Journal of Leisure Research
2015, Vol. 47, No. 5, pp. 621–646

Women's Sexual Sensation Seeking and Risk Taking in Leisure Travel

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Abstract

This study investigated young women's perceptions of sexual risk in leisure travel contexts with the purpose of developing a measurement scale for sexual risk taking in tourism. Perceived dimensions of sexual risk taking and the differences across sexual sensation-seeking propensity levels were explored. The data were collected using an online survey and analyzed using exploratory structural equation modeling. The findings reveal that sexual risk taking in leisure travel is a multidimensional construct including physical/sexual health, mental/emotional, and sociocultural factors. Additionally, women's perceptions of these factors differ according to their sexual sensation-seeking propensity as participants reporting higher levels of sexual sensation seeking rated physical/sexual health and mental/emotional risks lower than those with lower sensation-seeking levels. This study provides a more in-depth understanding of and a measurement scale for sexual risk taking in leisure travel contexts than previously existed.

Keywords: *sexual risk taking, sexual sensation seeking, young women, exploratory structural equation modeling (ESEM), 13-model taxonomy of ESEM full-measurement invariance*

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Introduction

Sex, as a freely chosen activity performed for its own sake for the purpose of pleasure and enjoyment, fits within nearly all definitions of leisure (Freysinger & Kelly, 2004; Godbey, 2008; Meaney & Rye, 2007). In addition to procreation (and oftentimes instead of procreation), sex may have recreational and relational meanings. These leisurely qualities of sex may in turn contribute to a person's rejuvenation and well-being (Freysinger & Kelly, 2004) and/or occasionally may result in moments of flow, which is a state of complete absorption with a given activity and situation (Csikszentmihalyi, 1980; Kelly, 1990). In its various manifestations, sexual activity may also be a form of casual leisure and even serious leisure when sexual preferences profoundly affect the lifestyle of the individual (Stebbins, 2001; Worthington, 2005).

While sex in/as leisure and/or the links between sexuality and leisure have recently drawn some research attention (Berdychevsky, Nimrod, Kleiber, & Gibson, 2013; Parry & Penny Light, 2014), gaps in the understanding of sexual matters in leisure studies are prominent (Carr & Poria, 2010; Caudwell & Browne; 2011). One of these gaps revolves around the nexus of sex, leisure, and risk taking. A recent study suggests boredom in leisure is conducive to risky sexual behaviors among youth (Miller et al., 2014). However, considering the kaleidoscopic diversity of leisure experiences, this finding is not applicable to cases where the essence of a leisure experience is defined in opposition to boredom, which would often be the case in leisure travel.

Classic conceptualizations of tourism suggest it is a special form of leisure characterized by pleasure, novelty, change, voluntariness, and noninstrumentality (Cohen, 1974). Leisure travel experiences are often defined in juxtaposition to everything routine and boring, as cathartic breaks characterized by novelty, fun, recreation, situational disinhibition, license for thrills, and liminality/liminoidity, and as settings conducive to sexual risk taking (SRT) (Eiser & Ford, 1995; Pritchard & Morgan, 2006; Selänniemi, 2003; Wickens, 1997). These nonordinary and liberating characteristics associated with leisure travel are often stated as the reasons for sexual risk taking (Berdychevsky & Gibson, 2015; Briggs & Tutenges, 2014; Brown et al., 2014).

Some of the most prominent risks associated with sex in general and in leisure travel contexts more specifically are the negative effects on health. Indeed, the geographical expansion of sexually transmitted infections (STIs) has been linked to tourism (Brown et al., 2014; Clift & Forrest, 2000; Vivancos, Abubakar, & Hunter, 2010). This connection may be partially explained by evidence suggesting that SRT is more common in leisure travel than in people's day-to-day lives (Black, 1997; Qvarnström & Oscarsson, 2014). Despite this link, one of the critiques of national surveys of sexual behavior and STIs is their failure to collect separate data on respondents' sexual behavior while traveling abroad (Bloor et al., 2000). Although, over the past decade, sexual behavior in the context of international travel has drawn some research attention (Apostolopoulos, Sönmez, & Yu, 2002; Bloor et al., 2000; Thomas, 2005), the tendency has been to focus on commercial sex tourism to the exclusion of exploring the potential health consequences of noncommercial sex in leisure travel contexts (Berdychevsky, Gibson, & Poria, 2013).

While a nuanced understanding of SRT is crucial due to the prevalence of health risks associated with STIs, the HIV/AIDS pandemic in the 20th century and its continued relevance today provide further impetus for research in this area. About 35 million people worldwide currently live with HIV/AIDS, with 2.3 million new infections and 1.6 million deaths in 2012 (amfAR, The Foundation for AIDS Research, 2013). Women are biologically more vulnerable to STIs and HIV/AIDS than men, with 75% of HIV infections in women caused by heterosexual unprotected sexual contact (Broaddus, Morris, & Bryan, 2010). Strikingly, a nationally representative

study from the US Centers for Disease Control and Prevention reveals that one in four adolescent women (26% = 3.2 million girls, 14 to 19 years) were infected at least once with some STI, positioning SRT among young women as an important public health issue (CDC, 2008, 2014).

Carpenter and DeLamater (2012) suggest that any investigation of SRT should consider the ways gender and life stage shape sexual behavior. Additionally, as tourism, like other forms of leisure, is a product of gendered societies, gender is an essential concept in understanding how people construct their leisure travel experiences (Henderson & Gibson, 2013). Various aspects of the gendered nature of leisure travel have been explored including constraints, gendered power, surveillance, embodiment, resistance, and empowerment in general (Jordan & Aitchison, 2008; Jordan & Gibson, 2005), and with respect to sexual behavior in particular (Berdychevsky, Gibson, et al., 2013; Ragsdale, Difranceisco, & Pinkerton, 2006). Furthermore, gender and life span perspectives are important in understanding sensation seeking and risk taking in general (Greene, Krcmar, Walters, Rubin, & Hale, 2000; Roberti, 2004; Zuckerman, 2007), and in tourism in particular (Lepp & Gibson, 2003, 2008). Indeed, early adulthood (17 to 45 years), especially its novice phase (17 to 33 years), are characterized by experimentation, adventurousness, a sense of immortality, and risk taking in tourism (Gibson & Yiannakis, 2002).

Pondering reasons why some individuals have higher levels of risk-taking propensity than others, Zuckerman construed sensation seeking as "a trait defined by the seeking of varied, novel, complex, and intense sensations and experiences, and the willingness to take physical, social, legal, and financial risks for the sake of such experience" (2007, p. 49). For Zuckerman, Kolin, Price, and Zoob (1964), theories of optimal level of arousal (OLA) and optimal level of stimulation (OLS) provide the foundation for sensation-seeking theory. They hypothesize that high sensation seekers (1) have higher OLA-OLS, (2) underestimate risks or judge benefits as outweighing risks, and (3) seek novel situations providing intense sensations to reach higher OLA-OLS. Zuckerman argues that sensation seekers accept risk as a possible price for achieving arousal but are not attracted to risk for its own sake. The relevance and the validity of the sensation-seeking scales (SSS) in understanding various forms of risk taking is evident in the literature, including risk taking in sexual behavior, heavy drinking, smoking, drug use, criminal activities, gambling, and reckless driving (Greene et al., 2000; Roberti, 2004; Zuckerman, 2007; Zuckerman & Kuhlman, 2000).

In addition to a gender, life stage, and a personality sensitive approach to understanding SRT, it is crucial to consider the often neglected link between sexual activity and the sociopsychological contexts in which this activity occurs. As a liminoid fourfold transition/transgression in terms of space, time, mind, and the senses, tourism is often associated with feeling "out of space," "out of time" and "out of mind" (Pritchard & Morgan, 2006; Selänniemi, 2003), distorting people's risk perceptions and normative inhibitions, and influencing sexual behavior and triggering sexual risk taking (Andriotis, 2010; Apostolopoulos et al., 2002; Eiser & Ford, 1995). Thus, leisure travel may provide a valuable context for exploring SRT and as such may yield important insights both to the epidemiological patterns of STIs (Bloor et al., 2000) and to the understanding of this complex social phenomenon (Berdychevsky & Gibson, 2013).

Despite the pressing need for a comprehensive inquiry into this subject, literature on SRT in tourism is scarce and tends to revolve around STIs (Bloor et al., 2000; Clift & Forrest, 2000; Vivancos et al., 2010), while ignoring the various physical, mental, social, and emotional risks. Therefore, a context-specific and multidimensional exploration of people's subjective perceptions of SRT in leisure travel is warranted. The purpose of the study was twofold. First, the purpose was to develop a comprehensive measurement scale to investigate SRT in tourism. Second,

the purpose was to understand young women's perceptions of SRT in leisure travel, and a possible link to their sexual sensation-seeking propensity levels.

Sensation Seeking and Sexual Risk Taking

The initial SSS has been revised several times, with multiple reincarnations for specific uses (Zuckerman, 2007). One of the most frequently used versions is the SSS-V, which contains four dimensions: thrill and adventure seeking, experience seeking, disinhibition, and boredom susceptibility (Zuckerman, Eysenck, & Eysenck, 1978). Another important transformation was the development of the Zuckerman and Kuhlman Personality Questionnaire (ZKPQ), which includes a scale for impulsive sensation-seeking (Zuckerman, Kuhlman, Joireman, Teta, & Kraft, 1993). As for sex, Zuckerman argues that "sexual expression is a function of anticipated pleasures and perceived risks" (2007, p. 146) and as such provides further support for the contention that SRT and sensation seeking are related. Following this line of thought, sensation seekers might be willing to take risks for the sake of intense sensations in casual sexual encounters, and as such impulsive sensation seekers might be at increased risk due to their characteristic lack of restraint in potentially pleasurable situations (Zuckerman, 2007).

In studies seeking to understand or to predict SRT behaviors, such as unprotected intercourse, casual sex, using drugs and/or alcohol before sex, having/causing an unintentional pregnancy, the following versions of the SSS have been most commonly used: (1) the SSS-V and its subscales (Bancroft, Janssen, Carnes, Goodrich, & Strong, 2004; Donohew et al., 2000; Greene et al., 2000); (2) the ZKPQ, in particular the impulsive sensation-seeking subscale (Cohen & Fromme, 2002; Katz, Fromme, & D'Amico, 2000; Zuckerman & Kuhlman, 2000); and (3) the sexual sensation-seeking scale (SSSS) (Kalichman et al., 1994; Kalichman & Rompa, 1995).

Considering evidence of a relationship between sensation seeking and SRT, Kalichman et al. (1994) developed a specific scale for sexual sensation seeking, which they defined as "the propensity to attain optimal levels of sexual excitement and to engage in novel sexual experiences" (p. 387). The SSSS was developed by adapting items from Zuckerman et al.'s (1964, 1978) instruments and has gradually gained popularity in related work due to its high reliability, validity, and utility in understanding and/or predicting SRT in various populations (Gaither & Sellbom, 2003; Kalichman et al., 1994; Kalichman & Rompa, 1995; McCoul & Haslam, 2001).

In using this scale, Wiederman and Hurd (1999) found that increased SSSS is related to extradyadic dating and sexual activity among both men and women. Similarly, Gaither and Sellbom (2003), investigating the links between the SSSS and various SRT patterns, found that while men have higher SSSS scores than women, the correlations between sexual sensation seeking and various sexually permissive behaviors are higher for women. This is an interesting finding in light of the fact that sexual double standards typically influence what is considered to be sexually permissive, with norms tending to be more restrictive for women than for men (Crawford & Popp, 2003; Eaton & Rose, 2011; McCabe, Tanner, & Heiman, 2010).

Sensation-seeking theory has also been found to be relevant to leisure travel-related contexts. High sensation seekers are more likely to be independent travelers, to prefer more active and spontaneous vacations, to have traveled internationally and to destinations perceived as riskier, and, with relevance for the current study, are more likely to engage in risky activities while on vacation (Lepp & Gibson, 2008; Pizam, Reichel, & Uriely, 2002; Pizam et al., 2004). As such, sensation-seeking theory appears to be an appropriate conceptual foundation for the study of women's SRT in tourism.

Sexual Behavior in Leisure Travel

Most of the existing literature focusing on commercial sex tourism tends to create an illusion that all other types of leisure travel are sex free. However, some scholars recommend distinguishing between commercial "sex tourism" and a more comprehensive concept of "sex in tourism" that includes sexual behavior without any financial transaction and as such allows for a more nuanced analysis (Berdychevsky, Poria, & Uriely, 2010, p. 105; Carter & Clift, 2000, p. 9). In studies of sex in tourism, researchers cite feelings of situational disinhibition, a sense of anonymity, and liminality/liminoidity to explain sexual promiscuity and increased rates of SRT in leisure travel (Apostolopoulos et al., 2002; Berdychevsky, Poria, & Uriely; Eiser & Ford, 1995; Maticka-Tyndale, Herold, & Oppermann, 2003). Moreover, in such studies, destinations and accommodations are frequently conceptualized as "contra-normative settings" characterized by a mixture of sex, alcohol, and drugs, which in turn encourage the suspension or rejection of personal inhibitions and aid in the transgression of everyday social norms (Apostolopoulos et al., 2002, p. 733; Eiser & Ford, 1995).

Indeed, Pritchard and Morgan (2006, p. 765) suggest that such "dirty weekend" destinations are characterized by liminality, the temporary loss of social bearings, and the primary aim of experiencing pleasure. Exemplifying these characteristics, certain destinations such as Ibiza (Spain) and Faliraki and Rhodes (Greece), have each been dubbed the "Gomorrah of the Med," supplying a hedonistic cocktail of sun, sea, music, cheap alcohol and drugs, sex, and the expectation for excess (Diken & Laustsen, 2004, p. 100). Likewise, Chalkidiki, Greece, has also been described as a destination where tourists' permissive behavior is understood as a "celebration of the here and now" where "sex makes the holiday" (Wickens & Sönmez, 2007, p. 206).

When the focus narrows to women's sexual behavior in leisure travel, some interesting patterns emerge. Under various circumstances, the liminoid social atmosphere and perceived anonymity offered by some tourist experiences seem to grant women a "license for thrills," encouraging sexual promiscuity (Wickens, 1997, p. 151). Similarly, Thomas (2005, p. 571) points to a sense of "time compression," which increases the speed at which sexual relationships progress as women feel freed from social constraints. Thomas (2000) along with Berdychevsky et al. (2010) also identify a number of other factors that facilitate sex in leisure travel, including attraction and pleasure, alcohol and drugs, space and privacy.

There is also evidence suggesting that sexual double standards are subdued in some tourist experiences (Berdychevsky, Gibson, & Poria, 2014; Maticka-Tyndale & Herold, 1997; Mewhinney, Herold, & Maticka-Tyndale, 1995). In this respect, the social atmosphere present in leisure travel contexts may offer women opportunities for sexual self-exploration and discovery unavailable at home (Ragsdale et al., 2006; Thomas, 2005). Indeed, Poria (2006) suggests that perceived anonymity in tourism is also instrumental for lesbian women, diminishing their concerns over jeopardizing their reputations while also providing opportunities for sexual self-expression and existential authenticity.

Women's sexual behavior in leisure travel may also be a source of empowerment and an act of resistance to social surveillance and expectations associated with sexual double standards (Berdychevsky, Gibson, et al., 2013). In some instances, sexual exploration and SRT have been found to be closely related in anonymous tourism environments (Black, 1997; Thomas, 2005). For example, Berdychevsky et al. (2010) found that some women construe risky sexual behaviors (e.g., casual sex) as an essential part of adventurous backpacking experiences, whereas, Falconer (2011) found that sex has a contradictory role in female backpackers' experiences. On the one hand, she found that sex is associated with negotiating gender constraints, vulnerability, and a

potential loss of control, whereas, on the other hand, it contributes to the development of an identity of a liberated and empowered risk taker.

To conclude, SRT and sexual health in adolescence and across the lifespan are a public health priority in the United States and globally (CDC, 2008, 2014; Douglas & Fenton, 2013; Ivankovich, Fenton, & Douglas, 2013), and as SRT may be more prevalent and more likely to lead to an STI in leisure travel contexts (Clift & Forrest, 2000; Vivancos et al., 2010), there is a need to shed light on women's SRT in tourism, addressing gaps in the body of knowledge as well as providing valuable information for public health educational programs (Ragsdale et al., 2006; Thomas, 2005). Thus, this study explored the relationship between young women's perceptions of SRT in leisure travel contexts and their sexual sensation-seeking propensity levels. Specifically, the following research questions were examined: (1) What are the perceived dimensions of SRT in tourism by young female tourists? and (2) Do the perceived dimensions of SRT in leisure travel differ according to sexual sensation-seeking propensity among young female tourists?

Method

Instrumentation and Validation

The scale development process in this study was informed by the literature suggesting the following steps in constructing new instruments: (1) determining what the scale intends to measure, (2) generating an item pool, (3) determining the format for measurement, (4) having experts review the items, (5) considering inclusion of the validation items and/or scales, (6) administering items, (7) evaluating items, and (8) optimizing scale length (e.g., DeVellis, 2003; Worthington & Whittaker, 2006). To define the construct of women's SRT perceptions in leisure travel, a sequential mixed-methods design was implemented, starting with the use of qualitative methods before adopting a quantitative design. The qualitative phase provided rich data through in-depth interviews with young women, establishing inductively the breadth of the construct (Berdychevsky & Gibson, 2015). The qualitative phenomenological exploration involved conducting 15 in-depth interviews (1.5 to 2.5 hours each) with young women (19 to 24 years old), focusing on their perceptions of and motivations for SRT in leisure travel. The findings revealed that the multidimensional essence of this phenomenon can be captured in the confluence of physical/sexual health, social, mental, emotional, and cultural dimensions (Berdychevsky & Gibson, 2015). These inductively identified dimensions of women's SRT in leisure travel determined the focus of the quantitative exploration. As such, this paper provides the empirical testing of the dimensions resulting from the qualitative study via construction and validation of the Sexual Risk Taking (SRT) in Tourism Scale.

Based on the qualitative findings and relevant literature, an initial item pool of risk perceptions (29 items) was identified and, subsequently, a draft of the questionnaire was developed, with consideration given to potential order effects. In determining the format of the measure, a choice was made in favor of a 5-point Likert scale where 1 = *strongly disagree* and 5 = *strongly agree.* Likert-type scaling format is widely used in instruments measuring perceptions and attitudes (DeVellis, 2003). The frequent recommendations for optimal number of response categories in Likert scales are 5- or 7-point response formats, with such recommendations being made based on the respondents' preferences and the scales' capacity for allowing sufficient variance, covariance, and discriminating power (Noar, 2003; Preston & Colman, 2000). The stem of the scale—i.e., "To what extent do you agree or disagree with the following statements: 'I believe that sexual activity on vacation is risky if it entails …'?"—was followed by the relevant items (e.g.,

"the risk of getting sexually transmitted diseases," "the risk of being raped," "the risk of being emotionally hurt," "the risk of being too far out of my comfort zone," "the risk of embarrassing myself," and "the risk of affecting my reputation at home").

The instrument was pretested using cognitive think-aloud interviews, expert reviews with a focus on design and content, and a small pilot study. Think-aloud interviews were audio recorded and extensive notes were taken, generating a report of problematic issues and suggested revisions. As for the expert reviews, three professors with experience of researching sexual behavior in the fields of leisure and tourism, a professor specializing in survey design, and a professor with an expertise in structural equation modeling provided their feedback on various preliminary drafts of the instrument. A small-scale online pilot test was administered with 34 young adults (graduate and undergraduate students of both genders) to refine the instrument and to solicit further feedback through the open ended questions regarding the style, comprehensibility, order, and the adequacy of content coverage in the instrument. These strategies highlighted several problems, which were subsequently remedied with rephrasing, reordering, adding or eliminating items. The resulting scale was comprised of 24 items measuring various characteristics perceived as making sexual activity in tourism risky.

To address the second research question and to enhance the validation process, a sensation-seeking scale was included in the instrument. The SSSS, being a scale purposefully devised for investigating sex-related matters, was chosen to be part of the questionnaire (Kalichman et al., 1994; Kalichman & Rompa, 1995). The SSSS includes 11 items (e.g., "I like wild, 'uninhibited' sexual encounters"; "My sexual partners probably think I am a 'risk taker]'"; "I am interested in trying out new sexual experiences") measured on a 4-point Likert scale where 1 = *not at all like me* and 4 = *very much like me.* Previous studies have demonstrated adequate levels of reliability (internal consistency: .75 < Cronbach's α < .81; temporal stability/test-retest coefficients: .69 < *r* < .78) as well as convergent, discriminant, and construct validity of the SSSS scale (Kalichman et al., 1994; Kalichman & Rompa, 1995). This scale has also been found to correlate with sexually risky behaviors and perceptions (Gaither & Sellbom, 2003; McCoul & Haslam, 2001; Wiederman & Hurd, 1999). In spite of this evidence, the SSSS scale was also included in the previously described cognitive interviews, expert reviews, and a pilot study, yet, no substantial changes were suggested in this respect.

The concluding steps of scale development, namely, administering and evaluating items, and optimizing scale length (DeVellis, 2003; Worthington & Whittaker, 2006), are discussed in the Data Analysis section. In general, however, the validity and reliability of the instrument were established in this study using various methods. Content validity was assessed through a systematic examination of the scales using cognitive interviews, expert content reviews, and a pilot study. Construct and discriminant validity were evaluated using exploratory factor analysis (EFA) and exploratory structural equation modeling (ESEM). The internal consistency or reliability of the constructs was tested using Cronbach's α. To establish convergent validity, relationships between the perceptions of SRT in tourism and the SSSS were analyzed.

Measurement

The research instrument consisted of five sections: (1) personality traits (i.e., propensity for sensation seeking), (2) tourist experiences as contexts for sexual behavior, (3) motivations for sexual risk taking in tourism, (4) perceptions and experiences of sexual risk taking in tourism, and (5) sociodemographics and sexual history. The results in this paper are reported based on the aspects of the first, second, fourth, and fifth sections. Section one was comprised of the nonsexual experience-seeking scale and SSSS (11 items each, measured by a 4-point Likert scale

where 1 = *not at all like me* and 4 = *very much like me*) (Kalichman et al., 1994; Kalichman & Rompa, 1995).

Section two started with two nominal and two open-ended questions investigating the features of tourist experiences perceived as the ultimate touristic contexts facilitating sexual activity, both with a steady and a casual sexual partner. The ultimate vacation length and destination were solicited with open-ended questions while the type of the tourist experience and the trip companions were measured with nominal items allowing for as many response options as the participant saw appropriate. Two additional scales measured participants' beliefs and attitudes with respect to the incidence and acceptability of sexual risk taking in tourism (10 items using a 5-point Likert scale where 1= *strongly disagree* and 5= *strongly agree*) and their perceptions of the touristic characteristics that act as facilitators and/or inhibitors of sexual behavior in tourism (28 items using a 5-point Likert scale where 1 = *strongly inhibits* and 5 = *strongly facilitates*).

Section three measured participants' motivations for sexual risk taking in tourism (25 items using a 5-point Likert where 1 = *strongly disagree* and 5 = *strongly agree*). Section four focused on the participants' perceptions of sexual risk taking in tourism (20 items rating specific sexual activities and 24 items evaluating dimensions of sexual risk using a 5-point Likert scale where 1 = *strongly disagree* and 5 = *strongly agree*) and experiences with sexual risk taking in tourism (20 dichotomous nominal items with options 1 = "yes" and 0 = "no"). Finally, the women were also asked a series of nominal, ordinal, and open-ended questions to establish their socio-demographic background and sexual biography.

Data Collection and Sampling

The data were collected in spring 2013 via an online survey using the Qualtrics software. This method provided participants with confidentiality and anonymity (as no personal identifiers or even IP addresses were collected), which is crucial when investigating such a sensitive topic. In order to encourage participation, in accordance with Dillman, Smyth, and Christian's (2009) advice, a specific sequence of steps was devised and conducted. First, potential participants received a pre-notice email with a brief explanation about the study. After two days, an invitation email with a link to the survey was sent out. After four days, thank-you/reminder emails were sent. A second round of reminder emails was sent a week and a half after the first reminder. The data collection was closed one month following the invitation email.

The target population consisted of female students enrolled in a Southeastern US University in the spring of 2013. The sampling frame, provided by the University Registrar's Office, consisted of 25,697 female students. Using a combination of systematic random sampling (with a random entry point and a constant sampling interval) and stratified sampling (with proportional representation according to class standing) a sample of $N = 4{,}282$ (every 6th female student) was drawn from the list. Initially, 1,445 women responded to the invitation to complete an online survey (a preliminary response rate of 33.8%). Eliminating substantially incomplete responses (listwise deletion), however, decreased the effective response rate to 19.9% ($N = 853$).

Sample

The predominant age groups in the sample ($N = 853$) were 18 to 20 years (40.4%), 21 to 23 years (29.2%), 24 to 26 years (11.0%), and 27 to 30 years (8.4%). The participants ranged in age from 18 to 62 years ($M = 23.5$, $SD = 6.67$). Among the participants, 14.0% were freshmen, 15.0% sophomores, 18.3% juniors, 16.5% seniors, and 34.2% were enrolled in graduate school. Concerning racial/ethnic background, two thirds of the sample (66.6%) identified themselves as White/Caucasian, 13.7% as Hispanic, 8.3% as Asian, and 6.4% as Black. With respect to marital

status, 84.4% were never married, 12.8% married, and 2.2% divorced/separated. The majority of the participants (92.8%) identified themselves as heterosexual, 4.8% as bisexual, and 1.4% as gay/lesbian. As for dating status, 51.8% reported being in an exclusive relationship, 10.7% were casually dating but not in a relationship, and 35.3% reported not dating and not being in a relationship. With respect to sexual experience, 20.3% of the participants reported not having had any sexual partners, 21.1% reported having had one sexual partner, 25.0% had 2 to 4 sexual partners, 13.6% reported 5 to 7 partners, and the rest of the sample (17.9%) had eight or more sexual partners. Regarding other characteristics, 8.3% reported having experienced an unplanned pregnancy, 49.2% reported having been tested for an STI in the past, and 8.2% reported having been diagnosed with an STI. Finally, 18.4% believed that some of their sexual practices were putting them at risk for contracting HIV/AIDS and 10.7% reported having had sex without giving their consent.

Participants were also asked to describe a vacation providing maximum opportunity for (1) sexual activity with a steady sexual partner and (2) casual sex. With respect to vacations taken with a steady partner, the ultimate leisure travel contexts for sex, as perceived by the participants, had the following features: (1) type of tourist experience (the participants could choose more than one option), the most frequently chosen options were as follows: rest and relaxation vacation (90.3% of the participants), sightseeing (63.8%), and backpacking (30.6%); (2) length of vacation (M = 9.14 days, SD = 6.31); and (3) trip partners (the participants could choose more than one option), the most frequently chosen options were as follows: none except for a steady partner (85.3%) or another/other couple/s (22.6%). As for vacations involving casual sex, the ultimate leisure travel contexts, according to the participants were: (1) type of tourist experience (the participants could choose more than one option), the most frequently chosen options were as follows: group tour (49.8%), sightseeing (43.5%), rest and relaxation vacation (43.0%), and backpacking (31.5%); (2) length of vacation (M = 7.83 days, SD = 6.56); and (3) travel companions (the participants could choose more than one option), the most frequently chosen options were as follows: single female companions (51.8%), single male companions (30.3%), and none/travelling solo (28.4%).

Data Analysis

All of the statistical analyses were conducted using M*plus* 6 and IBM SPSS Statistics 19. To answer the first research question (i.e., what are the perceived dimensions of SRT in tourism by the young female tourists?), EFA was conducted to reduce items to their underlying factors. Exploratory analysis was chosen due to the under-researched nature of this topic. When reporting EFA procedures, the literature suggests including sampling procedures and sample characteristics (see above), criteria for assessing the factorability of the correlation matrix, extraction methods, criteria for determining rotation method, chosen rotation method, criteria for factor retention, and criteria for item deletion (Worthington & Whittaker, 2006).

The criteria for assessing the factorability of the correlation matrix included the participants per item ratio (minimum 20 participants per item for EFA and minimum 20 participants per item per group in ESEM multiple-groups analysis), item intercorrelations, Kaiser-Meyer-Olkin test of sample adequacy (KMO = .932), and Bartlett's test of sphericity (approx. χ^2 = 14,086.68, $p < .001$). Based on these factorability criteria, the relationships in the data lend themselves well to factor analysis. The chosen extraction method was common-factors analysis with maximum likelihood estimation.

Oblique rotation was chosen, allowing factors to correlate, since constraining the factors to orthogonality might contradict the exploratory nature of the analysis. Geomin oblique rotation

was chosen as it provided the cleanest solution. The number of retained factors was guided by the following diagnostics: Eigenvalues > 1 (as a minimum based on the Kaiser criterion), a Scree plot, a minimum of three items per factor, simple structure principles, and conceptual interpretability of the factors. Factor loadings (λ) higher than .40 are presented in the model. The internal consistency coefficients of the factors ranged between .84 and .94.

Of the initial 24 items, 4 items (i.e., sexual activity on vacation is risky if it entails: "the risk of losing control over the situation," "the risk of not being able to procure a condom," "the risk of facing legal consequences," and "the risk of not being able to perform sexually up to my standards") were eliminated due to low communalities and conflicts with simple structure principles (e.g., cross-loadings or insufficient loadings). The resulting scale is provided in Appendix A. The goodness-of-fit (GOF) of the model was assessed by using the following GOF indices: (1) a Bentler's comparative fit index (CFI), (2) a Tucker-Lewis Index (TLI), (3) a Standardized Root Mean Square Residual (SRMR), and (4) a Root Mean Square Error of Approximation (RMSEA). For both the CFI and TLI, values above .90 are deemed acceptable while values ranging from .95 to 1.00 indicate a good fit. For the SRMR and RMSEA, values less than .05 represent a good fit while values ranging from .08 to .10 reflect an acceptable fit.

To answer the second research question (i.e., do the perceived dimensions of SRT in tourism differ depending on the sexual sensation-seeking propensity among the young female tourists?) and to examine the properties of the scale, ESEM, a recent approach developed by Asparouhov and Muthén (2009) and Marsh et al. (2009, 2010, 2011, 2012), was utilized. Similarly to the choice of EFA as an appropriate tool for the first attempt at testing the dimensions of the SRT, ESEM was considered to be the most appropriate choice for evaluating the scale's properties considering the exploratory nature of the data and the scale (i.e., the first time the scale was used with a large sample). ESEM offers a tool that can be appropriately used much earlier on (e.g., in the first stages of scale development) to examine the properties of the scale and to contribute to its validation. Prior to the development of ESEM, researchers would use EFA and then years would pass as a scale was refined with multiple samples before it was deemed appropriate to use any form of confirmatory analysis. ESEM's flexibility stems from its ability to simultaneously incorporate the advantages of exploratory and confirmatory factor analyses as well as structural equation modeling. ESEM can be extended to multiple-groups or multiple-occasions analysis, where a model is estimated for each group/occasion and some parameters of a model can be constrained to invariance across the groups or occasions (Marsh et al., 2009). This ability has important implications for applied research as traditional comparisons of group means are based on untested assumptions about measurement invariance (often leading to flawed or invalid comparisons) while ESEM allows testing these assumptions and distinguishing between measurement artifacts and actual differences across groups or over time (Marsh et al., 2012). In this study, the total SSSS mean score (M = 2.00, SD = .60, Min = 1.00, Max = 3.55) served as the basis for categorizing participants into two groups for ESEM: "lower SSSS" (n = 439 with scores below the M) and "higher SSSS" (n = 414 with scores above the M).

Marsh et al. (2009, 2010, 2011, 2012) operationalized and tested a taxonomy of 13 partially nested models of invariance tests that integrated factor analysis and measurement invariance traditions. The taxonomy allows for the investigation of both the invariance of a factor structure (factor loadings and factor variances-covariances) and other measurement parameters (item intercepts and uniquenesses as well as latent factor means). The models vary in terms of imposed restrictions from the least restrictive model of configural invariance to the most restrictive model

of complete invariance. Tests of configural invariance, weak factorial/measurement invariance, strong factorial/measurement invariance, strict measurement invariance, latent factor variance-covariance invariance, and the invariance of the factor means were conducted in this study.

Configural invariance indicates whether the same model is able to fit the data for multiple groups when no additional invariance constraints are postulated. Weak factorial/measurement invariance tests the invariance of factor loadings across the groups. Strong factorial/measurement invariance tests the invariance of intercepts in addition to the invariance of factor loadings. A lack of support for strong factorial/measurement invariance would imply differential item functioning, suggesting that the differences between item means in two groups cannot be explained in terms of differences in the latent factor means (Marsh et al., 2009). Strict factorial/measurement invariance postulates the invariance of item uniquenesses on top of the invariance of the factor loadings and intercepts. A lack of support for strict measurement invariance would suggest that measurement error differs across the groups, which means that the manifest means should not be compared across the groups (Marsh et al., 2012). The latent factor variance-covariance invariance is important for establishing the discriminant validity of multidimensional constructs (Marsh et al., 2009, 2012). Invariance of the factor means tests latent mean differences across the groups and the valid comparison of latent means requires support for strong (but not strict) measurement invariance (Marsh et al., 2012).

In order to establish the invariance of certain parameters across the groups, key models from the taxonomy were compared. An investigation was conducted into the decline in a model's GOF due the imposition of various invariance constraints (i.e., examining the GOF test (χ^2) and GOF indices). As of 2015, due to the few applications of ESEM, the relevance of these criteria and the exact cutoff values remain open to debate (Marsh et al., 2009, 2011, 2012). It is for this reason Marsh et al. (2009, 2011) suggest that a comparison of the relative fit of the partially nested models should be conducted rather than looking at the absolute level of fit of any one model, so long as the GOF of the best-fitting model is acceptable.

The ad hoc guidelines to evaluate whether the differences in fit are substantial enough to reject a more parsimonious model (i.e., the more constrained version) in favor of a more complex model (i.e., the less constrained version) vary. Support for a more parsimonious model requires a change in the CFI (which is monotonic with complexity) of less than .01 or a change in the RMSEA of less than .015. However, indices like the TLI and RMSEA penalize for complexity and, because of this, a more conservative course of action would be to support a more parsimonious model if the TLI or RMSEA are as good as, if not better than, the respective index for the more complex model (Marsh et al., 2009, 2010, 2011, 2012). The GOF test (χ^2, a sample sensitive and very powerful test), can detect small and unimportant differences between the groups, which in turn would lead to the rejection of the model. Indeed, in this study, the χ^2 test rejected all of the models and transformations. In contrast, the GOF indices are sample size independent and they are often accorded importance in evaluating a model's GOF (Marsh et al., 2011). However, GOF indices are not flawless and can sometimes miss substantial differences. Therefore, the relevant parameter estimated differences should be evaluated as well in the less constrained model and invariance would be supported if these differences are small. Presently, these rules should be regarded as only rough guidelines in the initial use of ESEM because the number of estimated parameters is typically substantially larger in ESEM analyses compared to confirmatory models (Marsh et al., 2009, 2010, 2011, 2012).

Results

The Perceived Dimensions of SRT in Leisure Travel

The EFA solution for the sexual risk perceptions model identified three factors extracted from 20 items and accounting for 70.0% of the total variance (Table 1 and Figure 1). Based on their item content, the three dimensions of SRT in leisure travel were labeled Physical/Sexual Health, Mental/Emotional, and Sociocultural factors. The Physical/Sexual Health factor (Eigenvalue = 9.19, 45.9% of explained variance, Cronbach's α = .92, *M* = 4.85, *SD* = .39) is comprised of six perceived risk items. Namely, sexual activity on vacation is physically risky if it entails: the risk of getting sexually transmitted diseases (λ = .94, *M* = 4.88, *SD* = .42), the risk of contracting HIV/AIDS (λ = .96, *M* = 4.89, *SD* = .40), the risk of getting pregnant (λ = .70, *M* = 4.83, *SD* = .50), the risk of being raped (λ = .88, *M* = 4.88, *SD* = .42), the risk of being kidnapped (λ = .73, *M* = 4.85, *SD* = .49), and the risk of getting physically hurt (λ = .59, *M* = 4.78, *SD* = .54).

The Mental/Emotional factor (Eigenvalue = 3.74, 18.7% of explained variance, Cronbach's α = .94, *M* = 4.00, *SD* = .81), includes 10 items. Specifically, sexual activity on vacation is mentally/emotionally risky if it involves the risk of being emotionally hurt (λ = .67, *M* = 4.09, *SD* = .96), the risk of feeling uncomfortable after the act (λ = .90, *M* = 4.04, *SD* = .96), the risk of being too far out of personal comfort zone (λ = .82, *M* = 4.06, *SD* = .95), the risk of feeling used (λ = .91, *M* = 4.11, *SD* = .98), the risk of having unfulfilled expectations (λ = .70, *M* = 3.65, *SD* = 1.10), the risk of feeling rejected (λ = .72, *M* = 3.76, *SD* = 1.08), the risk of regretting it later (λ = .67, *M* = 4.14, *SD* = .96), the risk of doing something against personal values (λ = .63, *M* = 4.21, *SD* = .97), the risk of embarrassing oneself (λ = .43, *M* = 3.96, *SD* = 1.01), and the risk of hurting somebody's feelings (λ = .46, *M* = 3.97, *SD* = .46).

The Sociocultural factor (Eigenvalue = 1.06, 5.32% of explained variance, Cronbach's α = .84, *M* = 3.95, *SD* = .84) involves four items. In this sense, sexual activity on vacation is risky if it entails the risk of feeling disrespected (λ = .50, *M* = 4.10, *SD* = .97), the risk of affecting the reputation at home (λ = .82, *M* = 4.04, *SD* = 1.03), the risk of being judged by travelling companions (λ = .86, *M* = 3.79, *SD* = 1.06), and the risk of offending cultural norms at the destination (λ = .44, *M* = 3.85, *SD* = 1.05). Factor one has low correlations with factors two and three (*r* = .298 and *r* = .267, respectively). Factor two is moderately correlated with factor three (*r* = .672). The decision to support the three-factor model was based on the composition of the factors, the relatively simple factor structure, the amount of variance explained and the qualitative findings (where physical/sexual health concerns were prominent, mental and emotional issues were often evoked interchangeably, and social and cultural factors were frequently discussed together). The GOF indices for this EFA model reflect an adequate fit (CFI = .924; TLI = .891; SRMR = .030; RMSEA = .098).

Table 1

Exploratory Factory Analysis Solution for the Sexual Risk Perceptions Model

Sexual activity on vacation is risky if it entails:	*M* [1]	*SD*	Factor loadings		
			Physical/ Sexual Health	Mental/ Emotional	Socio-Cultural
the risk of getting sexually transmitted diseases	4.88	.419	.935		
the risk of contracting HIV/AIDS	4.89	.401	.961		
the risk of getting pregnant	4.83	.503	.697		
the risk of being raped	4.88	.420	.878		
the risk of being kidnapped	4.85	.487	.727		
the risk of getting physically hurt	4.78	.540	.593		
the risk of being emotionally hurt	4.09	.961		.671	
the risk of feeling uncomfortable after the act	4.04	.962		.899	
the risk of being too far out of my comfort zone	4.06	.948		.824	
the risk of feeling used	4.11	.975		.913	
the risk of having unfulfilled expectations	3.65	1.102		.698	
the risk of feeling rejected	3.76	1.078		.719	
the risk of regretting it later	4.14	.963		.667	
the risk of doing something against my values	4.21	.965		.625	
the risk of embarrassing myself	3.96	1.010		.433	
the risk of hurting somebody's feelings	3.97	.984		.460	
the risk of feeling disrespected	4.10	.968			.502
the risk of affecting my reputation at home	4.04	1.026			.819
the risk of being judged by travelling companions	3.79	1.056			.855
the risk of offending cultural norms at the destination	3.85	1.052			.442
			Initial Eigenvalues		
			9.187	3.744	1.063
			Explained Variance		
			45.94%	18.72%	5.32%
			Cronbach's alpha		
			.921	.941	.842
			Factor correlations		
			F1	F2	F3
		F1	1.000		
		F2	.298	1.000	
		F3	.267	.672	1.000

Note: [1]All the items were measured on a 5-point Likert scale, where 1="strongly disagree" and 5="strongly agree."
F1 = Factor 1 – Physical/Sexual Health, F2 = Factor 2 – Mental/Emotional, F3 = Factor 3 – Socio-Cultural.
The solution accounts for 70.0% of the total variance.
GOF indices: CFI = .924, TLI = 0.891, RMSEA = .098, SRMR = .030.
All the reported factor loadings and factor correlations were significant ($p < .05$).

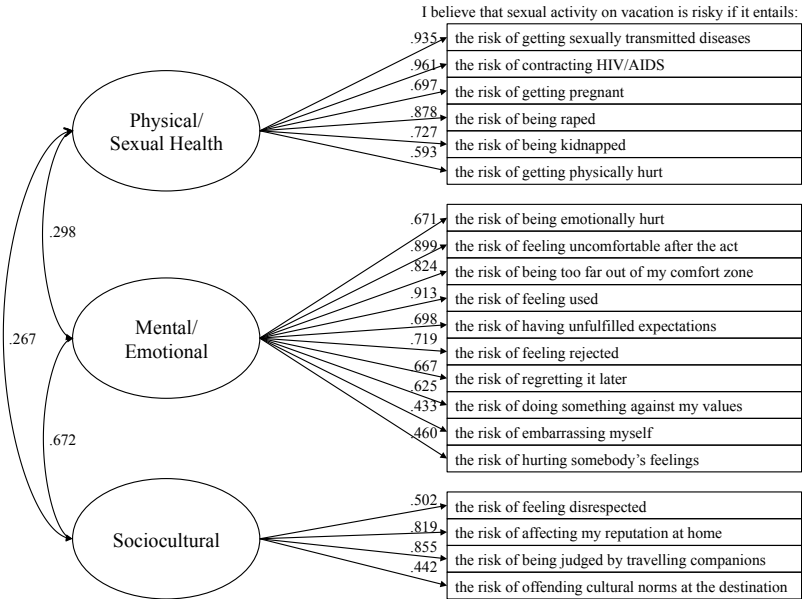

Figure 1. Exploratory Factor Analysis Solution for the Sexual Risk Perceptions Model

The Perceived Dimensions of SRT in Tourism across SSSS Levels

Table 2 presents the application of Marsh et al.'s (2009, 2010, 2011, 2012) taxonomy to test multiple group invariance (MGI) across lower and higher levels of the SSSS and Table 3 provides a summary of the comparisons and brief interpretations. To establish configural invariance, the two-group model with no invariance constraints (i.e., the MGI1) was compared to the EFA model presented in the previous section and labeled as the total group model in this analysis (i.e., TG-ESEM). The comparison shows that the decline in the CFI is less than .01 (.924 vs. .918) and the change in RMSEA is less than .015 (.098 vs. .101). Indeed, the GOF statistics for the TG-ESEM and the MGI1 are approximately the same, but the MGI1 has twice the degrees of freedom (266 vs. 133) and twice the number of free parameters (194 vs. 97). These results support the configural invariance of the SRT dimensions.

The key comparison for weak factorial/measurement invariance is between MGI2 (where factor loadings are restricted to invariance) and MGI1. MGI2 is more parsimonious as the number of freely estimated parameters decreased from 194 to 143. Yet MGI2 still fits the data adequately. The drop in the CFI is less than .01 (.918 vs. .913), while the indices controlling for parsimony are even better for MGI2 than for MGI1 (TLI = .895 vs. .883 and RMSEA = .096 vs. .101). The juxtaposition of MGI1 and MGI2 supports the invariance of the factor loadings, suggesting weak measurement invariance.

Strong factorial/measurement invariance requires the invariance of intercepts in addition to the invariance of factor loadings, which is the case for MGI5. The key comparison for establishing strong factorial/measurement invariance is between MGI5 and MGI2. The decline in the CFI in MGI5 vs. MGI2 is smaller than .01 (.910 vs. .913). Based on the GOF indices controlling for parsimony, the fit of MGI5 is slightly better than that for MGI2 (TLI = .898 vs. .895, RMSEA = .095 vs. .096). These results offer support for strong measurement invariance.

Table 2

Summary of GOF Statistics for 13 Models with SSSS Index as a Grouping Variable

Model	χ^2/df	NF Parm	CFI	TLI	RMSEA	SRMR	Description
Total Group (TG) model							
TG-ESEM	1217.701/133	97	.924	.891	.098	.030	TG-ESEM with 3 factors
Multiple (two) Group Invariance (MGI) across low and high levels of SSSS							
MGI1	1428.404/266	194	.918	.883	.101	.033	IN = none
MGI2	1560.563/317	143	.913	.895	.096	.056	IN = FL
MGI3	2012.447/337	123	.882	.867	.108	.129	IN = FL, Uniq
MGI4	1608.499/323	137	.910	.894	.097	.132	IN = FL, FVCV
MGI5	1608.298/334	126	.910	.898	.095	.060	IN = FL, INT
MGI6	2080.492/343	117	.878	.865	.109	.210	IN = FL, Uniq, FVCV
MGI7	2058.100/354	106	.880	.872	.106	.135	IN = FL, Uniq, INT
MGI8	1656.779/340	120	.908	.897	.095	.135	IN = FL, FVCV, INT
MGI9	2126.230/360	100	.876	.869	.107	.214	IN = FL, FVCV, INT, Uniq
MGI10	1657.227/337	123	.907	.895	.096	.078	IN = FL, INT, FMn
MGI11	2106.855/357	103	.877	.869	.107	.160	IN = FL, Uniq, INT, FMn
MGI12	1706.223/343	117	.904	.894	.097	.164	IN = FL, FVCV, INT, FMn
MGI13	2175.361/363	97	.873	.867	.108	.244	IN = FL, FVCV, INT, Uniq, FMn

Note: NF Parm = number of free parameters, IN = the parameters constrained to be invariant across multiple groups, FL = factor loadings, FVCV = factor variance-covariances, INT = item intercepts, Uniq = item uniquenesses, FMn = factor means.
All the items were measured on a 5-point Likert scale, where 1="strongly disagree" and 5="strongly agree."
The source of the taxonomy and the description column is Marsh et al. (2009, 2010, 2011, 2012).

Strict factorial/measurement invariance tests the invariance of item uniquenesses in addition to the invariance of the factor loadings and intercepts, which is the case in MGI7. The key comparison for establishing this invariance is between MGI7 and MGI5. The decline in the CFI in MGI7 vs. MGI5 is greater than .01 (.880 vs. .910). Moreover, the TLI and RMSEA are substantially worse in MGI7 vs. MGI5 (TLI = .872 vs. .910 and RMSEA = .106 vs. .095). These results cannot support even an adequate fit of MGI7. Comparisons of all the model pairs used to test the invariance of uniquenesses lead to the same conclusion (see Table 3). Thus, there is no support for strict measurement invariance.

To establish latent factor variance-covariance invariance, the key comparison is between models MGI2 and MGI4, where the former postulates the invariance of factor loadings and the latter requires the invariance of factor loadings as well as factor variances-covariances. The decline in the CFI in MGI4 vs. MGI2 is less than .01 (.910 vs. .913). Furthermore, the indices that control for parsimony are similar for MGI4 and MGI2, reflecting a minor decrease in fit (i.e., TLI = .894 vs. .895 and RMSEA = .097 vs. .096). Comparisons of all possible model pairs used to test the invariance of the latent factor variance-covariance matrix reflect a similar pattern (see Table 3). These results provide support for the latent factor variance-covariance invariance.

Lastly, the invariance of the factor means across the groups should be addressed. In the MGI10-MGI13 models, the factor means are constrained to zero in combination with other invariance restrictions. Several combinations of the models could be used to test the invariance of the factor means across the groups (see Table 3). For example, comparing MGI10 to MGI5 reveals a minor decline in the CFI of less than .01 (.907 vs. .910) and RMSEA of less than .015 (.096 vs. .095), supporting the invariance of factor means. Yet the TLI is slightly worse for MGI10

Table 3

Summary of the Invariance Tests

Test	Compared Models	Result	Meaning
Configural invariance	MGI1 vs. TG-ESEM	Established	The same model is able to fit the data for both groups if no additional invariance constraints are postulated
Weak factorial/ measurement invariance	MGI2 vs. MGI1	Established	There is a relatively stable factor structure across the groups
Strong factorial/ measurement invariance	MGI5 vs. MGI2	Established	There is no differential item functioning across the groups, which suggests that the latent means can be compared across the groups
Strict factorial/ measurement invariance	MGI3 vs. MGI2 MGI6 vs. MGI4 MGI7 vs. MGI5 MGI9 vs. MGI8 MGI11 vs. MGI10 MGI13 vs. MGI12	Not established	Measurement error differs across the groups, which suggests that the manifest means should not be compared across the groups
Latent factor variance-covariance invariance	MGI4 vs. MGI2 MGI6 vs. MGI3 MGI8 vs. MGI5 MGI9 vs. MGI7 MGI10 vs. MGI9	Established	There is a relatively stable pattern of factor correlations across the groups, which provides support for discriminant validity
Invariance of the factor means	MGI10 vs. MGI5 MGI11 vs. MGI7 MGI12 vs. MGI8 MGI13 vs. MGI9	Not established	The latent means for the higher SSSS group are smaller than for the lower SSSS group for the Physical/Sexual Health and Mental/Emotional dimensions, but not for the Socio-Cultural dimension

vs. MGI5 (.895 vs. .898), contradicting such support, a pattern evident when comparing all of the other model pairs. Since the GOF indices indicate a mixed pattern and the GOF test (χ^2) indicates a significant change in fit in the comparison between MGI10 and MGI5 (χ^2 (3, N = 851) = 48.929, $p < .001$), invariance could be assumed only if the differences in latent factor means across the groups are not substantial.

The MGI5 solution reveals that the latent means for the higher SSSS group are smaller than for the lower SSSS group for the Physical/Sexual Health (–.54, p = .000) and Mental/Emotional dimensions (–.38, p = .000), but not for the Sociocultural dimension. Considering the aforementioned support for the invariance of the latent factor variance-covariance matrix and with a SD = 1.00 for the lower SSSS group, these differences can be interpreted as effect sizes, showing that the differences in latent factor means across the groups are quite substantial. Another way to gauge these differences is to estimate the probability that a randomly chosen woman from the lower SSSS group has a score on a given factor exceeding the same factor score of a randomly chosen woman from the higher SSSS group. This can be estimated by dividing the difference in the factor means across the groups by the square root of the sum of the variances, the result of which is interpreted as a z score.

Using the Physical/Sexual Health factor as an example: $[(0.00 – (-.54)) / \sqrt{(1 + 1.36)} = .35]$; the area below this z score is .64, meaning that the probability that a randomly chosen person

from the lower SSSS group has a higher Physical/Sexual Health factor score than a randomly chosen person from the higher SSSS group is 64%. Another example can be seen in the Mental/Emotional factor: [(0.00 – (-.38)) / √ (1 + 1.09) = .26]; the area below this *z* score is .60. Finally, when the latent means are equal the probability would be 50%, which is almost the case with respect to the Sociocultural factor: [(0.00 – (-.12)) / √ (1 + 1.39) = .08], an area of .53 below the *z* score.

Discussion

The findings reveal that SRT in leisure travel is a multidimensional construct. While our qualitative exploration of women's SRT in tourism suggests physical/sexual health, social, emotional, mental, and cultural dimensions (Berdychevsky & Gibson, 2015), this quantitative exploration identifies three factors that underlie women's perceptions of this phenomenon: physical/sexual health, mental/emotional, and sociocultural dimensions. The pervasiveness of the physical/sexual health aspect is consistent with the emphasis found in the literature, which has tended to focus on STIs as a consequence of SRT in leisure travel (Bloor et al., 2000; Clift & Forrest, 2000; Vivancos et al., 2010). Yet, in this study, the physical SRT dimension is constructed more broadly and includes any sort of unwanted physical outcome or violence (e.g., STIs, pregnancy, rape, abduction).

The sociocultural dimension includes potential damage to a woman's reputation at home and/or among traveling companions, as well as the risk of offending cultural norms in the destination. In this respect, the sexual double standards restricting women's sexual behavior at home (McCabe et al., 2010) may be more lax in anonymous, liminoid leisure travel environments (Berdychevsky et al., 2014; Maticka-Tyndale et al., 2003; Mewhinney et al., 1995). Yet this is not always the case as judgmental traveling companions can preserve the influence of social control and sexual double standards in tourism (Ragsdale et al., 2006; Thomas, 2000). Likewise, the cultural component of this dimension contributes to the argument that sexual double standards are local constructions shaped by regional culture (Crawford & Popp, 2003). The asymmetry of power associated with sexual double standards rarely vanishes, positioning women as more compliant and vulnerable to SRT, both physically and emotionally (Impett & Peplau, 2003). As a result, even casual sexual encounters/relationships in leisure travel contexts might have important emotional implications or serious ramifications for women (Thomas, 2000, 2005).

The emotional and mental dimensions of SRT in tourism were frequently discussed interchangeably by the women during our qualitative study (Berdychevsky & Gibson, 2015). As such, it is not surprising that these dimensions were united into one factor over the course of the statistical exploration. Both emotional and mental aspects revolve around a sense of guilt, regret, self-questioning/worth/comfort/respect, rejection, transgression, etc. Most if not all of these sentiments lend themselves well to the explanation suggested by the concept of self-surveillance as an internalized projection of social surveillance (Foucault, 1977). Connecting women's sense of self-worth to their sexual behavior is the function of disciplining sexual double standards (Attwood, 2007). While for some women self-surveillance loosens its grip on sexual behavior in leisure travel contexts, it is still a more stable means of control than social surveillance since it is based on the emotional and psychological risks associated with going against personal values and social norms (Berdychevsky, Gibson, et al., 2013).

Following the rationale suggested by sensation-seeking theory (Zuckerman, 2007; Zuckerman et al., 1964; Zuckerman & Kuhlman, 2000), differences might be expected among individuals with different levels of sensation-seeking propensity with respect to their perceptions of SRT

in leisure travel contexts. This issue was explored using a 13-model taxonomy of ESEM full-measurement invariance (Marsh et al., 2009, 2010, 2011, 2012). Although the interpretations of the results emerging from ESEM should be cautious as it is a relatively new approach, the results offer valuable methodological and substantive insights.

The results reveal a relatively stable/invariant factor structure of women's SRT perceptions in tourism between groups with lower and higher SSSS levels. In other words, there is no evidence that the nature of the SRT construct varies between the groups. This interpretation draws primarily on the established weak factorial/measurement invariance. However, support for the invariance of the latent factor variance-covariance matrix also contributes to this conclusion. Additionally, support for the invariance of factor loadings and item intercepts (i.e., established strong factorial/measurement invariance) justifies the interpretation of the differences between the groups of women with lower and higher SSSS levels using the latent factor means. These results point to an absence of differential item functioning across the SSSS groups and provide support for comparing the latent means across the groups (Marsh et al., 2009). Since there is no support for strict factorial/measurement invariance (because the item uniquenesses differ between the groups, suggesting that measurement error differs between the groups), the differences in manifest means (e.g., factor scores) should not be interpreted in this study as such a flawed comparison would disregard the complex structure of measurement error (Marsh et al., 2010). Therefore, the latent means of both groups should be and were compared in this study.

As for substantive interpretations, the findings suggest that women's perceptions of SRT in leisure travel contexts are related to SSSS (Kalichman et al., 1994; Kalichman & Rompa, 1995). Specifically, the latent means are significantly larger for the lower SSSS group on the physical/sexual health and mental/emotional dimensions compared to the higher SSSS group. This suggests that the perceptions of these dimensions differ according to women's sexual sensation-seeking propensity. High sensation seekers tend to downplay the risks involved, possibly to achieve their desired levels of stimulation (Zuckerman et al., 1964). Indeed, the SSS and especially the SSSS have been found to predict, relate to, and correlate with SRT attitudes and behaviors across various populations and contexts (Bancroft et al., 2004; Cohen & Fromme, 2002; Gaither & Sellbom, 2003; Greene et al., 2000; Katz et al., 2000).

Yet such a tendency to downplay risks among the women in the higher SSSS group compared to the lower SSSS group was not found with respect to the sociocultural dimension. This suggests that the influence of sociocultural characteristics may be more consistent across all groups of women, irrespective of differences in SSSS. It is possible that the social stigma associated with certain patterns of sexual behavior for women (Eaton & Rose, 2011; McCabe et al., 2010) affects women's risk perceptions with respect to the social dimension of SRT in tourism regardless of their sexual sensation-seeking propensity levels. Therefore, while sexual double standards become somewhat subdued in some tourist contexts vis-à-vis everyday life (Eiser & Ford, 1995; Maticka-Tyndale & Herold, 1997; Mewhinney et al., 1995), in this cross-sectional comparison of women with lower and higher levels of SSSS, sexual double standards appear to assert themselves as a relatively stable form of social surveillance and control over their sexuality (Crawford & Popp, 2003; McCabe et al., 2010).

Limitations, Delimitations, and Directions for Future Research

To address potential limitations and delimitations, all four types of error were considered during the design and implementation of this study: measurement error, coverage error, sampling error, and non-response error (Dillman et al., 2009). Measurement error was minimized via adherence to sound analytical procedures. Coverage error was addressed by implementing

probability sampling. Sampling error was curtailed by obtaining an up-to-date sampling frame of the registered students and adhering to sound sampling procedures. Non-response error, related to generalizability, was mitigated by comparing the demographic characteristics of the sample with the official data on the student body demographics, which revealed a relative symmetry in racial/ethnic background, class standing, and other characteristics (University of Florida Annual Accountability Report, 2010-2011).

Additionally, the anonymity and confidentiality associated with online surveys minimized the social desirability effect. It should be mentioned, however, that the results are delimited to young, college-educated, middle class adults who were not deterred from participating in the study by its sensitive topic. In this respect, the participants might not represent the non-participants since people who consent to participate in sex-related research are typically more sexually experienced and confident; less conservative in their sexual attitudes; more novelty-seeking, sensation-seeking, and reward-dependent; as well as less harm-avoidant (Dunne et al., 1997; Fenton, Johnson, McManus, & Erens, 2001). Although, it is important to mention that the participants in this study are rather diverse with regard to sexual experience and have a moderate average SSSS level. Thus, it appears that the results in this study could be generalized at least to other samples drawn from the female populations in similar Southeastern US universities. Moreover, while the generalizability of our results is limited to populations with similar characteristics, delimiting the sample to young college-educated women is also a strength as it allows for certain degree of control for the extraneous effects of life stage, gender, and class that have been linked to differences in risk perceptions and sensation-seeking propensity (Zuckerman, 2007).

There are several directions for future studies. As it currently stands, the instrument was developed and went through initial validation with a female sample. A similar study could be conducted on men's perceptions of SRT in leisure travel. This exploration would establish whether the current instrument addresses SRT concerns equally for men and women. Considering the effects of sexual double standards, the results for men might be different. Additionally, comparative studies focusing on gender can be a source of meaningful insights that reveal the nuanced complexities of cross-gender differences and similarities. While the focus on young adults' SRT in tourism was essential for this study, investigations of SRT across the lifespan and/or in later adulthood should be conducted since sex, intimacy, and SRT do not necessarily disappear in later life (Carpenter & DeLamater, 2012). Also, the focus on sexuality is important in SRT investigations since risk perceptions, motivations, and different social, psychological, and health implications might vary according to sexual orientation (Poria, 2006).

Study Contributions

This study offers meaningful insights for the health programs and/or information campaigns (in terms of priorities, content, scope, and focus) aiming to address SRT among young women in tourism. The results may serve as a platform for establishing priorities in terms of the leisure travel contexts where education-prevention-intervention efforts could be the most salient. These decisions could be made based on the findings about leisure travel contexts perceived as the most conducive to sexual behavior and SRT both with steady and casual sexual partners. Likewise, the findings reflect the breadth of the multidimensional SRT construct, suggesting that effective sexual health programs should adopt a holistic approach attending to the complex combination of physical/sexual health, mental/emotional, and sociocultural consequences of SRT in leisure travel contexts. Additionally, considering significant differences between higher and lower sensation seekers in terms of their perceptions of the physical/sexual health and mental/emotional dimensions, the designers of health education programs can recruit the sexual sensation-seeking

propensity as one of the segmentation criteria to classify young women into target groups in order to tailor a relevant and effective prevention/intervention message/program to each group.

The conceptual and methodological contribution of this study is threefold. First, the methodological contribution stems from developing and starting the validation of a measurement scale for exploring SRT in leisure travel contexts, which is argued to be more commonplace than sexual risk taking in everyday life (Black, 1997; Clift & Forrest, 2000), and to have up to threefold increased risk of developing an STI (Vivancos et al., 2010). Second, this study draws attention to the less researched topic of sex in tourism compared to the frequently discussed commercial sex tourism (Carr & Poria, 2010; Carter & Clift, 2000). Third, this study sheds additional light on the topic of SRT in young adulthood, an issue deemed a public health priority in the US (CDC, 2008, 2014), with women being at particular risk for sexual health issues (Broaddus et al., 2010; Peterson & Lamb, 2012).

Based on the findings, the potential for explaining and/or predicting women's involvement in SRT in various tourism contexts appears to be embedded in a multidimensional approach that includes physical/sexual health, mental/emotional, and sociocultural impacts on women's health and well-being. The confluence of physical/sexual health, mental/emotional, and sociocultural dimensions of young women's sexual risk perceptions, as well as the role of sexual sensation-seeking propensity in affecting such perceptions, reflect the complexity of this phenomenon and the necessity for nuanced and context-specific understanding of this important public health issue. The importance of this study stems from the need for a deeper understanding of SRT in leisure travel contexts as well as the need for a valid and reliable measurement scale that both academics and professionals can use as they work to address the important public health concerns related to this issue.

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Appendix A

Sexual Risk-Taking in Tourism Scale

To what extent do you agree or disagree with the following statements: "I believe that sexual activity on vacation is risky if it entails …"?

		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a.	the risk of getting sexually transmitted diseases	❒	❒	❒	❒	❒
b.	the risk of contracting HIV/AIDS	❒	❒	❒	❒	❒
c.	the risk of getting pregnant	❒	❒	❒	❒	❒
d.	the risk of getting physically hurt	❒	❒	❒	❒	❒
e.	the risk of being raped	❒	❒	❒	❒	❒
f.	the risk of being kidnapped	❒	❒	❒	❒	❒
g.	the risk of affecting my reputation at home	❒	❒	❒	❒	❒
h.	the risk of being judged by travelling companions	❒	❒	❒	❒	❒
i.	the risk of feeling disrespected	❒	❒	❒	❒	❒
j.	the risk of hurting somebody's feelings	❒	❒	❒	❒	❒
k.	the risk of being emotionally hurt	❒	❒	❒	❒	❒
l.	the risk of feeling uncomfortable after the act	❒	❒	❒	❒	❒
m.	the risk of being too far out of my comfort zone	❒	❒	❒	❒	❒
n.	the risk of feeling used	❒	❒	❒	❒	❒
o.	the risk of having unfulfilled expectations	❒	❒	❒	❒	❒
p.	the risk of feeling rejected	❒	❒	❒	❒	❒
q.	the risk of offending cultural norms at the destination	❒	❒	❒	❒	❒
r.	the risk of embarrassing myself	❒	❒	❒	❒	❒
s.	the risk of regretting it later	❒	❒	❒	❒	❒
t.	the risk of doing something against my values	❒	❒	❒	❒	❒