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Regulatory Focus and Perceived Safety with Casual Partners: Implications for Perceived Risk and Casual Sex Intentions During the COVID-19 Pandemic

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ABSTRACT

Motives for security (i.e., prevention focus) or pleasure (i.e., promotion focus) help regulate risk perceptions. Individuals focused on prevention (vs. promotion) tend to be more aware of health risks, more careful in their sexual behaviors, and less likely to take risks with casual partners. However, feeling safer with casual partners seem to mitigate some of these risks. We administered an online survey in English, Spanish, and German at the onset of the COVID-19 pandemic to 550 participants who were single (57.6% women). Participants more focused on prevention were less fearful of COVID-19 infection, perceived to be well informed about COVID-19, and retrieved their information from scientific sources. Participants more focused on promotion were more fearful of COVID-19 infection and perceived to be well informed about COVID-19 but retrieved their information from non-scientific sources. These participants also had stronger intentions to have casual sex if they felt safer (vs. less safe) with their casual partners. Our findings show the importance of individual motivations and interpersonal dynamics for risk perception and sexual activity during the pandemic.

KEYWORDS: Regulatory focus; COVID-19; prevention; promotion; safety; casual sex; sexual activity

Regulatory Focus and Perceived Safety with Casual Partners: Implications for Perceived Risk and Casual Sex Intentions During the COVID-19 Pandemic

The COVID-19 pandemic has caused several economic and social disruptions worldwide (United Nations, 2020), including negative effects on individual health and well-being (e.g., emotional distress, anxiety, and depression; Qiu et al., 2020; Shanahan et al., 2020; Torales et al., 2020), and negative effects on social connections (e.g., loneliness, poorer relationship functioning, and decreased sex quality; Balzarini et al., 2020; Döring, 2020; Killgore et al., 2020; Pietromonaco & Overall, 2021).

The ability to self-regulate feelings and actions is key to fostering healthier behaviors (for reviews, see Mann et al., 2013; Vohs & Baumeister, 2011), and it may be particularly relevant to inform behaviors during the COVID-19 pandemic. For example, emotional stability and self-control were associated with less stress at the onset of the pandemic (Flesia et al., 2020), and self-control was associated with greater adherence to social distancing guidelines (Wolff et al., 2020). Drawing from Regulatory Focus Theory (Higgins, 1998, 2015), self-regulation works differently to serve specific motivations. When motivated by security and obligations (i.e., prevention focus), individuals seek to avoid the negative outcomes that can arise from risky situations, even if that means missing new opportunities. When motivated by pleasure and nurturance (i.e., promotion focus), individuals seek to obtain gains and opportunities for growth, even if that means incurring risks.

Regulatory focus determines the perception of health risks (e.g., Rodrigues et al., 2019), information-seeking behavior (e.g., Zhang et al., 2019), and the pursuit of health (e.g., Fuglestad et al., 2013) and sexual goals (e.g., de Wit et al., 2018; Moilanen, 2015). Overall, individuals more focused on prevention are more averse to take risks, strive for safety, tend to retrieve health information from more traditional and trusting sources, and believe they have more control over their behaviors (Lemarié et al., 2019; Zhang et al., 2019; Zou & Scholer,

2016). For example, these individuals are more likely to engage in health protective behaviors, including adhering to vaccination (Leder et al., 2015), maintaining smoking cessation over time (Fuglestad et al., 2013), and using condoms (Rodrigues, Lopes, & Carvalho, 2021). In contrast, individuals more focused on promotion are more prone to risks, strive for gratification, tend to retrieve health information from emergent sources and salient media campaigns, and believe they have control over the outcomes of their behaviors (Guo & Spina, 2015; Langens, 2007; Zhang et al., 2019; Zou & Scholer, 2016). For example, these individuals are more likely to take risks with their health, including driving over the speed limit (Hamstra et al., 2011) or having condomless casual sex more often (Rodrigues, Lopes, et al., 2020).

Building upon these findings, we conducted a cross-sectional study with a sample of individuals who were single with two main goals. First, we examined if motivations for security (i.e., prevention focus) or pleasure (i.e., promotion focus) were differently associated with perceived fear caused by the pandemic, the search for COVID-19 information, and the intention to pursue sexual activity with casual partners. Second, given that interpersonal trust regulates sexual activity and risk-taking (Fortenberry, 2019), we examined if perceived safety with casual partners changed the expected associations between regulatory focus and sexual activity intentions.

Health Protection During the COVID-19 Pandemic

Individuals who perceived more risks to their health during the pandemic were more afraid and perceived to be more vulnerable to infection (Yıldırım et al., 2020), and were more likely to adhere to social distancing regulations (Abdelrahman, 2020). They were also more likely to engage in preventive behaviors (e.g., washing hands frequently; wearing a face mask outside) and had stronger intentions to get vaccinated against COVID-19 (Jaspal & Breakwell, 2021). Being more motivated by health protection and having more objective

information about COVID-19 has also been associated with a greater likelihood of engaging in protective behaviors (Luo et al., 2020). In contrast, those who perceived fewer risks were more skeptical about the seriousness of the pandemic (Latkin et al., 2021). Consistent with this pattern of results, researchers have shown that individuals more focused on prevention before the pandemic perceived more pandemic-related risks, were more worried about becoming infected, and enacted more frequently in preventive behaviors later on (Rodrigues, Lopes, & Balzarini, 2021).

There is also evidence that individuals perceive health information as more credible, useful, and convincing when that information is consistent with their beliefs (Meppelink et al., 2019). Hence, regulatory focus may have also determined information-seeking behavior during the pandemic. People who retrieved COVID-19 information from health websites perceived to be better equipped to protect themselves (Nazione et al., 2021) and had more correct information about the virus (Sakya et al., 2021). In contrast, people who retrieved COVID-19 information from social media adhered less to social distancing regulations and face mask use (Shin et al., 2021), reported more psychological distress (Geirdal et al., 2021; Xiong et al., 2020), had more conspiracy beliefs (Allington et al., 2020), were less likely to answer COVID-19 questions correctly (Sakya et al., 2021). This possibly occurred because social media has been one of the most prominent sources of fake news during the pandemic (e.g., Himelein-Wachowiak et al., 2021; Naeem et al., 2021). Regardless of the source and quality of information, individuals should behave according to their beliefs and risk perception. However, in the former case, they should strive to protect their health (much like individuals more focused on prevention), and in the latter case they should be willing to take risks with their health (much like individuals more focused on promotion).

Sexual Activity

Due to lockdown policies and social distancing restrictions imposed by local authorities worldwide, most individuals have reported decreases in sex frequency, sexual desire, sexual satisfaction, and the number of sex partners (e.g., Cocci et al., 2020; Jacob et al., 2020; Lehmiller et al., 2021; Li et al., 2020; Wignall et al., 2021). Noticeably, a sizeable number of individuals reported the opposite, and attentiveness to health risks may have regulated sexual activity. For example, Ko and colleagues (2020) found that individuals who perceived more risks during this pandemic reported having sex less frequently, whereas those who perceived fewer risks reported having sex more frequently. Particularly for individuals who are single, pursuing sexual activity with casual partners can increase the risk of infection when there is uncertainty about the partner's health status (e.g., Cabello et al., 2020; Pennanen-Iire et al., 2021). And yet, some individuals who were single also reported increases in sexual activity with casual partners (e.g., Coombe et al., 2020). Extending these findings to regulatory focus, Rodrigues, Balzarini, and colleagues (2020) found that individuals who were single and more focused on prevention at the onset of the pandemic had intercourse and oral sex less frequently later on. This occurred because individuals perceived the pandemic as more threatening to their health and well-being. We further suggest feeling safer with casual partners might have shaped the pursuit of sexual activity.

Having the belief that the other person is reliable and that interactions will be beneficial and maximize gains (i.e., interpersonal trust; Simpson, 2007) likely determines sexual behaviors (Fortenberry, 2019). Indeed, knowing a partner and feeling more comfortable with them determines how safe individuals perceive to be when having sex. For example, Masaro and colleagues (2008) found that individuals who felt safer with sex partners reported a higher number of casual partners in the last six months. These individuals also perceived to be at lower risk of acquiring sexually transmitted infections if they were to have condomless sex. Likewise, Lim and colleagues (2007) found that trusting one's partner was among the

reasons why individuals decided not to use condoms at the last intercourse. Hence, perceived safety can foster different perceptions about sex. Indeed, Rodrigues, Lopes, Pereira, and colleagues (2020) found that individuals more focused on prevention (vs. promotion) who used condoms perceived to be less safe with casual partners. In contrast, a positive association between prevention focus and perceived safety emerged for those who had condomless sex. Following these findings, feeling safe with casual partners in times of uncertainty, such as those created by the COVID-19 pandemic, might determine how regulatory focus motivates the pursuit of casual sex.

Hypotheses

Individuals more focused on prevention (vs. promotion) are motivated by security (vs. pleasure; Higgins, 1998, 2015; Zou & Scholer, 2016), even during the pandemic (Rodrigues, Lopes, & Balzarini, 2021). Hence, these individuals should have more fear of infection (H1). Health risks have been heightened during the pandemic and individuals motivated by health protection have searched for more objective COVID-19 information (Luo et al., 2020). To the extent that regulatory focus determines the sources of information from which individuals retrieve their health information (e.g., Zhang et al., 2019), it could have also determined the likelihood of retrieving COVID-19 information from different sources (e.g., health authorities, social media, friends, and family). We reasoned that being more focused on prevention (vs. promotion) motivated information seeking in scientific (vs. non-scientific) sources (H2). However, and given that information aligned with one's beliefs provides confidence (Meppelink et al., 2019), individuals more focused on prevention, much like those more focused on promotion, should perceive to be well-informed about COVID-19 (H3).

Risk perception has also shaped sexual activity during the COVID-19 pandemic (e.g., Coombe et al., 2020; Ko et al., 2020), much like regulatory focus among people who were single (Rodrigues, Balzarini, et al., 2020). Extending these findings, individuals more focused

on prevention (vs. promotion) should have weaker (vs. stronger) intentions to engage in casual intercourse and oral sex during the pandemic (H4). However, trusting and feeling safer with sex partners have been associated with sexual risk-taking (Fortenberry, 2019; Masaro et al., 2008). Hence, the negative association between prevention focus and casual sex intentions should be stronger when individuals feel less safe (vs. safer) with casual partners (H5a). In contrast, the positive association between promotion focus and casual sex intentions should be stronger when individuals feel safer (vs. less safe) with casual partners (H5b).

METHOD

Participants

A total of 1,293 individuals accessed the online survey. From these, 17 did not provide their consent, 394 abandoned before completing the survey, 101 had more than 10% missing cases in the outcome variables, and 231 indicated to be in a romantic relationship at the time of their participation. The final sample included 550 participants (see Table 1 for detailed information) residing in Mexico (40.5%), Germany (40.2%), or the United States (16.4%).

-- Table 1 about here --

Measures

Demographic Information

Following the recommendations of Hughes and colleagues (2016), we asked participants to provide their age, sex assigned at birth, sexual orientation, and country of residence using open-ended questions. Responses were categorized *a posteriori* by the authors. Participants were also asked to indicate their highest level of education (1 = *High school*, 2 = *Associate's/Bachelor's degree*, 3 = *Master's degree*, 4 = *Doctoral degree*, 5 = *Other, please specify*) and their area of residence (1 = *Urban area*, 2 = *Suburban area*, 3 = *Rural area*). Lastly, we assessed perceived socio-economic status with an item adapted from the European Social Survey (2014). Participants were asked to indicate how they felt about

their income nowadays (1 = *Finding it very difficult on present income*, 2 = *Finding it difficult on present income*, 3 = *Coping on present income*, 4 = *Living comfortably on present income*, 5 = *I prefer not to answer*).

Regulatory Focus in Sexuality

We used the scale developed by Rodrigues and colleagues (2019) that assesses motivations for prevention and promotion in sexuality. The original prevention subscale includes three items (e.g., "Throughout my sex life I sometimes acted in ways that were objectionable, according to my education") and showed acceptable reliability (α = .64). The original promotion subscale includes six items (e.g., "I am typically striving to fulfill my desires with my sex life") and showed good reliability (α = .85). Responses were given on 7-point scales (from 1 = *Not at all true of me* to 7 = *Very true of me*). Items were mean aggregated within each subscale, with higher scores indicating stronger motives for prevention or promotion in sexuality.

COVID-19 Testing

Participants were asked if they tested positive COVID-19 (1 = *No*, 2 = *Yes*), if anyone from their close network (e.g., family members, close friends) tested positive for COVID-19 (1 = *No*, 2 = *Yes*), and if anyone from their extended network (e.g., co-workers, neighbors) tested positive for COVID-19 (1 = *No*, 2 = *Yes*).

Fear and Information About COVID-19

Participants were asked to indicate how fearful they were about being infected with the coronavirus (from 1 = *I'm not fearful at all* to 7 = *I'm extremely fearful*) and how well informed they were about COVID-19 (from 1 = *I feel very uninformed* to 7 = *I feel very well informed*). Additionally, we asked participants "Where do you primarily get your information about COVID-19? (Please check all that apply)" and provided them with seven options: *Health authorities [e.g., World Health Organization, CDC, etc.]*; *Governmental health*

websites [e.g., The U.S. Department of Health and Human Services, etc.]; *The news*; *The radio*; *Social media [e.g., Instagram, Facebook, Twitter, etc.]*; *Friends and family*; *Other (Please specify*).

Sexual Activity Intentions During the Pandemic

Participants were asked how safe they would feel to have sex with casual partners during the pandemic (from 1 = *I would not feel safe at all* to 7 = *I would feel very safe*), and their intentions to have intercourse (from 1 = *I do not intend to at all* to 7 = *I very much intend to*) and oral sex (from 1 = *I do not intend to at all* to 7 = *I very much intend to*) with casual partners during the pandemic.

Procedure

This study was approved by the Ethics Committee at [*blinded*] (#63/2020) and data were collected between March and June 2020. The survey was developed in English and translated to Spanish and German through the process of back-translation (Colina et al., 2017). Public posts on social media (e.g., Facebook) invited individuals to take part in a study about attitudes, sexual norms, individual motives in sexuality, and sexual behavior in the last year. To take advantage of the pandemic context, we also included a block of questions at the end assessing contextual information and perceptions about the pandemic, and intentions to pursue sexual activity with casual partners during the pandemic. The current analyses are restricted to individual motives in sexuality and questions included in this last block. Prospective participants accessed the survey hosted on Qualtrics by clicking on the provided link and were further informed that participation was restricted to individuals over the age of 18, who were currently single without a significant partner and sexually active. They were also informed about their rights as participants (e.g., confidentiality, anonymity, ability to withdraw from the study without penalties), and that they would be eligible to enter a raffle to receive one of five $20 gift vouchers upon survey completion. After providing informed

consent (*I agree* option on the survey), participants were redirected to the main measures. Responses to this survey were nonmandatory because they included potentially sensitive questions. Participants received a reminder if they left any of these questions unanswered but were allowed to proceed. At the end of the survey, participants were thanked and debriefed about the general goal of the study. They were also encouraged to seek advice from their General Practitioner, Gynecologist, or Planned Parenthood Clinics if they were worried about any of their answers and provided with the contact of the research team if they wanted more information about the research project or its results. The average completion time of the survey was 16 minutes.

RESULTS

Psychometric Analyses

RFS Scale

We first computed confirmatory factorial analyses using Mplus 7 (Muthén & Muthén, 2012) with robust maximum likelihood estimation (Yuan & Bentler, 2000) to test the fit of the RFS scale to the entire sample, and each language subsample separately. Based on the standards established in the literature (Hu & Bentler, 1999), results showed good fit indexes and moderate to high standardized regression paths for each item (Table 2).

-- Table 2 about here --

Sources of COVID-19 Information

Given the categorical nature of these items, we computed a non-linear principal component analysis (CATPCA) with Promax rotation to quantify the associations between categorical variables and to create object scores that will allow subsequent quantitative analyses (for reviews, see Linting et al., 2007; Linting & van der Kooij, 2012; Lopes et al., 2015; Meulman et al., 2004). Results showed two components explaining 41.47% of the total variance. The first component (eigenvalue = 1.60; 22.85% of explained variance) included

items related to non-scientific sources of information—media, social media, friends and family (component loadings > .54). The second component (eigenvalue = 1.30; 18.62% of explained variance) included items related to scientific sources of information—health authorities, governmental health websites, and other scientific sources such as articles in peer-reviewed journals (component loadings > .35).

Regulatory Focus and COVID-19 Information

To account for any *a priori* differences in our diverse sample of participants, we computed partial correlations controlling for all demographic variables. Overall descriptive statistics and partial correlations are presented in Table 3. Against our expectations (H1), participants with higher prevention scores reported less fear of COVID-19 infection, p = .044, whereas participants with higher promotion scores were more fearful of becoming infected, p = .039. Supporting H2, participants more focused on prevention retrieved COVID-19 information primarily from scientific sources, p = .015, and those more focused on promotion retrieved COVID-19 information primarily from non-scientific sources, p = .012. Participants who scored higher on promotion also retrieved COVID-19 information from a higher number of sources, p = .014. Also supporting H3, participants with higher prevention scores perceived to be well informed about COVID-19, p = .025, much like participants with higher promotion scores, p = .024.

-- Table 3 about here --

Regulatory Focus and Casual Sex Intentions

To examine if regulatory focus was associated with distinct intentions to have casual sex, depending on how safe participants perceived to be with casual partners, we conducted four separate moderation analyses with 10,000 bootstrap samples using PROCESS (Hayes, 2017). In two analyses, prevention scores were the predictor variable, perceived safety with casual partners was the moderator variable, promotion scores were the covariate, intentions to

have casual intercourse was the first predictor variable, and intentions to have casual oral sex was the second predictor variable. The other two analyses were similar except for having promotion scores as the predictor variable and prevention scores were the covariate. In all analyses, we also controlled for demographic variables and mean-centered variables for the construction of products.

Supporting H4, participants more focused on prevention had weaker intentions to have casual intercourse, $p = .027$, and casual oral sex during the pandemic, $p = .039$ (see Table 4). However, against our expectations (H5a) we found no significant interaction between prevention scores and perceived safety with casual partners in casual intercourse intentions, $p = .404$, or casual oral sex intentions, $p = .121$ (see Figure 1).

-- Table 4 about here --

-- Figure 1 about here –

Also aligned with H4, participants more focused on promotion had stronger intentions to have casual intercourse, $p = .006$, and casual oral sex during the pandemic, $p = .005$ (see Table 5). Furthermore, we found support for H5b, such that results showed significant interactions between promotion scores and perceived safety with casual partners, ps $< .001$. Simple slopes analysis showed that participants more focused on promotion who felt safer with casual partners (+1 *SD*) had stronger intentions to have casual intercourse, $p < .001$, and casual oral sex during the pandemic, $p < .001$ (Figure 2). For those who felt less safe with casual partners (-1 *SD*), promotion scores were not significantly associated with casual intercourse intentions, $p = .403$, nor with casual oral sex intentions, $p = .406$.

-- Table 5 about here --

-- Figure 2 about here –

DISCUSSION

In a cross-sectional study with a sample of participants from different countries, we examined if individual motivations for security and pleasure (i.e., regulatory focus) shaped perceptions about the pandemic and casual sex intentions at the onset of the COVID-19 pandemic. We also examined if perceived safety with casual partners interacted with those motivations to determine casual sex intentions.

Overall, we found mixed support to our hypotheses. Against our expectations, individuals more focused on prevention reported *less* fear of COVID-19 infection, whereas those more focused on promotion reported *more* fear of infection (H1). To the extent that information consistent with one's beliefs tends to be perceived as more accurate and valid (Meppelink et al., 2019), we can only speculate that these contradictory findings may be understood, at least in part, considering that regulatory focus played a role in information-seeking behavior (H2). As expected, individuals more focused on prevention were more likely to retrieve their COVID-19 information from scientific sources (e.g., official reports, health authorities' websites, scientific journals). This arguably rendered individuals more knowledgeable and confident about the strategies and behaviors that could help them avoid infection and therefore decrease their fear of infection. Researchers have shown that individuals who had more objective information about the virus were more aware of the health risks, indicated to have more behavioral skills to protect themselves from infection, were more supportive of interventions to prevent the risk of infection, reported feeling less stressed, and anxious, and engaged in health-protective behaviors during the pandemic (Luo et al., 2020; Nazione et al., 2021; Sakya et al., 2021). Furthermore, individuals with a higher internal locus of control perceived to be less stressed during this pandemic (Flesia et al., 2020). This is consistent with the perceptions and behavioral patterns of individuals more focused on prevention, who are driven by security motives, perceive to have granter control over their behaviors, are more aware of threats, and enact more careful information-seeking

behaviors (Higgins, 1998, 2015; Lemarié et al., 2019; Rodrigues et al., 2019; Rodrigues, Lopes, & Carvalho, 2021; Zhang et al., 2019). Our findings suggest that these individuals retrieved more accurate and objective COVID-19 information from scientific sources, helping them to protect themselves and others from infection and feel more protected against potential infections. Supporting this argument, Rodrigues, Lopes, and Balzarini (2021) found that being more focused on prevention predicted the enactment of preventive behaviors later on, which was then associated with less pandemic-related anxiety. Further supporting their focus on health protection, we also found that these individuals had weaker intentions to have casual sex (H4), regardless of how safe they perceived to be with casual partners (H5a).

In contrast, individuals more focused on promotion retrieved their information from a higher number of sources, most of which were non-scientific (e.g., news, social media, friends, and family). Even though they perceived to be well informed about the pandemic (H3), these information sources might have provided incorrect (e.g., Sakya et al., 2021) or biased knowledge (e.g., fake news; Himelein-Wachowiak et al., 2021; Naeem et al., 2021) without individuals being aware of it. For example, individuals who used social media to retrieve pandemic-related information perceived the situation as less severe and were less likely to adhere to social distancing policies (Ranjit et al., 2021; Shin et al., 2021), and those with worse skills at detecting fake news were more hesitant toward, or even against, COVID-19 vaccination (Montagni et al., 2021). These behavioral patterns resemble those of individuals more focused on promotion, who are driven by pleasure motives, perceive to have greater control over the outcomes, and are more likely to take risks (Higgins, 1998, 2015; Lemarié et al., 2019; Rodrigues et al., 2019; Zhang et al., 2019). And yet, these individuals were also more fearful of COVID-19 infection. One possible explanation is that individuals consciously decided to expose themselves to risk and overlook that their behavior could be harmful and carry negative consequences for their health and the health of others. At the

same time, being exposed to the rising number of infections and deaths (some of which from members of their extended network who enacted similar behaviors) could at the same time increase their fear of also becoming infected with COVID-19. Aligned with this reasoning, we also found that individuals more focused on promotion had stronger intentions to have casual sex (H4), only if they felt safer (and not less safe) with casual partners (H5b). This suggests that these individuals may not take health risks indiscriminately, but instead trade-off between the pleasure they can achieve with a given behavior and the consequences of that behavior to their health (for a discussion, see Rodrigues, Lopes, & Carvalho, 2021).

Our findings regarding casual sex intentions extended our understanding of how individual motives—particularly those associated with security and pleasure—shaped sexual activity intentions during the pandemic (Rodrigues, Balzarini, et al., 2020; Rodrigues et al., 2019; Rodrigues, Lopes, et al., 2020), and under which conditions these motives were more likely to make individuals take risks with their sexual behavior (Fortenberry, 2019). We also extend current research by highlighting two important aspects of sexual behavior. First, most studies have examined casual sex activity focusing on intercourse, even though individuals differentiate between intercourse and oral sex. To the extent that oral sex is perceived as less risky for sexually transmitted infections, individuals may be more lenient when considering having oral sex and therefore might be at greater risk (e.g., Chambers, 2007; Prinstein et al., 2003). Second, security motives tend to be mostly related to sexual health and not necessarily with sexual behavior *per se,* and pleasure motives tend to be mostly related to sexual pleasure and in some cases taking risks with sexual health (i.e., oral sex). We showed that casual sex intentions can also be an indicator of health risk-taking at least in the context of the pandemic. Our findings are relevant from a regulatory focus perspective, but they also resonate with other relevant theoretical perspectives. For example, Life History Theory (Del Giudice et al., 2016) postulates that individuals with a slower life history—much like those

more focused on prevention— are oriented toward long term planning and avoid taking risks, whereas those with a faster life history—much like those more focused on promotion—are oriented toward immediate gratification and make riskier decisions. Researchers have shown that individuals with a slower (vs. faster) life history report more short-term and less long-term mating orientations, more germ aversion (but less perceived infectability), and take fewer health and security risks (Mogilski et al., 2020). In the context of the COVID-19 pandemic, individuals with a slower (vs. faster) life history also reported more positive attitudes towards precautious behaviors during the pandemic (e.g., wearing a mask in public), and were more willing to donate their plasma to help others with COVID-19 (Corpuz et al., 2020). Hence, our findings should be taken as part of a larger line of research showing the importance of motivational variables to understand how individuals perceive and evaluate health risks, behave, and pursue their sexual needs in health-threatening times. Not only are these variables often overlooked from theoretical models predicting health behaviors (Glanz et al., 2015), our findings also showed that these variables shape risk avoidance or risk taking differently during the COVID-19 pandemic.

Strengths, Limitations, and Future Studies

This study has several strengths. We collected data with individuals from three different countries and provided preliminary evidence supporting the cross-national validation and reliability of the newly developed measure of regulatory focus in sexuality (Evans-Paulson et al., 2021; Rodrigues et al., 2019). Notwithstanding, further cross-cultural studies are still needed to compare data from multiple countries and examine the measure's psychometric properties, reliability, and structure invariance. Despite having a primarily heterosexual, educated, and urban dwelling sample of participants, our analyses controlled for potential demographic differences. This allowed us to increase the ecological validity and generalizability of our findings. However, our sample and measures did not allow us to

examine in greater detail the possibility that some demographic (e.g., ethnic background) or contextual differences (e.g., access to healthcare) also accounted for threat awareness or the likelihood of enacting health protection behaviors during the pandemic. Moreover, our findings relied on cross-sectional and individual-level data, preventing us from establishing causality or drawing conclusions about the interpersonal processes. For example, our study does not inform whether regulatory focus predicted sexual health communication during the pandemic and its implications for actual sexual behavior, over and above casual sex intentions. Future studies should seek to examine if individuals more focused on prevention were more careful when establishing contact with potential casual partners during the pandemic and were more likely to share or ask for the sexual health status before having sex, if they tested positive for COVID-19, or even if they were inoculated for the virus. In contrast, individuals more focused on promotion were possibly more lenient with their health (e.g., less likely to adherence to social isolation) and the health of casual partners (e.g., more likely to meet in person during confinement), and could even have had a higher number of casual partners during the pandemic. Also, future studies should examine if casual sex intentions, and more importantly casual sex behaviors, of individuals varying in regulatory focus were also dependent upon having similar individual motives and views regarding the COVID-19 pandemic. For example, individuals more focused on prevention might have had fewer casual partners because they needed more health reassurances and partners who shared similar security motives, whereas individuals more focused on promotion might have had more casual partners so long they perceived mutual trust.

Conclusions

Being motivated by security or pleasure determines how individuals perceive and behave during the pandemic. Our study suggests that individuals driven by security were more attentive and relied on scientific sources of information, rendering them less fearful of

infection. Even so, these individuals were more careful in their intentions to have casual sex (and possibly sexual health behaviors) even when they felt more comfortable with casual partners. Individuals driven by pleasure relied on non-scientific sources of information and perceived to be well-informed about pandemic threats, but at the same time were more fearful of infection. Despite this feeling, they still had stronger intentions to pursue casual sex (and take health risks) but only if they felt safer and comfortable with casual partners. By examining how and when individual motives determine casual sex intentions of individuals who were single at the onset of the pandemic, we contribute to better understanding why some individuals are better at protecting their health and others are more at risk of making poorer decisions. These findings can also inform the development of risk communication strategies specifically targeting individuals with distinct regulatory foci, in order to foster individual and public health.

Data Availability Statement

The data that support the findings of this study and information about the additional measures included in the study (but not relevant to the analyses herein reported) are available from the corresponding author, [*blinded for review*], upon reasonable request.

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Figure1

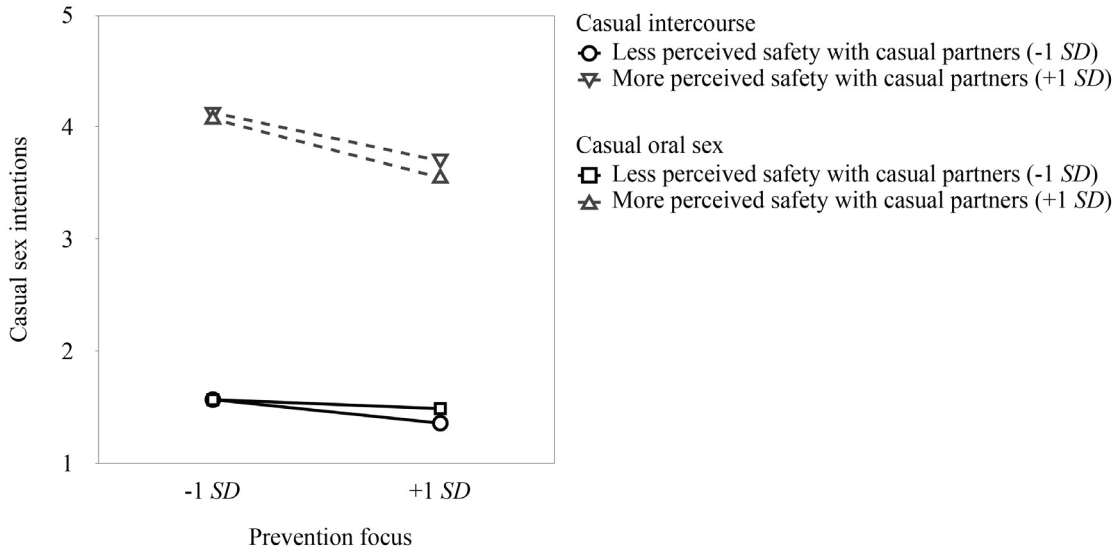

Figure2

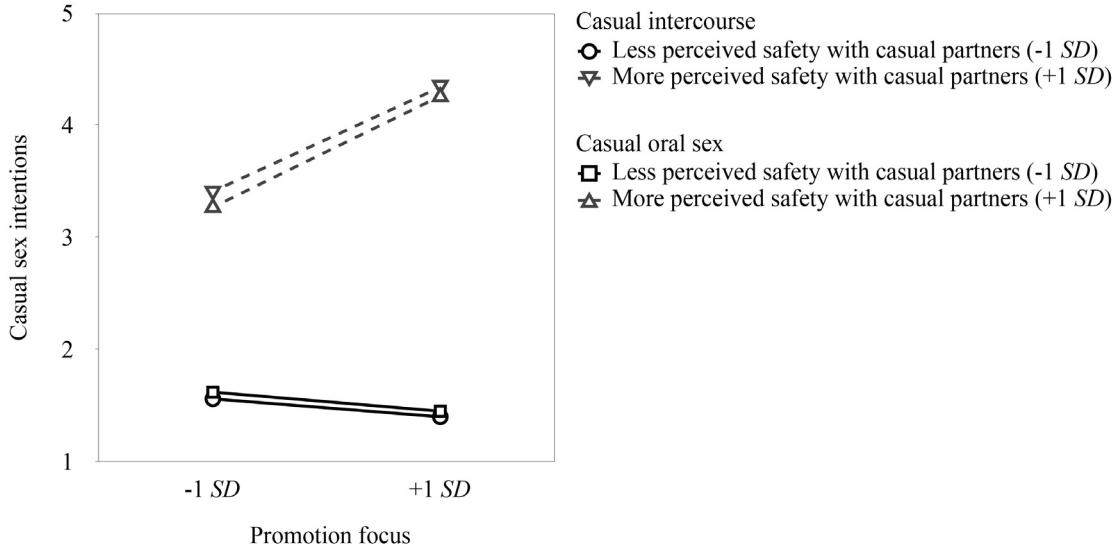

Table 1

Demographic Characteristics

	n	*M* (*SD*) or %
Age (min. = 18, max. = 54)	547	24.72 (5.75)
Sex assigned at birth		
Female	317	57.6
Male	231	42.0
Prefer not to disclose	2	0.4
Sexual orientation		
Heterosexual	416	75.6
Bisexual	55	10.0
Lesbian/gay	39	7.1
Other (e.g., pansexual; queer)	18	3.3
Prefer not to disclose	22	4.0
Completed education level		
High school	191	34.7
Associate/Bachelor's degree	289	52.5
Master's degree	62	11.3
Doctoral degree	8	1.5
Area of residence		
Urban area	392	71.3
Suburban area	117	21.3
Rural area	41	7.5
Socio-economic status		
Struggling on present income	107	19.5
Coping on present income	218	39.6
Comfortable with present income	199	36.2
Prefer not to disclose	23	4.2
Survey Language		

Spanish	216	39.3
German	176	32.0
English	158	28.7
Positive COVID-19 test		
Self	13	2.4
Close network	38	6.9
Extended network	90	16.4

Note. Missing cases correspond to participants who did not to provide their answer.

Table 2

Fit indexes for the RFS scale

Models	df	χ^2	CFI	TLI	SRMR	RMSEA [CI]	Standardized regression coefficients	
							Prevention	Promotion
Entire sample	25	57.04	.97	.96	.04	.05 [.03; .07]	$.35 > \lambda > .80$	$.56 > \lambda > .78$
English	25	37.13	.97	.96	.04	.06 [.00; .09]	$.24 > \lambda > .87$	$.62 > \lambda > .78$
Spanish	25	55.53	.95	.93	.07	.08 [.05; .10]	$.36 > \lambda > .86$	$.53 > \lambda > .86$
German	25	36.99	.95	.93	.05	.05 [.00; .09]	$.44 > \lambda > .77$	$.38 > \lambda > .66$

Note: df = Degrees of freedom; CFI = Comparative fit index; TLI = Tucker-Lewis fit index; SRMR = Standardized root mean square residual; RMSEA = Root mean square error of approximation; CI = 90% confidence interval

Table 3

Overall Descriptive Statistics and Partial Correlations Between Variables

	Overall	Partial correlations								
	M (*SD*)	1	2	3	4	5	6	7	8	9
1. Prevention focus	4.63 (1.55)	-								
2. Promotion focus	4.75 (1.29)	-.24***	-							
3. Fear of COVID-19 infection	3.45 (1.72)	-.09*	.09*	-						
4. Overall number sources of COVID-19 information	3.21 (1.28)	.07	.11*	.03	-					
5. Non-scientific sources of COVID-19 information	0 (1.00)	.01	.11*	.05	.81***	-				
6. Scientific sources of COVID-19 information	0 (1.00)	.11*	.03	-.03	.46***	-.08	-			
7. Perceived level of information about COVID-19	5.69 (1.22)	.10*	.10*	-.03	.12**	-.05	.29***	-		
8. Perceived safety with casual partners	3.04 (1.98)	.01	.06	- .35***	.09*	.10*	.01	.02	-	
9. Intention to have casual intercourse	2.69 (2.10)	-.09*	.15***	-.12**	.06	.08	-.01	-.01	.58***	-
10. Intention to have causal oral sex	2.68 (2.11)	-.09*	.15***	-.11*	.05	.08	-.04	-.02	.54***	.94***

Note. Variables 5 and 6 are standardized object scores of the components from the CatPCA. Correlations controlling for age, sex assigned at birth, sexual orientation, completed education level, area of residence,

perceived socio-economic status, survey language, and tested positive for COVID-19. Degrees of freedom = 527.

$^{*}p \leq .050$. $^{**}p \leq .010$. $^{***}p \leq .010$.

Table 4

Moderation Analyses: Prevention Focus and Casual Sexual Intentions

	Intentions to have casual intercourse (R^2 = .44)		Intentions to have casual oral sex (R^2 = .41)	
	b (*SE*)	95% CI	*b* (*SE*)	95% CI
Prevention focus (X)	-0.10* (.05)	[-0.20; -0.01]	-0.10* (.05)	[-0.20; -0.01]
Perceived safety with casual partners (W)	0.62*** (.04)	[0.54; 0.69]	0.58*** (.04)	[0.50; 0.65]
X x W	-0.02 (.02)	[-0.06; 0.03]	-0.04 (.02)	[-0.08; 0.01]
Promotion focus (Cov.)	0.14** (.06)	[0.03; 0.25]	0.15** (.06)	[0.04; 0.27]
Age (Cov.)	-0.01 (.01)	[-0.04; 0.01]	-0.01 (.01)	[-0.03; 0.02]
Sex assigned at birth (Cov.)	0.60*** (.15)	[0.31; 0.88]	0.67*** (.15)	[0.37; 0.96]
Sexual orientation (Cov.)	-0.11 (.07)	[-0.24; 0.03]	-0.11 (.07)	[-0.25; 0.02]
Completed education level (Cov.)	0.08 (.11)	[-0.14; 0.29]	0.05 (.11)	[-0.18; 0.27]
Area of residence (Cov.)	0.02 (.11)	[-0.20; 0.24]	-0.00 (.12)	[-0.23; 0.22]
Perceived socio-economic status (Cov.)	-0.09 (.07)	[-0.23; 0.04]	-0.07 (.07)	[-0.20; 0.07]
Survey language (Cov.)	0.05 (.09)	[-0.14; 0.23]	0.06 (.10)	[-0.13; 0.25]
Positive COVID-19 test: self (Cov.)	-0.20 (.45)	[-1.08; 0.69]	-0.26 (.46)	[-1.17; 0.65]
Positive COVID-19 test: close network (Cov.)	-0.24 (.28)	[-0.79; 0.31]	-0.25 (.29)	[-0.82; 0.31]
Positive COVID-19 test: extended network (Cov.)	0.09 (.19)	[-0.28; 0.47]	0.12 (.20)	[-0.27; 0.51]

Note. Cov. = covariate.

*$p \leq .050$. **$p \leq .010$. ***$p \leq .010$.

Table 5

Moderation Analyses: Promotion Focus and Casual Sexual Intentions

	Intentions to have causal intercourse (R^2 = .46)		Intentions to have causal oral sex (R^2 = .43)	
	b (*SE*)	95% CI	*b* (*SE*)	95% CI
Promotion focus (X)	0.15** (.05)	[0.04; 0.26]	0.16** (.06)	[0.05 0.27]
Perceived safety with casual partners (W)	0.60*** (.04)	[0.53; 0.68]	0.56*** (.04)	[0.49; 0.64]
X x W	0.11*** (.03)	[0.06; 0.16]	0.11*** (.03)	[0.06; 0.17]
Less perceived safety (-1 *SD*)	-0.06 (.07)	[-0.20; 0.08]	-0.06 (.08)	[-0.21; 0.09]
More perceived safety (+1 *SD*)	0.36*** (.08)	[0.21; 0.51]	0.38*** (.08)	[0.23; 0.54]
Prevention focus (Cov.)	-0.12* (.05)	[-0.21; -0.02]	-0.11* (.05)	[-0.20; -0.01]
Age (Cov.)	-0.01 (.01)	[-0.04; 0.01]	-0.01 (.01)	[-0.03; 0.02]
Sex assigned at birth (Cov.)	0.60*** (.14)	[0.31; 0.88]	0.67*** (.15)	[0.38; 0.96]
Sexual orientation (Cov.)	-0.08 (.07)	[-0.21; 0.05]	-0.09 (.07)	[-0.22; 0.05]
Completed education level (Cov.)	0.11 (.11)	[-0.11; 0.32]	0.08 (.11)	[-0.14; 0.30]
Area of residence (Cov.)	0.05 (.11)	[-0.17; 0.27]	0.02 (.11)	[-0.20; 0.24]
Perceived socio-economic status (Cov.)	-0.08 (.07)	[-0.21; 0.05]	-0.05 (.07)	[-0.19; 0.08]
Survey language (Cov.)	0.08 (.09)	[-0.10; 0.26]	0.09 (.10)	[-0.10; 0.28]
Positive COVID-19 test: self (Cov.)	-0.17 (.44)	[-1.05; 0.70]	-0.24 (.46)	[-1.13; 0.66]
Positive COVID-19 test: close network (Cov.)	-0.22 (.28)	[-0.76; 0.32]	-0.24 (.28)	[-0.79; 0.32]
Positive COVID-19 test: extended network (Cov.)	0.06 (.19)	[-0.31; 0.43]	0.08 (.19)	[-0.30; 0.47]

Note. Cov. = covariate.

*$p \leq .050$. **$p \leq .010$. ***$p \leq .010$.