual risk’ or ‘HIV’ or ‘AIDS’ or ‘STD’ or ‘STI’” over the same time period as this study yields 4,090 initial results—fourteen times the initial results from the current study. While it is outside the scope of this study to determine the exact ratio of eudaemonic, sex-positive articles to the number of articles focused on HIV/AIDS/sexual risk, it seems clear that the grand preponderance of research has focused on the latter. In addition, the funding disparity shown by these results in United States studies—nearly half of U.S.-funded studies focused on sexual risk—suggests lopsided priorities. While strides have been made, much more research is needed if clinicians are to meet the needs of sexual minority populations.
In addition, while topic category results are promising for lesbian and gay populations, there was less care given to bisexual populations in this area. Only three articles focused on sexual functioning or sexual satisfaction for bisexuals (making up 37.5% of bisexual-focused articles), and among these, no articles at all focused on these topics specifically for bisexual men. This relative lack of focus on sex-positive topics with this population suggests a cultural desexualization of bisexuals. In a society where sexuality is defined dualistically (homosexual or heterosexual), bisexual sexuality becomes invisible. Bisexuals face delegitimization of their sexuality from the viewpoint of two rigid audiences, both homosexual and heterosexual, and are viewed as merely a transitional phase, or as reducible to homosexuality. As a result of this reductive treatment, over half of the LGB population faces a situation where clinical providers have access to almost no information about their sexual health needs. To begin to close this gap, more sex research should focus specifically on eudaemonic, sex-positive topics such as sexual functioning and sexual satisfaction for bisexual populations.

Transgender populations face a similar dearth. While at first glance, a fair percentage of articles on these populations were focused on sexual functioning and satisfaction (50%), this number is potentially misleading. Even among the limited amount of research focused on these sex-positive topics for transgender individuals (a total of three articles), focus is narrow—two of the three articles focusing on sexual functioning and satisfaction were limited to the effects of vaginoplasty. This ignores the multidimensionality of factors that pose a risk for transgender individuals—for instance, despite the clear relevance of these topics to transgender sexuality, no articles at all focused on sexual esteem, cognitive-affective responses, sexual self-evaluation, and body image. To better serve transgender populations, research on transgender sexuality should be expanded.
Overall, among sex-positive topics, sexual functioning and sexual satisfaction were fairly well covered, though more research is still needed, particularly for bisexual and transgender individuals. Other sex-positive topics could use considerably more focus among all populations. For instance, the impact of sexual orientation or gender identity on sexual esteem was not as thoroughly explored, nor was it as thoroughly funded. Only 14 articles focused on sexual esteem, roughly a tenth of the total. Of these, while 8 were funded internationally, none were funded in the United States. These explored such topics as the impact of body image on sexual satisfaction, and the impact of sexual beliefs and incompetence schemas. Rather than focusing on issues unique to LGBTQ+ individuals, a surprising number of these (10 out of 14) were simply comparative studies, in which sexual minorities were compared to heterosexual couples. As a result, there is almost no research on the impact of sexual orientation or gender identity on sexual esteem, and on the unique needs of these populations. For instance, almost no research examined the effects of internalized homophobia or confusion about orientation on sexual self-esteem. Only seven articles in the entire sample (about 5%) included a discussion on the sexual effects of minority stress. Especially striking is the fact that no research was found at all examining sexual esteem for transgender populations. Considering the inevitable impact of gender dysphoria on sexual experience, this is deeply surprising. Future research might focus on the effects of gender transition on sexual esteem and self-evaluation as a sexual partner, or on cognitive schemas activated in sexual context pre- and post-transition.

Additionally, while some research was found examining sexual behaviors, practices, and contexts for sexual minorities, this is insufficient to meet the need. Generally lacking was any discussion of sexual scripts or sexual roles. Only four articles from the entire sample examined in detail such topics as sexual scripts or roles unique to LGB minorities (e.g., “tops,” the giver or
more dominant partner, and “bottoms,” the receiver or more submissive partner). This reflects a sort of heteronormative bias, a basic assumption that homosexual sex is fundamentally like heterosexual sex, and that homosexual sexual needs are fundamentally similar to heterosexual needs. Future research could further examine sexual scripts or roles in homosexual sex, and the impact of these on aspects of sexual functioning and satisfaction. For instance, there is almost no research on the impact on sexual functioning or satisfaction of LGB individuals acting in a non-preferred sexual role. Similarly, there is little research on the differences in sexual functioning needs between individuals in different roles (for instance, for a gay man, acting as a “top” requires greater erectile capacity), and on the possible implications for sexual esteem.

Certain important topics were generally neglected across the research examined in this study. For instance, very few articles were focused on psychometrics, developing and validating measures for sexual minority populations (a total of 5 articles, 4.0% of total research). This represents only a small fraction of the measures and constructs used for clinical assessment that have been verified with heterosexual individuals and couples, and that would likely be expected to differ based on sexual orientation (see, e.g., Talmadge & Talmadge, 1990). It is also notable that of the articles focused on psychometrics, only one was funded. Additionally, some populations were especially neglected in psychometric research—none at all focused specifically on bisexuals, or on transgender individuals. More research and funding attention needs to be focused on developing and validating measures for sexual minority populations, and research in this area needs to reflect the full diversity of LGBTQ+ populations.

Additionally, very few studies were focused on intersectionality, examining particular demographics within LGBTQ+ minorities. Only four articles (3.2%) examined multiple aspects of diversity in this way. Of these, three examined aging populations. Only one article in the
sample focused on an ethnic minority sample (African-American gay and bisexual men). This is an unfortunate oversight, as these communities face particular minority stress, and are especially underserved. In the area of sex research, some analyses have reported that sex research on ethnic minority populations tends to be sex-negative (Hargons et al., 2017). This study was unable to corroborate that finding, based on a sample size of only one article. However, this suggests that sex research on the intersection between LGBTQ+ minorities and racial and ethnic minorities is vital—clinicians need sex-positive research on these populations in order to be able to better serve these vulnerable and underserved populations. Future research might focus on the effect of multiple minority stress on sexual functioning, sexual satisfaction, or sexual esteem.

Lastly, these findings show a marked lack of case studies in sex research on sexual minorities. Though some of the examined articles were conceptual and used brief case vignettes, only three articles presented a focused, thorough clinical case study of a sexual minority couple or individual. Of these, two were focused on lesbian couples, and one was focused on gay couples. No case studies at all were found for bisexual or transgender individuals. As was earlier noted, this is also an area that shows a marked lack of funding—no articles at all focused on sexual counseling and education were funded. As Corturillo et al. (2016) also noted, this lack of resources on LGBTQ+ topics raises questions concerning how trainers and supervisors are supposed to be able to receive the training and access the information that they need in order to train future generations to work confidently and competently with LGBTQ+ populations. It is wholly likely that there are clinicians across the U.S. doing good work with sexual minority populations; sex researchers, clinicians, students, trainers and supervisors would greatly benefit from published case studies of some of this work.
Clinical Implications

Fewer than half of the articles represented offered any kind of implications for clinicians. Of these implications, very few were substantive; only 13.7% offered a substantive suggestion, consisting of more than a sentence or two, for clinician awareness, and only 16.9% offered substantive recommendations for action. Only 8.9% offered substantive, specific recommendations for treatment strategies and interventions. The rest offered only non-specific suggestions for dimensions to consider during assessment or treatment, or vague recommendations for intervention (e.g., to use cognitive behavioral interventions, or to ascertain the possible health effects of the study subject matter). On the whole, there were very few articles that offered specific instructions to sex therapists and other clinicians in relation to working with sexual minorities. Because the majority of the body of knowledge in sex therapy research is based on research with straight and cis-gendered populations, sexual minorities are at risk of being underserved, and this risk increases when researchers fail to direct their research toward clinicians in ways that are usable and specific. In order to bridge the research-practice gap, more research is needed that offers specific and substantive implications for clinicians.

Conclusion

There are several limitations to this study. First, this study only analyzes published articles. It is unknown how much sex research conducted with sexual minorities is submitted for publication; consequently, is uncertain whether publishing trends reflect a lack of submitted research, or a lack of interest in publication. By the same token, lack of funding may not represent lack of possible or available funding. Instead, it may to some degree reflect a lack of grant-seeking among researchers. Additionally, it should be noted that this study was limited to English-language articles, and so does not give a full picture of the state of international
LGBTQ+ sex research; it only depicts trends among research and resources available to the English-speaking world. Lastly, although the coding was checked through a dual-coding process and inter-rater reliability check, errors may remain, given the human coding process.

The findings here do indicate some progress in sex research for sexual minorities; however, they also give rise to concern regarding inadequate service. While some groups, such as gay men and, promuably, sexual minority women, have shown some increase in research content, other populations remain drastically under-researched. Bisexual populations are rarely researched on their own, and are generally lumped in—appropriately or not—with other populations, so that it is dubious whether the research results are as applicable to them, and whether their unique concerns are being addressed. Even more underserved in the research are transgender populations, who occupy only a tiny percentage of research on sexual minorities. Additional concern is made clear by the lack of funding for sex research on sexual minorities, and by the general lack of implications offered to clinicians and other professionals. These factors combine to create a likelihood that sexual minorities will continue to be underserved. In order to resolve this inequity, more must be done to examine sexual minority populations and the unique topics and concerns that apply to them. Sex research needs to produce studies that are informative of sexual topics and concerns that are of interest to sexual minorities, and that can be applicable and useful to the clinicians that serve them.
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## Appendix

Table 1 - *Content Analysis Codebook*

<table>
<thead>
<tr>
<th>Topic code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA</td>
<td>Sexual abuse, objectification, or victimization. Includes research on survivors of sexual abuse, sexual assault, or other sexual trauma.</td>
</tr>
<tr>
<td>SF</td>
<td>Sexual functioning and dysfunction. Includes research on sexual dysfunction disorders found in the DSM-5. Includes research on the negative sexual effects of chronic illness, or of certain medications (such as antidepressants or psychotropics). Includes research on post-cancer sexual functioning. Includes research on sexual functioning affected by HIV and treatment.</td>
</tr>
<tr>
<td>SS</td>
<td>Sexual satisfaction and pleasure, and sexual desire.</td>
</tr>
<tr>
<td>SI</td>
<td>Sexual identity. Includes questions of sexual identity, i.e., views of the self as sexual or erotic, as well as gender construction and sexual identity development. Includes discussion of internalized homophobia and minority stress. Includes views of the self as sexual or erotic. Includes discussion of “outness.” Includes questions masculinity/femininity and gender frameworks.</td>
</tr>
<tr>
<td>SC</td>
<td>Sexual contexts. Includes research on social and cultural contexts of sexual behaviors and attitudes. Includes concepts of sexual meaning. Includes sexual health communication, attitudes, and values. Includes discussion of sexual</td>
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communication between partners, as well as attitudes and values individuals hold about sexuality and sexual practices (e.g. attitudes concerning such issues as monogamy or polyamory). Includes criticisms of heteronormative sexual frameworks.

| SCE  | Sexual counseling, education, and therapy. Includes discussion of treatment models, best practices for therapists, and ethical principles for LGBTQ+ therapy. Includes discussion of therapist training. Also includes case studies. |
| SB   | Sexual behaviors, roles, and practices. Includes discussions of sexual scripts (e.g. tops and bottoms), and topics such as frequency of intercourse. |
| SR   | Focuses on sexual behaviors specifically from a lens sexual risk, including sexual compulsivity and addiction. |
| PSY  | Research validating measures for sexual minorities. |
| DEM  | Research focused on particular demographics. Includes research focused on particular racial or ethnic demographics (e.g. African Americans), as well as research focused on particular age groups (e.g. aging populations). |
Table 2 - Frequency of Article Funding Type by Sexual Minority Population

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*SA = sexual abuse and victimization, SF = sexual function and dysfunction, SS = sexual satisfaction and pleasure, SI = sexual identity, SE = sexual esteem and cognitive-affective responses, SC = sexual contexts, SCE = sexual counseling, education, and therapy, SB = sexual behaviors, scripts, and practices, PSY = psychometrics, DEM = demographic-focused.
Table 4 – Frequency of Article Topic by Population

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