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The Role of Dysfunctional Sexual Beliefs and Sexual Self-Esteem in Sexual Aggression: A Study with Male College Students

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ABSTRACT

This study aimed to understand how the endorsement of dysfunctional sexual beliefs is associated with sexual self-esteem and sexually aggressive behavior in male college students; it further tested the mediating role of sexual self-esteem in the relationship between sexual beliefs and sexual aggression. Results revealed significant relationships between dysfunctional sexual beliefs and sexual aggression; even so, no mediating effects were found. Findings suggest that students' beliefs about sexuality, namely, a conservative pattern of sexual beliefs, work as predisposing factors for sexual aggression. The current results add to the knowledge on the preventive targets regarding sexual offending behavior in community samples.

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Introduction

Sexual violence has been a topic of priority research, and it is generally defined as consisting of non-consensual sexual acts, emerging within a plurality of contexts (O'Neil & Morgan, 2010). Among these contexts, there is evidence that sexually aggressive behaviors have been present in university populations over time (e.g., Berkowitz, 1992; Carvalho & Sá, 2020: Carvalho et al., 2021 ; Krahé & Berger, 2013; McDaniel & Rodriguez, 2021; Schuster et al., 2020).

Within this regard, there is considerable literature on the psychological features characterizing male college students with a history of sexual perpetration (e.g., Carvalho & Nobre, 2013; Carvalho & Sá, 2020; Malamuth & Check, 1983). These features include impulsivity, neuroticism, psychoticism, less confidence in others, hostility, and aggressiveness. Overall, psychopathology and maladaptive personality traits are often found in the literature regarding sexual offenders, including non-forensic samples of college students (Carvalho & Nobre, 2013). In addition, other characteristics, such as sexual dysfunction-related variables, have been associated with this type of aggressive behavior. Yet, those variables have received less attention in the sexual offending literature.

Existing data support a relationship between sexual dysfunction and sexual assault in convicted offenders. Research has revealed that a significant number of sex offenders report sexual difficulties, sexual incompetence, and sexual dysfunction (Bownes, 1993; Dwyer & Amberson, 1989; Jones et al., 2010; Lee et al., 2001). However, although sex offenders are often diagnosed with sexual dysfunction, it has not been considered a risk factor for sexual violence. Likewise, college students reporting sexual aggression against women reported more erectile and orgasmic difficulties, as well as sexual inhibition because of the fear of failing sexual performance (Carvalho et al., 2013). Metz and Sawyer (2004) suggested that sexual dysfunctions interact with other factors related to the sexual offense, predisposing individuals to sexual violence. The authors state that sexual dysfunction can be a precursor to a sexual offense, functioning as an aggravating factor in an offensive cycle by increasing stress, anger, and shame,

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and decreasing sexual satisfaction and self-esteem.

In this perspective, dysfunctional sexual beliefs may be of interest to the context of sexual violence. Dysfunctional sexual beliefs were defined by Nobre (2009) as ideas that individuals have about sexuality and that are based on previous life experience as well as learning processes. Men with sexual dysfunction are prone to present conservative, unrealistic, and demanding beliefs about sexuality, which makes them more vulnerable to developing negative self-interpretations (Barlow, 1986). Demanding and unrealistic beliefs about men's sexual performance ("Macho" beliefs) would set a highly demanding standard that would make men more vulnerable to developing catastrophic interpretations of a sexual event whenever these standards are not met (Nobre, 2014). As so, dysfunctional sexual beliefs might have a role in sexual offending behavior, being at the core of offenders' vulnerability for sexual difficulties. In particular, the "Macho" beliefs could underpin such behavior. The "Macho" beliefs denominate the concept of the man's ability to always be ready for sex, to satisfy all women, and to keep the penis erect until the very end of any sexual activity (Nobre et al., 2003), thus elevating men's sexual performance to very high standards. Some examples of these beliefs are "a real man is always ready for sex" and "a real man has sex very often".

In addition, Nobre et al. (2003) stated that the more sexual dysfunctional beliefs a man endorses (specifically, conservative and "macho" beliefs), the less likely he is to present himself as a sexually liberal person. Furthermore, Barnett et al. (2017) found that male sexual dysfunctional beliefs significantly explained the acceptance of rape myths, i.e., prejudiced, stereotyped, or false beliefs about rape, rape victims, and rapists (Burt, 1980) that serve to deny and justify male sexual assault against women (Lonsway & Fitzgerald, 1994).

In line with the evidence regarding dysfunctional sexual beliefs, the literature reports that the traditional profile of masculinity is associated with sexual assault (Muehlenhard & Linton, 1987 cit in. Abbey et al., 1998; Mosher & Anderson, 1986). It is important to notice that men who were exposed to contexts that promote the traditional condition of the male role, reported significantly more dysfunctional sexual beliefs than those who were exposed to the modern condition of the male role (Clarke et al., 2015). Additionally, one of the dimensions that Mosher and Sirkin (1984) included in the "macho personality" constellation is insensitive sexual beliefs. These beliefs include some men's attitude that a sexual relationship with a woman establishes male power and female submission, and so it should be achieved without any empathic concern for a woman's subjective experience. Such perspective over sexuality and the lack of concern about the woman's experience might be related to a higher probability of engaging in sexually aggressive behaviors. In fact, empirical data support the hypothesis of a relationship between the "macho personality" constellation and a history of sexually aggressive behavior (Mosher & Anderson, 1986).

Furthermore, the Confluence Model of Sexual Aggression points to hostile masculinity as a predisposing factor for sexual aggression in college youths (Malamuth et al., 1996), a correlation that has been recently supported by an extensive literature review on the topic (Ray & Parkhill, 2021). In that light, "aggressive courtship" and sexual conquest may be a critical component of manhood for these individuals (Gilmore, 1990 cit in Malamuth et al., 1996). In all, when given the presence of dysfunctional sexual believes and, consequently, an enhanced vulnerability for sexual difficulties and negative self-interpretations, sexual aggression may occur as a means for men to establish dominance and power.

Additionally, there are reasons to believe that self-esteem may be the bridge through which dysfunctional sexual beliefs, namely "macho" beliefs, lead to the adoption of sexually aggressive behaviors. "Sexual self-esteem" has been used to describe an individual's self-perspective as a sexual being, ranging from sexually appealing to unattractive, and from sexually competent to incompetent. Thus, sexual self-esteem can be viewed as the value one places on oneself as a sexual being, including sexual identity and perceptions of sexual acceptability (Mayers et al., 2003). There is some evidence that sex offenders

are indeed characterized by low self-esteem. Sex offenders have been described as having negative self-perceptions and low self-esteem (e.g., Alba Scortegagna & do Amparo, 2013; Bridges et al., 1998; Fisher et al., 1999; Mann & Hollin, 2010). Another study showed that students who reported sexual assaults considered themselves sexually incompetent, undesirable, and rejected, as well as highly critical of their sexual performance (Carvalho et al., 2013). Also, in a very recent longitudinal study with college students, results revealed that low sexual self-esteem predicted sexual aggression perpetration over a 1-year period in male participants (Krahé & Berger, 2017). Furthermore, sexual aggressors not only present low self-esteem and high self-criticism, but also, indicate weak sexual functioning (Dwyer & Amberson, 1989). Within this context, it was considered that college students might actually initiate sexual interaction using aggressive strategies in part because of sexual difficulties and perceived sexual incompetence (Carvalho et al., 2013). In this sense, it is possible to believe that dysfunctional sexual beliefs, as triggers to catastrophic interpretations of sexual events, will consequently have some negative impact on sexual self-esteem.

This study was aimed at expanding the knowledge on the cognitive variables associated with sexual offending behavior, with a special focus on male college students reporting sexual offending behavior. More specifically, it aimed to understand how the presence of dysfunctional sexual beliefs might be associated with both sexual self-esteem and the perpetration of sexually aggressive behavior in college youth. Moreover, it also aimed to test the mediating role of sexual self-esteem in the relationship between sexual beliefs and sexual aggression. In the light of the aforementioned literature review, we expect that dysfunctional sexual beliefs will be positively associated with the adoption of sexually aggressive behaviors, as well as negatively associated with sexual self-esteem; finally, we expect that sexual self-esteem will mediate the relationship between dysfunctional sexual beliefs and sexually aggressive behavior. Findings are expected to add to the sexual offending literature by testing a mediating path with a focus on cognitive-related variables, thus adding to the knowledge on the conceptualization of sexual aggression within college populations.

Methods

Participants and procedures

Three hundred sixty-four Portuguese male participants (M_{age} = 21.94, SD = 2.96) submitted their answers to an online questionnaire. The data was collected between January and April of 2021. The inclusion criteria required all participants to be attending college, to report themselves as heterosexual, and be older than 18 years. The survey was advertised on social media as a study on sexual interactions. Due to this topic's vulnerability to social desirability, the aim of the study wasn't mentioned. That could have inhibited the participants and had a significant impact on the size of the sample as well as on the answers given. All participants declared their written informed consent before proceeding to participate. The survey took between 10 and 15 minutes to complete, and participation was voluntary. The confidentiality of the data was guaranteed, as no personal information that could identify respondents was collected. This study was approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences of Porto University in 2021.

Measures

Sexually aggressive behavior scale (SABS)

The SABS is a self-report measure, consisting of 26 items that assess the lifelong frequency of sexual interaction attempted by aggressive means (Anderson, 1996). Each item is scored dichotomously as (1) when a behavior occurred and (0) when the behavior did not occur. Scores for sexual aggression are calculated by adding up the scores obtained on the items for each behavior. Critical items question how many times participants had ever initiated sexual contact for each motive or by engaging in each behavior. Although the original version of the SABS reveals three different dimensions of sexually aggressive behaviors (sexual coercion, sexual abuse and physical force), the Portuguese version is one-dimensional (Moreira, et al., submitted for

publication). Items 1–6 and 11–18 relate to sexual contact with mutual consent, simple seduction or attempts at arousal, or reasons for behaviors that were not part of the analysis and are theoretically non-relevant items used to conceal the critical items. The face validity of the SABS was established with a KR-20 of 0.75. In the present study, the KR-20 for the subscales varied from KR-20 = 0.56 (sexual abuse) to KR-20 = 0.92 (physical force), and the total items scored a KR-20 = 0.85. In order to get a more reliable data interpretation, the analysis was performed considering the scale of the total items.

The Sexual-Esteem Subscale

The Sexual Self-Esteem Subscale is one of the three scales that make up the Sexuality Scale (Snell & Papini, 1989). This scale is a ten-item self-assessment instrument that aims to measure sexual esteem (e.g., "I would rate my sexual skill quite highly" and "I sometimes doubt my sexual competence"). The possibility of answering each item varies between "agree" and "disagree" on a Likert scale of five points. The score attributed to each item varies ranges from −2 to 2 and to obtain the total score it is necessary to sum the quotation of all items. In the validation of the original scale, the alphas for the sexual self-esteem subscale were 0.93 for men and 0.92 for women. In the current study, the $\alpha = 0.92$ indicates high levels of internal consistency.

Sexual dysfunctional beliefs questionnaire (SDBQ)

This questionnaire consists of 40 statements representing sexual stereotypes and beliefs found in the literature to be predisposing factors to the development of sexual dysfunctions in men and women (Nobre et al., 2003). The response options range from 1 to 5, ("strongly disagree" to "strongly agree"), for each of the statements about the various sexual beliefs (e.g., "Orgasm is possible only by intercourse" and "a real man doesn't need much stimulation to reach orgasm"). The sub-scales cover macho beliefs; restrictive attitudes toward sex, sex as men's abuse of power; women's sexual satisfaction, sexual conservatism, and female sexual power. In this study, the alphas from the sub-scales ranged from $\alpha = 0.53$ (restrictive attitude toward sex) to $\alpha = 0.82$ (sexual conservatism). To improve internal consistency for the *Sex as an abuse of men's power* sub-scale, one item was removed from that dimension, reaching an alpha value of 0.61. The total items scored $\alpha = 0.91$, revealing high internal consistency.

Socially desirable response set measure (SDRS-5)

This measure assesses the respondent's tendency to give socially desirable answers (Hays et al., 1989). It consists of only five items, some examples being "I am always courteous even to people who are disagreeable" and "I sometimes try to get even rather than forgive and forget". The Cronbach's alpha was = 0.75. In the present study, the $\alpha = 0.61$.

Statistical approach

From the three hundred and sixty-four participants who submitted their answers to the online survey, seven were excluded from the data analysis due to incomplete submissions (considered as possible dropouts). Ultimately, three hundred and fifty-seven participants were accounted for in the statistical analysis. The Little's (1988) test for the MCAR analysis, revealed a $p = .121$ indicating that the data was missing completely at random. Within that frame, missing values were replaced with mean values before any further analysis.

In order to test the mediating role of sexual self-esteem in the relationship between sexual beliefs and sexual aggression, a mediation analysis according to Hayes's procedures was performed, accounting for social desirability effects. Model 4 from PROCESS Macro v3.5 was used for that purpose (Hayes, 2018). One model was tested for each subscale of the SDBQ, regarding the total score of the SABS. Social desirability was included as a covariate. Statistical significance was considered according to the confidence intervals. The effect can be assumed as statistically significant if the confidence intervals (CI) don't include zero (Du Prel et al., 2009). Preacher and Kelley's criteria were accounted to report all effect sizes (Preacher & Kelley, 2011).

Results

Descriptive data

Findings revealed that 35% ($n = 125$) of participants reported having used aggressive strategies to attempt sexual interactions. Among these, 69.6% ($n = 87$) reported strategies that classify as sexual coercion; 26.4% ($n = 87$) reported strategies that classify as sexual abuse; and 4% ($n = 5$) reported strategies that classify as use of physical force. See Table 1 for the percentages of participants endorsing each item.

Table 1. Description of the Items Per Category; Percentage of Participants Endorsing Each Item.

Items	(*n*)	(%)
Sexual coercion		
How many times have you attempted to have sexual contact with a woman by threatening to end your relationship?	12	3.4
How many times have you attempted to have sexual contact with a woman by saying things that you didn't mean?	54	15.2
How many times have you attempted to have sexual contact with a woman by pressuring her with verbal arguments?	44	12.4
How many times have you attempted to have sexual contact with a woman by questioning her sexuality (suggesting that she may be frigid)?	15	4.2
How many times have you attempted to have sexual contact with a woman by threatening to harm yourself?	5	1.4
Sexual abuse		
How many times have you attempted to have sexual contact with a woman by using your position of power or authority (boss, teacher, babysitter, counselor, or supervisor)?	6	1.7
How many times have you attempted to have sexual contact with a woman between 12 and 18 years of age who was 5 or more years younger than yourself?	22	6.2
How many times have you attempted to have sexual contact with a woman by getting her drunk or high?	8	2.2
How many times have you attempted to have sexual contact with a woman by taking advantage of a compromising position she was in (being where she did not belong or breaking some rule)?	9	2.5
Physical force		
How many times have you attempted to have sexual contact with a woman by threatening to use some degree of physical force (holding her down, hitting her, etc.)?	3	0.8
How many times have you attempted to have sexual contact with a woman by using some degree of physical force?	5	1.4
How many times have you attempted to have sexual contact with a woman by threatening her with a weapon?	2	0.6

Sexual beliefs and sexual aggressive behavior: the mediating role of sexual self-esteem

A significant relationship between all dimensions of sexually dysfunctional beliefs and the adoption of sexually aggressive strategies was found (Table 2 for non-standardized regression coefficients; lower and upper limits of the 95% CI). After controlling for sexual self-esteem, the direct effect of all sexual dysfunctional beliefs including macho ($c' = 0.35$; 95% CI [0.18, 0.51]), restricted attitude ($c' = 0.23$; 95% CI [0.07, 0.38]), abuse of men's power ($c' = 0.65$; 95% CI [0.46, 0.84]), women's sexual satisfaction ($c' = 0.31$, 95% CI [0.18, 0.44]), sexual conservatism ($c' = 1.09$; 95% CI [0.82, 1.36]), and female sexual power ($c' = 0.27$; 95% CI [0.11, 0.44]), was significant. As so, the presence of sexual dysfunctional beliefs predicted sexually aggressive behavior despite the role of sexual self-esteem. The percentage of explained variance of the models were as follows: macho beliefs 14%, restricted attitude 12%, abuse of power 20%, women's sexual satisfaction 15%, sexual conservatism 23%, and female sexual power 13%.

Despite that, the results didn't support the hypothesis of the mediating role of sexual self-esteem in the relationship between sexual beliefs and the adoption of sexually aggressive behaviors in male college students. No significant indirect effects (ab) were found: macho beliefs (ab = 0.01; 95% CI [−0.04, 0.03]); restricted attitude (ab = 0.0; 95% CI [−0.02, 0.02]); abuse of power (ab = 0.0; 95% CI [−0.02, 0.02]); women's sexual satisfaction (ab = 0.0; 95% CI [-0.02, 0.02]), sexual conservatism (ab = −0.01 [-0.03, 0.03]) and female sexual power (ab = −0.0; 95% CI [-0.02, 0.02])). This means that dimensions of sexual beliefs were predictors of sexual aggression, independently of sexual self-esteem. Additionally, only macho beliefs were positive predictors of sexual self-esteem (a = 0.17; 95% CI [0.04; 0.31]), but self-esteem did not predict aggression.

Discussion

In the light of previous research about psychological features characterizing college students reporting sexual offending behavior, the present

Table 2. Non-Standardized Regression Coefficients; Lower and Upper Limits of the 95% CI.

	Macho beliefs	Restricted attitude	Sex as an abuse of men's power	Women's sexual satisfaction	Sexual conservatism	Female sexual power
a	0.17 [0.04; 0.31]	−0.07 [−0.19, 0.05]	−0.08 [−0.24, 0.08]	0.09 [−0.01, 0.2]	−0.12 [−0.35, 0.11]	−0.06 [−0.19, 0.07]
b	−0.03 [−0.16; 0.11]	0.02 [−0.11, 0.16]	0.04 [−0.09, 0.2]	0.02 [−0.15, 0.11]	0.04[−0.09, 0.16]	0.02 [−0.11, 0.16]
C	0.34 [0.18, 0.51]	0.22 [0.07, 0.38]	0.65 [0.46, 0.84]	0.31 [0.18, 0.44]	1.08 [0.81, 10.35]	0.27 [0.11, 0.43]
c′	0.35 [0.18, 0.51]	0.23 [0.07, 0.38]	0.65 [0.46, 0.84]	0.31 [0.18, 0.44]	1.09 [0.82, 10.36]	0.27 [0.11, 0.44]
ab	0.01 [−0.04, 0.03]	−0.0 [−0.02, 0.02]	−0.0 [−0.02, 0.02]	−0.0 [−0.02, 0.02]	−0.01 [−0.03, 0.03]	−0.0 [−0.02, 0.02]

Note. a = direct effect of sexual beliefs on sexual self-esteem; b = direct effect of sexual self-esteem on sexually aggressive behaviors; c = total effect of sexual beliefs on sexually aggressive behaviors; c′ = direct effect of sexual beliefs on sexually aggressive behaviors; ab = indirect effect/mediation model).

study was aimed to understand how dysfunctional sexual beliefs could be associated with both sexual self-esteem and the perpetration of sexually aggressive behavior in college youth.

It is important to reflect upon the prevalence of sexual aggression among college students. To do so, it should be acknowledged that the results do not reflect the perpetration of rape. Instead, results relate to the frequency of sexual interaction attempted by aggressive means (Anderson, 1996), addressing different forms of sexually aggressive behavior. Descriptive findings revealed a percentage of 35% of participants reporting sexually aggressive strategies as means to engage in sexual interactions. Relatively recent investigations with Portuguese samples, using the same measure, revealed higher percentages (43–52.6%) of male college students endorsing these strategies (Carvalho et al., 2021; Carvalho & Sá, 2020), suggesting that the current prevalence rate may be a result of the lockdown measures (in the context of COVID-19). Indeed, it is necessary to acknowledge that these answers were submitted during a period that included national lockdowns, and, that these students have been deprived of various contexts (such as university parties) that could be conducive to the perpetration of the aggressive behaviors addressed in the questionnaire. It is widely recognized that recreational contexts, particularly those involving alcohol, are strongly connected to sexual perpetration (Abbey, 2002; Carr & VanDeusen, 2004; Kingree & Thompson, 2015; Shorey et al., 2015; Thompson et al., 2011).

Findings regarding the mediation analyses revealed that the hypotheses were partially corroborated. The first hypothesis of this study was that the presence of sexual dysfunctional beliefs was positively associated with the adoption of sexually aggressive behaviors. Results have supported that hypothesis, with all models explaining significant percentages of the variance of engagement in sexually aggressive strategies. Namely, sexual conservatism beliefs appear to explain the greater variance of the results (23%). This construct is characterized by conservative ideas about sexual behavior (e.g., sex before marriage is unacceptable, it should be directed to coitus and without foreplay, with men on top and serving

procreative goals, etc.) (Nobre et al., 2003). Such results support the theoretical assumption that conservatism could be a risk factor for perpetrating aggressive behaviors. The literature presents evidence that the traditional profile of masculinity is associated with sexual assault (Muehlenhard & Linton, 1987 cit in. Abbey et al., 1998; Mosher & Anderson, 1986) and, additionally, that men who were exposed to contexts that promote the traditional condition of the male role, reported significantly more dysfunctional sexual beliefs than those who were exposed to the modern condition of the male role (Clarke et al., 2015). Within the present findings, the explained variance of sexually aggression strategies according to the endorsement of beliefs about sex as an abuse of men's power (20%), macho beliefs (14%), beliefs about women's sexual satisfaction (15%), and female sexual power (13%) should also be acknowledged. These categories include sexual beliefs such as "a real man has sexual intercourse very often", the conceptualization that "sex is an abuse of male's power", or even the idea that "female sexual power can be dangerous to men". Overall, considering the content of these beliefs, the present findings align with the idea that the traditional masculinity profile associates with sexual aggression. As addressed in the introduction, Mosher and Sirkin (1984) had mentioned insensitive sexual beliefs as part of the "macho personality" constellation. These beliefs include some men's attitudes that a sexual relationship with a woman establishes male power and female submission, and so it should be achieved without any empathic concern for a woman's subjective experience.

Indeed, it could be that some men may recognize such little primacy to women that lack any concern about their subjective experience and, eventually, end up having no inhibitions to their aggressive behavior. This perspective is addressed in the aforementioned Confluence Model of Sexual Aggression, which recognizes three interrelated categories of proximate causes of aggression against women: the motivation, reductions in inhibitions, and opportunity for aggression to occur (Malamuth et al., 1996). Within those categories, six different predictor variables for aggressive acts were named. Examples of those predictors are the *Dominance motive*, *Hostility toward women,* and *Attitudes facilitating aggression against women*. These variables relate, respectively, to the idea that men's desire to sexually dominate women motivates sexual aggression; the idea that the hostility toward women may also motivate the aggressive behavior and remove any inhibitions when facing women's suffering; and the idea that certain attitudes (that directly or indirectly support aggression against women) play an important role in contributing to sexual aggression (Malamuth et al., 1996). In the light of such information, the present findings gain more relevance. The content of some of the sexual beliefs matches with this model of sexual aggression. For example, beliefs such as "women have no other choice but to be sexually subjugated by man's power", that fall into the category of sexual conservatism (which explains the highest variance of the adoption of sexually aggressive strategies), add up to the conceptualized *Dominance motive* as a predictor of sexual aggression. When considering the bigger picture, it seems that the most rigid beliefs and attitudes toward sexuality help to better explain the frequency of sexual aggression.

Another aim was to verify whether there was an association between sexual self-esteem and the perpetration of sexually aggressive strategies in college youth. Results failed to support any correlation between these variables. It was also hypothesized that low self-esteem was the process by which sexual beliefs related to sexual aggression and that hypothesis was not supported by the present results either. The mediation role of sexual self-esteem was expected within the hypothesis that the presence of sexual dysfunctional beliefs would result in lower self-esteem which, eventually, would resort to sexual aggression (as a means to cope with that vulnerability). Findings did not reveal significant relationships between any sexual beliefs and sexual self-esteem, except for macho beliefs that seem to correlate with higher rates of sexual self-esteem. These results were unexpected given the empirical evidence that supported that hypothesis (Barlow, 1986; Nobre 2006; Nobre, 2014). Nevertheless, the absence of significant relationships between dysfunctional sexual beliefs and sexual self-esteem

in this investigation should help to explain why no mediation was accounted for. Indeed, further research is necessary to achieve a more comprehensive understanding of the interaction between these variables. One possible explanation for the lack of mediating effects is that young students were not yet exposed to situations of sexual failure and hence, of sexual incompetence. This perspective may also help to explain why "macho" beliefs were positively correlated with sexual self-esteem. "Macho" beliefs function as vulnerabilities when the individual faces unsuccessful sexual experiences (Nobre, 2010) since they moderate the association between the frequency of unsuccessful sexual episodes and the activation of incompetence schemas (Peixoto & Nobre, 2017). This means that further difficulties depend on the interaction between beliefs and sexual events, and not the presence of sexual dysfunctional beliefs themselfs (Nobre & Pinto-Gouveia, 2006).

To sum up, results suggest that the beliefs that young men have about sexuality may have a role in the perpetration of sexual aggression, making the focus really stand in the cognitive domain. It is important to reinforce that the present findings are consistent with previous ones, namely, the investigation conducted by Barnett et al. (2017) showing that dysfunctional beliefs about gender and sexuality were stronger predictors of rape myth acceptance as opposing to individual's masculinity or femininity. This means that rape myth acceptance is less related to how masculine or feminine men and women identify themselves, and more closely related to their general beliefs about gender and sexuality (Barnett et al., 2017). These results are extremely important for the present study in a way that they demonstrate that not only rape-specific sexual beliefs, but overall cognition and general attitudes about sexuality may have a great impact on sexual aggression. All this information stands for the importance of the socialization process of young people and its impact on the perpetration of sexually aggressive behaviors. Consequently, it leads to the role of sexual education and how dysfunctional sexual beliefs may be a target in programs aimed at preventing sexual offending behavior among college youths.

Some limitations to the present investigation should be recognized. First, when addressing such sensitive topics as sexual aggression, respondents are prone to be influenced by social desirability. In order to minimize such influence, a measurement of social desirability was included in the online survey and that effect was accounted for in the statistical approach. Nevertheless, it is important to consider that all measures were self-report, leaving data exposed to reporting bias. The SDBQ items may also be prone to issues of accuracy; participants may be responding positively to its items in a way that they perceive that the content of the items is somehow present in real contexts and not as an attitude they endorse or a belief of their own. The reliability analysis presented unsatisfactory values for some dimensions. Also, a decision was made to exclude one item from the SDBQ's *Sex as an abuse of men's power* to improve its internal consistency. The decision to maintain such domains in the analysis requires additional caution when interpreting the present findings. Despite such procedure, results should be considered carefully and not generalized to other populations outside the student community. This study only included individuals who identified as male and as heterosexual; therefore, the results cannot be generalized to LGBTQIA + populations. Finally, it is crucial to acknowledge that no cause-effect interpretation can be implied. When mediation analysis is applied with cross-sectional data, i.e., as a tool of variance partitioning (Salthouse, 2011), findings must be interpreted within a correlational frame (Iacobucci, 2008).

In conclusion, the present findings are expected to inform the literature on the cognitive processes predicting sexual offending behavior, and further impact prevention programs. Specific intervention with the college male population regarding sexual beliefs and more general attitudes toward sexuality with a specific focus on gender role expectations could be potentially effective in reducing the rates of sexual aggression within college populations. Yet, further research is needed to deepen the knowledge and understanding of such phenomenon, including the existence of potential mediating paths.

Conflict of interest statement

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper

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