

Motivating adult learners: Development and validation of the
Self-Determined Motivations for Sexual Learning Scale (MSL)

by

Ju Ann Kim

B.A., University of California, San Diego, 2015

M.A., Bethel Seminary San Diego, 2019

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Couple and Family Therapy
College of Applied Human Sciences

KANSAS STATE UNIVERSITY
Manhattan, Kansas

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Abstract

In the United States, the average age at which Americans receive formal sex education (i.e., sex-ed) is just 12 years old (SIECUS, 2024) with continuing education being informal or entirely non-existent. As sexuality is an ongoing process of development throughout the lifespan, engagement in adult sexual education is crucial yet often hindered by competing priorities, discomfort related to sexual topics, disinterest, or lack of accessibility. Compounding the problem, there is currently no empirically supported tool to measure motivation *specifically for sexual learning*.

Guided by self-determination theory (SDT), the purpose of this study is to develop and validate the Self-Determined Motivations for Sexual Learning scale (MSL) designed to assess adults' motivations for sexual learning. Exploratory and confirmatory analyses supported a four-factor model of motivation—autonomous, introjected, external, and amotivation—that theoretically aligned with SDT's motivation continuum. Empirical testing found initial evidence for the reliability and validity of this measure within a diverse sample varying in age and ethnicity. Key findings include autonomous motivation being positively associated with self-determined motivations for sex, sexual satisfaction and assertiveness, and perceived importance of sex-ed. In contrast, introjected, external, and amotivated motivations for sexual learning were associated with greater sexual distress, embarrassment, and reduced sexual assertiveness. These findings support the psychometric soundness of the MSL scale and underscore the critical role of examining motivational quality in adult sexual learning. The MSL offers a practical tool for assessing motivational profiles, informing curriculum development, and evaluating program effectiveness. This study seeks to contribute to the emerging field of adult sexual education that is autonomy-supportive, personally meaningful, and culturally informed.

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Table of Contents

List of Tables	viii
Acknowledgements	ix
Dedication	x
Chapter 1 - Introduction	1
Chapter 2 - Literature Review	3
Motivation in Learning	3
Motivation in Adult Sexual Learning (Andragogy)	5
The Need for Sexual Learning Measurement	6
Self-Determination Theory (SDT)	8
Purpose of this Study	11
Chapter 3 - Methods	13
Sample and Recruitment	13
Measures	18
Self-Determined Motivations for Sexual Learning Scale (MSL)	18
Measures for Validity Testing	18
Sexual Motivation (SM)	18
Sexual Assertiveness (SA)	19
Sexual Embarrassment (SE)	20
Sexual Satisfaction	21
Sexual Distress (SD)	22
Perceived Importance of Adult Sexual Education (PISE)	22
Demographic Information	23
Analysis Plan	24
Chapter 4 - Results	26
Exploratory Factor Analyses	26
Confirmatory Factor Analyses	30
Preliminary Validity Testing: Associations Between the Motivations for Sexual Learning Scale and Other Constructs	35
Autonomous Motivation for Sexual Learning	35

Introjected Motivation for Sexual Learning	36
External Motivation for Sexual Learning	37
Amotivation for Sexual Learning	38
Chapter 5 - Discussion	42
Theoretical Implications	42
Practical Implications for Adult Sex Education	45
Limitations	46
Future Directions	47
Chapter 6 - Conclusion	50
Chapter 7 - References	52
Appendix A - MSL (Initial)	58
Appendix B - MSL (Final).....	60

List of Tables

Table 1	15
Table 2	28
Table 3	32
Table 4	34
Table 5	40

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Dedication

하나님 , 감사합니다.

To my supermom,

이번 졸업식에서는 못 만나지만

Though I may not see you here for my graduation,

엄마가 또 여기 자유롭게 올 수 있는 날 기대해요.

I look forward to the days when you can come back freely.

두 딸들 키워 주셔서 감사하고,

Thank you for raising your two girls.

하나님이 엄마를 나한테 주셔서 너무 감사해요.

Thankful that God gave me you

사라해요.

Love,

큰 딸 (주안)

To my family, *Dan* –Crazy to think that we dated (long distance), got engaged, and then got married (in two different countries) during this PhD program. Thank you for loving me, feeding me, and supporting me throughout this journey and thankful I get to call you my whose-band! *Sharon*—My lovely, beautiful, hard-working sister. We used to say, “you get the mind, and I get the body” but during this program, thank you for being my sanity too. Thank you for being there at every milestone. *Brother* (Nathan), Sharon loves you very much. Thank you for your care behind the scenes and the laughter that you bring when you’re in your element. And to my Kim family that has grown significantly this past year, thankful that God gave me each of one of you in this life 어머니, 아버지, Kenneth, Naomi. To the homies, thank you for the life-giving laughter, help, and loyalty. Couldn’t have done this program without you.

Chapter 1 - Introduction

In the United States, the average age at which Americans receive formal sex education (i.e., sex-ed) is just 12 years old, with continuing education being primarily informal or non-existent (SIECUS, 2024). This presents a significant challenge as sexuality is an ongoing process of discovery, growth, and development across the lifespan. However, developing adult sexuality education (i.e., sex-ed) programs presents unique challenges as adults—defined by Palmer and colleagues (2016) as individuals “entering late adolescents after 18 years of age” (p. 275)—encounter competing priorities such as work, parenting duties, social obligations, and daily responsibilities while also navigating sexual content from various media sources that often involve misinformation and biased portrayals. As a result, *motivation* to engage in and learn about sexual education is a critical factor when considering participation in adult sex-ed programs.

Comprehensive sex education (CSE) is a curriculum-based teaching model that highlights diverse components of sexuality beyond the physical act of having sex—including but not limited to sexual values, beliefs, relationships, identity, thoughts, and feelings (Goldfarb & Lieberman, 2020). To better understand the role of motivation in adult sexual education—where participation is typically voluntary (unlike mandatory school-based programs)—it is essential to develop an empirical tool that assesses motivation for learning sexual topics. Developing such a measure is crucial for designing inclusive and effective programs, as motivation influences engagement and learning outcomes.

Despite the importance of motivation in adult sexual education, there is currently no standardized measure that specifically evaluates motivation for sexual learning. Additionally, pre-and post-tests are standard components for evaluating the effectiveness of sexual education

programs (Moore & Tananis, 2009; Goldfarb & Lieberman, 2021), further emphasizing the need for a reliable assessment tool. Goldfarb & Lieberman (2021) analyzed 80 studies within the last 30 years and found that at least 40 incorporated pre-tests to measure the effectiveness of school-based sexual education programs. Across two systematic reviews (Becasen, Ford, & Hogben, 2015; Goldfarb & Lieberman, 2021), the most commonly assessed pre-test and outcome variables were related to changes in *knowledge* (e.g., STI's/STDs, physiological functioning, sexual violence, gender equity), *behaviors* (e.g., hygiene, risk-taking, contraceptive use), attitudes (e.g., self-efficacy, approach towards sex), and *communication skills* (Goldfarb & Lieberman, 2021; Thulasi & Kumar, 2024).

However, these conventional assessment methods of evaluation largely focus on knowledge acquisition and behavioral change that are prevalent in traditional sexual education approaches. There is a need to expand on the evaluation criteria to incorporate holistic components of sexual wellness such as self-awareness, personal values, pleasure, and emotional well-being. In addition, current motivation and educational research highlight how voices from racially and ethnically minoritized individuals (REMI) in measurement development have historically been limited, contributing to the lack of socioculturally attuned and inclusive tools (Jansen et al., 2022).

Hence, the purpose of this study is to develop a scale that measures motivation for sexual learning among adult learners. We seek to contribute to ongoing research that highlights alternative assessment methods that reflect the multidimensional nature of sexual wellness and incorporate psychological and sociocultural factors for populations traditionally neglected in sexual education research—adults and REMIs.

Chapter 2 - Literature Review

Motivation in Learning

Educational research consistently highlights motivation as a crucial driver of learning as it helps us understand *how* and *why* individuals engage with educational content (Guay, 2022; Howard et al., 2022; Lukianova, 2009; Schunk & DiBenedetto, 2019). Motivation influences key academic achievement behaviors such as student effort, persistence in challenging situations, and selecting activities congruent with personal goals (Schunk & DiBenedetto, 2019; Vu et al., 2022). Research shows that educational programs that align with students' intrinsic goals and personal values are more likely to result student success and general well-being (Howard et al., 2021). Beyond improving individual learning outcomes, assessing motivation concurrently informs program development by identifying specific educational topics that align with one's motivations and interest. Hence, data on learner motivation can guide the design of curricula to not only support individual academic success but foster genuine interest in lifelong learning and integration of the material (e.g., exploring personal sexual pleasure, teaching sexual information to children or peers; Gorges et al., 2016).

Sexual education differs from other academic subjects due to the sensitive and often value-laden nature of the content. Although motivation in traditional classes is typically driven by academic rigor, career goals, or external rewards like grades and school acceptance—motivation for sexual learning is more deeply influenced by personal experiences, cultural and religious values, and social norms (Chappel, Maggard, & Gibson, 2010). Furthermore, sexual conversations are often approached with stigma, reinforcing generalized beliefs that talking about sex is taboo (Kaboosi et al., 2022), which may either enhance or suppress motivation to engage in such content. For example, previous research found trends in both individualistic and

collectivistic cultures that viewed discussing sex was taboo although frequency (e.g., how frequently people discussed) and content (e.g., arousal, desire, sexual function) varied in effect sizes (Mallory, Stanton, & Handy, 2019). Understanding motivation can help educators gain insight on participants' current attitudes towards sexual topics and thoughtfully examine the quality of social environments that support or discourage sexual conversation and exploration.

As sexual education addresses topics related to sexual health, identity, beliefs, and relationships, learners may approach it with more charged, or heightened emotional responses ranging from curiosity and openness to anxiety, anger, or resistance (Chappell & Maggard, 2010). This emotional dimension adds complexity to motivation as learners' willingness to engage is often linked to their emotional capacity to engage in what can be challenging—yet insightful in improving sexual wellness. For example, a meta-analysis of couples' sexual communication (Mallory et al., 2019) found that 62% of couples in long-term relationships knew what their partners found sexually pleasing yet only 26% of couples were aware of what their partners found sexually displeasing. Hence, understanding learning motivation on a continuum (e.g., personal interest, values, external pressures) will help educators recognize participants' current feelings towards sexual topics, enabling them to respond with empathy while purposefully challenging learners towards growth. This comprehensive approach to assessment moves beyond traditional outcome measures—such as knowledge retention (e.g., STIs/STDs) and behavioral change (e.g., less risk-taking behaviors)—toward a more holistic understanding of sexual well-being to incorporate one's attitudes and emotions towards sex and sexuality (Busby et al., 2021).

Motivation in Adult Sexual Learning (Andragogy)

In the spirit of andragogy—the art, science, and practice of facilitating adult learning (Knowles, 2015)—we recognize how motivation plays an influential role in the context of sexual education. Unlike younger learners in school-based programs where participation is often mandatory (SIECUS, 2024), adults bring a wealth of life experiences, established values, and social responsibilities that shape *how* they engage with educational content (Gom, 2009).

In sexual education, these factors can either enhance or hinder motivation depending on the participant's perceived relevance of the material to their personal lives (Maasoumi et al., 2024). Adults are more likely to engage with sexual learning when they find it as personally meaningful, applicable to important relationships, or beneficial to their overall health and well-being (Gom, 2009). Additionally, self-directed learning—a key characteristic of adult learners—means that they are more motivated when they have a sense of autonomy and encouraged to connect new knowledge with their existing values and lived experiences (Knowles et al., 2015; Okada, 2023). Assessing motivation in adult sexual education is essential to understanding what drives enrollment—improving program relevance, and ensuring that educational efforts are connected to the diverse needs and experiences of adult learners.

Adult learners experience significant obstacles in accessing comprehensive sexuality education (CSE) programs due to external and internal, or dispositional challenges (Falasca, 2011). External barriers may include a lack of time, financial limitations, work or familial obligations, the effects of aging (e.g., vision, hearing, or mobility loss), chronic illness, and other major life events (Falasca, 2011; Knowles et al., 2015; Zheng et al., 2018). Even in the absence of these external factors, internal barriers such as self-doubt, potential resistance to new ideas, difficulty with change, skepticism, and low motivation can hinder participation in CSE programs

(Abedini, Abedin, & Zowghi, 2021; Falasca, 2011). Involvement in ongoing sexual education programs may largely be affected by factors like relevance, accessibility, and time commitment. To address these barriers, educators can align programs to compliment adult learners' motivations and needs by establishing self-determined, personalized objectives, incorporating interactive, teaching methods with practical, real-world application (e.g., learning by doing); and honor depths of learners' life experiences (RSEI, 2021; Zheng, Chen, & Tan, 2018). By applying these strategies, adults can strengthen their sexual health and self-concept through self-directed, and corrective learning experiences surrounded by a community of supportive mentors and colleagues who honor and even encourage exploration.

The Need for Sexual Learning Measurement

Although measures of motivation for general academic subjects do exist (Wang & Wind, 2020), there is currently no established tool to evaluate motivation specifically for sexual learning. Given the sensitive nature of CSE and the unique needs of adult learners, assessing motivation for participation is crucial. By measuring motivation, educators and researchers can not only identify the underlying drivers of learning—whether intrinsic (driven by inherent interest and enjoyment) or extrinsic (driven by external rewards)—but also tailor instructional methods to better meet the broad range of needs for learners (Jansen et al., 2022; Ryan & Deci, 2020).

Recent measures, such as the Internalization of Learning Motivation scale (ILM, Wang & Wind, 2020), were developed to assess learning motivation in traditional academic settings (e.g., I learn in school because my teachers say I have to; If my parents do not push me, I would not push myself to learn in school). However, this approach would not be applicable for program evaluation designed for adults or non-traditional students. Additionally, although this measure

effectively and innovatively captures the process of developing internalization, it does not reflect the full range of the self-determination theory continuum.

A key limitation of existing sexuality measures within our population of interest is the underlying assumption of current sexual activity and partnership (SAQ, Loshek & Terrel, 2015; SexMS, Gravel, Pelletier, & Reissing, 2015; SSCS, van Lankveld, Geijen, & Sykora, 2008). These measures were primarily designed for individuals who are sexually active, however, they inadvertently exclude those who have never engaged in consensual partnered sex. As a result, the literature lacks insights into sexual knowledge, curiosities, and behaviors of individuals who may have an interest in sexuality but not have yet engaged in the physical act of having sex. Expanding measures to include a broader range of experiences and backgrounds would provide more comprehensive understanding of sexual learning and motivation.

This form of assessment is particularly important in areas where engagement may be sensitive or complex, such as comprehensive sexuality education (CSE) as learners' values, experiences, and social contexts significantly shape their motivation to engage with the material (Lameiras-Fernandez et al., 2021). Developing a measure to assess sexual learning motivation would align with the charge for more "rigorous assessment of the effectiveness of sexual education programs" (Lameiras-Fernandez et al., 2021, p. 12) beyond the presence (or absence) of STI/STDs, risky sexual behaviors, unwanted sexual activity. As traditional methods of evaluation largely focus on knowledge acquisition (e.g., sexual anatomy knowledge, contraceptive use) and behavioral change (Thulasi & Kumar, 2024), there is a need to expand on the evaluation criteria to incorporate holistic components of sexual wellness including self-awareness, personal values, pleasure, and emotional well-being.

Furthermore, previous meta-analyses in educational psychology highlight the lack of cultural diversity being reflected in academic motivational research (Jansen et al., 2022). If reflected, race is often used as a categorical variable predicting statistical variance within the researcher's outcomes of interest (Matthews & Lopez, 2020). Recent recommendations towards understanding race and culture beyond social identifiers involves incorporating them as a rich set of socio-historical experiences by "race-reimagining" traditional constructs (e.g., achievement motivation, self-regulation) to consider racially influenced, sociocultural perspectives from racial and cultural minorities (DeCuir-Gunby & Shutz, 2014, p. 244; Decuir-Gunby & Shutz, 2024; Matthews & Lopez, 2020). From this view, the first steps involve incorporating these voices at the beginning of data collection and measurement development.

In a systematic review of sexual health interventions, only 24 out of 805 studies incorporated data from REM members (McCuistian et al., 2023). These studies, which primarily focused on behavioral change to reduce HIV risk, found that increased health knowledge, attitude change, and improved behavioral intentions significantly reduced sexual risk-taking behaviors within REM populations. As the United States consists of a diverse population with varying levels of acculturation, research highlights differences in comfort discussing sex and sexual matters due to familial or cultural norms related to parenting, gender roles, and societal expectations and laws (Jones et al., 2017; Fortenberry & Hensel, 2021). Hence, this study seeks to address this gap by enhancing generalizability and usability of measures for underrepresented groups in sexual education research, and thus informing culturally responsive education.

Self-Determination Theory (SDT)

Self-determination theory (SDT) provides a comprehensive and empirically supported framework for understanding human motivation, with capacity to be applied to adult sexual

learning contexts. Unlike binary models that frame motivation as intrinsic or extrinsic, a unique contribution of SDT is that it presents a model for understanding motivation on a continuum of self-determination—intrinsic, integrated, identified, introjected, external, and amotivation (see below) with each form varying in its quality, regulatory principles, and anticipated behaviors (Ryan & Deci, 2017; Sheldon et al., 2017). SDT has been largely utilized in educational research, which can be applied to motivations for learning (Howard et al., 2021; Jansen et al., 2022). This model uniquely highlights motivational quality over intensity influencing the degree of learning outcomes (Guay, 2021).

The bell has rung loud and clear throughout four decades of research—the more self-determined an individual’s motivation, the more likely they are to persist in need-satisfying behavior, ownership in learning, and experience positive outcomes (Ryan & Deci, 2000, 2017; Guay, 2022). This nuanced understanding is helpful for adult learners who bring diverse life experiences, roles, and internalized values into their learning contexts—if they choose to engage in it (Gom, 2009; Gorges et al., 2016). In this framework, satisfaction of basic psychological needs—autonomy (i.e., volition, self-endorsed passions), competence (i.e., mastery, effectiveness), and relatedness (i.e., human connection)—is essential for motivation to participate in adult learning programs (Ryan & Deci, 2017). When these needs are met in an educational context, learners are more likely to pursue knowledge and integrate the material with meaningful enthusiasm and purpose.

Thus, sexual educators can facilitate an environment that allows participants to openly experience events, process them, and provide opportunities to congruently regulate behavior (Ryan & Deci, 2000; Gorges et al., 2016). Below is a brief overview of how these motivational types can be applied to sexual learning:

1. *Intrinsic Motivation*: The most self-determined form of motivation, where individuals engage in activities like sexual learning for personal enjoyment, interest, fun, or relationship-building (Wood et al., 2018).
2. *Integrated Regulation*: Motivation to engage in a behavior is driven by alignment with personal identity and values (e.g., learning about sex because one finds sexuality as valuable).
3. *Identified Regulation*: Motivation is based on perceiving the activity as personally significant, but not fully integrated into one's values and identity (e.g., learning about sex as part of a healthy lifestyle; Wood et al., Gravel et al., 2016).
4. *Introjected Regulation*: Motivation is driven by internal pressures such as guilt, fear of judgment (negative introjection), or the need for approval (positive introjection, e.g., engaging in sexual learning to gain recognition; Wood et al., 2018).
5. *External Regulation*: Motivation is controlled by external rewards or punishments, such as attending a sex education class for money or to avoid losing a partner or relationship (e.g., engaging in sex-ed class because they feel like they have to; Wood et al., 2018).
6. *Amotivation*: A lack of motivation to engage in learning due to seeing no value or purpose in it, often due to disinterest, doubt, or feeling incompetent (Hogben et al., 2022).

While other motivational theories—such as Achievement Goal Theory (Pintrich, 2000), Expectancy-Value Theory (Eccles & Wigfield, 2020), and Theory of Planned Behavior (Ajzen & Fishbein, 2000)—do exist and offer valuable insights for academic learning (Jansen et al., 2022; Vu et al., 2022), SDT was chosen because of its relevance for understanding adult sexual learning as this population is often beyond formal education and engages in learning voluntarily.

Unlike traditional learners who are driven by grades or performance goals, adult learners are more influenced by perceived relevance, alignment with identity, and emotional readiness (Knowles et al., 2015; Zheng et al., 2018). SDT highlights this form of identified regulation (e.g., personal value) and intrinsic motivation being positively associated with student success, well-being, and course completion (Howard et al., 2021).

Ultimately, SDT offers a robust and developmentally flexible model for examining why adults choose to engage (or not engage) in sexual learning. It allows for educators and researchers to move beyond binary motivational models and address psychological, relational, and socio-cultural factors that influence adult participation in sexuality education.

Purpose of this Study

Informed by self-determination theory (SDT), the purpose of this study is to develop a measure that assesses adult's motivation for sexual learning (i.e., Motivations for Sexual Learning scale). We seek to contribute to ongoing research that highlights alternative assessment methods that reflect the multidimensional nature of sexual wellness. Although this study may not be specific to racially and ethnically minoritized populations, it sought to be more inclusive of groups traditionally neglected in sexuality education research by intentionally sampling from adults over the age of 18 and REMIs (Jansen et al., 2022).

Hypothesis 1: The scale will reflect a six-factor structure reflecting each portion of SDT's motivation continuum—intrinsic, identified, positive introjected, negative introjected, external amotivation for sexual learning

Hypothesis 2: The subscales of the measure will display a step pattern. The adjacent motivation types on the continuum will be more strongly related than distant ones, due to their similar levels of internalization. For example, intrinsic motivation will be more highly correlated

with identified regulation—both reflecting endorsed motives—than it will be with introjected or external regulation, which are more controlled forms of motivation. This gradient highlights the gradual shift from external control to greater self-determination.

Hypothesis 3: Engaging in sexual learning for more autonomous reasons (i.e., intrinsic, identified) will be positively associated with sexual well-being outcomes related to self-determined motivations for having sex, sexual assertiveness, sexual satisfaction, and perceived importance of sexual education for adults and negatively associated with sexual embarrassment and sexual distress.

Chapter 3 - Methods

Sample and Recruitment

After receiving IRB approval, data were collected in March 2025 through purposeful sampling on Connect CloudResearch (i.e., Connect). Participants who matched the inclusion criteria were redirected to the study participation link. Participants were informed of the purpose, risk, and benefits associated with this study. Participants were eligible for this study if they were 18 years of age or older, spoke English, and were located in the United States as their primary residence. Participants received monetary incentives of \$4 after successfully completing an online survey that was estimated to take approximately 25-30 minutes without failing attention checks. Participants were informed that failing two or more attention checks would result in lack of compensation and removal from the study. After providing informed consent, participants were redirected to complete the survey through Qualtrics.

As the focus of this study attunes to the need to incorporate more ethnically diverse voices in the development of this measure at the initial phase of research (DeCuir-Gunby & Shutz, 2014; Matthews & Lopez, 2020), we set target ratios for racial/ethnic groups available on Connect to include: Black or African American (22%), White or Euro-American (20%), American Indian, Alaskan Native, Hawaiian, Somoan, Guamanian (8%), Asian or Asian-American (i.e., Chinese, Filipino, Korean, Vietnamese, Japanese, Asian Indian, 22%), Latinx, Puerto-Rican, Cuban, other Latinx or Spanish origin (e.g., Salvadoran, Dominican, Columbian, Guatemalan, Spaniard, Ecuadorian, 22%), and Multi-Racial (8%). These quotas were determined by analyzing the data on the top countries of origin within the U.S immigrant population in 2022 (Pew Research Center, 2024) and estimating quota ratios based on these percentages. For

example, 23% of immigrants in 2022 were from Latin America, therefore quotas for individuals of LatinX, Puerto-Rican, Cuban, or other Spanish origin were set to 22%. Although these were target ratios, actual descriptive statistics for race and ethnicity can be found on Table 1.

Table 1*Descriptive statistics for demographic variables (N = 482).*

Variables	Mean or %	SD	Range
Age	33.29	9.40	18 – 66
Gender			
Woman	48.4%		
Man	48.0%		
Questioning, Unsure, Non-Binary,	3%		
Genderqueer/Fluid, Two-Spirit			
Transgender Woman or Man	.4%		
Race/Ethnicity			
Latinx, Puerto-Rican, Cuban, other	32.4%		
Latin or Spanish origin			
Asian or Asian-American	21.8%		
White or Euro-American	14.6%		
Black or African-American	14.3%		
Multi-Racial	11%		
Middle Eastern, Arab, or Arab-American	4%		
Native-American, Alaskan Native,	1.8%		
Native Hawaiian, Pacific Islander,			
Somoan, Guamanian			
Generation Status (i.e., one's position in family immigration history in the U.S)			
1 st Generation (i.e., born in country outside of the U.S and arrived to the U.S after freshman year of high school)	7.9%		
1.5 Generation (i.e., born in country outside of the U.S and arrived to the U.S before freshman year of high school)	39.1%		
Second Generation (i.e., having at least one immigrant parent)	40.5%		
Third Generation or Higher (i.e., Born in the U.S and have parents born in the U.S)	11.6%		
Education (Degree of Completion)			
Elementary/Middle School	.6%		
High School or Equivalent	10.4%		
Associate's Degree	18.1%		
Bachelor's Degree	10%		
Graduate Degree	44.9%		
Doctorate or PhD	12.1%		

Children			
No Children	28.1%		
Have at least one biological, adoptive, or legal child	71.9%		1 – 5+ children
Previous Marriage History			
Never Married	64.7%		
Married Once	31.4%		
Married Twice	3.5%		
History of Sexual Trauma or Unwanted Sexual Touch			
Yes	40.1%		
No	55.7%		
Consensual Partnered Sex in Lifetime			
Yes	81.5%		
No	16.4%		
Income			
High School or Equivalent	10.4%		
Associate’s Degree	18.1%		
Bachelor’s Degree	44.9%		
Graduate Degree	10%		
Doctorate or PhD	12.1%		
Yearly Income			
Under \$20,000	8.8%		
\$20,00-\$39,999	15.8%		
\$40,00-\$59,999	16%		
\$60,00-\$79,999	16.2%		
\$80,000-\$99,999	8.3%		
\$100,000-\$119,999	4.4%		
\$120,000+	17.7%		
Sexual Orientation			
Heterosexual	79.8%		
Lesbian	10.4%		
Asexual	3.1%		
Bisexual	2%		
Queer	2%		
Gay	1.2%		

Participants ($n = 482$) were 18-66 years old ($M = 33.29$, $SD = 9.40$) and identified as women (48.4%), men (48%), questioning or unsure (2.2%), non-binary or genderqueer/fluid (.4%), transgender (.4%), and two-spirit (.4%). Our sample consisted of individuals who identified as: Latinx/a/o (32.4%), Asian or Asian-American (21.8%), White or Euro-American (14.6%), Black or African-American (14.3%), Multi-Racial (11%), Middle-Eastern, Arab, or Arab American (4%), Native-American, Alaskan Native, Native Hawaiian, or Pacific Islander (1.8%). In terms of sexual orientation, participants identified as: heterosexual (79.8%), lesbian (10.4%), asexual (3.1%), bisexual (2%), queer (2%), gay (1.2%), or chose not to answer (1.5%). In terms of relationship status, participants reported that they were currently: married (28%), seriously dating or in a committed relationship (21.2%), single (9.8%), casually dating (5.4%), or formally engaged (2%). Some reported that they were never in a romantic relationship (24.5%) or chose other (9%) relationship status (e.g., friends with benefits, widow, recently broken up from long-term relationship, separated, religiously married but not legally, cohabitating).

In terms of generation status (i.e., one's position within their family immigration history in the U.S), 40.5% of participants identified as second generation (i.e., having at least one immigrant parent), 39.1% identified as 1.5 generation (i.e., born in a country outside of the U.S and arrived to the U.S before freshman year of high school), 11.6% reported being third generation or higher, and 7.9% identified as first-generation (i.e., born in a country outside of the U.S and arrived to the U.S after freshman year). In terms of geographic location in the U.S., participants reported that they are currently located in the West Coast (28.3%), South (27.2%), East Coast (26%), Midwest (17.3), or Islands (1%). When asked if they have engaged in consensual penile-vaginal, oral, or anal sex in their lifetime, the majority of participants reported, "yes" (81.5%) and the remaining reported, "no" (16.4%) or "prefer not to answer (2.1%).

Furthermore, most participants reported that they had at least one biological, adoptive, or legal child (71.9%) and others reported that they have no children (28.1%). Further information regarding education, income, marital history can be found on Table 1.

Measures

Self-Determined Motivations for Sexual Learning Scale (MSL)

The Relative Autonomy Index (RAI; Sheldon et al., 2017) is a 35-item list of paraphrases that can be adapted for the behavior of interest (e.g., I once had good reasons for doing X, but now I don't, ... because I want to do X). These items are grouped under intended subscales according to SDT's continuum of motivation and regulatory styles— Amotivation (AM), External (EX), Introjected (IJ), Identified (ID), and Intrinsic (IN)—and were modified to develop the Self-Determined Motivations for Sexual Learning Scale (MSL; See [Appendix A](#) for the list of 47 items). Although we view integrated and identified motivation as distinct theoretical constructs, we adopt the approach of combining these two constructs when developing a measure as they are highly correlated with one another when tested empirically (Sheldon et al., 2017). Participants rated items on a 6-point scale (1=*not at all true*, 6=*completely true*) where higher values indicate the extent to which the answers are true for each statement.

Measures for Validity Testing

Sexual Motivation (SM)

Sexual motivation (i.e., motivation to engage in partnered sex) was measured through the 24-item Sexual Motivation Scale (SexMS; Gravel, Pelletier, & Reissing, 2016) which assesses six domains of motivation and self-regulation in sexual relationships based on self-determination theory. It consists of questions such as, “Please indicate to what extent each of the statements corresponds to your motives for having sexual relationships...Because sex is fun, Because

sexuality is a key part of who I am, To prove to myself that I am sexually attractive.” Items are scored on a 7-point Likert scale (1=Not at all true, 7=Very True) where higher values indicated a greater degree to which the answers were true for each statement. Sexual motivation yielded high reliability on all six subscales of the SexMs by those who reported having consensual partnered sex within our sample ($n = 392$): Intrinsic ($\alpha = .97$), Integrated ($\alpha = .93$), Identified ($\alpha = .97$), Introjected ($\alpha = .83$), External ($\alpha = .91$), Amotivation ($\alpha = .97$).

SDT suggests that those who engage in sexual behavior due to personal choice and intrinsic interest (rather than external pressure or obligation) are more likely to exhibit positive affect towards sex and positive sexual self-schema (Brunell & Webster, 2013). From this theoretical perspective, it is relevant to examine whether individuals with higher levels of self-determination in sexual engagement are more likely to pursue sexual learning for autonomous reasons or ascribe greater value to sexual learning (i.e., identified regulation) in general. Hence, we hypothesize that those with greater self-determined sexual motivation (i.e., intrinsic, integrated, identified regulation) would also be positively associated with more autonomous motivation for sexual learning. Additionally, we hypothesize that those who exhibit amotivation, external, introjected regulation for sexual engagement would mirror similar outcomes for amotivation, external, introjected motivations for sexual learning.

Sexual Assertiveness (SA)

Sexual assertiveness was measured through the sexual initiation and satisfaction and refusal of unwanted sex subscales of the 18-item Sexual Assertiveness Questionnaire (SAQ; Loshek & Terell, 2015) which included items such as, “I am open with my partner about my sexual needs.” Individual items were measured on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Items were averaged and coded so that higher scores indicated

more sexual assertiveness. Sexual assertiveness yielded moderate reliability on the two subscales used for this study among participants who reported having consensual partnered sex ($n = 392$): Communication about Sexual Initiation and Satisfaction ($\alpha = .70$), Refusal of Unwanted Sexual Acts ($\alpha = .74$).

SDT posits that self-determined sexual motivation (i.e., motivation to engage in partnered sex) is positively associated with engaging in behaviors that fulfill sexual need satisfaction (Brunell & Webster, 2013) such as, sexual assertiveness and initiation. In contrast, individuals who demonstrate lower levels of sexual assertiveness may be more influenced by controlled motivations, which are regulated by external or social factors—including partner dynamics and expectations. This framework is further supported by a systematic meta-analysis of couple sexual communication behaviors, which found that when couples engage in discussions about their sexual relationship, it positively relates to both relationship and sexual satisfaction (Mallory, 2022). Hence, we hypothesize that those with higher degrees of sexual assertiveness would exhibit greater associations with motivation to learn.

Sexual Embarrassment (SE)

Sexual embarrassment was measured through the sexual embarrassment subscale of the 12-item Sexual Self-Consciousness Scale (SSCS; van Lankveld, Geijen, & Sykora, 2008) which evaluates the degree of an individual's self-consciousness and embarrassment in sexual situations. It consists of questions such as, "It takes quite some time for me to overcome my shyness in sexual situations." Items are scored on a 5-point Likert scale (0= *strongly disagree*, 4= *strongly agree*). Items were averaged and re-coded so that higher scores indicated a greater sense of embarrassment. Sexual embarrassment yielded high reliability ($\alpha = .87$) for participants reported having a history of consensual sex within this study ($n = 392$).

SDT emphasizes the role of social conditions shaping self-regulation and volition (Ryan & Deci, 2017). From this perspective, sexual embarrassment may function as an indicator of introjected regulation. Thus, individuals may engage in sexual learning to reduce feeling of inadequacy, self-criticism, and avoid judgment. Sexual embarrassment may hinder or facilitate motivation for sexual learning depending on the type of regulation driving the person's behavior. For example, individuals may feel guilty or anxious about their lack of sexual knowledge and engage in learning to alleviate self-imposed pressure (introjected) or be motivated to learn to meet their partner's expectations or avoid stigma (external regulation). Hence, we hypothesize that those with higher sense of sexual embarrassment would be positively associated with external or introjected motivation for sexual learning.

Sexual Satisfaction

Sexual satisfaction was measured through the 5-item Global Measure of Sexual Satisfaction (GMSEX; Bigras et al., 2023) which is a multi-domain measure of holistic sexual well-being intended for individual, communal, and population surveys. It consists of a single question, "Overall, how would you describe your sexual relationship with your current or most recent partner?", followed by five semantic differential response options on a 7-point scale: (1= *very bad*, 7= *very good*; 1= *very unpleasant*, 7= *very pleasant*; 1= *very negative*, 7= *very positive*; 1= *very unsatisfying*, 7= *very satisfying*; 1= *worthless*, 7= *valuable*), with higher scores indicating greater sexual satisfaction. Sexual satisfaction yielded high reliability ($\alpha = .97$) for participants reported having a history of consensual sex within this study ($n = 392$).

SDT suggests that engaging in sex for self-determined reasons (e.g., personal pleasure, valuing sex) results in greater sexual satisfaction (Price et al., 2022; Wood et al., 2018; Brunell & Webster, 2013). This might suggest that individuals with higher levels of sexual satisfaction

might be more motivated to engage in sexual learning. Conversely, individuals with lower sexual satisfaction may seek out sexual learning as a means to improve their experiences, enhance sexual well-being, and acquire greater tools for greater sexual fulfillment. Of course, this rests on the assumption that the desire to learn about sex to improve the sexual satisfaction is self-determined and not part of a needs thwarting relationship dynamic that helped to produce the low sexual satisfaction. So, although possible, it is more likely that higher levels of sexual satisfaction will be associated with self-determined motivations for sexual learning.

Sexual Distress (SD)

Sexual distress was measured through the three-item Sexual Distress Scale (SDS-3; Lin et al., 2024) which is a frequently used assessment for distress related to sexuality in public health surveys. It consists of questions such as, “How often do you feel distressed about your sex life? Inferior because of sexual problems? Worried about sex?” Items are scored a 5-point Likert scale (1=Never, 5= Always) and recoded to where higher scores indicated a greater sense of sexual distress. Sexual distress yielded high reliability ($\alpha = .88$) for all participants within our sample ($N = 482$).

Following previous SDT sexual motivation measurement studies that found intrinsic motivation to be negatively correlated with sexual distress (Gravel et al., 2015), we hypothesize that individual with more autonomous reasons to engage in sexual learning would exhibit lower degrees of sexual distress. Conversely, we hypothesize that those who report introjected, external, or amotivated reasons to learn about sex would experience greater sexual distress.

Perceived Importance of Adult Sexual Education (PISE)

Perceived importance of adult sexual education (PI) was assessed through the following two questions formulated for the purpose of this study: 1) How important is sex education to

you? 2) How important is sex education for adults (i.e., 18 years and older)? Items are scored on a 5-point Likert scale (1= *not at all important*, 5= *very important*) where higher values indicated higher sense of perceived importance. Perceived importance of adult sexual education yielded good reliability for all participants within this study ($\alpha = .76$). Although this measure is not psychometrically established, we incorporated these questions to establish stronger face validity related to the concept of interest.

As our goal to is develop a measure that assesses adults' motivations for sexual learning, we felt that it was important to gage their personal attitudes towards adult sexual education informed by andragogy principles that highlight aligning to adults' personal interests (Gom, 2009). Furthermore, this reflects SDT principles of intrinsic motivation and regulation (Sheldon et al., 2017). We hypothesize that those who reported higher degrees of perceived importance would demonstrate greater autonomous motivation for sexual learning.

Demographic Information

Demographic variables that were collected include information related to: race/ethnicity (e.g., Multi-Racial, LatinX, Black/African American, Asian or Asian-American, Native, White, Middle-Eastern), age (in years), education (e.g., high school diploma, associate's degree, bachelor's degree, graduate or professional degree), sexual identity/orientation (e.g., heterosexual/straight, gay, lesbian, pansexual, queer, questioning, asexual, other not listed), gender identity (e.g., woman, man, transgender man/woman, non-binary, genderqueer/gender-fluid), current relationship status (e.g., single, casually dating, seriously dating, engaged, married) and length (in years or months), engagement of consensual sex in lifetime (i.e., yes, no, prefer not to disclose), history of sexual trauma or unwanted touch (i.e., yes, no, prefer not to disclose), previous relationship status, number of children, geographic location (e.g., East Coast,

West Coast, Midwest, South), geographic context (e.g., urban, suburban, rural), general mental health functioning (e.g., CESD).

Additionally, given the sensitive nature of sexual topics, it was important to consider potential psychological distress or discomfort particularly among individuals with a history of sexual trauma or witnessing sexually abusive behaviors (Sears, Byers, & Price, 2007). Hence, history of sexual trauma was assessed with the following questions, “Have you ever been touched sexually against your will or without your consent in your lifetime? Have you ever experienced oral, penile-vaginal, or anal sex against your will or without your consent in your lifetime?” These questions were developed following best practices for trauma-informed screening of sexual violence among healthcare providers (Pennsylvania Coalition Against Rape, 2007). Potential responses included, “Yes,” “No,” and “Prefer not to disclose.” Items were re-coded into one dummy variable where participants who reported “Prefer not to disclose” were removed (1= *yes*, 0= *no*).

Given empirical evidence that sexual trauma is associated with subsequent sexual difficulties (O’Driscoll & Flanagan, 2016), such experiences may profoundly influence an individual's desire to engage in sexual learning in nuanced and deeply personal ways. Although this study only assesses the presence of traumatic experiences or unwanted touch, we hypothesize that individuals with a trauma history may approach sexual learning with regulated motivations (external or introjected).

Analysis Plan

For this quantitative study, exploratory factor analyses (EFAs) using SPSS (IBM Corporation, 2013) were first conducted, followed by confirmatory factor analyses (CFAs) in MPlus 6.11 (Muthen & Muthen, 2012). The purpose of the EFA was to identify the underlying

factor structure of the items and to determine if it supported the six-factor structure outlined in SDT (i.e., intrinsic, identified, positive introjected, negative introjected, external, amotivation). In addition, the purpose of the EFA was to assess the item-factor relationships and determine if the 47 developed items (see [Appendix A](#)) loaded onto their theoretically derived factors. If items did not load as expected or loaded onto multiple factors, they were removed to improve the scale. Two common tests assessing sampling adequacy were used. A Kaiser-Meyer-Olkin or KMO > .80 and a Bartlett's Test of Sphericity of $p < .05$ were used to assess whether our sample was adequate for interpreting the results of the EFA. We used principal axis factoring (PAF) and promax rotation as PAF is the preferred extraction method when data are non-normally distributed as is common with psychological variables and when the goal is estimating latent factors (Fabrigar, Wegener, MacCallum, & Strahan, 1999; Thompson, 2004). Promax rotation is preferable when factors are assumed to correlate, as SDT theory suggests that these motivations will (Tabachnick & Fidell, 2019). In addition, Eigenvalues > 1 and a scree plot were used to determine the number of relevant factors. To determine the adequacy of individual items for each factor—we followed the general convention that an item needed a factor loading of at least .40 on a single factor, with cross loadings of < .30 on all other factors, and a communality > .30, otherwise, it was removed in the scale development process.

Next, we used confirmatory factor analyses (CFAs) to develop an adequate measurement model that reflects our constructs of interest (e.g., motivations for sexual learning). We implement this approach as it is widely-accepted for measurement development research within our field (Jones, Jones, & Morris; 2018; Kline, 2011). Model fit was assessed through Kline (2023)'s recommendations of a non-significant chi-square, comparative fit index (CFI) ≥ 0.90 , standardized root mean square residual (SRMR) ≤ 0.10 , and root mean square error of

approximation ($RMSEA \leq 0.08$). Missing data were handled through FIML which is the default on Mplus 6.11, although there were no missing data for the motivations for sexual learning scale.

Chapter 4 - Results

Exploratory Factor Analyses

An Exploratory Factor Analysis (EFA) was conducted using SPSS 21 (IBM Corporation, 2013) using principal axis factoring (PAF) and promax rotation. The first EFA included all 47-items in the Self-Determined Motivations for Sexual Learning scale. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .96 and the Bartlett's test of sphericity was significant, $\chi^2(1081) = 16397$, $p < .001$, suggesting a sample that strongly meets criteria for EFA. A six-factor solution was extracted based upon the scree plot and eigenvalues > 1 , which explained 58.2% of the total variance. The problem emerged when looking at the positive introjected individual items. They either loaded on none of the factors (items 18, 20, 25), more than one factor (items 21, 23), on the wrong factor (item 22), or on ill-defined factors (items 17, 19, 24). Positive introjects are a relatively new addition to the motivation continuum and as of yet, few studies have found that it is empirically distinctive, though theoretically it might be justified. Given this, we decided to drop the positive introjected items and re-run the EFA with the remaining 38-items to determine if they fit the theoretically expected five factors.

This second EFA had a KMO of .96 and the Bartlett's test of sphericity was significant, $\chi^2(703) = 129941$, $p < .001$, suggesting that correlations among variables were strong enough for factor analysis. A five-factor solution was extracted based on the scree plot and eigenvalues > 1 , which explained 57.7% of the total variance. Factor 1 accounted for 34.36% of the variance, Factor 2 for 15.46%, Factor 3 for 3.90%, Factor 4 for 2.16%, and Factor 5 for 1.80%. A further 13-items were dropped due to low factor loadings $< .40$ (items 29, 35, 39), high cross loadings $>$

.30 on multiple factors (items 10, 11, 12, 31, 34), or loading onto the wrong factor (items 36, 40, 41, 42). Item 8 had a cross loading of -.27, which theoretically is permissible. But, this relatively high cross-loading, combined with a relatively low communality compared to the other items in this subscale (.46) and the high number of items in this subscale led to the decision to drop this item as well. We then re-ran an EFA with the remaining 25-items.

The final EFA had a KMO of .95 and the Bartlett's test of sphericity was significant, $\chi^2(300) = 9160.97$, $p < .001$, which suggests correlations between items met criteria for factor analysis. A four-factor solution was extracted based upon the eigenvalues > 1 and the scree plot (see Table 2). The four factors explained 63.5% of the total variance. Factor 1 accounted for 38.01% of the variance, Factor 2 for 17.88%, Factor 3 for 5.16% and Factor four 2.49%. Factor loadings and cross-loadings were examined and all items loaded strongly on a single factor (.562 or higher) with minimal cross-loadings ($< .30$).

Table 2

Pattern matrix and factor loadings based on Items in Appendix A, Conducting EFAs using Principal Axis Factoring and Promax Rotation (N = 482)

Questionnaire Items	Factor Loadings				h^2
	1	2	3	4	
MSL1: I enjoy learning about sex	.955	-.043	-.149	.069	.83
MSL2: Learning about sex is fun	.933	.010	-.133	.039	.77
MSL3: It is a pleasure to learn about sex	.903	.031	-.090	.035	.74
MSL4: Learning about sex is interesting	.863	-.087	-.064	-.006	.74
MSL5: Learning about sex is exciting	.892	.085	-.093	.031	.70
MSL 6: I strongly value learning about sex	.805	-.001	.110	-.012	.74
MSL 7: Learning about sex is personally important to me	.773	.007	.184	-.065	.75
MSL 9: Learning about sex is meaningful to me	.775	-.038	.163	-.018	.76
MSL 13: Learning about sex helps me grow as a person	.682	.017	.173	-.097	.58
MSL 14: Learning about sex feels like an integral part of who I am	.679	.170	.150	-.087	.52
MSL 15: I want to learn about sex	.789	-.119	-.041	.088	.67
MSL 16: Learning about sex is personally satisfying to me	.884	.083	.016	-.038	.75
MSL 26: I would feel guilty if I didn't learn about sex	-.006	-.018	.706	.215	.69
MSL 27: I would feel ashamed if I didn't learn about sex	-.059	.022	.769	.078	.62
MSL 28: I would feel ignorant if I didn't learn about sex	.148	-.072	.625	-.134	.44
MSL 30: I would feel like a failure if I didn't learn about sex	.046	.051	.664	.067	.53
MSL 32: Others would be upset with me if I didn't learn about sex	-.036	-.045	.063	.873	.77
MSL 33: Other would be disappointed in me if I didn't learn about sex	-.002	-.044	.213	.700	.65
MSL 37: Others are putting pressure on me to learn about sex	.016	.263	-.004	.562	.54
MSL 38: If I don't learn about sex, others will get mad	.019	.097	-.052	.782	.66
MSL 43: I once had good reasons for learning about sex but now I don't	.024	.663	.057	-.011	.44
MSL 44: Honestly. I don't know why I have to learn about sex	.019	.748	-.076	.061	.60

MSL 45: I'm not sure, I wonder whether I should learn about sex	-.006	.575	-.083	.209	.49
MSL 46: I used to know why I learn about sex but I don't anymore	.185	.630	.045	-.033	.36
MSL 47: Honestly, I don't have any motivation to learn about sex	-.260	.685	.048	-.132	.55

Note: Factor loadings >.40 are indicated by bold typeface. In this analysis, Factor 1 can be described as Autonomous Motivation; Factor 2 can be described as Amotivation; Factor 3 can be described as Introjection; Factor 4 can be described as External Motivation.

Factor 1 (Autonomous Motivation) consisted of 12 items related to learning about sex due to personal enjoyment, pleasure, choice, valuing learning, and growth. Based on SDT theory, intrinsic motivation and identified motivation are separate and distinct, but in these data the two theoretical subscales were empirically indistinguishable and thus are a single factor ($\alpha = 0.96$). Factor 2 (Amotivation) consisted of five-items related to complete lack of motivation to engage in sexual learning ($\alpha = 0.80$). Factor 3 (Introjected) consisted of four-items related to internal pressure (e.g., “should”) where sexual learning was driven by a sense of guilt, self-criticism, or shame ($\alpha = 0.82$). Factor 4 (External Motivation) consisted of four-items related to external pressure from others (e.g., important people) to learn about sex ($\alpha = 0.87$).

Confirmatory Factor Analyses

Next, a confirmatory factor analysis (CFA) was conducted in MPlus 6.11 (Muthen & Muthen, 2012) to further assess the factor structure of the MSL using a four-factor model—autonomous motivation, introjected motivation, external motivation, and amotivation. The hypothesized four-factor model displayed a respectable fit: $\chi^2(260) = 733.33$, $p < .001$; CFI = .948, TLI = .94, RMSEA = .06, 90% CI [.06, .07], SRMR = 0.08.

The unstandardized factor loadings, standardized factor loadings, standard errors, and p - values are presented for each item in Table 3. Overall, the four-factor structure demonstrated strong factor loadings with all items loading significantly ($p < .001$) onto their respective latent constructs. Within autonomous motivation for sexual learning, each item had standardized factor loadings between .81 and .96 indicating strong associations with the latent construct and providing further support for identified and intrinsic items functioning as a single construct. For introjected motivation for sexual learning, items showed a broader spectrum of factor loadings ranging from .56 to .95, reflecting internalized pressures associated with learning about sex.

These items particularly noted feelings related to guilt, shame, and self-criticism contributing to motivation to learn about sex. Item 21 (i.e., “I would feel guilty if I didn’t learn about sex”) demonstrated the highest standardized loading of .86. For external motivation for sexual learning, items demonstrated strong loadings between .72 to 1.0 with the highest loading being Item 33 (i.e., “Others would be disappointed in me if I didn’t learn about sex”). These items highlight the role of “others” consistently within all items displaying strong association with the latent construct. Finally, amotivation for sexual learning had standardized factor loadings ranging from .56 to .80 with, Item 47 (i.e., “Honestly, I don’t have any motivation to learn about sex”) demonstrating the lowest loading indicating a weaker but still significant association with the latent construct. These items reflect complete absence of motivation or uncertainty related to the importance of sexual learning. These findings support the validity of the four-factor structure of the MSL scale, mostly aligning with theoretical expectations. The results suggest that motivations for sexual learning can be organized into distinct motivational constructs ranging from autonomous engagement to complete lack of motivation.

Table 3

Unstandardized loadings (standard errors) and standardized loadings for 4-factor Confirmatory Model of Self-Determined Motivations for Sexual Learning (N = 482).

Questionnaire Items	Unstandardized	Standard Error (SE)	Standardized
Autonomous Motivation for Sexual Learning			
MSL1: I enjoy learning about sex	-	-	.91
MSL2: Learning about sex is fun	.96***	.03	.87
MSL3: It is a pleasure to learn about sex	.94***	.87	.87
MSL4: Learning about sex is interesting	.91***	.87	.87
MSL5: Learning about sex is exciting	.89***	.84	.84
MSL 6: I strongly value learning about sex	.96***	.84	.84
MSL 7: Learning about sex is personally important to me	.95***	.83	.83
MSL 13: Learning about sex helps me grow as a person	.79***	.73	.73
MSL 14: Learning about sex feels like an integral part of who I am	.80***	.69	.69
MSL 15: I want to learn about sex	.87***	.81	.81
MSL 16: Learning about sex is personally satisfying to me	.96***	.86	.86
Introjected Motivation for Sexual Learning			
MSL 26: I would feel guilty if I didn't learn about sex	-	-	.86
MSL 27: I would feel ashamed if I didn't learn about sex	.95***	.05	.78
MSL 28: I would feel ignorant if I didn't learn about sex	.70***	.06	.57
MSL 30: I would feel like a failure if I didn't learn about sex	.88***	.05	.73
External Motivation for Sexual Learning			
MSL 32: Others would be upset with me if I didn't learn about sex	-	-	.87
MSL 33: Other would be disappointed in me if I didn't learn about sex	1.00***	.05	.79
MSL 37: Others are putting pressure on me to learn about sex	.73***	.04	.72

MSL 38: If I don't learn about sex, others will get mad	.78***	.04	.81
Amotivation for Sexual Learning			
MSL 43: I once had good reasons for learning about sex but now I don't	-	-	.62
MSL 44: Honestly, I don't know why I have to learn about sex	1.14***	.10	.79
MSL 45: I'm not sure, I wonder whether I should learn about sex	1.04***	.01	.73
MSL 46: I used to know why I learn about sex but I don't anymore	.82***	.08	.53
MSL 47: Honestly, I don't have any motivation to learn about sex	1.11***	.10	.66

Note: * $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed).

Table 4

Correlations among latent constructs of autonomous motivation, introjected motivation, external motivation, amotivation of the Self-Determined Motivations for Sexual Learning scale ($N = 482$).

Variables	1	2	3	4
1. Autonomous Motivation for Sexual Learning	-			
2. Introjected Motivation for Sexual Learning	.46***	-		
3. External Motivation for Sexual Learning	.14*	.63***	-	
4. Amotivation for Sexual Learning	-.29***	.13**	.56***	-

Note: * $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed).

Table 4 presents the intercorrelations between the latent factors from the CFA. The pattern of correlations demonstrates the theoretically expected step pattern, where motivation factors more closely related theoretically are also more highly correlated statistically. As expected, autonomous motivation for sexual learning was positively and moderately correlated with introjected motivation for sexual learning ($r = .46, p < .001$), positively and weakly correlated with external motivation for sexual learning ($r = .14, p = .004$), and negatively correlated with amotivation for sexual learning ($r = -.29, p < .001$). Introjected motivation for sexual learning was positively and strongly correlated with external motivation for sexual learning ($r = .63, p < .001$) and positively, but weakly correlated with amotivation ($r = .13, p < .021$). Finally, external motivation for sexual learning and amotivation for sexual learning were positively and strongly correlated ($r = .56, p < .001$).

Preliminary Validity Testing: Associations Between the Motivations for Sexual Learning Scale and Other Constructs

To examine preliminary evidence of construct validity, bivariate correlations were computed between the Self-Determined Motivations for Sexual Learning scale (MSL) and related constructs. Table 5 presents the intercorrelations among all of the measures used for validity testing.

Autonomous Motivation for Sexual Learning

As hypothesized, autonomous motivation for sexual learning was positively and highly correlated with intrinsic sexual motivation ($r = .55, p < .01$), integrated sexual motivation ($r = .69, p < .01$), identified sexual motivation ($r = .62, p < .01$), and moderately correlated with introjected sexual motivation ($r = .39, p < .01$). Additionally, it demonstrated a small but significant negative correlation with amotivation ($r = -.26, p < .01$). This is not surprising as

those who may exhibit lack of motivation and values towards sex are also not as likely to find importance to sexual learning. Notably, this was the only form of sexual learning motivation for which external sexual motivation was not significantly associated with. This finding supports the theoretical assumption that those who exhibit identified, integrated, and intrinsic sexual motivation are also likely to demonstrate autonomous motivations for sexual learning concurrently. Interestingly, the significant association with introjected sexual motivation may suggest that individuals who display internal pressures or self-criticism may still be autonomously driven to learn about sexuality, potentially as a means to address perceived inadequacies as suggested by the positive correlation with sexual embarrassment ($r = .22, p < .01$).

Furthermore, autonomous motivation for sexual learning was positively and strongly correlated with perceived importance of sexual education ($r = .61, p < .01$) supporting theoretical assumptions related to personal values (i.e., identified value of importance towards a subject) as strongly associated with autonomous motivation for learning. Additionally, autonomous motivation for sexual learning was positively associated with sexual satisfaction ($r = .23, p < .01$) supporting its link to more fulfilling and self-directed sexual experiences. Interestingly, autonomous motivation for sexual learning had a positive, but small correlation with sexual distress ($r = .09, p < .05$) suggesting that experiencing sexual distress may serve as an opportunity to engage in more proactive solutions (supporting the value of utility within adults).

Introjected Motivation for Sexual Learning

Not surprisingly, introjected motivation for sexual learning was moderately and positively associated with introjected sexual motivation ($r = .42, p < .01$), indicating that individuals who pursue sexual learning due to internal pressures such as guilt or obligation tend

to exhibit similar motives in sexual engagement (or vice versa). Furthermore, introjected motivation for sexual learning demonstrated moderate associations with integrated sexual motivation ($r = .34, p < .01$) and identified sexual motivation ($r = .30, p < .01$), suggesting that potentially for some individuals—even those who exhibit internalized values for sexual engagement may engage in self-critical motives for sexual learning. Smaller yet significant, positive correlations were also observed with both external sexual motivation ($r = .22, p < .01$) and intrinsic sexual motivation ($r = .21, p < .01$) attesting to the complexities of this motivation continuum. Introjected motivation for sexual learning also had moderate associations with perceived importance of sexual education ($r = .36, p < .01$) and sexual distress ($r = .29, p < .01$) which further reinforces ongoing connections with sexual distress and perceived importance of sexual learning. This distress could further reinforce cycles related to desires to grow in sexual knowledge to “perform” sexually.

External Motivation for Sexual Learning

As expected, external motivation for sexual learning demonstrated patterns of associations consistent with externally regulated functioning as it was negatively associated with intrinsic sexual motivation ($r = -.29, p < .01$), integrated sexual motivation ($r = -.21, p < .01$), and identified sexual motivation ($r = -.29, p < .01$), reinforcing conceptual divide between autonomous and controlled forms of motivation. Furthermore, external motivation for sexual learning was moderately and positively associated with amotivation for sex ($r = .36, p < .01$) and external sexual motivation ($r = .37, p < .01$) indicating that external motives for learning about sex may also be reflected in multiple domains of sexual functioning. Furthermore, external motivation for sexual learning demonstrates the highest association with sexual distress ($r = .28, p < .01$) out of the four latent constructs. external motivation for sexual learning highlights

difficulty engaging in behaviors that may more adequately fulfill needs satisfaction as it was negatively associated with sexual initiation ($r = -.18, p < .01$) and refusal of unwanted sexual acts ($r = -.17, p < .01$). External motivation for sexual learning had a small, positive association with sexual embarrassment ($r = .16, p < .01$), further suggesting that externally motivated individuals may experience discomfort, self-consciousness, or lack of self-confidence in sexual contexts. Lastly, external motivation for sexual learning was the only motivation type that had a significant, yet small association with sexual trauma ($r = -.13, p < .01$), suggesting that individuals with a history of sexual trauma may be somewhat less likely to actively engage in sexual learning. This relationship, while modest, may reflect the emotional complexity or discomfort that trauma survivors experience when approaching sexual content.

Amotivation for Sexual Learning

Consistent with theory, amotivation for sexual learning was significantly and positively associated with amotivation for sex ($r = .50, p < .01$) and external sexual motivation ($r = .33, p < .01$), further suggesting that individuals who lack motivation to engage in sexual learning may also tend to exhibit similar disengagement in sexual activity or function from externally driven motivations in broader sexual behavior. This alignment underscores conceptual consistency of amotivation across multiple domains. Consistent with theoretical hypotheses, amotivation for sexual learning was negatively associated with all three forms of autonomous sexual motivation including: intrinsic sexual motivation ($r = -.29, p < .01$), integrated sexual motivation ($r = -.21, p < .01$), and identified sexual motivation ($r = -.27, p < .01$). This finding further reinforces its distinction on the lowest end of the self-determined motivation continuum and suggests that those with higher levels of motivation may not see the relevance or purpose in sexual learning.

Furthermore, amotivation for sexual learning was meaningfully related to behavioral outcomes related to sexual initiation ($r = -.23, p < .01$) and refusal of unwanted sexual acts ($r = -.26, p < .01$). These findings suggest that individuals with higher levels of amotivation may experience decreased agency and assertiveness in sexual situations. Additionally, AMSL demonstrated a moderate negative association with perceived importance of sexual education ($r = -.29, p < .01$) reflecting a general devaluation or aloof attitudes towards sexual knowledge. AMSL was also positively associated with sexual embarrassment ($r = .21, p < .01$) suggesting that individuals who are amotivated in sexual learning may also experience heightened discomfort or shame in sexual settings although it may not always be as noticeable as those who demonstrate external regulation.

Table 5

Correlations among motivation for sexual learning, sexual motivation, sexual assertiveness, sexual embarrassment, sexual satisfaction, and perceived importance of sexual education and descriptive statistics ($N = 482$).

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Autonomous Motivation for Sexual Learning	-																
2. Introjected Motivation for Sexual Learning	.47**	-															
3. External Motivation for Sexual Learning	.15**	.50**	-														
4. Amotivation for Sexual Learning	-.23**	.08	.48**	-													
5. Intrinsic Sexual Motivation	.55**	.21**	-.04	-.29**	-												
6. Integrated Sexual Motivation	.69**	.34**	.09	-.21**	.72**	-											
7. Identified Sexual Motivation	.62**	.30**	.02	-.27**	.63**	.72**	-										
8. Introjected Sexual Motivation	.39**	.42**	.27**	.04	.30**	.41**	.45**	-									
9. External Sexual Motivation	.02	.22**	.37**	.33**	-.16 _s **	-.03	-.01	.43**	-								

10. Amotivation for Sex	-.26 **	.05	.36 **	.50 **	-.56 **	-.40 **	-.34 **	-.02	.43 **	-							
11. Sexual Initiation	.31 **	.04	-.18 **	-.23 **	.52 **	.41 **	.38 **	.06	-.14 **	-.37 **	-						
12. Refusal of Unwanted Sexual Acts	.09	-.07	-.17 **	-.26 **	.23 **	.11 *	.11 *	-.19 **	-.52 **	-.29 **	.20 **	-					
13. Sexual Embarrassment	.22 **	.06	.16 **	.21 **	-.44 **	.38 **	-.21 **	.09	.25 **	.38 **	-.46 **	-.14 **	-				
14. Sexual Satisfaction	.23 **	.05	-.04	-.05	.42 **	.33 **	.26 **	.02	- .13*	.28 **	.54 **	.19 **	.31 **	-			
15. Sexual Distress	.09 *	.29 **	.28 **	.13 **	-.17 **	-.06	-.06	.26 **	.31 **	.25 **	-.34 **	-.26 **	-.04	-.40 **	-		
16. Perceived Importance of Sexual Education	.61 **	.36 **	.03	-.29 **	.30 **	.44 **	.46 **	.24 **	-.02	-.17 **	.23 **	.16 **	.03	.18 **	.07	-	
17. Sexual Trauma	.05	-.03	-.13 **	-.06	-.12 *	-.07	.01	-.14 **	-.04	.14 **	-.07	-.02	.11 *	-.14 **	.11 **	.15 **	-
M or %	3.88	2.91	1.71	1.67	5.67	4.71	5.10	3.86	3.00	1.87	5.03	5.35	2.80	5.46	2.13	4.10	.43
SD	1.29	1.30	.99	.87	1.34	1.65	1.38	1.79	1.55	1.29	.98	1.14	1.07	1.44	1.02	.88	.88
Range	1-6	1-6	1-6	1-6	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-5	1-7	1-5	1-5	0-1
α	.96	.96	.87	.80	.97	.93	.97	.83	.91	.97	.70	.74	.87	.97	.88	.76	NA

Note: N Note: NA = not applicable. Significant correlations with the MSL scale are bolded. * $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed). NA = not applicable. Significant correlations with the MSL scale are bolded. * $p < .05$. ** $p < .01$. *** $p < .001$ (two-tailed)

Chapter 5 - Discussion

The present study sought to explore and validate a multidimensional understanding of adult motivation for sexual learning utilizing SDT as a guiding framework (see [Appendix B](#) for the final version of the MSL). Our results highlight the functional distinctions between autonomous, introjected, external, and amotivated motivations in sexual learning and their respective associations with sexual behaviors, perceived importance of sexual education, and emotional outcomes. These findings carry implications for the design and evaluation of adult sex-ed programs, particularly in light of persistent gaps and relevance for adult populations (SIECUS, 2024; Gom, 2009) and racial and cultural minorities (DeCuir-Gunby & Shutz, 2014; Matthews & Lopez, 2020).

Theoretical Implications

These findings extend self-determination theory (SDT) into the relatively underexplored context of adult sexual learning, supporting the theory's core premise of a motivation continuum. Hypothesis 1: The MSLscale will reflect a six-factor structure reflecting each portion of SDT's motivation continuum—intrinsic, identified, positive introjected, negative introjected, external amotivation for sexual learning. Our findings did not find a six-factor structure for two reasons. First, we were unable to produce a distinct positive introjected subscale. The originally developed items loaded across subscales and failed to load onto a single unique factor. To some degree this isn't surprising, as support for a separate and distinct positive introjected subscale is largely theoretical, with few scales finding empirical support for this subscale to date. Second, we found it necessary to combine intrinsic and identified motivation into a single autonomous subscale. One possible explanation is that learning about sex may not be intrinsically motivating for most people. Instead, it's likely driven by identified motivations—such as valuing knowledge

for health, relationships, or personal growth—rather than by pure interest or enjoyment. To better understand this, future research could use qualitative interviews to explore how participants interpret questions about intrinsic and identified motivation for sexual learning, and whether they experience these as distinct. Alternatively, the overlap between intrinsic and identified items could reflect limitations in item wording or construction. Supporting this possibility, when we separated the autonomous subscale into its theoretically derived intrinsic and identified components, they were highly correlated ($r = .87, p < .001$), suggesting they may be tapping into the same or very similar construct. However, they still followed the expected SDT stepped correlation pattern: intrinsic motivation showed weaker associations with introjected ($r = .40, p < .001$) and external motivation ($r = .11, p = .019$), and a stronger negative correlation with amotivation ($r = -.23, p < .001$), compared to identified motivation, which was more strongly related to introjected ($r = .50, p < .001$) and external motivation ($r = .17, p < .001$), and less strongly correlated with amotivation ($r = -.21, p < .001$). Although these findings are suggestive, further refinement of the intrinsic and identified subscales may be necessary to determine whether the issue lies in item construction or whether intrinsic motivation simply plays a less prominent role in adult sexual learning for many people.

Regarding Hypothesis 2: The subscales of the final measure will display a step pattern. The adjacent motivation types on the continuum will be more strongly related than distant ones, due to their similar levels of internalization. Our results followed the expected SDT correlation step pattern (see Table 4). Autonomous motivation was more highly correlated with introjected motivation than it was to external motivation and negatively correlated with amotivation, showing decreasing associations as you move down the external regulation motivation continuum and the expected negative association with amotivation. Likewise, introjected

motivation was more highly correlated with external motivation—another form of controlled motivation—than it was to autonomous motivation. Finally, external motivation was the most highly correlated subscale with amotivation, being the closest subscale theoretically to amotivation on the continuum.

Regarding Hypothesis 3: Engaging in sexual learning for more autonomous reasons (i.e., intrinsic, identified) for sexual learning will be positively associated with more sexual well-being outcomes related to sexual motivation (i.e., self-determined motivations for having sex), sexual assertiveness, sexual satisfaction, and perceived importance of sexual education for adults and negatively associated with sexual embarrassment and sexual distress. As hypothesized, the strong correlations between autonomous regulation and sexual well-being indicators (i.e., self-determined sexual motivation, sexual satisfaction, sexual assertiveness, perceived importance) reaffirm the scale's convergent validity as well as concurrent validity with relevant constructs. Furthermore, it highlights the critical importance of supportive educational environments in fostering self-endorsed engagement with learning (Howard et al., 2021; Wood et al., 2018). SDT posits that the satisfaction of three basic psychological needs (i.e., autonomy, competence, and relatedness) facilitates higher-quality motivation and improved outcomes (Ryan & Deci, 2017; Walters, Silva, & Nikolai, 2017). Interestingly, introjected motivation was associated not only with sexual distress but also with autonomous motives, suggesting that some learners may be in a mixed or transitional state of internalization. SDT describes this process as a motivational shift, where individuals gradually adopt more self-congruent reasons for behavior over time (Vansteenkiste & Ryan, 2013). Weak correlations between external and amotivation for sexual learning and intrinsic and identified sexual motivation, satisfaction, and assertiveness suggest that the MSL captures distinct motivational constructs, supporting discriminant validity

Furthermore, this finding implies that adult sex education could play an essential role in helping individuals move toward greater motivational integration, especially when programs are designed to be relevant, emotionally safe, and encourage self-reflection.

Practical Implications for Adult Sex Education

This study reinforces the importance of understanding and assessing motivational quality in adult education contexts. When adults shift from externally regulated reasons (e.g., social pressure) to more autonomous ones (e.g., personal value)—this can be an indication of improvement or a successful learning outcome as this form of motivation is more sustainable and likely to support deeper learning and application (Hogben et al., 2022; Vu et al., 2022). Furthermore, autonomous motivation for sexual learning—including intrinsic and identified regulation—was positively associated with sexual satisfaction, sexual assertiveness, and the perceived importance of sex education. These outcomes support SDT’s assertion that autonomous motivation contributes to enhanced engagement (Guay, 2021), sexual well-being (Grave et al., 2021), and deeper internalization of learning (Ryan & Deci, 2020). In adult learning, such motivation is especially relevant, as adults are more likely to engage in educational opportunities that are meaningful, self-relevant, and aligned with their lived experiences (Gom, 2009; Knowles et al., 2015). Programs that emphasize personal growth, pleasure, emotional wellness, and relational insight—rather than merely focusing on risk reduction or reproductive knowledge—are likely to foster sustained interest and positive sexual development (Goldfarb & Lieberman, 2021; Busby et al., 2021).

Conversely, participants who reported introjected and external motivations for sexual learning—reflecting internal guilt or external coercion—were more likely to also experience sexual distress and embarrassment. These findings echo prior research demonstrating that

controlled motivation can undermine general well-being (Deci & Ryan, 2008). Educators must therefore avoid framing sex education in ways that invoke shame, moral obligation, or fear, and instead cultivate learning environments that are nonjudgmental, inclusive, and ultimately autonomy-supportive (Guay, 2021).

Notably, amotivation for sexual learning was strongly associated with negative emotional outcomes (e.g., sexual embarrassment), lower perceived value of sexual education, and reduced assertiveness. These findings are particularly important given that amotivation may reflect a sense of helplessness or disconnection from the content (Hogben et al., 2022). This group may require targeted interventions that emphasize competence building, self-reflection, and real-world applications through active learning (Coyle et al., 2019; Zheng et al., 2018)

These findings highlight how even if these programs may become available in the future—adults will bring a range of motivations towards participation. Hence, educators can recognize these differing and complex motivations when targeting and recruiting participants being informed by motivational profiles that reflect the complex interplay of cultural, emotional, educational, and identity-based factors (Jones et al., 2017; Lameiras-Fernandez et al., 2021). Such adjustments may involve highlighting the programs’ relevance throughout the lifespan (addressing issues such as postpartum sexuality, aging, or desire discrepancies; Arenella et al., 2024; Fitzpatrick et al., 2023) and incorporating gradual exposure to sexual education topics in order to rebuild positive associations with sexual learning (RSEI, 2021).

Limitations

First, the use of a cross-sectional design limits causal interpretations of the observed relationships. Longitudinal research is needed to assess how motivation for sexual learning may shift over time, especially across major life transitions such as parenting (Fitzpatrick, Rosen, &

Dawson, 2023), breakups, or divorce (Belu & O’Sullivan, 2024; Kaboosi et al., 2022). Second, all data were collected through self-report measures, which may be subject to social desirability bias especially in studies involving sexuality. Third, while this study sought to prioritize inclusivity by recruiting a racially and ethnically diverse sample, the findings may not fully represent all sociocultural groups, sexual identities, or non-sexually active individuals—voices that often excluded in sexuality and motivational research (Gravel et al., 2015; DeCuir-Gunby & Shutz, 2014; Matthews & Lopez, 2020). Future studies should consider qualitative or community-based participatory methods (McCuistan et al., 2023), particularly with racial and sexual minorities to capture deeper contextual insights. Finally, this study contributes to emerging calls to reimagine how we evaluate sexual education effectiveness. Rather than relying solely on knowledge or behavioral change outcomes (Goldfarb & Lieberman, 2021; Thulasi & Kumar, 2024), we argue for integrating motivational assessments into evaluation frameworks. Motivation shapes not only participation, but also how content is internalized, shared, and applied across multiple relational and cultural contexts (Gravel et al., 2016; Jansen et al., 2022).

Future Directions

While initial findings support the validity and utility of the proposed measure of motivation for sexual learning, there are many vital steps remaining for its ongoing development and validation. First, the factor structure identified in this pilot study needs to be replicated in an independent sample (particularly one that is ethnically and sexually diverse) to assess and confirm the stability of this model and evaluate its generalizability to larger populations. Second, future work should involve test-retest reliability of the measure to evaluate its temporal relevance and stability of scores—especially as motivations can shift over time with exposure to educational content, changing social contexts, shifting relational dynamics, and intrapsychic

development. Additionally, future work can focus on longitudinal changes in motivation throughout one's participation in a sexual education program. This work could shed more light on applied factors (e.g., teaching interventions, modalities, perceived quality of educational environment) that influence changes in motivational development over time. Third, future studies can work towards establishing measurement equivalence (e.g., configural, metric, scalar) across relevant groups (e.g., gender, sexual identities, age cohorts, racial backgrounds, relationship status, neurodevelopmental status). This would allow for meaningful group comparisons to ensure the scale's utility in diverse contexts. Although this study initially designed this measure to be utilized in adult sexual education contexts, future work can focus on adapting the measure to youth, adolescent, and neurodivergent populations. The utility of the MSL can be tested within younger audiences who are currently involved in formal sexual education programs. This testing can provide valuable insights by those who are often exposed to many external drivers for participation. Furthermore, sexual behaviors and desires of neurodivergent populations have historically been disregarded although fully experienced (Perez-Curiel et al., 2023). Hence, future work can involve pilot testing and validating within these populations to ensure measurement equivalence and special considerations to particular needs.

Furthermore, predictive testing should be examined in cognitive, affective, and behavioral domains to help determine if the measure can predict relevant outcomes particularly in regards to SDT and adult learning. These outcomes can include learning engagement (e.g., interest, effort, persistence), behavioral outcomes (e.g., enrolling or completing sex-ed courses), or even perceived competence in skill building (e.g., communication).

In addition to psychometric testing and refinement, an important future direction involves conducting both quantitative and qualitative needs assessments (i.e., gathering information related to sexual topics of interest, preferred modalities of learning, unhelpful strategies that devalue sexual learning. Quantitative assessments could include surveys that identify common barriers (e.g., cost, time, accessibility to knowledge sources), facilitators (e.g., teaching children, sources of sexual knowledge, practical applications), and perceived gaps in sexual education (e.g., knowledge they wish they had, unhelpful strategies). These assessments would help further validate whether motivational constructs embedded in the scale are congruent with real-world concerns and values of adult learners. Understanding these need areas can be bolstered through qualitative interviews surrounding how experiences related to adults' contextual factors (e.g., culture, race, sexual identity, family roles) shape their associations to sex, sexual education, and sexual learning, capturing nuances and narratives that cannot be fully captured in this measure (DeCuir-Gunby & Shutz, 2014, p. 244; Matthews & Lopez, 2020). Qualitative data can enrich SDT-based frameworks by exploring how individuals experience autonomy, competence, and relatedness in the accrual and transmission sexual knowledge in culturally specific and developmentally distinct ways (Walters et al., 2017). Such insights are critical in a domain where motivations may be shaped by sociocultural norms, relational histories, and identity development. Ultimately, qualitative integration can serve as a foundation for culturally responsive scale adaptation and the development of more nuanced interventions.

Chapter 6 - Conclusion

This study takes a significant step towards developing a reliable and theory-driven measure of self-determined sexual learning motivation in adults. Through exploratory and confirmatory analyses, findings supported a multidimensional structure of motivation reflecting autonomous (intrinsic and identified), controlled (introjected and external), and amotivation components—consistent with the tenets of Self-Determination Theory. Initial reliability and validity testing of the measure within a diverse sample of racial minorities and age—displayed evidence towards internal consistency and correlations with relevant constructs (e.g., sexual motivation, sexual distress and embarrassment, perceived importance of adult sexual education).

This work contributes to the growing literature on adult sexual education by addressing a gap in the measurement of motivational constructs specific to sexual learning and introducing a theoretically grounded instrument with initial evidence of validity—offering a foundation for future research, intervention development, and culturally responsive educational design. More specifically, the scale offers a tool for researchers, educators, and practitioners to better understand what drives adults to grow in sexual knowledge. More broadly, this work extends SDT into the domains of adult and sexual learning and displays efforts towards developing more responsive, autonomy-supportive, and culturally attuned methods of evaluation. Future directions involve ongoing psychometric testing and conducting both qualitative and quantitative needs assessments to identify topic areas that adults are most motivated to learn.

This study lays essential groundwork for advancing a more inclusive, motivation-sensitive approach to adult sexual education—one that not only deepens our understanding of *why* adults seek sexual knowledge, but also helps shape the design of educational experiences. Key suggestions involve avoiding framing sex-ed in ways that foster shame, moral obligation, or

fear but rather directing efforts towards developing non-judgmental, inclusive, autonomy-supportive environments for sexual learning. Strides towards quality sexual education for adults can involve incorporating personal relevance, exploring self-determined sexual values, and facilitating holistic views towards sexual well-being.

Ultimately, this study seeks to contribute to the larger sexuality field by highlighting the importance of comprehensive sexual education throughout the life course as sexuality is a process of ongoing growth, learning, and discovery. As developmental needs, personal values, and general health concerns change over time, adult sex-ed must attune to these ever-changing experiences at multiple touch points within one's life. Furthermore, normalizing sexual communication—topics often perceived as taboo can bring forth opportunities for many “aha” and “you too?” moments that create a sense of mutual validation and reduce shame. We seek for a day when adults can feel empowered to have a space to navigate sexual concerns, needs, and questions with care, consideration, and competence.

Chapter 7 - References

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Appendix A - MSL (Initial)

Self-Determined Motivations for Sexual Learning Scale

Stem: There are many reasons people want (or don't want) to learn about sex. Sex involves more than the physical act of having sex—it involves our feelings, attitudes, relationships, behaviors, bodily functions, identities, and cultural influences. Please select how much you agree with the following statements, “I want to learn about sex because...”

Intrinsic

1. I enjoy learning about sex
2. Learning about sex is fun
3. It is a pleasure to learn about sex
4. Learning about sex is interesting
5. Learning about sex is exciting

Identified/Integrated

6. I strongly value learning about sex
7. Learning about sex is personally important to me
8. It is my personal choice to grow in sexual knowledge
9. Learning about sex is meaningful to me
10. Learning about sex is important to me for my overall well-being
11. I think it's important to know my body better
12. I think it's important to learn about the various aspects of sexuality
13. Learning about sex helps me grow as a person
14. Learning about sex feels like an integral part of who I am
15. I want to learn about sex
16. Learning about sex is personally satisfying to me

Introjection-Approach

17. I want to feel proud of myself
18. I feel like I should know more about sex
19. I want to meet the expectations that I have for myself
20. I want to prove to myself that I am knowledgeable about sex
21. Knowing about sex boosts my self-esteem
22. I want to feel good towards sexual topics
23. I feel that knowing more about sex is part of being a “responsible person”
24. Having sexual knowledge makes me feel like an important person
25. I want to show myself that I am sexually competent

Introjection-Avoidance

26. I would feel guilty if I didn't learn about sex

- 27. I would feel ashamed if I didn't learn about sex
- 28. I would feel ignorant if I didn't learn about sex
- 29. I don't want to feel bad about myself
- 30. I would feel like a failure if I didn't learn about sex

External

- 31. Important people (e.g., my partner, spouse, parent, professor, friends, children) will think more highly of me if I learn more about sex
- 32. Others would be upset with me if I didn't
- 33. Others would be disappointed in me if I didn't
- 34. Others would appreciate me more if I know more about sex
- 35. I feel pressured to be informed in this area
- 36. It's expected of me to have this knowledge
- 37. Others are putting pressure on me to learn about sex
- 38. If I don't learn about sex, others will get mad
- 39. I don't have any choice. But to learn about sex
- 40. I want to gain praise or other rewards from important people by knowing about sex
- 41. Knowing about sex will result in rewards
- 42. I feel that I have to learn about sexual topics

Amotivation

- 43. I once had good reasons for learning about sex but now I don't
- 44. Honestly, I don't know why I have to learn about sex
- 45. I'm not sure, I wonder whether I should continue to learn about sex
- 46. I used to know why I learned about sex but I don't anymore
- 47. Honestly, I don't have any motivation to learn about sex

Appendix B - MSL (Final)

Self-Determined Motivations for Sexual Learning Scale (MSL)

Stem: There are many reasons people want (or don't want) to learn about sex. Sex involves more than the physical act of having sex—it involves our feelings, attitudes, relationships, behaviors, bodily functions, identities, and cultural influences. Please select how much you agree with the following statements, "I want to learn about sex because..."

Autonomous

1. I enjoy learning about sex
2. Learning about sex is fun
3. It is a pleasure to learn about sex
4. Learning about sex is interesting
5. Learning about sex is exciting
6. I strongly value learning about sex
7. Learning about sex is personally important to me
8. Learning about sex is meaningful to me
9. Learning about sex helps me grow as a person
10. Learning about sex feels like an integral part of who I am
11. I want to learn about sex
12. Learning about sex is personally satisfying to me

Introjected

13. I would feel guilty if I didn't learn about sex
14. I would feel ashamed if I didn't learn about sex
15. I would feel ignorant if I didn't learn about sex
16. I would feel like a failure if I didn't learn about sex

External

17. Others would be upset with me if I didn't learn about sex
18. Others would be disappointed in me if I didn't learn about sex
19. Others are putting pressure on me to learn about sex
20. If I don't learn about sex, others will get mad

Amotivation

21. I once had good reasons for learning about sex but now I don't
22. Honestly, I don't know why I have to learn about sex
23. I'm not sure, I wonder whether I should continue to learn about sex
24. I used to know why I learned about sex but I don't anymore
25. Honestly, I don't have any motivation to learn about sex