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Motivations for Sexual Behavior and Intentions to Use Condoms: Development of the

Regulatory Focus in Sexuality (RFS) Scale

ABSTRACT

Despite recurrent efforts to prevent sexually transmitted diseases through the use of condoms, HIV infections are still prevalent across Europe. Recent research framed by the regulatory focus theory has shown that prevention (vs. promotion) focused individuals are more likely to adopt strategies to protect their health. Therefore, these individuals should also be more motivated to use condoms, because they are more likely to perceive greater health threats. In two cross-sectional pre-registered studies (combined $N = 520$ Portuguese participants; databases available at doi:10.17605/osf.io/nzkmn) we developed the new Regulatory Focus in Sexuality (RFS) scale (Study 1), and tested if the association between prevention focus and intentions to use condoms was mediated by the perception of health threat (Study 2). Results from Study 1 suggested that the scale is valid and reliable. Results from Study 2 showed, as expected, that a predominant focus on prevention was associated with more condom use intentions with casual and regular sexual partners, because individuals perceived greater threat to their health. Additional exploratory analyses further showed that this mediation occurred only for individuals without a romantic relationship and was independent of how salient the condom use norm was. In contrast, for romantically involved individuals there was no evidence for the mediation by perceived health threat. Instead, a predominant focus on prevention was positively associated with condom use intentions with the regular partner, but only when the condom use norm was more salient. Taken together, these results emphasize the importance of examining individual motivations for safe sex practices.

INTRODUCTION

Health research has shown that unsafe sex is one of the major causes of sexually transmitted infections (STIs), and that condom use is a highly effective measure to prevent infections, especially HIV, if used correctly and consistently (Holmes, Levine, & Weaver, 2004; Workowski & Bolan, 2015). Positive attitudes and intentions to use condoms have been shown to predict their actual use (e.g., Hynie, Macdonald, & Marques, 2006). Nonetheless, such positive attitudes do not seem to substantially increase concerns about the risk of STIs (de Visser, 2005). For instance, a recent representative survey by the Portuguese Health Authority (DGS, 2015) showed that, although the majority of respondents (94%) reported positive attitudes towards condom use, 43% reported never using condoms in sexual intercourse and 10% actually reported aversion to its use. Of those who reported using condoms, most (81%) used them for contraception, and only 49% used them as a protection against HIV. These findings converge with European epidemiological information (ECDC, 2017) indicating that Portugal still has one of the highest rates of HIV infection in Europe. According to this information, there were 1,030 new diagnoses of HIV infection in 2016 (10 new cases by 100,000 habitants), from which 92.4% were of sexual origin, and 23.4% occurred among heterosexual young adults (see also Martins, 2017).

Although intervention programs are known to promote condom use (Protogerou & Johnson, 2014; von Sadovszky, Draudt, & Boch, 2014), the efficacy of the message presented may be dependent upon individual motivations. For instance, recent evidence showed that access to new tools of HIV prevention (e.g., preexposure prophylaxis; PrEP) may be contributing to more infections, because individuals feel less threatened and are more likely to engage in unsafe sex and to neglect the use of condom (Alaei, Paynter, Juan, & Alaei, 2016). Hence, examining the causes that lead individuals to adopt safe sex practices,

their motivation for condom use, and their sexual health concerns are critically important for the public health agenda.

In this paper we focus on individual motivations in predicting condom use intentions. According to the regulatory focus theory (RFT; Higgins, 1997), individuals in a prevention focus are oriented for security and to avoid losses, whereas individuals in a promotion focus are oriented for advancement and to achieve new opportunities. To our knowledge, this theory has never been used to examine sexuality, motivations and sex practices (i.e., condom use). In two cross-sectional pre-registered studies (doi:10.17605/osf.io/nzkmn), we propose the construct of regulatory focus in sexuality (RFS). Based on instruments measuring regulatory focus both at individual and relationship levels (Higgins et al., 2001; Winterheld & Simpson, 2011), in Study 1 we developed the RFS scale and examined its psychometric properties. In Study 2, we tested if a focus on prevention was also associated with greater intentions to use condoms in the near future with casual and regular sexual partners. We also examined if this association occurred because these individuals perceived a greater threat to their sexual health. Finally, we explored differences according to relationship status, and whether social pressure to use condoms (i.e., salience of a condom use norm) was associated with an increased intention of condom use.

Regulatory Focus and Individual Motives

RFT (Higgins, 1997) offers an established framework to examine motivation and goal pursuit, and proposes that individuals can approach their goals by using two modes of functioning. Individuals with a prevention focus are more cautious and strive to maintain their security, safety and protection, while avoiding negative outcomes and losses. In contrast, individuals with a promotion focus are motivated towards growth, advancement and development, by being eager to pursue new opportunities and obtain gains.

Past research showed that these motivations reliably predict goal pursuit (Higgins et al., 2001). For example, prevention focused individuals were more careful to avoid mistakes in a word recognition task, when compared to promotion focused ones (Friedman & Förster, 2001). Importantly, the activation of behaviors potentially associated with the prevention of health problems was also more likely under a prevention focus (Rothman & Updegraff, 2010). For instance, recent research has shown that individuals with a prevention focus were more likely to refrain from behaviors that could harm their health (e.g., transgress safety procedures in the job; Aryee & Hsiung, 2016), when compared to their promotion focus counterparts. Moreover, they were also more likely to adhere to health-protective behaviors and prescriptions (e.g., vaccination; Avraham, Dijk, & Simon-Tuval, 2016; Leder, Florack, & Keller, 2015).

In the context of sexual behavior, the decision to engage in unsafe casual sex clearly puts individuals at risk of contracting STIs. Because prevention focused individuals are oriented to security (Higgins, 1997; Higgins et al., 2001) and to adopt health-protective behaviors (Uskul, Keller, & Oyserman, 2008), they should also perceive unsafe sex as a greater risk of infection and as potentially threatening to their health. Consequently, they should be more motivated to engage in safe sex practices and should have more condom use intentions.

The impact of regulatory focus on safe sex practices might be especially relevant among individuals without romantic relationships. Indeed, these individuals are more predisposed to casual sex and actually engage in it more frequently than romantically involved individuals (Rodrigues & Lopes, 2017; Rodrigues, Lopes, & Pereira, 2016, 2017; Rodrigues, Lopes, & Smith, 2017). When committed to their relationships, individuals tend to converge their own goals with those of their partner in order to promote relationship advancement (Rodrigues, Lopes, & Kumashiro, 2017). By doing so, they are more likely to

refrain from pursuing extradyadic partners or extradyadic sex (Rodrigues, Lopes, & Smith, 2017), thus being less likely to perceive their sexual health to be at risk, or to be infected with STIs, when having sex with their regular partner. Nonetheless, research has shown that individuals in monogamous relationships who engage in extradyadic sex use condoms less frequently in both casual sex and with the regular partner (Conley, Moors, Ziegler, & Karathanasis, 2012). Arguably, these individuals may not perceive the extent to which their extradyadic sexual behavior can threaten their own (and their partner's) health because they were in a promotion focus at the time of the extradyadic sex. Another possible explanation for these sexual behaviors might be the shared norm regarding condom use. Romantically involved individuals in monogamous relationships share a norm of sexual exclusivity and therefore may not use condoms to prevent STIs, whereas for individuals without a romantic relationship a norm of condom use with different sex partners may be more salient and influence safe sex behaviors to a greater extent.

Social Norms and Safe sex Practices

Norms are social constructions or conventions based on shared expectations, that guide the collective action, and are linked to a general sense of belonging to a group, a community or a society (Birenbaum & Sagarin, 1976). Norms have greater impact on behavior if individuals perceive to receive support from their peers (Reno, Cialdini, & Kallgren, 1993). In contrast, norms are less likely to influence behavior if individuals are isolated from their social system (Okun et al., 2003), or when the norms are not salient or consciously available (Cialdini, Kallgren, & Reno, 1991; Cialdini, Reno, & Kallgren, 1990).

In the sexual and health behavior domain, there is abundant empirical evidence showing the influence of social norms and social pressure regarding safe sex practices in general (e.g., Albarracín et al., 2005), as well as in intentions to use or actual use of condoms (e.g., Albarracín, Kumkale, & Johnson, 2004). For example, individuals who perceive greater

social pressure to use condoms show greater avoidance of risky sexual practices, than those who do not perceive such pressure (Hart, Peterson, & Community Intervention Trial for Youth Study Team, 2004; Miner, Peterson, Welles, Jacoby, & Rosser, 2009; Zhou et al., 2017).

The social norms theory (Berkowitz, 2004) is a general framework to understand the influence of norms in different domains, including health-related behaviors. This theory postulates that individual behavior is influenced by the perception of the behavior of other individuals sharing similar social backgrounds or values. More specifically, social norms theory discusses misperceptions of others' attitudes and behaviors and how they generate over and underestimation of risk or protective behaviors. In turn, this might lead to rationalization of risk behaviors and inhibition of health protective behaviors. This theory relies on the operation of descriptive norms, referring to what is commonly done, which motivates behavior by informing how others typically behave, in an effective and adaptive way, in a given situation (Cialdini et al., 2006). Briefly, descriptive norms can be operationalized as statements of what others think that should be done in a specific situation (e.g., "the majority of the people that I know think that I should use condoms").

Empirical tests of the social norms theory have shown a positive association between perceived social norms of condom use and actual condom use in high-risk populations, such as female sex workers (Chen, Li, Zhou, Wen, & Wu, 2013), and drug users (Latkin, Forman, Knowlton, & Sherman, 2003). Much less is known, however, about how social norms influence condom use intentions in the general population, and if these findings are replicated cross-culturally (for an exception see, Zhou et al., 2017). Furthermore, to our knowledge, the interaction between social norms and regulatory focus has never been extended to examine sexual behavior (for an exception on marketing research, see Melnyk, Herpen, Fischer, & Trijp, 2013). In the case of health outcomes, because prevention (vs. promotion) individuals

are more focused on preventing negative health outcomes, they should also be more attentive and influenced by social norms to use condoms (i.e., a health protection behavior).

Overview

We pre-registered and conducted two cross-sectional studies investigating the role of regulatory focus on pro-condom behavior. The main goal of Study 1 was to develop the RFS scale and to examine its psychometric properties. The main goal of Study 2 was to examine if RFS was associated with intentions to use condoms, to advance perceived sexual health threat as a possible underlying mechanism for this association, and to explore if relationship status and salience of condom use norm modulate such association. Due to the exploratory nature of these studies, and to increase power in our analyses, we doubled the sample size originally considered in the pre-registration.

Ethical Disclosure

These studies were part of a larger online research project on sexual attitudes and behavior. Data for these studies were collected between March and September 2017. Both studies were in agreement with the Ethics Guidelines issued by the Scientific Commission of ISCTE-IUL. There were no risks connected with the participation in the study, and the only restriction for participation was that individuals had to be at least 18 years old. Studies were noninvasive, no false information or deception was employed, and responses were anonymous. Participants were invited to participate on an online study about sexual attitudes and behaviors. When accessing the provided link, participants were first presented with information explaining their rights, namely that participation was voluntary and anonymous, and that they could withdraw from the study at any time by closing the browser without their responses being considered for analysis. They could only proceed to the study by providing informed consent. Individuals were not paid, nor given incentives for their participation. At the end of each study, participants were debriefed about the purpose of the studies.

Specifically, participants were told that we were interested in understanding how individual differences in sexual behavior can be associated with perceived control over sexual risk behaviors and with the likelihood of using condoms. Moreover, we also provided the email of the principal researcher, in case participants had further questions or comments about the study.

STUDY 1

This study was designed to develop a preliminary version of the RFS and to examine how regulatory focus is associated to goal pursuit in sexual behavior. The RFS was developed by adapting items from the Regulatory Focus Questionnaire (Higgins et al., 2001) and from the Regulatory Focus in Relationships (Winterheld & Simpson, 2011) to the context of sexual motives. We then conducted a psychometric study of its properties. Specifically, construct validity was assessed through exploratory factor analyses. This allowed us to examine the underlying structure of the scale, and consequently compute reliability indexes. Scale sensitivity was assessed through difference tests and correlations with sociodemographic variables. Finally, convergent validity was assessed through correlations with other measures associated with sexuality, namely dispositional ability for sexual restraint in risky situations (Gailliot & Baumeister, 2007), sociosexuality (i.e., predisposition to casual sex; Rodrigues & Lopes, 2017), and relationship quality (Rodrigues, Lopes, & Smith, 2017).

METHOD

Participants

A sample of 120 Portuguese individuals (60 women; $M_{age} = 22.89$, $SD = 5.11$) volunteered to take part in this study. Most participants identified themselves as heterosexual (92.5%), completed High School (62.5%), resided in urban areas (93.3%), were students (58.3%), and reported themselves to be religious (60.0%). Most participants also reported to

be in a monogamous relationship (57.5%) for approximately 3.5 years (M = 3.59, SD = 4.83;

see Table 1 for details).

-- insert Table 1 --

Measures

   Regulatory Focus in Sexuality Scale. We developed a new measure through the

modification of the items from two regulatory focus scales that measure predominant

prevention and promotion concerns. The Regulatory Focus Questionnaire (11 items) was

developed by Higgins and colleagues (2001) and assesses concerns in everyday life (five

prevention focus items, e.g., "Not being careful enough has gotten me into trouble at times";

six promotion focus items, e.g., "I feel like I have made progress toward being successful in

my life"). This scale was previously validated to Portuguese by Rodrigues, Lopes and

Kumashiro (2017). The Regulatory Focus in Relationships (15 items) was developed by

Winterheld and Simpson (2011) and assesses concerns in romantic relationships (seven

prevention focus items, e.g., "In general, I am striving to protect and stabilize my

relationships"; eight promotion focus items, e.g., "I typically focus on the success [e.g., the

happiness] I hope to achieve in my relationships"). This scale was first translated and adapted

to Portuguese using the translation-retroversion method conducted by two independent

judges.

   We then modified the original 26 items to a sexuality context (prevention focus sample

item: "I often think about what I fear might happen to my sex life in the future"; promotion

focus sample item: "I often think about how I can achieve [or create] a successful sex life").

Seven of the original items were discarded because they did not fit this context (e.g., "Did

you get on your parents' nerves often when you were growing up?"). The final RFS measure

included 19 items (nine for prevention and 10 for promotion; see Table 1 for reverse-scored

items). Responses were given in 7-point scales (1 = *Not at all true of me*, 7 = *Very true of*

me). Higher mean scores on each subscale indicate a more predominant focus on prevention or promotion.

Dispositional Abilities in Sexual Restraint. We used this measure originally proposed by Gailliot and Baumeister (2007), which comprises 10 items. Individuals were asked to indicate to what extent each item is representative of their typical behavior (e.g., "I am very good at controlling my sexual urges"). This scale was also translated and adapted to Portuguese using the translation-retroversion method conducted by two independent judges. Responses are given on 7-point scales (1 = *Not at all like me*, 7 = *Very much like me*). Higher mean composite scores indicate greater ability for sexual restraint. We conducted a confirmatory factor analysis (CFA) to examine the fit of this measure to our sample of Portuguese participants using Mplus 7 (Muthén & Muthén, 2012) with robust maximum likelihood estimation (Yuan & Bentler, 2000). Based on the standards established in the literature for fit indexes (Bentler, 1990; Browne & Cudeck, 1989; Byrne, 2012; Jöreskog & Sörbom, 1984), results showed a very good fit: , $\chi^2(35) = 42.23$, comparative fit index (CFI) = .96, Tucker–Lewis index (TLI) = .95, standardized root mean square residual (SMSR) = .05, and root mean square error of approximation (RMSEA) = .04 [.00, .08]. This measure also presented a good internal consistency ($\alpha = .77$)

Sociosexuality. We used the Revised Sociosexual Orientation Inventory (Penke & Asendorpf, 2008; Portuguese adaptation by Rodrigues & Lopes, 2017). Along nine items, participants are asked to indicate their sociosexual behavior (three items; e.g., "With how many different partners have you had sex in the past 12 months?"; 1 = *0 partners*, 7 = *10 or more partners*), attitudes (three items; e.g., "Sex without love is okay"; 1 = *Strongly disagree*, 7 = *Strongly agree*), and desire (three items; e.g., "How often do you have fantasies about having sex with someone with whom you do not have a committed romantic

relationship?"; 1 = *Rarely*, 7 = *Frequently*). We computed a mean score, such that high scores indicated a more unrestricted sociosexuality. Internal consistency was also good ($\alpha = .90$).

Relationship Quality. Romantically involved individuals were additionally presented with two shortened subscales from the Investment Model Scale (original scale developed by Rusbult, Martz, & Agnew, 1998; Portuguese short forms by Rodrigues & Lopes, 2013). These individuals were asked to think about their relationship and to indicate their agreement with three items assessing satisfaction (e.g., "I feel satisfied with our relationship"), and four items assessing commitment (e.g., "I want our relationship to last for a very long time"). Responses were given on 7-point scales (1 = *Do not agree at all*, 7 = *Agree completely*). In this study, the scale presented good reliability ($\alpha = .94$). We computed a mean score, such that higher scores indicate greater relationship quality.

Procedure

Individuals were invited through mailing lists (e.g., student contacts) and social network posts (e.g., Facebook) to take part on an online survey about sexual attitudes and behaviors. After being informed about their rights (e.g., withdrawal and confidentiality), and providing informed consent (i.e., clicking on the "I agree" option), participants were redirected to the study main variables (see Measures section), and in the end they provided standard demographic information (e.g., age, gender). Participants were reminded of missing responses before they continued the survey. After completing the study, participants were fully debriefed. The average time to complete the entire survey was 10 minutes.

RESULTS

Only completed questionnaires were retained for analyses (dropout rate: 35.8%), hence there were no missing cases in the main variables. We also determined outliers by considering the criterion of 2.5 standard deviations below of above the mean in each

measure. Results showed a small percentage of outliers (0.3%) and therefore no cases were excluded from the analyses.

Descriptive Analyses of the RFS Items

Table 2 presents the descriptive analyses of each RFS item, including skewness and kurtosis analyses. Items were also tested regarding their mean deviation from the scale midpoint (i.e., one-sample t tests, test value = 4). The majority of the items (i.e., 11 items) tested significantly below the scale midpoint, meaning that participants tended to disagree with these RFS items. Seven items tested significantly above the scale midpoint, showing that participants tended to agree with these items. The mean of one item (item 7) did not differ significantly from the scale midpoint (see Table 2).

-- insert Table 2 --

Construct Validity and Reliability

To examine the underlying structure of the new RFS scale, we conducted two exploratory factor analysis. Given that previous findings showed that prevention and promotion regulatory focus are somewhat correlated (Higgins et al., 2001; Winterheld & Simpson, 2011), we used a principal-axis extraction with promax rotation and considered factor loadings equal of above .40 in only one of the extracted factors.

The first analysis with 19 items showed a structure with two factors accounting for 33.48% of the variance (KMO = .69). After inspecting the pattern matrix of the rotated solution, 10 items were discarded for having factor loadings below .40. The second analysis with the remaining nine items showed a structure with two factors accounting for 57.85% of the variance (KMO = .78). As shown in Table 3, the first factor presented high factor loadings (i.e., > .50) on items related to promotion (six items; α = .81), and the second factor presented high factor loadings (> .42) on items related to prevention (three items; α = .73). Both factors were negatively correlated, r = -.20, p = .027.

-- insert Table 3 --

RFS Index

Based on past research showing the adequacy of calculating an index of regulatory

focus predominance (Cesario, Grant, & Higgins, 2004; Molden & Higgins, 2004; Rodrigues,

Lopes, & Kumashiro, 2017), we computed a RFS index by subtracting promotion scores

from prevention scores (for complete scale and detailed scoring instructions, see the

Appendix). Positive values in this index indicate a predominant focus on prevention, whereas

negative values indicate a predominant focus on promotion, and zero scores indicate similar

prevention and promotion focus. As expected, the RFS index was positively associated with

the prevention subscale, $r = .85$, $p < .001$, while negatively associated with the promotion

subscale, $r = -.69$, $p < .001$.

Overall, individuals had similar scores on both prevention ($M = 5.14$, $SD = 1.69$; min =

1.00, max = 7.00) and promotion subscales ($M = 4.84$, $SD = 1.23$; min = 1.50, max = 7.00).

The RFS index was not statistically different from zero ($M = 0.30$, $SD = 2.28$; min. = -5.17,

max. = 4.83), $t(119) = 1.43$, $p = .156$, thus suggesting that participants were distributed

equally across both regulatory focus.

Scale Sensitivity

Overall descriptive statistics are presented in Table 4. To test scale sensitivity, we

examined differences in both prevention and promotion subscales, as well as the RFS index,

according to demographic variables related to sexuality (e.g., Shaw, Rhoades, Allen, Stanley,

& Markman, 2013). Results showed no differences according to gender, sexual orientation,

education, religiosity, or relationship status, all $p > .067$. In contrast, we found differences

according to professional status, such that employed participants scored higher on the

promotion subscale ($M = 5.13$, $SD = 1.31$) than students ($M = 4.27$, $SD = 1.14$), $t(118) = -$

2.25, $p = .026$, $d = 0.41$. No differences were found for prevention subscale ($M = 4.99$, $SD = $

1.70 vs. $M = 5.24$, $SD = 1.68$, respectively), $t(118) = 0.90$, $p = .414$, $d = 0.17$, or RFS index

($M = -0.15$, $SD = 2.20$ vs. $M = 0.61$, $SD = 2.30$), $t(118) = 1.82$, $p = .071$, $d = 0.34$.

Results also showed a positive association between age and promotion scores, $p = .018$,

but not prevention scores, or the RFS index, both $p > .064$ (Table 4).

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Convergent Validity

To test convergent validity, we examined the associations of RFS scores with

individual and relationship variables associated with sexuality (e.g., Gailliot & Baumeister,

2007; Rodrigues & Lopes, 2017; Rodrigues, Lopes, & Smith, 2017). As shown in Table 4,

scores on the prevention subscale were positively associated with the ability for sexual

restraint, $p < .001$, while negatively associated with unrestricted sociosexuality, $p < .001$. In

contrast, scores on the promotion subscale were negatively associated with the ability for

sexual restraint, $p = .007$, while positively associated with unrestricted sociosexuality, $p =$

.001. As expected, participants with higher scores on the RFS index also indicated greater

ability to restrain their sexuality, $p < .001$, and less unrestricted sociosexuality, $p < .001$.

Unrestricted sociosexuality was negatively associated with both ability for sexual restraint, p

$< .001$, and relationship quality, $p = .002$. No other correlations reached significance, all $p >$

.194.

DISCUSSION

In Study 1 we extended the assumptions of the RFT to sexual behavior by developing

and validating the new measure of RFS using a Portuguese sample. Overall this measure has

good psychometric properties namely reliability, construct validity, and sensitivity. The RFS

was also moderately correlated with other related constructs, suggesting convergent validity.

Such results indicate that RFS is as a relevant construct to examine sexual behavior. In Study

2, we further examined whether the RFS is associated with intentions to use condoms, tested a possible underlying mechanism, and explored under which conditions this might occur.

STUDY 2

Studies conducted in the health domain have already shown that prevention focused individuals are more likely to engage in self-protective behaviors (Avraham et al., 2016; Leder et al., 2015; Uskul et al., 2008), and less likely to engage in endangering behaviors (Aryee & Hsiung, 2016). Extending these findings to sexuality, prevention focused individuals may also be more motivated to seek security in sexual behavior and avoid potential health problems. Given that contracting STIs (e.g., HIV) is a negative health outcome that can result from engaging in unsafe sex, prevention focused individuals should report a greater intent to use condoms in the near future with both casual and regular sexual partners. However, this should occur because prevention focused individuals, compared to those in a promotion focus, are more likely to perceive greater sexual health threat when having unsafe sex (H1).

Although we have no *a prior* hypothesis, we have also explored differences in the association between RFS and intentions to use condoms according to relationship status and the salience of a condom use norm.

Individuals without a romantic relationship are more likely to engage in sexual behavior with different partners, which may represent a greater likelihood of contracting STIs. Therefore, they may be particularly likely to perceive greater health threat when predominantly focused on prevention (vs. promotion) and to indicate greater condom use intentions. However, this should occur especially among individuals for whom the condom use norm is more salient.

In contrast, several scenarios might emerge for romantically involved individuals in monogamous relationships. On the one hand, these individuals should perceive less health

threats due to expectations of sexual exclusivity. If so, RFS may not be associated with the

condom use intentions with the regular partner, and no differences should be observed

depending on the salience of the condom use norm. However, there is also evidence showing

that individuals who engage in extradyadic sex are less likely to use condoms with both

casual sex partners and their regular partner (Conley et al., 2012). If so, these condom use

intentions should be less evident among individuals with a prevention focus (vs. promotion),

and among those for whom the condom use norm is more salient.

METHOD

Participants

A sample of 400 Portuguese individuals (274 women; M_{age} = 22.47, SD = 5.42)

volunteered to take part in this study. The majority of the participants self-identified as

heterosexual (93.5%), completed post-graduate studies (85.5%), resided in urban areas

(90.5%), were students (61.0%), and reported themselves to be religious (61.5%). Most

participants also indicated to be in a monogamous relationship (52.0%) for approximately 3

years (M = 3.19 years, SD = 4.59; see Table 1 for details).

Measures

Regulatory Focus in Sexuality Scale. We used the RFS scale developed in Study 1.

In this study, we conducted a CFA to validate the structure of the scale (see Results).

Perceived Sexual Health Threat. We used the scale proposed by Sakaluk and Gillath

(2016). This scale was translated and adapted to Portuguese using the translation-retroversion

method conducted by two independent judges. All participants were asked to which extent

they perceived their sexual health to be at risk, considering their sexual interactions with

other people along three items: (1) "How safe do you feel having sex with your partner(s)?"

(reverse coded), (2) "How suspicious are you of your partner(s) cheating?", and (3) "How

confident are you that your partner(s) wouldn't give you a sexually transmitted infection?"

(reverse coded). Responses were given in 7-point scales (1 = *Nothing at all*, 7 = *Very much*). As in the original study, in our study the scale presented an unacceptable reliability (α = .48), and this was caused by the second item. After its removal, both items were significantly correlated, r = .42, p < .001. We computed a mean score, such that higher scores indicated the perception of greater sexual health threat from sexual interactions.

Condom use intentions. We asked participants to think about their possible sexual interactions in the near future (i.e., next 3 months), and to indicate their agreement with two sentences: "I intend to use condoms every time I have sexual intercourse with…" item 1: "…a casual sex partner(s) in the next 3 months.", item 2: "…my regular sex partner in the next 3 months." Responses to each item were given in 7-point scales (1 = *Do not agree at all completely*, 7 = *Agree completely*). Results showed that both items were positively and significantly correlated, r = .58, p < .001.

Salience of Condom Use Norm. Based on past research showing the importance of social norms for actual behaviors (Albarracín et al., 2005, 2004; Berkowitz, 2004; Cialdini et al., 2006), we also asked participants to indicate how aware they were of norms for condom use using a single item "Most people in my close social network think I should use condoms every time I have sexual intercourse in the next 3 months". Responses were given in 7-point scales (1 = *Disagree completely*, 7 = *Agree completely*).

Sociosexuality. We used the scale previously used in Study 1. In the current study, the scale presented good reliability (α = .88).

Sociodemographic information. All participants were asked to indicate their age (in years), gender, sexual orientation, area of residence, professional status, education level, religiosity, and if they were romantically involved. Those in a romantic relationship, were additionally asked to indicate if they were in a monogamous relationship (i.e., if they were in

a sexually and emotionally exclusive relationship; see Rodrigues, Lopes, & Smith, 2017), and the length of the relationship (in months).

Relationship Quality. Romantically involved individuals were also asked to complete the Investment Model Scale, previously used in Study 1. In the current study, the scale presented good reliability ($\alpha = .95$).

Recent Sexual Activity. We asked participants to think about their sexual activity in the past 3 months and to indicate if they had sexual intercourse (1 = *No*, 2 = *Yes*), and if yes, with how many partners (1 = *One, my regular sex partner*, 2 = *One casual sex partner*, 3 = *2-5 casual sex partners*, 4 = *More than 5 casual sex partners*).

Procedure

As in Study 1, individuals were invited through mailing lists and social network posts to take part on an online survey about sexual attitudes and behaviors. After being informed about their rights and providing informed consent, participants were asked to answer to the study main variables (see Measures). Again, participants were reminded of any missing responses before continuing the survey. At the end, participants were fully debriefed. The average time to complete the survey was 15 minutes.

RESULTS

As in the previous study, only completed questionnaires were retained for analyses (dropout rate: 32.3%). There were no missing cases in the main variables. Using the same criterion to determine outliers as in Study 1, we found a small percentage of outliers (1.04%). Therefore, no cases were excluded from the analyses.

RFS: Confirmatory Factor Analysis

We conducted a CFA to validate the two-factor structure of the RFS, and results showed that this structure presents a very good fit in our sample, $\chi^2(26) = 36.34$, CFI = .99, TLI = .98, SMSR = .03, and RMSEA = .03 [.01, .05]. There were moderate to high

standardized regression paths between the items and their respective factor: prevention (.41 >

λ > .86), promotion (.55 > λ > .74), all p < .001. Again, both factors were significantly

correlated, ϕ = .26, p < .001.

Preliminary Analyses

Descriptive statistics, and overall correlations between measures are presented in Table

4. No differences in our five main variables emerged according to gender, sexual orientation,

education, or religiosity, all p > .093. Students, however, reported more intention than

employed participants to use condoms with casual sex partners (M = 6.06, SD = 1.74 vs. M =

5.38, SD = 2.28), t(398) = 3.36, p = .001, d = 0.34, and with regular sex partners (M = 4.87,

SD = 2.29 vs. M = 4.33, SD = 2.60), t(398) = 2.16, p = .031, d = 0.22. No other differences

according to professional status reached significance, all p > .082.

In general, our five main variables were correlated in the expected direction, all p <

.024. For example, a predominant focus on prevention was positively correlated with

perceived sexual health threat, p = .006, and perceived sexual health threat was positively

correlated with the salience of a condom use norm, p < .001. Correlations with the three

control variables showed that younger individuals had more condom use intentions and had

the condom use norm more salient, all p < .001. Sociosexual unrestricted individuals were

more focused on promotion, p < .001, and perceived greater sexual health threat, p = .034.

For romantically involved individuals, relationship quality was negatively associated with the

perception of health threat, p = .013 (see Table 5).

-- insert Table 5 --

Sexual Behavior and Condom Use Intentions According to Relationship Status

Participants did not differ in their predominant RFS according to relationship status, t <

1. However, there were differences in actual sexual behavior in the last 3 months. Nearly half

the individuals without a romantic relationship reported no sexual activity in the last 3

months (47.9%), and the remaining reported they had sex with one or more casual sex

partners (32.2%), or with a regular sex partner (19.8%). In contrast, the majority of

romantically involved individuals reported they had sex with their regular sex partner

(88.9%), with only a few reporting one or more casual sex partners (4.8%) or no sexual

activity at all (6.2%).

Converging with this behavioral pattern, individuals without a relationship (vs.

romantically involved) perceived greater sexual health threat ($M = 2.74$, $SD = 1.45$ vs. $M =$

1.88, $SD = 1.20$), $t(398) = 6.48$, $p < .001$, $d = 0.65$, reported more condom use intentions with

casual sex partners ($M = 6.30$, $SD = 1.40$ vs. $M = 5.32$, $SD = 2.33$), $t(398) = 5.06$, $p < .001$, d

$= 0.51$, and regular sex partners ($M = 5.62$, $SD = 1.79$ vs. $M = 3.77$, $SD = 2.61$), $t(398) = 8.20$,

$p < .001$, $d = 0.82$, and had the condom use norm more salient ($M = 6.13$, $SD = 1.39$ vs. $M =$

5.03, $SD = 2.28$), $t(398) = 5.75$, $p < .001$, $d = 0.58$.

Hypothesized Model

We hypothesized that individuals focused on prevention had more intentions to use

condoms with sex partners (both casual and regular) because they perceive greater threat to

their sexual health. We further explored if this mediation differed according to relationship

status. We computed two 10,000 bootstrapped moderated mediation models using PROCESS

3.0 (Model 7; Hayes, 2015, 2017). Predominant RFS index was the predictor variable (X),

perceived sexual health threat was the mediator variable (M), and relationship status (coded

0: without romantic relationship, 1: with romantic relationship) was the moderator variable

(W). Outcome variables were intention to use condom with casual sex partners (Y, Model A),

and intention to use condom with regular sex partners (Y, Model B). Based on the

preliminary analyses, age, sociosexuality, and professional status were entered as co-variates.

All variables were centered prior to the analyses. Results are shown in Table 6.

-- insert Table 6 --

As expected, in both models a predominant focus on prevention was positively associated with the perception of greater sexual health threat, $p = .001$, which in turn was positively associated with condom use intentions with casual sex partners, $p = .008$ (Model A), and regular sex partners, $p < .001$ (Model B). In neither model was the direct effect of RFS on intentions to use condoms significant, both $p > .052$.

There was also an interaction between RFS and relationship status, $p = .003$, such that a predominant focus on prevention was positively associated with perceived sexual health threat among individuals without a romantic relationship, $p < .001$, but not among those in a romantic relationship, $p = .395$. Hence, the mediation by perceived sexual health threat between a predominant focus on prevention and condom use intentions was observed for individuals without a romantic relationship, Model A: $b = 0.04$, $SE = .02$, 95% CI [0.012; 0.084], Model B: $b = 0.08$, $SE = .03$, 95% CI [0.038; 0.140], but not for those romantically involved, Model A: $b = 0.01$, $SE = .01$, 95% CI [-0.010; 0.034], Model B: $b = 0.01$, $SE = .02$, 95% CI [-0.021; 0.058] (Figure 1).

-- insert Figure 1 --

Exploratory Analyses: Salience of Condom Use Norm

We further explored if intentions to use condoms with casual sex and regular sex partner increased when individuals had a greater salience of the condom use norm. For the sake of clarity, we conducted separate analyses according to relationship status.

Individuals without romantic relationship. We expected individuals predominantly focused on prevention to indicate greater condom use intentions because of an increased perception of sexual health threat, but only when the condom use norm was more salient. This was tested by replicating the previous moderated mediation models, with salience of condom use norm as the moderator variable (W). Results showed that a predominant focus on prevention was positively associated with perceived sexual health threat, $b = 0.22$, $SE = .06$, p

< .001, which in turn was associated with more condom use intentions with casual sex partners, $b = 0.16$, $SE = .07$, $p = .026$, and with regular sex partners, $b = 0.24$, $SE = .09$, $p = .006$. Salience of condom use norm did not interact with RFS, $b = 0.06$, $SE = .03$, $p = .091$, and no evidence of moderated mediation was found.

Individuals with romantic relationship. Our results showed that perceived sexual health threat did not explain the association between prevention focus and intentions to use condoms with sex partners. Extending past evidence, we advanced the possibility that the link between extradyadic sex and less likelihood of using condoms (Conley et al., 2012) could be less evident among individuals with a prevention focus and for whom a condom use norm is more salient. This was tested with two moderation models (PROCESS Model 1) in which predominant RFS was the predictor variable (X) and condom use norm was the moderator variable (M). Outcome variables were intentions to use condoms with casual sex partners (Y), and regular sex partner (Y). Age, sociosexuality, professional status, and relationship quality were co-variates. All variables were centered prior to the analyses.

Results of the model for casual sex partners were non-significant, all $p > .305$, with the exception of a significant association between salience of condom use norm and condom use intentions with casual sex partners, $b = 0.37$, $SE = .07$, $p < .001$. Results of the model for regular sex partners showed that a predominant focus on prevention was associated with condom use intentions with the regular sex partner, $b = 0.21$, $SE = .08$, $p = .005$. A similar association was found with salience of condom use norm, $b = 0.58$, $SE = .07$, $p < .001$. Importantly, there was an interaction between these variables, $b = 0.06$, $SE = .03$, $p = .042$, such that individuals predominantly focused on prevention (vs. promotion) reported more condom use intentions when condom use norm was more salient (+1 SD), $b = 0.33$, $SE = .10$, $p < .001$. In contrast, no differences were found for those among whom the condom use norm was less salient (-1 SD), $b = 0.08$, $SE = .10$, $p = .403$ (Figure 2).

-- insert Figure 2 --

DISCUSSION

Our results confirmed the RFS scale as a reliable measure of individual motivations for sexual behavior, more specifically condom use intentions. As expected, results showed that a predominant focus on prevention was associated with greater intentions to use condoms in the near future with both casual and regular sexual partners, because individuals perceived greater threat to their own sexual health (H1).

Exploratory analyses supported the hypothesis that perceived sexual health threat was only relevant for individuals without a romantic relationship. Against our expectations, however, these findings were independent of the salience of a condom use norm.

Results for romantically involved individuals also partially confirmed our expectations. First, RFS was not associated with intentions to use condoms with casual sex partners, but instead there was only a significant association between salience of condom use norm and intentions to use condoms with casual sex partners. Second, results showed that individuals with a predominant focus on prevention were more likely to indicate greater condom use intentions with their regular partner, but this was observed only for those who had the condom use norm more salient. Those among whom the norm was less salient had the lowest intention of using condoms with their partner, regardless of their RFS.

GENERAL DISCUSSION

In two studies, we extended regulatory focus to the context of sexual behavior for the first time, addressed novel research questions, and advanced literature by proposing that personal motivations in sexuality can be determinant for the intentions to use condoms. In Study 1, we adapted items from two measures of regulatory focus (Higgins et al., 2001; Winterheld & Simpson, 2011) to sexuality, developed the RFS scale and assessed its psychometric properties. This measure presented good validity and reliability. Specifically,

results showed a clear measure assessing predominant focus on prevention and promotion, with good indexes of internal consistency (results replicated in Study 2). Both subscales were moderately and negatively correlated, replicating past results assessing both types of regulatory focus (e.g., Higgins et al., 2001). Results also showed the adequacy of using an index of predominant focus on prevention by subtracting the scores on both subscales, also replicating past research (e.g., Rodrigues, Lopes, & Kumashiro, 2017). Results further showed the lack of differences as a function of several demographic variables (e.g., gender). Finally, we found evidence of convergent validity, given that individuals predominantly focused on prevention were also those who reported a greater dispositional ability for sexual restraint, and those with more restricted sociosexuality. Taken together, these findings assure the adequacy and validity of the scale to measure regulatory focus in the context of sexuality, at least in the Portuguese context.

Results from Study 2 showed, as expected, that individuals predominantly focused on prevention (vs. promotion) were more likely to adopt safe sex practices in the near future with both casual sex partners and their regular partner, because they perceived greater threat to their health. These results converge with past findings suggesting that prevention focused individuals are more attentive and avoid behaviors that can endanger their own health (Aryee & Hsiung, 2016; Avraham et al., 2016; Leder et al., 2015; Uskul et al., 2008). Moreover, and as expected, exploratory analyses showed that these mediations were only observed among individuals without (vs. with) a romantic relationship. These differences can be explained by the fact that romantically uninvolved individuals are more likely to have different sexual partners and are potentially more exposed to STIs. Indeed, more than one third of our sample indicated they had at least one casual sex partners in the last 3 months, perceived greater health threat with their sexual behavior, reported more condom use intentions in the near future with all sex partners, and had a condom use norm more salient.

However, the additional exploratory analyses did not confirm our original expectations regarding the salience of condom use norm. Instead, the mediation through perceived health threat held regardless of such salience. Two possible explanations for this finding are related to the age of the participants and the type of norm used in this study. First, one might argue that individuals who were predominantly focused on promotion were younger, and congruently indicated less condom use intentions and less salience of condom use norms. This would actually be aligned with the rates of new STIs among younger people across Europe (ECDC, 2017). However, additional analyses replicating our moderated mediation models showed that age was not associated with perceived health threat. If age was confounded with RFS, we should have been able to replicate the mediation model, which was not the case. Instead, we found that individuals focused on prevention (vs. promotion), and thus motivated to protect their health, were more likely to report condom use intentions because they perceived greater heath threats, independently of the condom use norm. This finding was observed even after controlling for the significant association between age and condom use variables. Therefore, age and RFS do not overlap (at least entirely) and future studies should seek to examine this association to a greater extent. Second, we asked individuals what would members of their close social network think their safe sex practices should be in the near future. To the extent that our sample was mostly comprised of young adults, and that they should be more influenced by their peers (Arnett, 2012, 2015), it is reasonable to admit that all members of the close social network share the same social norm and have that norm more salient. Future studies should seek to examine if the condom use norm has a more relevant role in different age groups (e.g., adolescents, adults) and for whom the norm may not be so salient (e.g., Smith, Delpech, Brown, & Rice, 2010). Another possible explanation resides in the fact that these individuals have sex with multiple partners. To the extent that they were not in a sexually exclusive relationship, they and their partners

(even those who have regular sex partners) can have sex with other people. Therefore, they may be more aware of the risks they have by adopting unsafe sex practices, and may be more likely to use condoms with all sex partners when predominantly focused on prevention. Future research should test if perceptions of health threat still explain the association between prevention and safe sex practices with casual sex partners who agree on becoming sexually exclusive (even when not in a romantic relationship), or if such perceptions do not explain that association (resembling romantically involved individuals).

A different scenario emerged for romantically involved individuals. The majority of these individuals indicated they only had sex with their regular partner in the same time period, perceived less health threat and were less motivated to adopt safe sex practices. Additional exploratory analyses further highlighted the role of the salience of condom use norm. For casual sex partners, our results showed only an association between salience of condom use norm and intentions to adopt safe sex practices. These results somehow converge with those reported by Conley and colleagues (2012) showing that romantically involved individuals are less likely to use condoms with extradyadic partners. We complemented those findings by showing that this decreased likelihood is independent of individuals' motivations of prevention or promotion but is, nonetheless, attenuated by the salience of safe sex practices norm. This may have occurred because such norm is more salient among individuals who consider (or actually engage) in extradyadic sex, somewhat resembling the role of the norm among those without a relationship. The fact that prevention was not associated with intentions to adopt safe sex practices for these individuals may suggest that those in a relationship who have extradyadic unprotected sex are less aware of the risks for their own health, and for the health of their regular partner. Arguably, they may be less attentive and less exposed to the health threats and to the consequences of unsafe sex practices with casual sex partners.

Still for romantically involved individuals, our results showed that a predominant focus on prevention and salience of condom use norm were positively associated with intentions to adopt safe sex practices with the regular sex partner. Interestingly, there was an interaction between RFS and salience of condom use norm, such that individuals focused on prevention reported more condom use intentions with their partner, but only if the condom use norm was more salient. This finding suggests that these are the individuals who have engaged, or continue to engage, in extradyadic sex. The finding that RFS was important for safe sex practices with the regular partner suggests that individuals are more worried with their partner and their relationship. This possibility is supported by the observation that salience of condom use norm was associated with more condom use intentions with casual sex partners and the regular partner. However, the use of condoms with the regular partner may raise flags when both individuals are in a supposedly sexually exclusive relationship.

Future studies should seek to extend the results presented by Conley and colleagues (2012), taking into account our findings. According to our rationale, extradyadic sex should only be associated with less likelihood of using condoms with both casual sex and regular partners among individuals focused on promotion and for those who have the condom use norm less salient. Future research should seek to examine to what extent individuals who have extradyadic sex use distinct justifications for using condoms (e.g., avoid pregnancies) in order to avoid having to disclose these behaviors to their regular partner. This would be an important piece of evidence to inform intervention plans and develop new strategies for HIV/STIs prevention specifically directed at raising awareness towards unsafe sex consequences and increasing the salience for condom use norm among this specific population. Future research should also seek to extend these findings to individuals in consensually non-monogamous relationship (e.g., Conley, Matsick, Moors, & Ziegler, 2017). Research has shown that individuals in non-exclusive relationships are more committed and

satisfied with their relationship when they have a mutual agreement to have extradyadic sex (Mogilski, Memering, Welling, & Shackelford, 2017; Rodrigues et al., 2016; Rodrigues, Lopes, & Smith, 2017). In other words, these individuals are simultaneously motivated to maintain their relationship and to have sex with other people. Hence, it would be interesting to understand if these individuals are more aware of health threats when having sex with extradyadic partners, especially when focused on prevention. Alternatively, these individuals could adopt safe sex practices with all partners, regardless of RFS, because the agreement for extradyadic sex is shared with the partner and consequently the condom use norm is more salient.

Limitations

There are some limitations that need to be acknowledged. First, both studies are cross-sectional and do not allow to establish causal links between RFS and safe sex practices. Un future studies, researchers could temporarily induce individuals in a prevention or a promotion focus by adapting manipulations already reported in the literature (e.g., Rodrigues, Lopes, & Kumashiro, 2017) to sexual behavior, and examine to which extent such induction increases the condom use intentions in the near future. Moreover, our studies did not include a measure of actual condom use. Hence, researchers should also complement our findings with longitudinal research, in order to examine if the greater motivation for safe sex practices reported by individuals focused on prevention are actually translated into behavioral measures of condom use. Although condom use intentions have been shown to reliably predict condom use (Sheeran, Abraham, & Orbell, 1999), it would be important to examine to what extent a prevention focus can also predict actual condom use (e.g., frequency of condom use in the last 3 months) or other preparatory behaviors (e.g., buying condoms).

Second, the RFS scale was developed in the Portuguese context, and generalizations to other contexts should be made with caution. Future research should seek to replicate our

findings, including the validation of the RFS scale, to other cultural contexts. Furthermore, additional studies are required to examine possible differences according to other demographic variables related to sexuality (e.g., frequency of STIs testing) and the associations between RFS and personality traits (e.g., extroversion), attachment orientations (e.g., avoidance), other indicators of relationship quality (e.g., sexual satisfaction), and other indicators of relationship dynamics (e.g., suspicion of, or actual, partner's extradyadic sex).

General Implications

Assessing individual motivational differences in the context of sexuality is likely to have important implications for the health communication domain. Although some studies have focused on the features of the messages (e.g., Kiene, Barta, Zelenski, & Cothran 2005), others have suggested that messages tailored to the individual's regulatory orientation are more effective (for reviews, see Ludolph & Schulz, 2015; Updegraff & Rothman, 2013). Specifically, for promotion-focused individuals messages endorsing the adoption of safe sex behaviors (e.g., consistent condom use) are likely to be more effective if they highlight benefits for complying with the advocated safe sex behavior. In contrast, for prevention-focused individuals these messages are likely to be more persuasive if they emphasize losses for non-complying with that behavior. Therefore, health communication might be more effective if messages directed at both prevention and promotion focused people are conveyed, and our RFS scale might provide a valuable tool to inform professionals to what extent these messages are effective.

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Table 1

Demographic Information.

	Study 1 $n = 120$	Study 2 $n = 400$
Gender		
Women	60 (50.0%)	274 (68.5%)
Men	60 (50.0%)	126 (31.5%)
Sexual orientation		
Heterosexual	111 (92.5%)	374 (93.5%)
Non-heterosexual	9 (7.5%)	26 (6.5%)
Education		
≤ 12 years	75 (62.5%)	58 (14.5%)
> 12 years	45 (37.5%)	342 (85.5%)
Residence		
Rural areas	8 (6.7%)	38 (9.5%)
Urban areas	112 (93.3%)	362 (90.5%)
Professional status		
Student	70 (58.3%)	244 (61.0%)
Employed	50 (41.7%)	156 (39.0%)
Religious		
No	48 (40.0%)	154 (38.5%)
Yes	72 (60.0%)	246 (61.5%)
Relationship status		
Without a romantic relationship	51 (42.5%)	192 (48.0%)
In a romantic relationship	69 (57.5%)	208 (52.0%)
	M (*SD*)	*M* (*SD*)
Age (years)	22.89 (5.11)	22.47 (5.42)
Relationship length (years)	3.59 (4.83)	3.19 (4.59)

Table 2

Descriptive analyses of Regulatory Focus in Sexuality (RFS) items

Descriptives	N	M	SD	Min-Max	S	SE S	K	SE K
RFS Items								
1. I often think about how I can achieve (or create) a successful sex life.	120	4.68[a]	1.73	1-7	-0.55	.22	-0.28	.44
2. I am often anxious that I am falling short of my duties and obligations in my sex life.	120	3.19[b]	1.80	1-7	0.33	.22	-1.09	.44
3. Overall, I want to feel inspired and uplifted in my sex life.	120	5.69[a]	1.40	1-7	-1.17	.22	1.43	.44
4. I often worry that I will fail to accomplish my sexual desires.	120	3.40[b]	1.89	1-7	0.19	.22	-1.22	.44
5. I am primarily striving to create my "ideal sex life" – to fulfill my sexual desires and aspirations.	120	4.70[a]	1.74	1-7	-0.39	.22	-0.69	.44
6. I am primarily striving to make my sex life what it "ought" to be like – to fulfill my duties and responsibilities.	120	3.63[b]	1.98	1-7	0.22	.22	-1.10	.44
7. Overall, I am more oriented toward creating positive outcomes with my sexual behavior, than preventing negative outcomes.	120	4.33	1.85	1-7	-0.22	.22	0.93	.44
8. Overall, I am more oriented toward preventing negative outcomes with my sexual behavior, than I am toward achieving positive outcomes.	120	3.24[b]	1.88	1-7	0.58	.22	-0.68	.44
9. I typically focus on the good things I hope to achieve with my sex life.	120	4.62[a]	1.77	1-7	-0.55	.22	-0.50	.44
10. I often think about what I fear might happen to my sex life in the future.	120	3.18[b]	1.86	1-7	0.51	.22	-0.80	.44
11. I am typically striving to fulfill my desires with my sex life.	120	4.37[a]	1.87	1-7	-0.26	.22	-0.90	.44
12. Throughout my sex life, I sometimes "crossed the line" by doing things that were not tolerable, according to my education. (R)	120	3.23[b]	2.32	1-7	0.56	.22	-1.29	.44
13. Compared to most people, I'm typically unable to get what you want with my sex life. (R)	120	2.37[b]	1.77	1-7	1.18	.22	0.21	.44
14. I often obey the sexual norms established by my education.	120	3.58[b]	1.91	1-7	0.21	.22	-1.07	.44
15. I often do well in the different sexual encounters I have.	120	4.77[a]	1.71	1-7	-0.86	.22	0.17	.44
16. Throughout my sex life I sometimes acted in ways that were objectionable, according to my education. (R)	120	2.92[b]	2.03	1-7	0.77	.22	-0.67	.44
17. When it comes to achieving your sexual desires, I find that I don't perform as well as I ideally would like to do. (R)	120	2.93[b]	1.66	1-7	0.59	.22	-0.56	.44
18. Not being careful enough with my sex life has gotten me into trouble at times. (R)	120	2.45[b]	1.91	1-7	1.21	.22	0.22	.44
19. I feel like I have made progress toward being successful in my sex life.	120	4.98[a]	1.76	1-7	-0.85	.22	0.02	.44

Notes. Items 1 to 12 were adapted from the Regulatory Focus in Relationships scale (Winterheld & Simpson, 2011), and items 12 to 19 were adapted from the Regulatory Focus Questionnaire (Higgins et al., 2001). (R) indicate reverse-coded items. S = Skewness; SE S = Standard error of skewness; K = Kurtosis; SE K = Standard error of kurtosis; [a] = item mean above the scale mid-point (one-sample t test, $p < .050$); [b] = item mean below the scale mid-point (one-sample t test, $p < .050$).
Skewness: seven items (i.e., 2, 4, 5, 6, 7, 11 and 14) presented a symmetric distribution, seven items (i.e., 8, 10, 12, 13, 16, 17 and 18) presented a positive skew, and five items (i.e., 1, 3, 9, 15 and 19) presented a negative skew; Kurtosis: 12 items (i.e., 1, 5, 8, 9, 10, 11, 13, 15, 16, 17, 18 and 19) presented a mesokurtic distribution-like shape, one item (i.e., 3) presented a leptokurtic shape, and six items (i.e., 2, 4, 6, 7, 12 and 14) presented a platykurtic shape.

Table 3

Exploratory Factor Analysis of the Regulatory Focus in Sexuality (RFS) Scale (Study 1)

	Factor		Corrected item-total correlations
	Promotion	Prevention	
1. Throughout my sex life, I sometimes "crossed the line" by doing things that were not tolerable, according to my education. (R)	.07	**.76**	.64
2. I often think about how I can achieve (or create) a successful sex life.	**.68**	.07	.61
3. Overall, I want to feel inspired and uplifted in my sex life.	**.65**	-.04	.58
4. Throughout my sex life I sometimes acted in ways that were objectionable, according to my education. (R)	.01	**.97**	.72
5. I am primarily striving to create my "ideal sex life" – to fulfill my sexual desires and aspirations.	**.76**	-.09	.64
6. I typically focus on the good things I hope to achieve with my sex life.	**.61**	-.17	.51
7. Not being careful enough with my sex life has gotten me into trouble at times. (R)	-.16	**.42**	.34
8. I am typically striving to fulfill my desires with my sex life.	**.71**	-.09	.62
9. I feel like I have made progress toward being successful in my sex life.	**.50**	.14	.48
Eigenvalue	3.37	1.84	-
Cronbach's alpha	.81	.73	-

Note. (R) indicate reverse-coded items.

Table 4

Descriptive Statistics and Overall Correlations (Study 1)

| | *M* (*SD*) | Correlations | | | | | |
		1	2	3	4	5	6
1. RFS index	0.29 (2.28)	-					
2. RFS Prevention subscale	5.14 (1.69)	.85***	-				
3. RFS Promotion subscale	4.84 (1.23)	-.69***	-.20*	-			
4. Age	22.89 (5.11)	-.17	-.07	.22*	-		
5. Ability for sexual restraint	5.09 (1.05)	.49***	.49***	-.24**	-.18	-	
6. Sociosexuality	3.43 (1.53)	-.42***	-.35***	.30***	.16	-.52***	-
7. Relationship quality	6.18 (1.00)	-.09	.01	.17	-.07	.19	-.36**

Note. RFS = regulatory focus in sexuality. Higher scores on the RFS index indicate a predominant focus on prevention.

*p < .050, **p < .010, ***p < .001.

Table 5

Descriptive Statistics and Overall Correlations (Study 2)

				Correlations				
	M (*SD*)	1	2	3	4	5	6	7
1. RFS index	0.51 (2.20)	-						
2. Sexual health threat	2.30 (1.39)	.14**	-					
3. Condom use intentions with casual sex partners	5.79 (1.99)	.05	-.15**	-				
4. Condom use intentions with regular partners	4.66 (2.43)	.12*	.26***	.58***	-			
5. Salience of condom use norm	5.56 (1.98)	.01	.21***	.47***	.55***	-		
6. Age	22.47 (5.42)	-.06	-.08	-.27***	-.21***	-.34***	-	
7. Sociosexuality	3.12 (1.41)	-.43***	.11*	-.03	.01	.03	.09	-
8. Relationship quality	6.19 (1.75)	-.01	-.18*	.10	.07	.01	-.07	-.29***

Note. RFS = regulatory focus in sexuality. Higher scores on the RFS index indicate a predominant focus on prevention.

*p < .050, **p < .010, ***p < .001.

Table 6

Moderated Mediation Analyses (Study 2)

(Model 7)	Sexual health threat (M)		Model A Condom use intentions with casual sex partners (Y)		Model B Condom use intentions with regular sex partners (Y)	
	b	*SE*	*b*	*SE*	*b*	*SE*
Constant	2.13***	.32	7.43***	.48	5.37***	.60
RFS index (X)	0.12***	.03	0.01	.05	0.12	.06
Relationship status (W)	-0.76***	.14	-	-	-	-
X x W	-0.18**	.06	-	-	-	-
Without romantic relationship	0.21***	.05	-	-	-	-
With romantic relationship	0.04	.04	-	-	-	-
Sexual health threat (M)	-	-	0.19**	.07	0.38***	.09
Age (Cov)	-0.01	.01	-0.09***	.02	-0.08***	.02
Sociosexuality (Cov)	0.11*	.06	-0.01	.08	0.10	.09
Professional status (Cov)	0.04	.15	-0.29	.22	-0.18	.26

Note. RFS = regulatory focus in sexuality. Higher scores on the RFS index indicate a predominant focus on

prevention. Relationship status: 0 = without romantic relationship, 1 = with romantic relationship. Cov = co-

variate. Professional status: 0 = student, 1 = employed.

*p < .050, **p < .010, ***p < .001.