

REVIEW

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Women in larger bodies' experiences with contraception: a scoping review

Tierney M. Boyce* and Elena Neiterman

Abstract

Background: As the prevalence of obesity increases and the age of onset decreases, more women of reproductive age will be living in larger bodies. Research on weight-related efficacy and safety has informed clinical guidelines for routine and emergency contraceptive use by women with a higher body mass index; however, patient perspectives are needed to understand women in larger bodies' experiences with contraception and contraceptive care. This scoping review summarizes the literature on women in larger bodies' experiences with contraception with the goal of gaining a better understanding of the nature of these experiences and identifying gaps in the existing research.

Methods: Following Arksey and O'Malley's framework, a scoping review of the literature was conducted. Four databases (PubMed, PsycINFO, SCOPUS, and CINAHL) were searched for peer-reviewed, empirical articles published in English between 2010 and 2020, with a focus on North America, Europe, Australia, and New Zealand. Data were summarized by identifying key themes in the reviewed literature.

Results: Twenty-nine articles meeting the eligibility criteria were reviewed. The literature was predominantly quantitative ($n = 27$), with only one qualitative study and one systematic review, respectively. Five themes were identified, including (1) use of contraception among women in larger bodies; (2) knowledge, attitudes towards and beliefs about contraception; (3) contraceptive (dis)satisfaction among women in larger bodies; (4) contraceptive counseling; and (5) barriers to contraception. The findings revealed that women in larger bodies may have unmet contraceptive care needs. Despite many articles addressing the need to improve contraceptive counseling for women in larger bodies ($n = 26$), few explored how women felt about their care ($n = 2$). Finally, only two articles focused on emergency contraception, indicating a need for further research.

Conclusion: This scoping review emphasizes the pressing need for qualitative research to explore women in larger bodies' experiences with routine and emergency contraception, as well as receiving contraceptive counseling and care. Future research exploring the lived experiences of women in larger bodies is necessary to better characterize their contraceptive needs and identify avenues to improve patient care.

Plain English summary

As obesity becomes more prevalent, more women of reproductive age will be living in larger bodies. This review highlights what is known about women in larger bodies' experiences with contraception and suggests where future research is needed. We searched four databases for papers published in English from 2010 to 2020. Our review

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included 29 articles. Nearly all of the studies were quantitative, with one qualitative study and one review. Most articles talked about contraceptive use, but few of them included emergency contraception. Some papers highlighted women's knowledge and opinions about contraception, whereas others talked about their contraceptive (dis)satisfaction. Many articles discussed contraceptive counseling. Finally, some papers considered potential barriers to contraception. Our findings suggest that women in larger bodies have unmet contraceptive needs. Notably, this review aimed to focus on patient experiences but women's voices were rarely represented. Future qualitative research on women's lived experiences will provide a better understanding of women in larger bodies' contraceptive needs and suggest how care can be improved.

Keywords: Contraception, Emergency contraception, Overweight, Obesity, Body Mass Index, Sexual and Reproductive Health, Scoping review

Introduction

The global prevalence of overweight and obesity has nearly tripled in the last four decades [1], resulting in what has become known as an 'obesity epidemic' [2]. In the United States, nearly half of women of reproductive age report a height and weight that is characterized as 'overweight' or 'obese' based on body mass index (BMI) classification [3, 4]. While obesity is not universally defined, body weight status is most commonly estimated by calculating BMI, a weight to height ratio that classifies 'overweight' as a $\text{BMI} \geq 25 \text{ kg/m}^2$ and 'obesity' as a $\text{BMI} \geq 30 \text{ kg/m}^2$ [5]. In addition to being a well-known risk factor for a number of chronic conditions, higher BMI may also have a marked impact on reproductive health [6].

Women's sexual behavior does not seem to vary by body size [7, 8], and while some studies suggest that women with higher BMIs may experience reduced contraceptive efficacy [9, 10] and increased rates of unintended pregnancy [11], most research on contraception does not include women with higher BMIs [12]. The existing literature on this topic is limited and shows some inconsistencies in findings [9, 13, 14]; however, there is pharmacokinetic evidence demonstrating that some hormonal contraceptives, such as the transdermal patch and levonorgestrel (LNG) emergency contraception (EC), may have reduced efficacy when used by women with higher BMIs [9, 14]. In addition, $\text{BMI} \geq 30$ and combined oral contraceptive (COC) use are both risk factors for venous thromboembolism, resulting in an elevated risk among women with higher BMIs who use COCs [15]. Such research findings have informed the World Health Organization's medical eligibility criteria [16] and various clinical guidelines for contraceptive use in North America and Europe [17–20]. Moreover, warnings of reduced efficacy among users who weigh over 165 lbs (75 kg) and inefficacy among users who weigh over 175 lbs (80 kg) were introduced to Canadian LNG EC labels in 2014 [21] and briefly in Europe from 2013 to 2014 [22]. Other international organizations have suggested that women

with higher BMIs may be offered a double dose of LNG when other EC options, such as ulipristal acetate (UPA) and the copper-bearing intrauterine device (Cu-IUD), are not feasible [20, 23]. Overall, efficacy and risk-based evidence indicate that progestin-only contraception, contraceptive injections, and long-acting reversible contraception (LARC), such as intrauterine devices (IUDs), intrauterine systems (IUSs) and contraceptive implants, are preferred for women with higher BMIs [13, 24].

Given that the benefits of using contraception outweigh the risks associated with non-use, women in larger bodies¹ should be counseled on all methods of contraception to inform their choices [9, 29]. This is of particular relevance in the context of bariatric surgery, as the weight loss may increase fertility and the resulting nutritional deficiencies pose a significant risk to maternal and fetal health [30]. Pregnancy should be avoided for 1 to 2 years postoperatively and thus, contraceptive counseling plays an integral role in bariatric care for women of reproductive age [31]. Nonetheless, although contraceptive options should not be restricted solely on the basis of weight [29], the research forming the basis of weight-related contraceptive guidelines reveals little about women in larger bodies' experiences.

Patient perspectives are needed to understand women in larger bodies' experiences with contraception and contraceptive care. The focus of this scoping review is to answer the following research question: "What does academic literature reveal about women in larger bodies' experiences with contraception?" Ultimately, the aim of this scoping review is to better understand the contraceptive experiences of women in larger bodies, to identify

¹ In this paper, we use the term 'women in larger bodies' to broadly and inclusively refer to individuals who are categorized as 'overweight' or 'obese' to avoid the negative connotation and stigma associated with these terms (please see [25–28]). By moving away from the predominant biomedical discourse utilizing BMI classification to indicate body size, we aimed to focus on women's subjective experiences in their bodies. We also acknowledge that our use of gendered language does not capture the experiences of all contraceptive users in larger bodies.

Table 1 Search strategy used for literature search

(contracepti* OR "birth control" OR "fertility control" OR preconception)
 (obesity OR obese OR overweight OR "body mass index" OR BMI)
 (attitude* OR knowledge OR perception* OR belie* OR use OR prefer*
 OR behavior* OR behaviour* OR decision* OR counsel* OR feel* OR
 access* OR seek* OR barrier* OR "focus group*" OR interview* OR quali-
 tative OR experience*)

gaps in the literature, and to provide recommendations for future research.

Methods

This scoping review was guided by the methodological framework developed by Arksey and O'Malley [32]. This methodology was chosen to reflect our broad research objectives to examine the breadth and range of the current body of literature and identify areas where future research is needed [32]. Following Arksey and O'Malley's framework, the following five steps were taken: (1) identifying the research question; (2) identifying relevant literature; (3) selecting literature based on the inclusion and exclusion criteria; (4) charting the data; and (5) collating, summarizing, and reporting the results [32].

Identifying the research question

We defined the parameters of this scoping review by developing a research question that asked, "What does academic literature reveal about women in larger bodies' experiences with contraception?". This broad approach was taken to capture all relevant literature [32]. After an initial literature search, we identified specific sub-questions to provide a clear understanding of our research goals and to inform our search strategy:

1. What attitudes do women in larger bodies have about contraception?
2. What contraceptive decisions are made by women in larger bodies?
3. Do women in larger bodies receive contraceptive counseling?
4. What barriers do women in larger bodies face when seeking contraceptive care?

Identifying relevant literature

From the above stated research questions, we established a search strategy in consultation with a professional librarian (see Table 1). First, a list of keywords related to our research questions was developed. Although we refer to 'larger bodies' throughout this paper, we chose body descriptor search terms like 'overweight' and 'obese' to

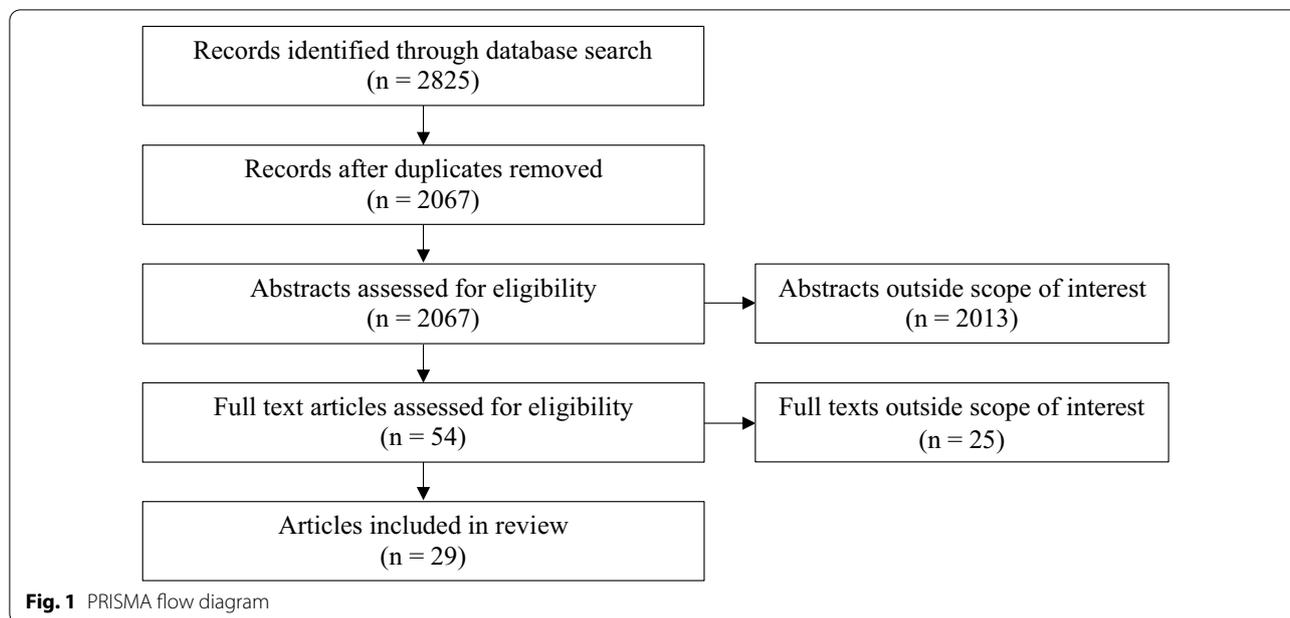
reflect the dominant biomedical discourse which uses BMI classification to characterize body size [33]. We piloted our initial combination of terms, made adjustments through a trial-and-error process, and finalized our search strategy. On June 25, 2020, the search was performed in four databases: PubMed, SCOPUS, PsycINFO, and CINAHL. To collect up-to-date and relevant literature, we limited our search to papers published between 2010 and 2020 in peer-reviewed journals. We only included the literature published in English.

Selecting the literature

The research results were imported into RefWorks, an online reference manager, where they were screened for eligibility. After removing duplicates, we screened the abstracts of the 2067 articles. To collect evidence-based information relevant to the health care and societal contexts of Western nations, we limited our review to empirical research, including systematic reviews, conducted in North America, Europe, Australia, and New Zealand. The focus on Western countries was selected to collect data from high-income countries with comparable health care systems [34–36], and to reflect the belief that Westernization has played a role in the increasing global prevalence of higher BMIs and related chronic conditions [37]. Studies that did not include women and articles without an analytic focus on contraception were excluded. Since the goal of the review was to capture women's experiences with contraception, we excluded clinical trials and papers that focused on clinical efficacy or safety, incidence of adverse effects, and health care providers' perspectives. Moreover, studies with a specified focus on the use of contraception for non-contraceptive medical purposes (e.g., polycystic ovarian syndrome, endometriosis, acne) were excluded. We included studies that focused on women undergoing bariatric surgery. Outside of this clinical context, we excluded studies that did not classify participants as 'overweight', 'obese' or by BMI, as well as articles that did not present results about body size. During this initial abstract screening, 2013 articles were excluded for being outside our scope of interest. We conducted a full-text screening of the remaining 54 articles, discussed any disagreements that arose with respect to eligibility, and reached a consensus to include 29 articles in the full review. The results from our literature search and selection process are outlined in Fig. 1.

Charting the data

Using Microsoft Excel, a literature extraction tool was developed to record information about each article. This included authors, year of publication, region of research, study title and objectives, study methods, type of contraception, body size indication, and study sample



demographics. Our analysis began with each author independently reading and carefully reviewing five articles to identify key themes in the research. We met to discuss our findings and prioritize the themes that would guide our analysis, in consideration of our a-priori research questions. After some refinement, we finalized the key themes that were applied to each article for the full review.

Collating, summarizing, and reporting the results

Five key themes were added to the literature extraction tool, where data from each article was imported: (1) use of contraception among women in larger bodies; (2) knowledge, attitudes towards and beliefs about contraception; (3) contraceptive (dis)satisfaction among women in larger bodies; (4) contraceptive counseling; and (5) barriers to contraception. Many articles had data extracted for more than one theme; however, the relevancy of each theme to the overall article was considered throughout the analysis and major themes were prioritized in the findings.

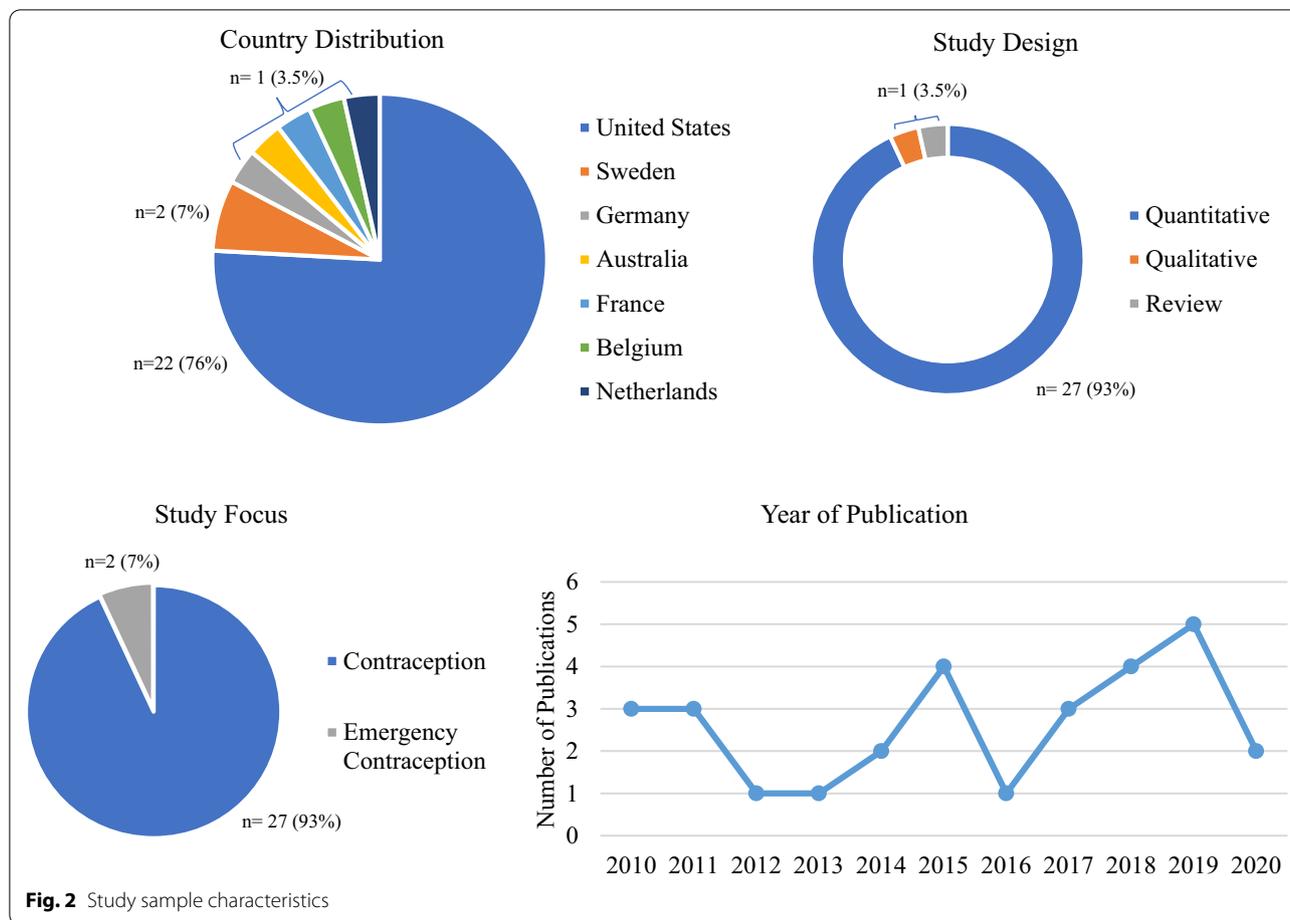
Results

Characteristics of the reviewed literature

Twenty-nine articles met the eligibility criteria. An overview of the literature demographics can be found in Fig. 2. The majority of the research was conducted in the United States (n=22), while Swedish studies represented 7% of the articles (n=2), and the rest of the research was conducted in Belgium, Netherlands,

France, Germany, and Australia, each representing 3.5% (n = 1) of the total sample. Nearly half of the articles (n=14) were published since 2017, suggesting a growing research interest in this area. The literature glaringly lacks qualitative inquiry, as the vast majority of the empirical literature included in this review was quantitative (n=27), with only one study employing a qualitative design and one systematic review. Fewer than 10% of studies focused on emergency contraception (n = 2), indicating a need for future research.

Total study sample sizes ranged from 25 to 147 336 participants, with nearly half of the papers reporting results from samples of greater than 1000 participants (n = 14). Most studies reported a sample of participants who were predominantly white (n = 19). Notably, 24% of the articles did not provide information on participants’ race or ethnicity (n = 7). Although some studies had a broader sexual or reproductive health focus (n = 8), all data on contraception was limited to participants of peri-reproductive age, with study samples including girls and women between the ages of 13 and 49 years old. While there was a significant research focus on patients who underwent bariatric surgery (n = 13), a little over a half of the study samples also included participants from a broad range of BMI categories (n = 15). Finally, although one of the reviewed articles also included men in the total study sample, we only analyzed the data pertaining to women’s experiences. A summary of the key findings from each paper can be found in Additional file 1: Table S1.



Use of contraception among women in larger bodies

The prevalence and methods of contraception used by women with higher BMIs varied across the reviewed literature (n=28). While the study findings differed, oral contraceptive pills (OCPs) or male condoms were often reported as the most commonly used method of contraception among women with BMIs classified as ‘overweight’ or ‘obese’ (n=16). Women with higher BMIs were less likely than women with ‘normal’ BMIs (i.e., <25 kg/m²) to use hormonal contraception (n=7) and more likely to use LARC or permanent methods (e.g., tubal ligation) (n=7) [38–47]. To contrast, some researchers found that the use of any method of contraception did not significantly differ by weight status (n=2), although women with higher BMIs may be more likely than women with lower BMIs to discontinue the use of newly prescribed contraceptives (n=2) and rely on less effective methods (e.g., withdrawal) or not use contraception at all (n=4) [38, 40–42, 47–49].

The majority of women undergoing bariatric surgery used contraception [44, 50–60]. Some studies found that contraceptive use improved following bariatric surgery

(n=4), with a greater proportion of women reporting use of highly effective or safe methods of contraception following the procedure, such as LARCs [50–53]. However, the findings from these studies varied, too. While two studies reported initial postsurgical contraception usage rates exceeding 90% [51, 57], a retrospective analysis revealed that fewer than 30% of patient medical charts documented contraceptive use and no new prescriptions were made following bariatric surgery [61]. Nonetheless, a recent systematic review noted that this finding may just reflect poor physician charting practices [59].

Emergency contraception was rarely discussed in the reviewed literature. One article noted that many participants weighed beyond the range of full EC efficacy, but unfortunately, the study did not examine participants’ use of emergency contraception [38]. Similarly, two recent American studies proposed that weight status may influence EC decision-making among women in larger bodies [62, 63]. Following the introduction of European weight-related guidelines on LNG EC labels, the proportion of online UPA purchases made by women with higher BMIs rose significantly in the United States [62], while another

study showed that fewer than 30% of American LNG EC users reported a BMI ≥ 26 during the same time period [63].

Knowledge, attitudes towards and beliefs about contraception

Fewer than half of the reviewed articles provided insight on women's knowledge, attitudes towards, and beliefs about contraception (n=11). When making contraceptive decisions, women with higher BMIs may consider ease of use [54] and side effect profile [46, 57, 64]. For instance, a study by Chuang et al. [64] revealed that women with higher BMIs expressed concerns about potential weight gain associated with hormonal methods of contraception. In addition, this study indicated that women in larger bodies did not feel that their body size limited their contraceptive choices and believed that the ability to conceive was largely beyond individual control [64]. Similarly, five studies revealed that women in larger bodies who did not use contraception often believed they were unlikely to become pregnant [42, 56, 57, 59, 65]. Some study participants also attributed their non-use of contraceptives to sexual inactivity, as well as wishing to avoid using contraception or experiencing side effects [56, 57]. In comparison, although the reasons for using EC did not vary by weight [63], the findings from one study demonstrated that some women with higher BMIs made weight-related efficacy considerations when choosing UPA over LNG, explaining that with their weight, "Plan B isn't as effective" [62].

Contraceptive (dis)satisfaction among women in larger bodies

Only five studies provided information with regards to women's (dis)satisfaction with contraception. In general, women who underwent bariatric surgery were content with their method of contraception [51, 55, 58]. However, dissatisfaction was also discussed in three articles, often resulting in contraceptive discontinuation [47, 51, 65]. For example, a study by Callegari et al. [65] determined that relying on withdrawal was associated with previous contraceptive dissatisfaction among women with higher BMIs. Although the reasons for dissatisfaction were not always specified, some women reported contraceptive discontinuation due to changes in their menstrual bleeding patterns [47, 51].

Contraceptive counseling

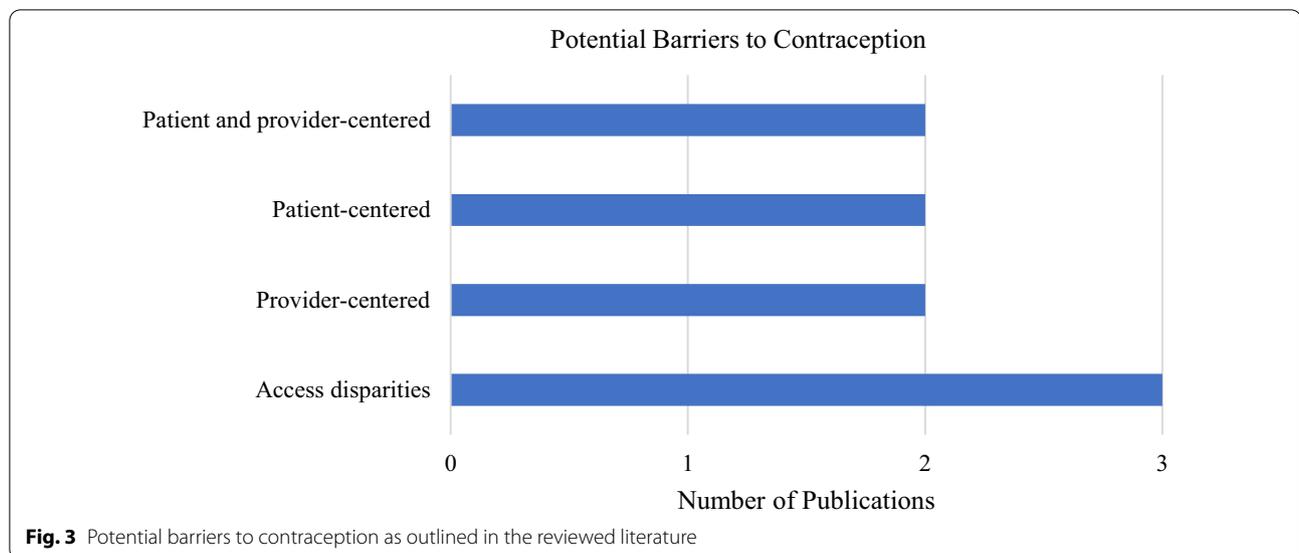
While nearly every article advocated for improving contraceptive counseling and care among women with higher BMIs (n=26), contraceptive counseling was

only examined in 16 studies. The majority of the articles discussed counseling in the context of bariatric surgery (n=10). Many women knew to delay pregnancy following their procedure [50, 54, 56–58]; however, contraceptive counseling appeared to fall short in a number of studies (n=9) [44, 50, 52, 54, 56–59, 61]. For example, fewer than one third of women who underwent bariatric surgery at three Belgian hospitals reported receiving contraceptive counseling [52]. Moreover, two studies revealed that many women who underwent bariatric surgery did not feel that they received enough information regarding postoperative contraceptive use and family planning [56, 58].

Similarly, findings from three national survey studies suggest that women in larger bodies may receive insufficient contraceptive counseling and care [40, 63, 65]. Numerous studies (n=8) demonstrated that providing contraceptive counseling positively impacted the contraceptive choices and use of contraceptives among women with higher BMIs [50, 51, 54, 56, 57, 59, 62, 65]. For instance, a study with UPA users revealed that many women with higher BMIs who reported receiving EC counseling were cautioned that LNG would have reduced efficacy due to their weight [62]. Still, the contraceptive counseling that women in larger bodies receive may not always be effective. This was exemplified by an American study where recent EC counseling was reported by a greater proportion of LNG users with a BMI ≥ 26 compared to those with a lower BMI; however, given that LNG EC is believed to have reduced efficacy among women with higher BMIs, the authors suggested that this finding may represent poor provider care or practices [63]. In two other studies, women with higher BMIs were prescribed or accessed COCs despite recommendations or the presence of contraindications [47, 66]. Surprisingly, in a bariatric surgery setting where all women were supposed to have received contraceptive counseling, significantly fewer contraceptive non-users reported receiving counseling compared to women using contraception postoperatively (66.7% vs 95.7%) [57]. In light of these findings, some authors emphasized the need for future research to understand the contraceptive counseling needs and preferences of women in larger bodies [56, 61, 63]. Other authors made clinical practice recommendations (n=11), including comprehensive contraceptive counseling and monitoring surrounding bariatric surgery [50, 52, 54, 57, 59, 61] as well as the provision of targeted, patient-centered contraceptive counseling and care [40, 51, 56, 63, 65].

Barriers to contraception

While none of the papers explicitly examined the barriers impacting women's experiences with



contraception, some authors discussed potential challenges that women in larger bodies may face when accessing and using contraception ($n=9$). This was often framed as access disparities, provider barriers, personal barriers, or a combination thereof (see Fig. 3). Mosher et al. [43] proposed that contraceptive use may differ across weight categories due to disparities in access to care faced by women with higher BMIs. Disparities were often discussed with regards to socioeconomic factors ($n=3$), such as income, that may influence access to contraceptive services and continuation of use [43, 47, 65]. Some researchers hypothesized that women with higher BMIs may have unique health care needs that go beyond contraceptive care and thus, health care providers may not prioritize contraceptive counseling or adequately discuss weight-related considerations [41, 46]. In comparison, Becnel et al. [44] suggested that inadequate contraceptive counseling among non-sexually active adolescent girls with higher BMIs may reflect health care provider weight bias. Likewise, three authors proposed that low self-esteem and perceptions of weight stigma may prevent women in larger bodies from accessing contraception or contraceptive care [40–42]. Finally, three articles identified misperceptions and gaps in knowledge among both health care providers or women alike as potential reasons for poor contraceptive planning and use [42, 46, 64].

Discussion

This scoping review aimed to explore key findings from the literature on women in larger bodies' experiences with contraception, identify gaps in the literature, and make recommendations for future research. While this review aimed to focus on women's experiences, the paucity of qualitative data reveals a notable gap in the research. Although women's voices are rarely represented in the literature, our analysis suggests that women in larger bodies have unmet contraceptive needs. In keeping with our results and the recommendations made by nearly all the authors of the reviewed articles, the current literature underscores the need to improve contraceptive information, counseling, and care for women with higher BMIs.

Women have previously expressed their desire for a close, supportive provider–patient relationship to facilitate open discussions about contraceptive options and aid with informed decision-making [67]. Adding to this, our review highlights the association between contraceptive counseling and the use of highly effective methods of contraception reported by women in larger bodies [50, 51, 54, 56, 59, 62, 65]. Unfortunately, nearly half of the articles ($n=14$) revealed that many women with higher BMIs reported inadequate or no contraceptive counseling [40, 44, 47, 50, 52, 54, 56–59, 61, 63, 65, 66]. Moreover, some authors proposed that women in larger bodies may face unique barriers to accessing contraception and contraceptive care, including low self-esteem and perceptions of weight stigma [40–42]. Although women's perceptions of weight stigma were not examined in any

of the reviewed studies, three researchers alluded to the possibility of weight stigma or bias in contraceptive care [41, 42, 44]. This speculation is much in line with previous research in reproductive health care whereby women with higher BMIs have often described negative experiences shaped by disrespectful treatment, presumptuous comments, and the problematization of their bodies [26, 28, 68]. With the ubiquity of weight bias in health care [69, 70] and its relation to health care avoidance among individuals with higher BMIs [71–73], it is crucial that future research explore how women in larger bodies navigate contraceptive care. In doing so, this research can aid in identifying the structural and personal obstacles that may limit women in larger bodies' access to and engagement with contraceptive counseling and services, gain a better understanding of how women feel about the contraceptive care they receive, and clarify their counseling preferences and needs.

Some studies revealed that women with higher BMIs were more likely than their 'normal' BMI counterparts to use less effective or no methods of contraception [38, 40–42]. Moreover, five articles affirmed that women in larger bodies' contraceptive non-use was often associated with perceived subfertility [42, 56, 57, 59, 65]. Parallel to these findings, perceived infertility has been identified as one of the leading reasons for contraceptive non-use among American women at risk of unintended pregnancy [74]. Although having a BMI ≥ 30 is associated with an elevated risk of fertility issues and miscarriage [75], studies with women who consider themselves to be less likely to become pregnant have yet to attribute this perception to weight or body size [76, 77]. The literature reviewed in this study did not examine why women with higher BMIs felt they were less likely to become pregnant, but this warrants further exploration. Given that women in larger bodies may also experience increased rates of unintended pregnancy [11], future research is needed to examine such perceptions of subfertility. Addressing this gap will provide a better understanding of the factors that contribute to contraceptive discontinuation and non-use among women with higher BMIs, which can thereby inform patient-centered approaches to tailoring sexual health education and contraceptive counseling.

Only two articles in this scoping review focused on emergency contraception, indicating a significant gap in the literature. While the findings from these studies demonstrate how EC counseling and information about weight-related efficacy may influence women in larger bodies' decision-making [62, 63], they reveal little about women's lived experiences. Women have previously described accessing and using EC as stressful or embarrassing, and have reported a range of emotions following usage, including relief, uneasiness, as well as a

sense of personal responsibility [78–80]. Considering the stigma associated with both EC [81] and weight [69, 70], women in larger bodies who access and use emergency contraception may be particularly vulnerable to stressful or stigmatizing experiences. Furthermore, while some pharmacists routinely discuss weight-related considerations with EC clients [82], others have reported feeling uncomfortable addressing weight when providing emergency contraceptive counseling [83]. The striking lack of research about women with higher BMIs' experiences accessing and using EC draws attention to the need for future studies to examine women in larger bodies' lived experiences with emergency contraception, including how they react to information about weight-related efficacy [62], how they make decisions about EC, and their experiences with emergency contraceptive care.

This study has several limitations. Our focus on recently published empirical papers may have resulted in the exclusion of some important studies that were published prior to 2010. Given that there is little empirical knowledge about women in larger bodies' experiences with contraception, it may have been beneficial to include a grey literature search to attempt to collect more qualitative data. Following Arksey and O'Malley's [32] methodology, we did not assess the quality or generalizability of the findings that were reported in the studies we reviewed. Although many of the articles had large sample sizes exceeding 1000 participants, our review only examined research from Western countries. The overrepresentation of white women and bariatric surgery patients, who have unique clinical characteristics and contraceptive needs [59], limits the generalizability of our findings and demonstrates the need for an intersectional approach to future research. In particular, our exclusive focus on women's experiences calls for further investigation to explore non-binary, transgender, and two-spirit individuals in larger bodies' experiences with contraception and contraceptive care.

Given that we did not critically appraise the articles included in this review, we did not evaluate other study variables or the impact of potential confounders in the relationship between body size and contraceptive use. For instance, contraceptive choice among American women has previously been associated with a range of socioeconomic factors (e.g., age, race/ethnicity, education, insurance), sexual relationship factors, as well as attitudes towards and experiences with contraceptive methods, pregnancy, and health care providers [84]. Further, due to our broad and inclusive definition of larger bodies, we did not disaggregate the findings based on BMI category, nor did we consider BMI reduction following bariatric surgery. However, among studies that reported postoperative BMI, mean or median BMIs were all above 'normal,'

and often ≥ 30 , indicating that many participants would still be considered women in larger bodies [50, 52, 54, 55, 57, 58, 61]. This is consistent with previous research suggesting that the majority of patients do not achieve 'normal' BMI after bariatric surgery [85, 86]. Nonetheless, future research should address weight loss and compare women in larger bodies within and across BMI categories to better understand how experiences with contraception may differ by body size, shape, or BMI classification. Finally, most of the literature relied on self-reported data and many authors cited the possibility of bias related to misclassification of BMI [39–43, 49, 54, 62, 63, 65] or self-reported contraceptive behaviors and experiences [41, 46, 48, 56, 57, 60, 63]. To our knowledge, this is the first scoping review to summarize the literature pertaining to women in larger bodies' experiences with contraception and thus we believe that our findings are valuable despite the aforementioned limitations.

Conclusions

Women with higher BMIs are a growing population with unique reproductive health needs and risks [6, 75]. As this trend continues, more women of reproductive age will have a height and weight that is considered 'overweight' or 'obese' [24]. Thus, it is imperative that women in larger bodies have access to highly effective methods of contraception and are provided with patient-centered, non-judgemental contraceptive care to support making informed family planning decisions. This scoping review summarized the empirical literature pertaining to women in larger bodies' experiences with contraception, revealing that women with higher BMIs may have unmet contraceptive counseling and care needs. We have identified several gaps in the literature and have indicated that additional research, particularly qualitative research, is pressingly needed to better understand, explain, and build upon the current body of knowledge on women in larger bodies' experiences with contraception. This research will play an integral role in establishing the contraceptive needs of women with higher BMIs and identifying avenues to improve care. Ultimately, information about the lived experiences of women in larger bodies who access and use contraception and contraceptive care may be used in conjunction with the findings from clinical studies to inform updated guidelines for clinical practice. In this way, contraceptive counseling, care, and experiences can be improved for women in larger bodies.

Abbreviations

BMI: Body Mass Index; COC: Combined oral contraceptive; Cu-IUD: Copper-bearing intrauterine device; EC: Emergency contraception; IUD: Intrauterine device; IUS: Intrauterine system; LARC: Long-acting reversible contraception; LNG: Levonorgestrel; OCP: Oral contraceptive pill; UPA: Ulipristal acetate.

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12978-021-01139-2>.

Additional file 1: Table S1. Summary of the reviewed literature. This additional table provides an overview of the 29 articles included in our scoping review. The table contains information with respect to the article authors, the country of study, the study design, the total study sample size, as well as key study sample characteristics and research findings pertaining to women in larger bodies' experiences with contraception.

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Authors' contributions

EN provided mentorship throughout this research and supervised TMB's work. The authors collaborated on the conceptualization of the study, with the study design proposed by EN, and the topic proposed by TMB. TMB was responsible for drafting various combinations of keywords to inform the search strategy, which was confirmed by EN. TMB conducted database searches and created a RefWorks library, where articles were screened by both authors. TMB and EN independently reviewed five articles, agreed upon the key themes, and TMB reviewed the remaining articles. Data pertaining to the key themes were added to the literature extraction tool and reviewed by both authors. TMB then synthesized the data and drafted the manuscript, which was revised and edited based on EN's feedback. Both authors read and approved the final manuscript.

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Availability of data and materials

The reviewed articles are available in the manuscript and can also be made available upon request.

Declarations

Ethics approval and consent to participate

Not applicable.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

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