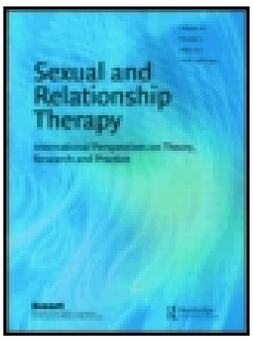

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Cliteracy for him: effectiveness of bibliotherapy for heterosexual men's sexual functioning

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ABSTRACT

The current study examined whether reading the chapter titled "Cliteracy for Him" from the book *Becoming Cliterate* is an effective intervention for increasing young heterosexual men's sexual functioning. Specifically, this study compared an intervention group (i.e., those who read the chapter) to a waitlist control group at three points in time: before reading the chapter, immediately after reading the chapter, and three weeks later. Outcome measures included clitoral knowledge, sexual self-esteem, sexual depression, communication during sexual activity, and dysfunctional beliefs about sexuality (e.g., beliefs about women's satisfaction, about being "macho," and sexual conservatism). Participants who read the bibliotherapy chapter showed immediate improvement on clitoral knowledge, dysfunctional beliefs about women's sexual satisfaction, and sexual communication. Longer-term improvements were found on clitoral knowledge, and dysfunctional beliefs about both women's sexual satisfaction and being "macho." Additionally, compared to the waitlist control group, men in the intervention group demonstrated better sexual communication and fewer dysfunctional beliefs about women's sexual satisfaction immediately after reading the chapter, and more clitoral knowledge, fewer dysfunctional beliefs about women's sexual satisfaction, fewer dysfunctional macho beliefs, and lower sexual depression three weeks after reading the chapter. Clinical implications and future research directions are discussed.

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Bibliotherapy; orgasm gap; men; sexual functioning

The orgasm gap is the inequality between women and men in the frequency of experiencing orgasm during partnered sexual activity. Specifically, heterosexual women are less likely to reach orgasm with a partner than are heterosexual men (Hite, 2004; Mahar et al., 2020). For example, one study of university students found that 91% of males and 34% of females report always or usually experiencing an orgasm with a partner (Wade et al., 2005). Despite this gendered disparity in orgasm frequency during partnered sexual activity, both men and women have similarly high rates of orgasm during masturbation, specifically 94% for women (Hite, 2004) and 98% for men (Hite, 1981). Additionally, women are more likely to orgasm during sex with a female partner than with a male partner, while men do not differ in their likelihood of orgasm during sex

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with a same versus opposite sex partner (Garcia et al., 2014). These findings suggest that the orgasm gap may be related to cultural factors.

Scholars have proposed explanations for the orgasm gap in terms of the socialization of young adult women (e.g., Armstrong et al., 2012; Bruijn, 1982; Wade et al., 2005). However, given that the orgasm gap occurs in the context of heterosexual sexual encounters, it is important to examine explanations for the orgasm gap in terms of male socialization. Theory and research suggest that there are at least four related factors that contribute to the orgasm gap including: a) men's lack of knowledge of female sexual anatomy and functioning (Wade et al., 2005); b) men's dysfunctional beliefs about sexuality and masculinity, including, but not limited to, sexual scripts that place the responsibility for a woman's orgasm on a man's penis (Chadwick & van Anders, 2017; Muehlenhard & Shippee, 2010); c) societal scripts that connect men's sexual prowess and self-worth; and d) men's lack of training in sexual communication skills (Armstrong et al., 2012; Salisbury & Fisher, 2014).

First, as noted, one possible reason for the orgasm gap is men's lack of knowledge of female sexual anatomy and functioning. Although clitoral stimulation is linked to orgasm in women (Shirazi et al., 2018), young adults seem to lack factual information about the clitoris. In one study (Wade et al., 2005), 33% of the men and 25% of the women mistakenly thought that a women's clitoris was always stimulated during intercourse and that women usually had orgasms from intercourse alone. Thus, providing clear, factual information about the importance of clitoral stimulation during partnered sex is an important component to any intervention for young adult men aimed at closing the orgasm gap.

Second, societal scripts about sexuality and masculinity are posited to contribute to the orgasm gap (Chadwick & van Anders, 2017; Muehlenhard & Shippee, 2010; Salisbury & Fisher, 2014). One particular dysfunctional belief associated with the orgasm gap is the idea that the male is responsible for the female orgasm and that he "gives" her one during penile vaginal penetration (Muehlenhard & Shippee, 2010; Salisbury & Fisher, 2014). One qualitative study (Muehlenhard & Shippee, 2010) found that undergraduate participants endorse the idea that the male is responsible for the female partner's orgasm through penile-vaginal intercourse. In this same qualitative study, Muehlenhard and Shippee (2010) found that participants reported feeling pressure to follow a sexual script which proceeds as follows: a) foreplay just to get the woman ready for intercourse; b) intercourse during which both the woman and man orgasm, but which ends when the male orgasms. Furthermore, these authors also hypothesize that this sexual script is related to the high percentage of faked female orgasms during penile-vaginal intercourse (i.e., approximately 64% of college women), a hypothesis supported by the results of a separate qualitative study by Salisbury and Fisher (2014). These researchers found that both male and female participants reported being concerned that it would hurt the male partner's ego if a female did not have an intercourse-based orgasm. In sum, it appears that young adult men feel considerable pressure on their sense of masculinity when their partner does not have an orgasm, particularly when it is not from their penis directly. In short, studies suggest that underlying the gendered orgasm gap is a scripted understanding that it is a man's role to stimulate the woman to orgasm via intercourse, when in

actuality many women do not orgasm via penile thrusting alone and instead need clitoral stimulation either alone or coupled with intercourse (Shirazi et al., 2018). Therefore, an intervention that debunks the falsehoods underlying the existing societal sexual scripts and that provides new scripts for sex that include a prioritization of clitoral stimulation as equal to penetration is another important component to any intervention for young adult men aimed at closing the orgasm gap.

A third factor posited to contribute to the gendered orgasm gap is the societal message that connects men's sexual prowess and self-worth (Wiederman, 2005). There are clear cultural messages that suggest in order to be considered masculine and successful, men need to be highly interested in sex, be sexually dominant, and have numerous sexual partners (Braun et al., 2003; Wiederman, 2005). Indeed, there is evidence to suggest that among men, feeling sexually experienced is related to having both higher social status (Baumeister & Tice, 2001) and higher self-esteem (Flood, 2008). Likewise, the recent Chadwick and van Anders study (2017) found that young adult men who imagined a woman orgasmed during a sexual encounter with them, compared to those that imagined that their sexual partner did not have an orgasm with them, reported feeling more masculine and having higher sexual self-esteem. On the flip side, men who experience sexual concerns might therefore feel less masculine and have lower self-esteem. Indeed, Symonds et al. (2003) found that when men experienced premature ejaculation, they felt less confident overall and worried about the impact of their premature ejaculation on current or future partners. This worry is likely due to not only the message that masculinity and sexual prowess are related but also the aforementioned societal script giving the message that the man is responsible for giving his partner an intercourse-based orgasm. Given such societal scripts and messages, it is highly likely that men might experience distress if their partner does not orgasm, and indeed, research on women's reasons for faking orgasm (i.e., to protect their partner's egos) supports this notion (Muehlenhard & Shippee, 2010). Thus, providing information to help young adult men disentangle their sexual prowess and their self-esteem would be an important component of an intervention for men aimed at closing the orgasm gap.

A fourth and final reason for the orgasm gap is lack of training and skills in sexual communication. Although sexual communication is related to sexual satisfaction (Byers & Demmons, 1999; Litzinger & Gordon, 2005; MacNeil & Byers, 2005), communication surrounding sexuality is not common if one or more partners has trouble having an orgasm (Kelly et al., 2004). In place of clear sexual communication, most young adults tend to infer, rather than ask, if their partner is sexually satisfied (Laumann et al., 1994). Furthermore, in the qualitative study by Salisbury and Fisher (2014), young men report that communication about lack of female orgasm is important, yet they generally expect the female partner to first communicate her orgasm difficulty. The men in this study rarely brought up the topic of their partner's orgasm themselves and if they did bring up the topic, it was usually in an indirect way. Additionally, men's (and couples') discomfort discussing sex, particularly methods of clitoral stimulation, has been linked to problems with women having orgasms during partnered sex (Ishak et al., 2010). Relatedly, several studies have found that increased partner sexual communication can also increase frequency of orgasm during partnered sex (Meston et al., 2004). Thus, providing information on sexual

communication would be an important component of an intervention for young adult men aimed at closing the orgasm gap.

Bibliotherapy, or reading self-help materials, is an established treatment method for sexual concerns (van Lankveld, 2009) and thus holds promise as a type of intervention to accomplish the aforementioned goals (i.e., increasing knowledge of female sexual functioning, debunking dysfunctional sexual beliefs, decoupling sexual prowess and self-esteem, and increasing sexual communication skills). Two meta-analyses (Gould & Clum, 1993; Marrs, 1995) found that bibliotherapy for sexual dysfunctions demonstrated the highest relative effect sizes compared with bibliotherapy for other problems (e.g., depression). In both meta-analyses, the effect sizes (Cohen's *d*) for bibliotherapy for sexual dysfunction were large (i.e., greater than 1.0), although the number of studies included was small. A meta-analysis focusing exclusively on bibliotherapy for sexual dysfunction, including 12 studies, found an average effect size (Cohen's *d*) of .68 compared with no-treatment groups (van Lankveld, 1998). The majority of the studies (i.e., 7 of 12 studies) focused on orgasm problems among women. Since there is evidence that bibliotherapy interventions can increase orgasm rate among women, it is likely that bibliotherapy interventions, specifically for men with female partner(s), could also help increase women's orgasm and overall sexual functioning for the couple. Furthermore, the preceding (van Lankveld, 1998) meta-analysis provided evidence that bibliotherapy was effective in decreasing male sexual concerns, such as erectile dysfunctions (van Lankveld, 1998). An additional clinical trial by van Lankveld et al. (2001) examined the use of cognitive behavioral bibliotherapy and minimal therapy contact for heterosexual couples with sexual concerns. The men in the study evidenced several improvements in several indices of sexual functioning and specifically reported less distress about their sexual concerns. Taken together, these findings suggest that a bibliotherapy intervention for young adult men wanting to enhance their sexual functioning with a female partner might also be similarly effective.

The purpose of this study was to examine whether a bibliotherapy intervention aimed at decreasing the orgasm gap and enhancing young adult men's knowledge and skills in heterosexual encounters would result in positive changes among male readers. Specifically, this study examined whether young adult men who partake in such a bibliotherapy intervention evidenced changes in: a) their knowledge of female sexual anatomy and functioning; b) their dysfunctional beliefs about sexuality and masculinity; c) their sexual self-esteem and sexual depression; and d) their sexual communication skills. Indeed, we predicted that men who read the bibliotherapy interventions under study would evidence positive changes in all aforementioned measures. We also predicted that these changes would be maintained at follow-up. Additionally, we predicted that these changes would be greater than changes experienced by men in the wait-list control group.

Method

Participants

In the current study, 193 participants, recruited across two data collection waves, completed the pretest measures and were assigned to either the intervention

($n = 101$) or wait-list control group ($n = 92$). Of the original 92 wait-list control group participants, 37 did not complete the post-test (40% pretest to posttest attrition rate). Of the remaining 55 wait-list control group participants who completed both the pre-test and the post-test, 14 did not complete the follow-up (25% post-test to follow-up attrition rate). Additionally, two participants completed the pretest and follow-up only and one participant was excluded due to indicating in the demographic questionnaire that he was under 18 years of age. The final wait-list control group thus consisted of 38 individuals who took the measures at all three points in time. Likewise, of the original 101 intervention group participants, 38 did not complete the post-test (38% pretest to posttest attrition rate). Of the remaining 63 intervention group participants who completed both the pretest and the post-test, 13 did not complete the follow-up (20% post-test to follow-up attrition rate). Additionally, one participant completed the pretest and follow-up only and one participant was excluded due to indicating in the demographic questionnaire that he was 48 years of age. Furthermore, eight were excluded due to indicating they did not read the chapter ($n = 5$) or due to not passing the reading check ($n = 3$). The final intervention group thus consisted of 40 individuals who took the measures at all three points in time. See Figure 1 for the flow of participants through the study.

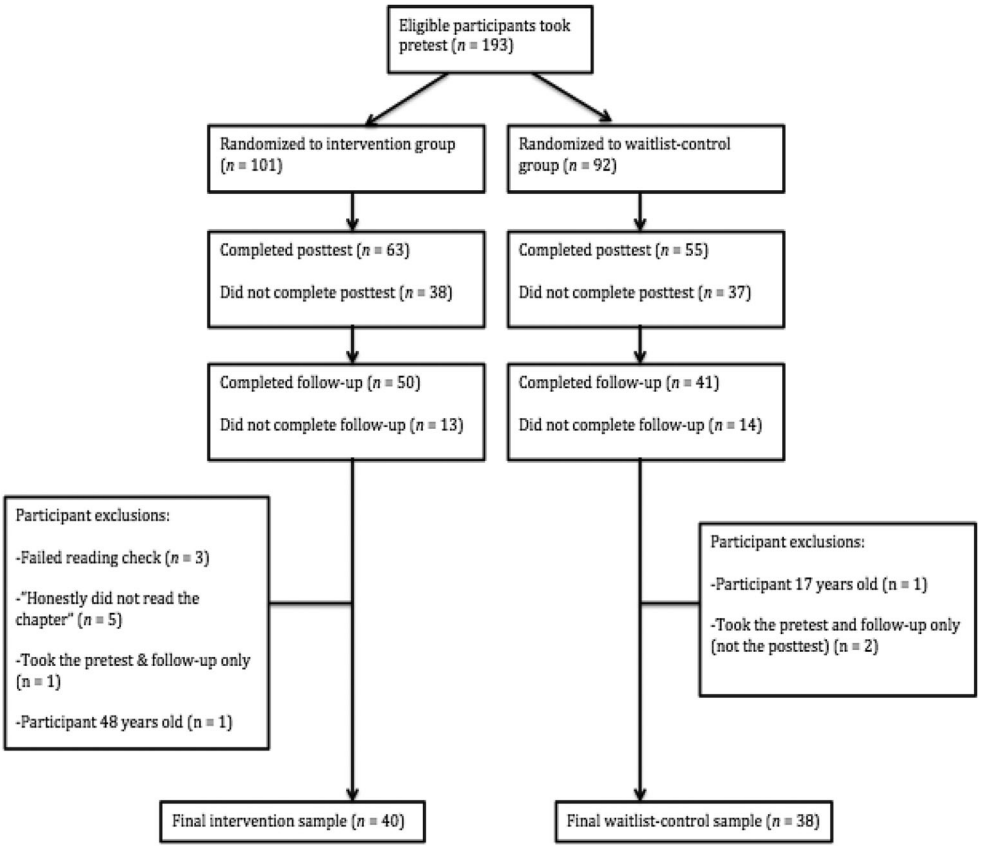

Figure 1. Flowchart of participants in the intervention condition and waitlist- control condition throughout the study.

The final sample of 78 total participants had a mean age of 27.36 ($SD = 5.21$). All participants identified as men. In regards to sexual orientation, participants identified as follows: 66 exclusively heterosexual (84.6%), 10 mostly heterosexual (12.8%), one bisexual (1.3%), and one mostly gay/lesbian (1.3%); all answered affirmatively to a question asking if they were sexually active with women. In regards to relationship status, participants identified as follows: 49 in a committed relationship, (62.8%), 20 casually dating multiple people (25.6%), seven dating one person exclusively (9.0%), and two not dating (2.6%). In terms of race and ethnicity, participants identified as follows: 58 White/European American/Caucasian (74.4%), eight Hispanic/Latin American (10.3%), five Asian American/Pacific Islander (6.4%), four Biracial/Multiracial (5.1%), and three African/African American/Black (3.8%). In regards to current social class, participants identified as follows: four Lower Class (5.1%), 21 Working Class (26.9%), 36 Middle Class (46.2%), 16 Upper Middle Class (20.5%), one Upper Class (1.3%). Finally, participants identified their religion as follows: 27 Christian (34.6%), 18 Agnostic (23.1%), 13 Atheist (16.7.%), two Jewish (2.6%), one Muslim (1.3%), one Buddhist (1.3%), and one Hindu (1.3%), and additionally, 11 participants identified as having no religion (14.1%), and four participants who identified as "other" religion (5.1%).

Intervention

The current study examined bibliotherapy as an intervention strategy for improving sexual knowledge and sexual communication skills for young adult men who are sexually active with a female partner(s). The intervention was a chapter from the self-help book *Becoming Cliterate* (Mintz, 2017). The chapter, called "Cliteracy- for Him," is 35 pages in length. It provides scientific knowledge about female genitalia and refutes commonly held inaccurate beliefs about sexual functioning (e.g., most women have orgasms through penetration alone). Additionally, this chapter provides readers with specific suggestions regarding sexual communication and how to please their female partner.

Measures

Demographic questionnaire

Participants completed a 10-item demographic measure. The demographic questionnaire included: age, sex, gender identity, race/ethnicity, sexual orientation, current social class, family social class, religion, and relationship status. Participants could also choose "other" to describe their own identity for any of the demographic questions.

Clitoral knowledge Measure-Adapted and revised (CKM-A&R)

A revised version of the Clitoral Knowledge Measure (Wade et al., 2005) was used to assess participants' understanding of the anatomy and functioning of the clitoris for women's sexual pleasure. Wade et al. (2005) originally used this measure in a study that explored clitoral knowledge among 833 undergraduate students. This measure

included a diagram of the female genitalia, with letters pointing to different genital organs. Participants were asked to choose which letter corresponded to the clitoris. The measure also included one open-ended question for participants to answer regarding the clitoris and its function. Finally, the measure included five questions to gauge participants' knowledge of the clitoris, with response options being: True (1), False (2), and Don't Know (3). An example statement includes "The clitoris is directly stimulated by (Penis-Vagina) intercourse."

For the purposes of this study, the open-ended question was not utilized. Additionally, a clearer picture was substituted for the one in the original Wade et al. (2005) measure. For this study, we followed the same scoring methods as Wade et al. (2005). Specifically, participants were given one point for correctly locating the clitoris, which was added to the four true/false/don't know options. Zero points were given for incorrect or "don't know" responses, and one point was given for correct responses. Additionally, to account for participants who skipped one of the true/false questions, Wade et al. (2005) followed the following procedure: "the total number of questions correct was divided by four and multiplied by five to calculate the expected number of questions right if the respondent had answered all five questions" (p.124). We utilized the same procedure for participants who skipped a question. Thus, scores range from zero (no clitoral knowledge) to five (highest level of clitoral knowledge). Neither Cronbach's alpha nor the test-retest reliability was previously reported. The internal consistency in this study was $\alpha = .57$ at pretest, $\alpha = .58$ at posttest and $\alpha = .40$ at follow-up.

Sexual dysfunction beliefs questionnaire

The Sexual Dysfunction Beliefs Questionnaire (SDBQ; Nobre, Gouveia, & Games, 2003) assessed whether participants endorsed dysfunctional or false beliefs and stereotypes related to male sexual dysfunctions. The measure has 40 items. On each item, participants indicated their agreement or disagreement using a 5-point Likert scale (1 = completely disagree, 5= completely agree), with one item reverse scored and three filler items not scored.

This scale has six subscales: Sexual Conservatism, "Macho" Beliefs, Beliefs about Women's Sexual Satisfaction, Female Sexual Power, Restricted Attitude toward Sexual Activity, and Sex as an Abuse of Men's Power. Because of the content of the intervention under study, only the Sexual Conservatism, "Macho" Beliefs, and Beliefs about Women's Sexual Satisfaction subscales were analyzed. An example item from the Sexual Conservatism subscale is "In sex, anything but vaginal intercourse is unacceptable." An example item from the Macho belief subscale is "A real man is always ready for sex and must be capable of satisfying any woman." An example item from the Beliefs about Women's Sexual Satisfaction" subscale is "Penile erection is essential for a woman's sexual satisfaction."

The internal consistency in this study for the Sexual Conservatism subscale was $\alpha = .90$ at pretest, $\alpha = .92$ at posttest and $\alpha = .92$ at follow-up. The internal consistency in this study for the Macho belief subscale was $\alpha = .80$ at pretest, $\alpha = .86$ at posttest and $\alpha = .81$ at follow-up. The internal consistency in this study for the

Beliefs about Women's Sexual Satisfaction subscale was $\alpha = .78$ at pretest, $\alpha = .86$ at posttest and $\alpha = .85$ at follow-up.

Sexuality scale

Participants' feelings towards the quality of their sex life, sexual experiences, and sexual expertise were assessed with the Sexuality Scale (Snell & Papini, 1989). This measure contains 30 items with three subscales. The subscales include self-reported attitudes in three areas: Sexual Self-Esteem, Sexual Depression, and Sexual Preoccupation. This study used only use the Sexual Self-Esteem and Sexual Depression subscale. An example item from the Sexual Self-Esteem subscale is "I am confident about myself as a sexual partner." An example from the Sexual Depression subscale is "I am disappointed about the quality of my sex life." On each item, participants indicated their agreement or disagreement using a 5-point Likert scale from +2 to −2 (+2 for agree, +1 for slightly agree, 0 for neither agree nor disagree, −1 for slightly disagree and −2 for disagree.) The Sexual Self-Esteem subscale has 10 items and scores may range from 20 to −20; higher scores indicate higher rates of sexual self-esteem. The Sexual Depression subscale has eight items, thus scores can range from 16 to −16; higher scores indicate more sexual depression.

In the current study, the internal consistency for Sexual Self-Esteem was $\alpha = .91$ at pretest, $\alpha = .93$ at posttest and $\alpha = .92$ at follow-up. The internal consistency for Sexual Depression was $\alpha = .89$ at pretest, $\alpha = .89$ at posttest and $\alpha = .91$ at follow-up.

Communication during sexual activity

Comfort with sexual communication during sexual activity was assessed using a modified version of the Female Partner Communication During Sexual Activity Scale (McIntyre-Smith & Fisher, 2010). The original version of this scale measures how easily and frequently female participants communicate sexually with their partners. To modify this scale for use with men, we changed the wording of the items. For example, the item from the original measures, "Telling my partner what to do to stimulate me during intercourse would be … " was modified to "Having my partner tell me what to do to stimulate her during intercourse would be … "

The first three of the six items measure ease of sexual communication and are scored on a seven-point Likert scale (1 = very difficult; 7 = very easy). The remaining three items measure the frequency that participants use different verbal and nonverbal communication techniques. These items are scored on a six-point scale (0% of the time = 0; 1% to 25% of the time = 1; 26% to 50% of the time = 2; 51% to 75% of the time = 3; 76% to 99% of the time, = 4; 100% of the time = 5). When scoring, the first three items are totaled and then multiplied by five and items four through six are totaled and then multiplied by seven. Next, all scores are divided by six to obtain averaged scores. Scores thus range from 2.5 to 35; higher scores indicate more ease and frequency of sexual communication with a partner. The internal consistency in this study was $\alpha = .79$ at pretest, $\alpha = .79$ at posttest and $\alpha = .83$ at follow-up.

Reading comprehension check

At posttest, participants in the intervention group were asked to report how thoroughly they read the intervention chapter. Additionally, intervention participants completed three author-created multiple-choice questions to gauge their reading comprehension of the book chapter. Participants who answered one or more reading comprehension questions incorrectly were excluded from data analysis prior to analyses.

Procedure

Recruitment

After acquiring campus Institutional Review Board approval, participants were recruited from a) a university setting and b) through Mechanical Turk (MTurk) online system.

University setting

Participants were recruited from a Southeastern college campus via flyers, class announcements, class emails, and posts on campus Facebook pages. All recruitments materials included the eligibility requirements of the study: being over 18 years of age and a cis-gender man who is sexually active with women. Interested participants recruited via flyers and class announcements were instructed to contact the researcher by email, upon which they were sent a subsequent email containing a link to begin the study, which was hosted on Qualtrics. Those recruited on campus via class emails and Facebook pages had a choice of contacting the researcher to express interest via email or simply clicking the survey link provided in the recruitment document (the class email or Facebook post).

MTurk recruitment

MTurk participants were notified of the opportunity to participate via the MTurk prime platform. Participants could choose to participate if they met the eligibility requirements; accessing MTurk in the US, cis-gender male, between the ages of 18-35, and sexually active with women. Since MTurk assigns participants individual worker ID numbers and email addresses, personal emails were not collected or used for MTurk participants and all correspondence with participants, including access the Qualtrics survey, took place via the MTurk platform.

Survey administration

The first Qualtrics survey confirmed that the respondent met the eligibility requirements and ineligible respondents were directed to the end of the survey. Next, the survey asked participants to read and agree to the informed consent (i.e., participants were told that entering the survey indicated informed consent). Then, participants were directed to create a unique identifier code so that their pretest data would be connected to their posttest scores and follow-up scores. Subsequently, participants filled out the Demographic Questionnaire, Clitoral Knowledge Scale, Sexual Dysfunctional Beliefs Questionnaire, Sexuality Scale, and Communication During Sexual Activity Scale. The demographic survey was presented first and the remaining measures were presented in a randomized order.

After completing the pretest measures, those recruited from the university setting were re-directed to a separate ID survey which collected names and email addresses. The ID data was not associated with the data collected and was used only to provide a reminder email (detailed below) to read the chapter and to provide compensation for participating in the study. Those recruited from MTurk received the same reminders but through the MTurk system and similarly, compensation was provided through this system.

Following completion of the pretest survey (and the ID survey for those recruited from the university setting), all participants were randomly assigned to either the intervention group or the waitlist control group. Those in the intervention group were sent (via Qualtrics or the MTurk platform) a PDF copy of the *Becoming Cliterate* chapter 11: "Cliteracy- for Him." The participants were told they must read the chapter within one week. Four days later, participants were reminded (either via MTurk or for those in the university setting, via an email sent through Qualitrics) that they had only three days left to complete the chapter. At the one-week point, all participants (across both the intervention and wait-list control groups and recruitment platforms) received the posttest questionnaires. At the beginning of the posttest, those in the intervention group were asked to report how thoroughly they read the intervention chapter and were given three reading comprehension questions based on the chapter's content. The remainder of the posttest measures were identical to the pretest measures (minus the demographic survey) for both the intervention and wait-list control group, again presented in a counterbalanced order. After completing these measures, participants were again instructed to re-generating their unique the identifier code, and those recruited from the university setting again completed a separate ID survey. Upon completion of the posttest, participants were reminded, as per the informed consent, that they would be asked to complete the measures one final time.

Three weeks after the posttest questionnaires were completed (i.e., four weeks after receiving the chapter), participants were given the final survey, with the content and procedure for this survey dissemination identical to that described above concerning the posttest survey (with the exception of the reading comprehension check). Upon completion of the final survey, all participants were debriefed and those in the waitlist control were given access to the intervention chapter.

Compensation

Following completion of the study, every tenth participant recruited from the university setting who completed all three surveys (and ID surveys) was awarded a $20 Amazon gift card. Participants via MTurk received compensation per each questionnaire completed. Specifically, MTurk participants received $0.75 for completing the pretest, 1$for completing the posttest, and $1.25 for completing the follow-up survey.

Results

Preliminary analyses

The data were screened in order to assess for missing data, outliers, and assumptions of normality. Assumptions of normality were met and there was no missing data.

There were no outliers on any scale. Analyses were conducted to examine differences between participants who completed part of the study (pretest only or the pretest and posttest) compared to participants who completed the entire study; no differences were found.

Analyses were also conducted to examine differences between the intervention group and waitlist control group in terms of demographic variables and outcome variables at pretest. Regarding demographic differences, chi-squared analyses showed that there were no pretest group differences in terms of ethnicity, race, sexual orientation, social class (current or family of origin), religion, or relationship status. Analyses of variance (ANOVAs) revealed that there were no pretest group differences in age. Finally, Bonferroni-corrected ANOVAs revealed no differences in any of the outcome variables at pretest between the intervention and wait-list control group.

Intervention effectiveness

Significant ANOVA group by time interactions were found for Clitoral Knowledge Measure, "Macho" Beliefs subscale, and the Beliefs about Women's Sexual Satisfaction subscale. In contrast, there were no significant group by time interactions found for the Communication During Sexual Activity Scale, Sexual Conservatism subscale, Sexual Self-Esteem subscale, and the Sexual Depression subscale. Table 1 presents the ANOVA Group × Time interactions and the Bonferroni corrected pairwise comparisons.

However, because tests of significance can confuse significant differences with the size of the sample (Turner & Bernard, 2006), recent recommendations are to present results of intervention studies in terms of effect sizes with confidence limits (Cumming, 2012; Kline, 2013). Therefore, compared to inferential significance testing, standardized effect sizes with confidence limits: a) more directly answer questions about intervention effects; b) provide information about what is likely to happen on replication of an experiment; c) facilitate comparison; d) can be used in meta-

Table 1. Mixed ANOVA group × time interaction for outcome variables.

Measures	*df*	Group × Time effect *F*	*p*	η_p^2
CKM-A&R	(1.70, 128.96)	7.180	.002*a	.086
SexConserv	(1.70, 129.16)	0.818	.426	.011
Macho	(1.81, 137.57)	4.736	.013*b	.059
BAWS	(2, 152)	11.022	.001*c	.127
Sex Self-Est	(2, 152)	0.798	.452	.010
Sex Depress	(2, 152)	1.954	.145	.025
Sex Comm	(1.79, 136.26)	0.726	.471	.009

Note. $n = 40$ (intervention group) and $n = 38$ (control group). For the outcome variables of Sex Comm (Communication during Sexual Activity), CKM-A&R (Clitoral Knowledge Measure), sexual conserve (Sexual Conservatism), and Macho ("Macho" Beliefs), Greenhouse-Geisser correction was used because the assumption of sphericity was violated. The symbol * indicates a significant group × time interaction. a: Bonferroni corrected pairwise comparisons for CKM-A&R (Clitoral Knowledge Measure), indicate that for the intervention group, scores were significantly higher at posttest compared to pretest ($p = .003$) and at follow-up compared to pretest ($p = .001$). No differences in the control group ($ps > .05$). b: Bonferroni corrected pairwise comparisons for Macho ("Macho" Beliefs) indicate that for the intervention group, scores were significantly lower at followup compared to pretest ($p < .001$). No significant differences were found from pretest to posttest ($p = .515$). No differences were found in the waitlist control group ($ps > .05$). c: Bonferroni corrected pairwise comparisons for BAWS (Beliefs about Women's Sexual Satisfaction) indicate that for the intervention group, scores were significantly lower at posttest compared to pretest ($p = .001$) and at follow up compared to pretest ($p < .001$). No differences were found in the control group ($ps > .05$).

analyses; e) tend to be intuitively more understandable; and f) provide information on practical significance (Cumming, 2012; Kline, 2013).

Therefore, in addition to the ANOVA Group × Time interactions, we present the data with Hedges' *g* effect sizes and confidence limits to "disentangle effect size and sample size" (Turner & Bernard, 2006, p. 44). Hedges' *g* effect size was utilized due to it being less affected by sample size than the more commonly known Cohen's *d*, as well as being the effect size recommended for use in meta-analyses (Turner & Bernard, 2006). As recommended by Lipsey et al. (2012), to examine the effect of the interventions on the outcomes, we employed both within-group effect sizes and between-group effect sizes. Specifically, for the intervention group and the waitlist control group, we examined: a) pretest (week 1) to posttest (week 2) and b) pretest (week 1) to follow-up (week 4) effect sizes. In terms of between group effect sizes, we compared the wait-list control group with the intervention group at posttest and follow-up.

As recommended by Lakens (2013), for within group effect sizes, we utilized Hedges' g_{av} (correlation between pretest and posttest accounted for and denominator is average standard deviation) and for between group effect sizes, we utilized Hedges' g_s (denominator is pooled standard deviation). Hedges' *g* effect sizes can be interpreted with Cohen's 1988 rule of thumb: .20 and above = small, .50 − .79 = medium, .80 and above = large, and we do so in the results presented below. Finally, we also report common language effect sizes, a percentage expressing "… the probability that a person from one group will have a higher observed measurement than a randomly sampled person from the other group" (Lakens, 2013, p. 4).

Posttest effectiveness

Table 2 presents the means, standard deviations, within group pretest to posttest effect sizes with confidence limits, and within group pretest to follow-up effect sizes with confidence limits for each group (intervention and waitlist control). To further facilitate group comparisons, these tables include notations indicating if the magnitude (i.e., no effect, small effect, medium effect, or large effect, using Cohen's 1988 conventions) of the intervention group is greater than the wait-list control group. This table also presents common language effect sizes.

As presented in Table 2, intervention group participants evidenced significant changes of a small magnitude from pretest to posttest, all in a direction indicating more positive sexual functioning and unlikely to occur from chance on the Clitoral Knowledge Measure (Hedges' $g_{av} = 0.46$), the Beliefs About Women's Sexuality subscale of the SDBQ (Hedges' $g_{av} = -0.42$), and the Communication During Sexual Activity Scale (Hedges' $g_{av} = .25$). Conversely, men in the WLC group (i.e., those who waited four weeks to receive the chapter) evidenced no pretest to posttest changes on any measure.

To further examine the immediate effectiveness of the intervention, Table 3 shows between group posttest effect sizes and confidence intervals at posttest. As depicted in Table 3, there was a medium between group posttest effect sizes on the Beliefs About Women's Sexual Satisfaction subscale of the SDBQ (Hedges' $g_s = -0.76$) and a small between group posttest effect sizes on the Communication During Sexual Activity

Table 2. Within group effect sizes by group.

	Pre-test		Post-test		Follow-up		Pre- to post			Pre- to follow-up		
Measure	*M*	*SD*	*M*	*SD*	*M*	*SD*	Hedges' g_{av}	[95% CI]	Common Language	Hedges' g_{av}	[95% CI]	Common Language
CKM-A&R												
Intervention	3.66	1.16	4.14	0.92	4.23	0.92	0.46*	[0.19, 0.73]	0.71	0.53**	[0.22, 0.85]	0.72
WLC	3.82	1.31	3.78	1.24	3.68	1.10	−0.03	[-0.26, 0.20]	0.52	−0.12	[−0.37, 0.14]	0.56
SexConserv												
Intervention	14.15	6.70	14.20	7.85	13.15	5.86	0.01	[-0.29, 0.31]	0.50	−0.16	[−0.30, −0.01]	0.64
WLC	15.24	6.22	14.47	5.28	15.03	6.65	−0.13	[-0.44, 0.18]	0.55	−0.03	[−0.30, 0.24]	0.52
Macho												
Intervention	16.43	4.91	15.55	6.14	13.73	4.74	−0.16	[-0.39, 0.08]	0.58	−0.55**	[−0.83, −0.29]	0.76
WLC	17.58	6.36	16.92	6.92	17.42	6.56	−0.10	[-0.28, 0.09]	0.57	−0.02	[−0.18, 0.13]	0.52
BAWS												
Intervention	11.40	4.50	9.50	4.43	9.21	3.80	−0.42*	[-0.69, -0.16]	0.70	−0.52**	[−0.77, −0.27]	0.77
WLC	12.50	4.30	13.16	5.07	13.29	5.03	0.14	[-0.04, 0.32]	0.60	0.17	[−0.04, 0.37]	0.61
Sex Self-Est												
Intervention	8.18	6.90	9.03	7.83	8.65	7.59	0.11	[-0.08, 0.31]	0.57	0.06	[−0.15, 0.28]	0.54
WLC	6.55	8.15	6.42	7.40	5.97	8.39	−0.02	[-0.17, 0.14]	0.51	−0.07	[−0.18, 0.04]	0.58
Sex Depress												
Intervention	−8.73	5.44	−8.75	6.67	−9.85	5.75	0.00	[-0.25, 0.24]	0.50	−0.20	[−0.48, 0.08]	0.59
WLC	−5.24	7.03	−6.03	6.71	−5.08	7.88	−0.11	[-0.33, 0.10]	0.57	0.02	[−0.10, 0.15]	0.52
Sex Comm												
Intervention	24.25	5.38	25.61	5.51	25.31	5.91	0.25*	[0.07, 0.43]	0.67	0.19	[0.01, 0.36]	0.63
WLC	22.64	5.18	23.07	4.99	22.94	5.60	0.08	[-0.18, 0.34]	0.54	0.05	[−0.24, 0.35]	0.52

Note. $n = 40$ (intervention group) and $n = 38$ (control group). Using Cohen's (1988) conventions of small = .20, medium = .50, large = .80 and above, the symbol * indicates a small effect size and the symbol ** indicates a medium effect size. CKM-A&R = Clitoral Knowledge Measure (range: 0 to 5; higher scores reflect greater clitoral knowledge). Macho = "Macho" Belief (range: 7 to 35; higher scores reflect greater "macho" beliefs). SexConserv = Sexual Conservatism (range: 10 to 50; higher scores reflect greater sexual conservatism). BAWS = Beliefs about Women's Sexual Satisfaction (range: 5 to 25; higher scores reflect greater dysfunctional beliefs about women's sexual satisfaction). Sex Self-Est = Sexual Self-Esteem (range: -20 to 20; higher scores reflect greater sexual self-esteem). Sex Depress = Sexual Depression (range: -16 to 16; higher scores reflect greater sexual depression). Sex Comm = Communication during Sexual Activity (range: 2.5 to 35).

Table 3. Between group posttest effect sizes and confidence intervals.

		Intervention vs. WLC	
Measure	Hedges' g_s	[95% CI]	Common Language
CKM-A&R	0.33	[-0.12, 0.77]	0.59
SexConserv	−0.04	[-0.48, 0.40]	0.51
Macho	−0.21	[-0.65, 0.24]	0.56
BAWS	−0.76**	[-1.22, -0.30]	0.71
Sex Self-Est	0.34	[-0.11, 0.79]	0.60
Sex Depress	−0.40	[-0.85, 0.05]	0.61
Sex Comm	0.48*	[0.03, 0.93]	0.63

Note. $n = 40$ (intervention group) and $n = 38$ (control group). Using Cohen's (1988) conventions of small = .20, medium = .50, large = .80 and above, the symbol * indicates a small effect size and the symbol ** indicates a medium effect size. CKM-A&R = Clitoral Knowledge Measure (range: 0 to 5). Macho = "Macho" Belief (range: 7 to 35). SexConserv = Sexual Conservatism (range: 10 to 50). "Macho" Beliefs. BAWS = Beliefs about Women's Sexual Satisfaction (range: 5 to 25). Sex Self-Est = Sexual Self-Esteem (range: -20 to 20). Sex Depress = Sexual Depression (range: -16 to 16). Sex Comm = Communication during Sexual Activity (range: 2.5 to 35).

scale (Hedges' $g_s = 0.48$). Common language effect indicated that as compared to the control group, participants in the intervention group had a 63% likelihood of higher posttest scores on the Beliefs About Women's Sexual Satisfaction subscale of the SDBQ and a 68% likelihood of higher posttest on the Communication During Sexual Activity scale.

Follow up effectiveness

To examine the longer-term effectiveness among those in the intervention group, we examined pretest to follow-up effect sizes. As shown in Table 2, intervention group participants evidenced significant changes of a medium magnitude from pretest to follow-up, all in a direction indicating more positive sexual functioning and unlikely to occur from chance on the Beliefs About Women's Sexuality Scale of the SDBQ (Hedges' $g_{av} = -0.52$), the Macho belief subscale of the SDBQ (Hedges' $g_{av} = -0.55$) and on the Clitoral Knowledge Measure (Hedges' $g_{av} = 0.53$). Additionally, of note, the effect size for the Communication During Sexual Activity scale was 0.19, just one hundredth of a point away from showing a small magnitude effect. Conversely, men in the control group evidenced no pretest to follow-up changes on any measure.

Table 4 shows between group follow up effect sizes and confidence intervals. As shown in Table 4, there was a large between group follow-up effect size between the intervention and control groups on the Beliefs About Women's Sexual Satisfaction subscale of the SDBQ (Hedges' $g_s = -0.91$). Additionally, there were medium between group follow-up effect sizes for scores on the Clitoral Knowledge measure (Hedges' $g_s = 0.53$), the "Macho" Beliefs subscale of the SDBQ (Hedges' $g_s = -0.64$), and the Sexual Depression subscale (Hedges' $g_{av} = -0.69$). Common language effect sizes for ranged from .65 − .74, indicating that as compared to the control group, participants in the intervention group had at least a 65% likelihood of higher follow-up scores on the aforementioned measure.

Discussion

Insofar as the authors of this study could determine, this is the first study to examine whether a bibliotherapy chapter aimed at decreasing the orgasm gap and enhancing

Table 4. Between group follow up effect sizes and confidence intervals.

		Intervention vs. WLC	
Measure	Hedges' g_s	[95% CI]	Common Language
CKM-A&R	0.53**	[0.08, 0.98]	0.65
SexConserv	−0.30	[-0.74, 0.15]	0.58
Macho	−0.64**	[-1.10, -0.19]	0.68
BAWS	−0.91***	[-1.37, -0.44]	0.74
Sex Self-Est	0.33	[-0.12, 0.78]	0.59
Sex Depress	−0.69**	[-1.14, -0.23]	0.69
Sex Comm	0.41	[-0.04, 0.86]	0.61

Note. $n = 40$ (intervention group) and $n = 38$ (control group). Using Cohen's (1988) conventions of small = .20, medium = .50, large = .80 and above, the symbol ** indicates a medium effect size and the symbol *** indicates a large effect size. CKM-A&R = Clitoral Knowledge Measure (range: 0 to 5). Macho = "Macho" Belief (range: 7 to 35). SexConserv = Sexual Conservatism (range: 10 to 50). "Macho" Beliefs. BAWS = Beliefs about Women's Sexual Satisfaction (range: 5 to 25). Sex Self-Est = Sexual Self-Esteem (range: -20 to 20). Sex Depress = Sexual Depression (range: -16 to 16). Sex Comm = Communication during Sexual Activity (range: 2.5 to 35).

young adult men's sexual knowledge and functioning with a female partner(s) would result in positive changes among participants. Specifically, this study examined whether men in a bibliotherapy intervention evidenced changes in: a) their knowledge of female sexual anatomy and functioning; b) their dysfunctional beliefs about sexuality; c) their sexual self-esteem and sexual depression; and d) their sexual communication skills. Following the predictions made at the outset of the study, participants who read the chapter evidenced many positive changes in these four aforementioned areas. Nevertheless, a more detailed examination of precisely what changes were made is important in understanding the effectiveness of the intervention in more detail, and such a detailed examination of these four changes are provided below.

Knowledge of female sexual anatomy & functioning

An explicit goal of this bibliotherapy chapter was to provide scientifically accurate information about the clitoris and female sexual functioning to young adult male readers. Indeed, it appears that this intervention chapter was effective in increasing participants' knowledge of female sexual anatomy and functioning. Specifically, participants who read the chapter evidenced a significant increase (i.e., within group effect size of a small magnitude) at posttest in knowledge of the anatomy and functioning of the clitoris. Additionally, these gains were not only maintained, but were larger at follow-up (i.e., within group effect size of a medium magnitude), indicating that these changes in knowledge continued to increase with time. Further bolstering these results was the finding that those in the intervention group had more accurate knowledge of female sexual anatomy than those in the control group at follow-up (i.e., between group effect size of a medium magnitude). These results are meaningful in that, as noted previously, men often have inaccurate knowledge about the clitoris (Wade et al., 2005). Therefore, it is noteworthy that participants who read the chapter showed increased knowledge of female sexual anatomy, which they will hopefully be able to utilize during sexual encounters with a female partner(s)—although whether or not this is the case (i.e., if they applied the knowledge or not), is an empirical question awaiting additional study.

Dysfunctional sexual beliefs

In addition to increasing knowledge of female sexual functioning, participants who read the chapter reduced their levels of dysfunctional sexual beliefs, in two distinct areas: a) "macho" beliefs: attitudes that equate being a "real man" with sexual virility and b) beliefs about women's sexual satisfaction: attitudes that women's sexual pleasure occurs primarily through a man's performance during penis-vagina intercourse. In terms of macho beliefs, men who read the chapter endorsed such beliefs less frequently at follow-up (i.e., three weeks after reading the chapter). Similarly, at this same time point, those in the intervention group evidenced less of these beliefs than those in the wait-list control group. It thus appears that the intervention reduced men's dysfunctional "macho" beliefs, but that this change took time to take effect (i.e., it was not evident immediately after reading the chapter, but it was three weeks later). A slightly different pattern of change was found in terms of dysfunctional beliefs about women's sexual satisfaction. That is, participants who read the chapter evidenced a significant decrease (i.e., a within group effect size of a small magnitude) at posttest in their dysfunctional beliefs about women's sexual satisfaction, and these gains were not only maintained, but were larger at follow-up (i.e., within group effect size of a medium magnitude). Along these same lines, those in the intervention group held fewer of such dysfunctional beliefs than those in the control group at posttest (i.e., a medium between group effect size) and these results also grew more robust over time (i.e., a large between group effect size at follow-up). It thus appears that the intervention had an immediate positive effect in decreasing men's dysfunctional beliefs about women's sexual satisfaction and that these results grew stronger over time. These changes may be related to the previously discussed changes in terms of knowledge about women's sexual anatomy and functioning, which also followed a similar pattern of having an immediate effect that grew stronger over time. Indeed, it is likely that gaining more accurate knowledge of female sexual anatomy and functioning results in one holding fewer dysfunctional beliefs about women's sexual pleasure. To illustrate, gaining accurate knowledge of the importance of the clitoris is likely to result in a decrease in the dysfunctional belief that women "should" orgasm from penetration alone. A future study should test this notion by not only examining these two changes (i.e., knowledge of female anatomy and dysfunctional beliefs) but the impact of one change on the other, something that was beyond the scope of this initial study.

Despite this need for additional study on the possible root cause of a decrease in dysfunctional beliefs about women's sexual pleasure, the finding of this decrease—as well as the decrease in dysfunctional "macho" beliefs—is noteworthy. As discussed earlier, sexual scripts often dictate that young adult men are responsible for providing women pleasure with penile vaginal intercourse (Muehlenhard & Shippee, 2010) and equate men's sense of masculinity with providing such an orgasm (Chadwick & van Anders, 2017). Therefore, the fact that the intervention chapter appeared to result in decreases in participants' dysfunctional "macho" beliefs and dysfunctional beliefs about women's sexual satisfaction means that the intervention was effective in helping men let go of this limiting sexual script, something that has much potential benefit

for both young adult women and men, and could possibly result in more orgasms for women and less performance pressure for men (Kerner, 2004).

Sexual Self-Esteem and depression

Another aim of the study was to see if those who read the book chapter showed decreases in sexual depression and increases in sexual self-esteem. In contrast with our predictions, participants' levels of sexual depression did not decrease after participants read the chapter, either immediately after reading the chapter or at the follow-up test three weeks later. However, analyses revealed that three weeks after reading the chapter, rates of sexual depression were lower in the intervention group as compared to the waitlist control group. It is thus possible that changes in sexual depression might have been stronger if a longer follow-up had been employed. Additionally, a future study might follow-up on the notion that perhaps changes in knowledge of female sexual anatomy leads to less dysfunctional beliefs and less dysfunctional beliefs in turn leads to decreases in sexual depression over time.

Also, despite our predictions, there were no significant changes in sexual self-esteem based on reading the chapter. It may be that the time frame of this study was too short to change global beliefs in sexual self-esteem such as "I am a good sexual partner" or "I think of myself as a very good sexual partner." A change in these beliefs may particularly be difficult to achieve in the short term if the participant had been concerned with their sexual functioning with a female partner(s) for a significant period of time. Again, future studies should examine the possibility of increased sexual self-esteem and further decreased sexual depression with follow-up data three to six months, to even a year, following this bibliotherapy intervention.

Sexual communication

One final change among those in the intervention group was a change in communication during sex. Specifically, among those in the intervention group, there was an increase in reported sexual communication (with a small effect size) immediately after reading the chapter. However, three weeks later (i.e., at follow-up), the effect size for sexual communication was trivial. It is important to note though, that this follow-up effect size was 0.19 and was therefore one hundredth of a point from reaching the cut-off margin for a small magnitude. Additionally, when examining the differences between the intervention and wait-list control group at posttest, those who read the chapter did report higher rates of sexual communication with a partner(s). Again, however three weeks later, there was no difference found in sexual communication between men who read the chapter and those in the waitlist control group. It may be that immediately after reading the chapter, participants are enthusiastic about using new sexual communication skills, but as time goes on, such skills are not used, perhaps due to the difficulty and complexity of these skills. A future study, perhaps employing qualitative methods, would be useful in examining this hypothesis and/or shedding light on this initial gain followed by a loss of such a change. Additionally,

creating and evaluating an intervention to enhance young adult men's sexual communication skills would be a useful and worthy endeavor.

In sum, reading the book chapter (i.e., partaking in the intervention) resulted in improvements in participants' knowledge of female sexual anatomy and functioning and decreases in their dysfunctional "macho" beliefs and dysfunctional beliefs about women's sexual satisfaction. It also resulted in a short-term increase in sexual communication skills and lower rates of sexual depression in the intervention group, as compared to the control group, at follow-up. However, changes were not found, at any time point, in terms of sexual self-esteem and one type of dysfunctional sexual belief: sexual conservatism. In considering these latter results, it seems important to note that while some of the items on the sexual conservatism subscale seem to relate closely to the content of the bibliotherapy intervention, other items were not a focus of the bibliotherapy chapter. For example, items from the sexual conservatism subscale such as "in sex, anything but vaginal intercourse is unacceptable" and "foreplay is a waste of time" relate closely to the themes discussed in the intervention chapter. However, several other items from this scale such as "sex is only meant for procreation" and "sexual intercourse before marriage is a sin" were not discussed in the intervention chapter and are likely related to outside factors such as participant's specific religious beliefs. Perhaps a different intervention would be more likely to effect changes in this area. Overall, however, the results of this study indicate that this intervention was effective in enhancing participants' positive sexual functioning.

Limitations

Despite the overall favorable results found in this study, there were several methodological shortcomings. First, the attrition rate in the intervention group was 38% from pretest to posttest and 20% from posttest to follow-up. While a 30% – 35% attrition is common in most bibliotherapy studies (Mintz et al., 2012), the attrition rate from pretest to posttest (38%) is higher than most and is thus a noteworthy limitation. Although no pretest differences were detected between participants who dropped out of the study and those that remained, it is possible that there were unmeasured differences between those participants who chose to complete versus leave the study. Perhaps those who dropped out did so due to lack of motivation, embarrassment, or a simple lack of time. It could also be possible that those who dropped out gained the knowledge they desired, but simply did not choose to continue in the study; alternatively, they may have dropped out due to a feeling of gaining no new applicable knowledge. A follow-up study including mandatory questions before dropping out would be useful in understanding the reasons behind the high dropout rate.

As previously noted, an additional limitation is that the follow-up measures were taken three weeks after the posttest. Thus, this study only assessed the shorter-term impact of the bibliotherapy intervention. Although participants had some time to implement new sexual knowledge into practice, they might not have sufficient time to truly refine newly learned sexual knowledge and skills with a partner(s). Moreover, seeing as several measures in this study showed changes only at follow-up, it is likely that a longer follow-up would reveal additional changes over time. Therefore, future

studies should assess follow-up data three months, six months, or even a year after the bibliotherapy intervention.

Another methodological issue is the lack of diversity within the sample, which limits the generalizability of this study. Most of the participants in the present study identified as White, middle/upper middle class, and in a committed relationship. Furthermore, the study was limited in terms of geographical location. Study recruitment occurred only in the U.S., however, the orgasm gap is known to be a concern in many different countries outside the U.S. (Blair et al., 2018; Bruijn, 1982). A study with a more diverse sample is needed in future research.

Future directions

In addition to replicating this study with a more diverse sample and with a longer follow up period, other avenues for additional research include comparing the effectiveness of this specific intervention chapter to another sexual self-help book with similar content. Future research could also investigate the comparative efficacy of in-person therapy and this chapter for young adult men's sexual concerns with a partner(s). Furthermore, a future study could examine this chapter when read alone (as was done in this study) versus when read with ongoing therapist in-person support (i.e., a study of guided vs. unguided self-help). Research could also explore the use of this chapter (or the entire book) when read by couples rather than individual men. Additionally, research shows that men report being more concerned with their partner's sexual pleasure when in a committed relationship versus in a casual sexual encounter (Armstrong et al., 2012). This could possibly explain why the majority of men in this study (63.3% of our participants) reported that they are in a committed relationship—that is, they were motivated to participate to enhance their partner's pleasure. Future studies could therefore compare the effectiveness of similar interventions with a group of young adult men in a committed relationship compared to a group of men having casual sex.

Implications

Despite the aforementioned limitations, the results of this study provide promising support for increasing young adult men's sexual knowledge and functioning. Indeed, there are several important clinical implications based on the results of this bibliotherapy study. Study results indicate that reading the *Becoming Cliterate* chapter "Cliteracy for Him," resulted in several positive changes among the men who read it, including changes in knowledge of female sexual anatomy and functioning, dysfunctional beliefs about sexuality, sexual depression and sexual communication skills. Therefore, clinicians may consider recommending this chapter for young adult men who come to therapy with concerns about their sexual abilities with a partner(s). Moreover, bibliotherapy has the ability to provide treatment to larger populations in a non-stigmatizing modality (Harwood & L'Abate, 2010) meaning that this chapter could be especially useful to men who have sexual concerns but who are afraid of the stigma of seeking therapy and/or are unable to afford face-to-face counseling.

While the aforementioned results pertain to the chapter from *Becoming Cliterate* as a bibliotherapy intervention specifically, there are also broader implications regarding young adult men's sexual functioning when with female partners that can be gleaned from this study. For example, as found by Chadwick and van Anders (2017), young adult men report increased feelings of masculinity and achievement when their female partner has an orgasm during sex. Therefore, an intervention, such as this chapter, has the potential to lessen the degree to which men see their partner's orgasm as a "masculinity achievement" (Chadwick & van Anders, 2017). Relatedly, another study (Raiford, 2019) found that young adult men reported feeling less masculine and less achievement when their partner had an orgasm from a vibrator, as compared to intercourse or oral/manual stimulation. Despite this recent finding, research has shown that a woman's sexual satisfaction is highly correlated with a male partner's acceptance of vibrator use (Herbenick et al., 2011). Therefore, this bibliotherapy chapter, or similar interventions, may in fact result in greater acceptance of vibrator use. Future studies should investigative this possibility. Taken together, the discovery of effective methods that help men separate their partners' orgasm from their sense of masculinity might have beneficial implications for reducing men's performance anxiety and hopefully increasing women's pleasure and orgasm. Additionally, interventions that provide similar information as this chapter— such as workshops, sexual education classes, or psychoeducational podcasts— have the potential to increase young adult men's sexual functioning with a female partner, provide new sexual scripts, and potentially even begin to shrink the orgasm gap.

In sum, it is hoped that this study will serve as an impetus for additional research onto interventions that seek to increase young adult men's sexual knowledge and functioning with female partner(s), to disentangle dysfunctional beliefs about sexuality and men's self-worth, and to provide techniques to increase sexual communication. Providing such information could help to reduce the orgasm gap between heterosexual men and women. Ultimately, we hope that this research will help to encourage more sex-positive education and pleasure for everyone.

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