Development of the Student Sexual Health and Wellbeing Questionnaire

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Abstract

While university can be an exciting opportunity for sexual exploration, many young adults come into this experience with inadequate or inconsistent sexual health education and knowledge, and consequently experience negative sexual health outcomes. Universities can play an important role in providing resources that support students' sexual health and wellbeing, however, this requires meaningful assessment of the students' needs. Current measures for young adult sexual health and wellbeing are underdeveloped; often too narrow, biomedical, and outdated in their language, existing measures are not meaningful nor are they inclusive. The main objectives of this study were to (a) develop a revised, comprehensive definition of young adult sexual health and wellbeing, and (b) develop a meaningful, relevant measure for sexual health and wellbeing that could provide insight into university students' needs. The questionnaire development process included creating an original measure for student sexual health, and a pilot study to assess the validity and reliability of the measure. The participants of the pilot study included a sample of 75 students from a small, private international university in Tokyo, Japan. Inter-item reliability analysis was used to assess the reliability for appropriate subscales, while all data was assessed for trends in participants' experiences. The results of the inter-item reliability showed adequate to good reliability across all relevant subscales. Results showed that most students had received sexual health education during their schooling prior to entering university, and that outside of schooling the internet was, and continues to be, a primary source for sexual health information. While most students reported confidence in expressing consent, notably fewer felt confident with withdrawing consent. Regarding methods of sexual protection, students overwhelming showed comfortability with using condoms, yet were commonly unsure about using any other methods of sexual protection. Finally, while the majority of students acknowledged their sexual experiences affecting their emotional wellbeing, they much less commonly felt comfortable seeking related emotional supported when needed. Results of this study support previous research that the internet is a significant source of sexual health information, and support the benefit of utilizing a comprehensive definition for sexual health and wellbeing. They also provide key insight into directions of improvements that universities can take to provide support for their students' sexual health. Provided the limited sample size of this study and the limited cross-cultural relevance for this measure, future research should continue include larger samples and consider adapting the measure to be specifically relevant for various cultural backgrounds.

Keywords: sexual health, sexual wellbeing, questionnaire, university students

Student Sexual Health and Wellbeing Questionnaire

What does it look like for university students to be empowered in their sexual health and wellbeing? For many young adults, university is an important time to engage with and learn more about sexual health, identity, and relationships. However, while university can be an exciting opportunity for sexual exploration, many young adults also come into this experience with inadequate or inconsistent sexual health education and knowledge (Astle et al., 2020; Martin, 2017; Weinstein et al., 2008).

A series of interviews conducted in Scotland revealed that most late adolescents and young adults would have preferred to receive more plentiful, comprehensive sexual health education (Martin, 2017). In particular, participants believed their school-based sexual health education was infrequent, sporadic, and narrowly focused on risk and disease. This lack of effective sexual health education contributes to several negative health outcomes. Despite the typical focus on risk and disease, college-age young adults remain at high risk for sexually transmitted infections (STIs) (Shannon & Klausner, 2018). Furthermore, a systematic review of 15 years' worth of campus sexual assault research affirmed that the college student population is also markedly at risk for sexual violence, such as unwanted sexual contact and sexual coercion (Fedina et al., 2018). Universities can play an important role in providing comprehensive education, support, and resources that address both students' gaps in sexual health education and students' vulnerability to negative sexual health outcomes. However, determining how to best combat these negative outcomes, and facilitate positive ones, requires an institution to better understand how students' are experiencing their sexual health and wellbeing. Therefore, the purpose of this study is to develop a relevant, inclusive measure for assessing university students' sexual health and wellbeing that reveals (1) trends in students' experiences of sexual health and (2) opportunities for relevant support and resources.

Defining Sexual Health and Wellbeing

Developing a measure for sexual health and wellbeing requires determining an adequate definition for this overarching construct. Current definitions and measures of sexual health and wellbeing are largely underdeveloped; typically, they focus on biomedical aspects of sexual health (Martin, 2017; McDaid et al., 2020). This biomedical emphasis means that measures of sexual health are commonly centered in one's ability to avoid physical health issues (e.g. HIV/AIDS, teenage pregnancy). One such example is the common academic measure of sexual health literacy, a derivative of healthy literacy, which describes how individuals access, understand, and apply sexual health information (Baur, Harris, & Squire, 2017; Nutbeam, 2000; Vamos et al., 2020; Vongxay et al., 2019). The model of sexual health literacy has two major limitations: its emphasis on biomedical aspects of sexual health and narrow reliance on assessing sexual health knowledge. Emphasizing biomedical sexual health information presents a need to a measure that examines sexual health from a perspective inclusive of emotional, relational, and communication aspects of sexual health (Astle et al., 2020; Martin, 2017; McDaid et al., 2020; Weinstein et al., 2008). Regarding the latter limitation, a 2008 study assessing sexual health knowledge among college students revealed that greater sexual health knowledge was surprisingly not associated with more consistent safety, such as use of sexual protection, in sexual practices (Weinstein et al. 2008).

In light of these limitations, a more holistic approach to the understanding of sexual health and wellbeing is crucial to developing an accurate measurement of university students' experiences and needs. In order to derive this more comprehensive, inclusive definition of sexual health and wellbeing, I consulted a professional sexual health educator at Froetic Sexology. Through this consultation and further research, I crafted a revised definition of sexual health and wellbeing that included seven dimensions: (1) interest in and use of sexual health resources, (2) communication related to sexual experiences, (3) value and practice of consent, (4) attitudes towards pleasure in sexual experiences, (5) protection from STIs, (6) prevention of unplanned pregnancy and (7) emotional wellbeing with sexual experiences.

Interest in and Use of Sexual Health Resources

As noted in the definition for sexual health literacy, access to and use of sexual health information is vital to sexual health and wellbeing (Baur, Harris, & Squire, 2017; Vamos et al., 2020). However, through both my research and expert consultation, it was evident that interest in and motivation to access sexual health information was also a key factor (McDaid et al., 2020). Therefore, this dimension of sexual health and wellbeing addresses both interest in and use of sexual health information.

Sex-Related Communication

The element of communication is notably absent from both prominent academic definitions of sexual health and typical approaches to sexual health education (Martin, 2017; Rudd, 2015). However, research has shown that communication plays a critical role in facilitating several positive sexual health behaviors. For example, communication between partners supports and encourages safe-sex practices, such as using condoms and other methods of sexual (Weinstein et al., 2008). Noting the lack of assessment for communication skills in current sexual health definitions and sexual health education, this was a particularly important dimension to include in the revised definition of the sexual health and wellbeing construct.

Value and Practice of Consent

The Rape, Abuse & Incest National Network (RAINN) defines consent as an agreement between participants to engage in sexual activity; it can occur verbally and nonverbally, through physical cues (Rape, Abuse & Incest National Network, n.d.) In its exploration of consent, RAINN further explains how understanding and practicing consent plays a vital role in preventing and protecting oneself from sexual violence. Since college students are at particular risk for sexual violence, providing information and skills to help prevent it is another common focus on contemporary sexual health education for young adults (Fedina et al., 2018). As such, the value and practice of consent was a crucial dimension to include in the current study's construct of sexual health and wellbeing.

Attitudes Towards Pleasure

Though uncommon in both definitions of sexual health and sexual health education, including measures of quality and pleasure—such as physical pleasure and emotional enjoyment—in sexual experiences can be important indicators of sexual health (Martin, 2017; Astle et al., 2020). In fact, a recent study of U.S. college students found that late adolescents and young adults wanted the discussion of pleasure included in their sexual health education (Astle et al., 2020). These research findings suggest that assessing the role of pleasure in students' sexual health is relevant to informing meaningful resources on sexual health information. Therefore, attitudes towards sexual pleasure was an important dimension to include in the definition of sexual health and wellbeing.

Illness Risk-Prevention

Illness risk-prevention relates to the prevention of obtaining sexual transmitted infections (STIs), such as chlamydia and gonorrhea, and sexually transmitted diseases (STDs), such as

HIV/AIDS and herpes. These is the first critical biomedical measure of sexual health that was retained in the revised definition of sexual health and wellbeing. Given the continued prevalence of STI-risk among college-age youth (Shannon & Klausner, 2018), the dimension of protection from STIs remains extremely relevant to an accurate measure of sexual health and wellbeing for university students.

Avoiding Unplanned Pregnancy

The sexual health knowledge required to avoid an unplanned or unwanted pregnancy is the second biomedical measure of sexual health retained in the revised definition of this construct. Studies on the impact of unplanned pregnancies often focus on negative outcomes for the mother, citing their social disruption and negative impact on education progress and career opportunities (Mbelle et al., 2018). Since sexual health resources can help prevent unplanned pregnancies, understanding students' knowledge in this area is an integral dimension of any relevant measure for their sexual health and wellbeing.

Sexual Experiences and Emotional Wellbeing

As previously mentioned, emotional aspects of sexual health are often absent from, but critical to, a comprehensive definition of sexual health and wellbeing (Martin, 2017). However, understanding how young adult's experience their emotional wellbeing in relation to their sexual experiences is crucial to an accurate, holistic understanding of their overall sexual health. Emotions are an important part of engaging in sexual relationships, and adolescents and young adults suggest including realistic information on emotions in sexual health education (Astle et al., 2020). Considering the research and youth-informed recommendations, emotional wellbeing in regards to sexual experiences was the final construct included in the present study's comprehensive definition of sexual health and wellbeing.

Limitations of Existing Measures

Current questionnaires on sexual health and wellbeing present several limitations. Some questionnaires hinder their applicability by employing a narrow biomedical lens. This is evidenced by the Teen Sexual Health Survey from the National Opinion Research Center (NORC) at the University of Chicago, which primarily assesses knowledge related to avoiding health risks and diseases (National Opinion Research Center, n.d.). Other measures, such as the Illustrative Questionnaire For Interview-Surveys With Young People, use outdated language related to sexual health and practices, and lack inclusivity in regards to sexuality and gender (Cleland, n.d.). In order to collect rich, meaningful data, it is necessary to provide a questionnaire that is appropriate, relevant, and engaging for the desires respondents (Robinson & Leonard, 2019). Therefore, there is need for an updated measure of sexual health and wellbeing that is both comprehensive and inclusive in order to be applicable to modern university students.

Purpose of the Present Study

Since support for their sexual health and wellbeing is important for many young adults, universities can provide crucial to support by providing relevant, meaningful sexual health resources. Informing these resources requires an accurate, effective measure for assessing students' current experiences with sexual health in order to reveal students' needs. However, current research into measures of sexual health has revealed underdeveloped, inadequate, and predominantly biomedical definitions of sexual health that are limited in relevance to today's college students. Similarly, current measures of sexual health reveal severe limitations in their ability to meaningfully assess student sexual health and wellbeing.

The current study and questionnaire development aims to address the gaps in current availability of a comprehensive, inclusive measure for the sexual health and wellbeing of university students. By employing an updated definition of sexual health and wellbeing, this questionnaire will allow for more accurate insight into students' experiences and needs. The current study, through development and deployment of the questionnaire, will seek to identify trends in students' experiences of sexual health and wellbeing, and reveal opportunities for relevant support and resources within the university institution. This study presents the following hypotheses:

1. Implementing an updated, comprehensive definition will meaningfully reflect university students' experience of sexual health and wellbeing.
2. The questionnaire developed will provide a reliable and valid measure for assessing students' sexual health and wellbeing.

Survey Design Methods

Stages of Questionnaire Development

The development of the questionnaire included four key stages. The first, pre-planning and pre-drafting, was characterized by defining the questionnaire's main construct and its primary dimensions. The second stage, item sourcing, involved brainstorming items, consulting subject matter experts, and conducting cognitive interviews to generate and revise items. The third stage, crafting response options, involved designing response options and formatting the order of the questionnaire. The fourth stage, questionnaire finalization and administration, involved conducting several cognitive interviews with both colleagues and subject matter experts in order to finalize the questionnaire items and develop the digital measure for ease of administration.

Stage 1: Pre-Planning and Pre-drafting

This first stage of my questionnaire development, the pre-planning and pre-drafting phase, focused on determining my survey purpose and understanding my target respondents. According to Robinson and Leonard, both of these tasks are crucial in employing a purposeful survey design process (2019). The original purpose of my questionnaire was to assess sexual health literacy among the student population of a small, private international university in Tokyo, Japan. To begin the pre-planning and pre-drafting phase, a review of existing literature and measures for sexual health literacy was conducted. The literature review helped me to better understand, or empathize with, my target respondents as well as gather the background information that would inform my constructs. From this initial literature review, I intended to assess sexual health literacy as a function of three constructs: functional literacy, iterative literacy, and critical literacy. A conceptual framework was created in order to identify these main constructs for sexual health literacy and identify the components that could be used to operationally define them (Johnson & Morgan, 2016). Then, relationships were drawn between the constructs, their operational definitions, and the main outcome variable, sexual health literacy (See Figure 1 in Appendix A for the original conceptual framework; see Figure 2 in Appendix B for construct definitions). My three constructs for sexual health literacy were identified in a framework created by Don Nutbeam, a professor and researcher at University of Sydney, in 2000. The creation of the conceptual framework was also key in clearly articulating and directing my research purpose, which, as previously noted, was a foundational element of the survey design and research process (Robinson & Leonard, 2019). My target audience was going to be the student population of a small, private international university in Tokyo, Japan. I chose this target audience because I was specifically interested in how assessing sexual health literacy levels amongst the student body could inform the need for development of sexual health services and resources at their university.

As I was conducting the literature review for assessing sexual health literacy, I struggled to approach drafting a meaningful questionnaire, primarily due to difficulty brainstorming question stems. I attempted to identify further components within each of the three subconstructs; these included communication, advocacy, access to sexual health information, and basic sexual health knowledge. However, I still struggled to understand how to accurately capture these dimensions of health. To address this challenge, I consulted a professional sexual health educator at Froetic Sexology to help with confirming the main sexual health construct and relevant subconstructs. From this consultation, I decided to redirect the present study towards understanding how university students experience several updated dimensions of sexual health and wellbeing. This resulted in the identification of four new constructs: education and information, perceptions of and interest in sexual health information, knowledge and awareness, and advocacy and safeguarding. Through my consultations with subject matter experts, I would frequently return to the crucial element of defining constructs and dimensions within this pre-planning stage. Eventually, in my final iteration of this evaluation, I settled on the main construct of sexual health and wellbeing as defined by seven primary dimensions: (1) interest in and use of sexual health resources, (2) communication related to sexual experiences, (3) value and practice of consent, (4) attitudes towards pleasure in sexual experiences, (5) protection from STIs, (6) prevention of unplanned pregnancy, and (7) emotional wellbeing with sexual experiences.

Beyond defining constructs and understanding target respondents, the pre-planning and pre-drafting phase also including drafting a cover letter to attach to the final questionnaire. This cover letter was an important tool for cultivating the target respondents' interest and investment in the questionnaire, as well as a way of addressing any potential questions they might have about the questionnaire itself (Blair, Czaja, & Blair, 2014). This cover letter most notably addressed the purpose of the study, the justification for its importance, confidentiality for respondents, and the benefit of their responses (See Appendix C for the cover letter).

Stage 2: Item Sourcing

Item sourcing included brainstorming, conducting cognitive interviews, and consultations with subject matter experts. The initial round of item sourcing only included brainstorming; question stems were crafted to reflect the four constructs identified following my consultation with the sexual health education (See Appendix D for the initial version of the questionnaire). The first informal and cognitive interviews with target respondents and colleagues helped to identify which questions were irrelevant to my target audience and highlighted issues in the wording and context for several questions. The removal or revision of these questions helped to reduce the potential for scope creep and measurement error (Robinson & Leonard, 2019). These early cognitive interviews helped to clarify aspects of sexual health and wellbeing that were appropriate for university students, while also informing researcher biases regarding information retrieval. Since the present study's questionnaire presented a sensitive topic, the cognitive interviews were especially crucial for illuminating how target respondents would respond to the language—including noting threatening, vague, and leading questions (Robinson & Leonard, 2019).

After the final revision of the main construct and its dimensions, I adjusted original items and added new items to ensure meaningful representation of each construct. In addition, item sourcing and revision with the updated constructs were key to achieving my research purpose of creating a questionnaire that could provide insight into student needs as well. Therefore, the items needed to not only assess aspects of the respondents' sexual health and wellbeing experience, but also present questions in a way that the data gathered would provide insight into clear support and resources relevant to the target population. The cognitive interview process expanded to including subject matter experts, at which point questions were further adjusted and finalized for clarity and relevance. In the final step of item sourcing, relevant demographics questions related to culture, gender, and sexual orientation were carefully revised and added to enrich data analysis (Robinson & Leonard, 2019).

Stage 3: Crafting Response Options

Response options for each item were also crafted through brainstorming, cognitive interviews and consultations with subject matter experts. Brainstorming response options included information gained from personal experience as well as that gained from my research. Cognitive interviews were useful in confirming which response options were clearly worded and relevant to target respondents, as well as revising scales to reflect meaningful granularity (Robinson & Leonard, 2019). This aspect of the process also illuminated the best format for response options, such as a Likert-scale versus a multiple-choice grid, to provide useful data while creating minimal cognitive load. Assessing response options for proper wording, scale granularity, and format was integral to ensuring that the respondents' experiences would be well reflected in the options provided (Robinson & Leonard, 2019). Ultimately, this would help minimize measurement error and enrich data collection. Consultations with subject matter experts were mostly beneficial for highlighting additional response options that should be included in various items and confirming the accuracy of response options for each item. Overall, the formats of the response options were informed by prioritizing consistency of format within each questionnaire section, and ensuring that response option style was tailored and relevant for each unique item (Robinson & Leonard, 2019). The mixed combination of response option styles I employed made for less uniform data analysis, but also helped to create an engaging questionnaire that felt meaningful for respondents and reduced measurement error.

Stage 4: Questionnaire Finalization And Administration.

This final stage of the questionnaire development, questionnaire finalization and administration, involved the final cognitive interviews with subject matter experts and the creation of the digital questionnaire online administration. The digital measure of the questionnaire was further reviewed by colleagues to ensure smooth navigation of the questionnaire (e.g. proper function of the filter questions), to confirm readability and comprehensibility of instructions for each section, and to confirm the effectiveness of varied response option formats. For example, wording for the section instructions was changed from "The following questions inquire about your cultural and educational background" to "The following questions ask about your cultural and educational background" in order to improve the accessibility of the language. According to Robinson and Leonard (2019), these elements were all key considerations for the final stage of questionnaire development and preparation for administration in order to achieve maximal accessibility and response rate. In administering the questionnaire, several faculty and staff members within the university were sent the questionnaire to distribute to their students (See Appendix E for the final version of the questionnaire). Some professors provided their students incentives in the form of extra points for completing the questionnaire, though this incentive was not a personal decision for my research. As stated in the cover letter included in both the digital and written versions of the questionnaire, though no direct incentives were included, respondents were informed that their responses would support developing student-informed sexual health and wellbeing resources at the university (See Appendix C for the cover letter).

Validity

The present study used cognitive interviews target respondents and subject matter experts in order to verify the construct validity and face validity of the Student Sexual Health and Wellbeing Questionnaire. The cognitive interviews were conducted using the think out loud protocol developed by Ericsson and Simon (1993). This procedure involved instructed the individuals to read each question out loud and think out loud immediately as they are answering the question, proving insight into the respondents' comprehension of the questionnaire items.

Cognitive Interviews with Target Respondents

Cognitive interviews with target respondents revealed a few issues with individual items. One demographic item for nationality created excessive cognitive load since it was difficult to read and comprehend. The respondents needed to request confirmation on the question meaning. Ultimately this item was removed, and only one demographic item regarding nationality was retained in the final version of the questionnaire. Originally, I included four items discussing communication with sexual partners that felt redundant and repetitive to the respondents. In light of this feedback, I decided to merge these items into two all-encompassing questions regarding communication with non-committed versus committed sexual partners. Overall, the respondent felt that overall the items were mostly easy to read and understand, and they felt like their meaningful responses were reflected in the response options. Cognitive interviews with target respondents allowed me to identity confusing and irrelevant items, which I removed or revised avoid compromising validity.

Cognitive Interviews with Subject Matter Experts

I conducted two cognitive interviews with subject matter experts, the first included the sexual health professional from Froetic Sexology and the second included a professor of psychology at the university of the target population.

Feedback from the first cognitive interview suggested that I revise items regarding sexual acts to be more accurate and inclusive, and that I add new items to better reflect the questionnaire's target audience and constructs. This resulted in the addition of a demographic item for gender, additional items specifying nonverbal consent and attitudes towards pleasure, and confirming my questionnaire's constructs to strengthen the validity of my measure. From this cognitive interview, I determined the seven subscales reflected in the final version of the questionnaire: (1) interest in and use of sexual health resources, (2) communication related to sexual experiences, (3) value and practice of consent, (4) attitudes towards pleasure in sexual experiences, (5) protection from STIs, (6) prevention of unplanned pregnancy, and (7) emotional wellbeing with sexual experiences.

Feedback from the second cognitive interview suggested that I more clearly specify sources of sexual health information when inquiring about use of sexual health resources, that I separate items asking about physical versus emotional safety, and that I include for examples in my question stems when relevant. Based on this feedback, I distinguished the response options of "friends and/or peers", "family and/or relatives", "general health professionals", and "sexual health professionals" as sources of sexual health information. I also separated items asking about physical versus emotional safety related to sexual experiences to avoid asking double barreled questions (Robinson and Leonard, 2019). Finally, I thoughtfully included examples in question stems, such as examples for STIs or keywords like emotional safety, in order to improve the comprehensibility—and therefore validity—of the measure (Robinson and Leonard, 2019).

Final Draft of the Questionnaire

The final draft of the Student Sexual Health and Wellbeing Questionnaire includes 35 items, seven sections, and seven subscales (See Appendix D for the initial version of the questionnaire; see Appendix E for the final version of the questionnaire). The survey employed a mixed combination of response option styles including Likert-scale, multiple-choice grid, select all that apply, open-ended, and dichotomous with midpoint. The purpose of the measure is to assess college-age young adults across several dimensions of sexual health and wellbeing: (1) interest in and use of sexual health resources, (2) communication related to sexual experiences, (3) value and practice of consent, (4) attitudes towards pleasure in sexual experiences, (5) protection from STIs, (6) prevention of unplanned pregnancy, and (7) emotional wellbeing with sexual experiences.

Sample Subscale Items.

Interest in and use of sexual health resources. This first subscale included items such as "Information about sexual health is personally important to me" and "I am interested in learning information that helps me physically and emotionally enjoy my sexual experiences." Respondents were asked to identify their level of agreement with each of these statements ranging from "Definitely" to "Not at all." Midpoints for these types of items were non-substantive, and represented an "I don't know" option.

Communication related to sexual experiences. This second subscale included items such as "When relevant to our sexual activity, I expect to communicate with my non-committed sexual partners (e.g. hook ups) about:…" Respondents were asked to select all response options that applied to their experience. For example, response options included “Use of birth control”, “Status of sexually transmitted infections”, and “What I physically want/need to enjoy myself.” Both subscale items in this section also included a “Not applicable” option.

Value and practice of consent. This third subscale included items such as “I always feel confident in my ability to express my verbal consent to a sexual partner” and “ It is always ok for my partner to change their own mind at any time and withdraw consent.” For all items in this subscale, respondents were asked to identify their level of agreement with each of these statements ranging from “Definitely” to “Not at all.” For these subscale items, midpoints were non-substantive and represented an “I don’t know” option.

Attitudes towards pleasure in sexual experiences. This fourth subscale included items such as “It is important to me that I, personally, experience pleasure (e.g. physical pleasure, emotional pleasure) during my sexual experiences.” For these items, respondents were asked to identify their level of agreement with each of these statements ranging from “Definitely” to “Not at all.” For these subscale items as well, midpoints were non-substantive and represented an “I don’t know” option.

Protection from STIs. This fifth subscale included items such “Have you heard of the following sexually transmitted infections (STIs)?” and “Do you believe that engaging in the following activities without protection increases the likelihood of obtaining an STI?” For these kinds of items, response options were presented as a multiple-choice grid and respondents were asked to select “Yes”, “Not sure”, or “No” for each response option.

Prevention of unplanned pregnancy. This sixth subscale included items such as "What methods of protection from unplanned pregnancy have you seen and/or heard of?" and "I feel comfortable personally using the following sexual protection methods." These items also employed a multiple-choice grid for response options, and respondents were asked to select "Yes", "Not sure", or "No" for each response option. Some items, however, also included a "Not applicable" option when appropriate.

Emotional wellbeing with sexual experiences.. This seventh subscale included items such as "My sexual experiences can affect my personal emotional wellbeing" and " I always feel comfortable asking for emotional support from trusted resources (e.g. a close friend, school counselor, etc.) about my sexual experiences when I need it." Respondents were asked to identify their level of agreement with each of these statements ranging from "Definitely" to "Not at all." Midpoints for these types of items were non-substantive, and represented a "Not applicable" option.

Pilot Study Methods

Participants

The participants of this study included 75 university students from a small, private international university in Tokyo, Japan. Ages of the participants were broadly recorded using age groups: the most highly represented age group was 16 to 20 years old (50%), followed by 21 to 25 years old (35.1%) and 26 to 30 years old (10.8%). The majority of the participants were of Japanese nationality (37.3%), U.S. nationality (26.7%), or dual Japanese-U.S. nationality (9.3%). While most of the participants identified as either cisgender woman (53.3%) or cisgender man (33.3%), the gender identities of non-binary (4%), transgender (2.7%), and genderfluid/genderqueer/gender-nonconforming (1.3%) were also represented. Approximately

4% of respondents did not report their gender, and 1.3% responded as “Other.” The demographic identifier of year in university was not recorded for the participants. See Table 1 in Appendix F for the complete demographic information of the participants.

Procedures

All survey research data was collected digitally through online administration of the questionnaire using Google Forms. Target respondents were recruited through several online methods. First, I personally shared questionnaire within an online group for students and alumni of the target population’s university, and requested that students complete the questionnaire. Second, the questionnaire was sent by my research supervisor to target classes within the university, where certain students were offered incentives for completing the questionnaire. Finally, I personally emailed the questionnaire to several faculty and staff members within the university and requested they distribute the measure to their students. A deadline was provided in the cover letter and questionnaire introduction included in the digital questionnaire, all responses received online prior to this deadline were included in the final analysis.

Results

Statistical Analyses

All statistical analyses for the present study were conducted using SPSS Statistics 24. Inter-item reliability analyses were conducted to assess the reliability of appropriate subscales. Only four of the questionnaire’s seven subscales could be assessed for their inter-item reliability, as they employed Likert-scale items. These subscales included interest in sexual health information, value and practice of consent, attitudes toward pleasure, and emotional wellbeing with sexual experiences. The reliability of the subscales ranged from adequate to good (.63 to

.84), with emotional wellbeing with sexual experiences having the lowest value of Cronbach's alpha.

Demographic Trends

Most students (76%) indicated receiving some kind of sexual health education during their schooling prior to entering college. The minority of students (10.7%) stated that they had not received any sexual health education during their schooling, however, slightly more students (13.3%) were unsure if they had received any sexual health education. Outside of schooling, the most common source of sexual health information prior to entering university was the internet, specified as internet websites not including social media, as 72% of students reported using the internet as a resource. Social media, as another digital resource, was also a popular source of sexual health information outside of schooling, with 57.3% of students indicating they used this resource. Digital resources were much more common as a source of sexual health information than print resources. Compared to the internet and social media, about half as many students (30.7%) used printed reading such as books or magazines as sexual health resources.

The most commonly accessed non-digital source of sexual health information was friends and/or peers. The use of friends and/or peers as sources of sexual health information was also notably more common than the use of family and/or relatives. Compared to 60% of students accessing friends and/or peers, only 36% of students reported accessing family and/or relatives as a source for sexual health information. Regarding health professionals as sources of sexual health information, there was a marked difference between the access to general health professionals (e.g. physicians, nurses) versus sexual health professionals (e.g. sex therapists, sex educators). While 28% of students reported learning sexual health information from general health professionals, only 9.3% of students reported learning from specified sexual health professionals. While the vast majority of students reported some kind of experience with sources for sexual health information outside of schooling, 8% of students indicated that they had received no information outside of schooling.

Interest in and Use of Sexual Health Information

Across all six items inquiring about interest in sexual health information, most students reported that they were definitely interested in each dimension of sexual health information. Approximately 90.6% of the students agreed that sexual health information was personally important to them, with the majority stating it was definitely important (57.3%) and the remainder stating it was somewhat important (33.3%). Eight percent of the respondents indicated that they were unfamiliar with the topic of sexual health information, and only 1.3% of respondents stated that sexual health information was not so important to them. The vast majority of students reported interest in learning information that helps them avoid STIs (93.3%), avoid unplanned pregnancy (90.6%), physically and emotionally enjoy their sexual experiences (82.7%), avoid physical harm (89.3%), and avoid emotional harm (82.7%). Of these dimensions of sexual health information, students reported being most unfamiliar with avoiding emotional harm, with 9.3% of students indicating that they were not familiar with this idea.

Preference for using digital resources, both the internet and social media, as primary sources of sexual health information was most common. In particular, most students (65.3%) reported preferring to use the internet for sexual health information. Social media was reported as a preferred source of sexual health information by 44% of students. Overall, use of digital resources was more highly preferred than the use of print resources; 24% of students indicated printed reading (e.g. books, magazines) as a preferred source for sexual information. Although social resources for sexual health information (family, relatives, friends, and peers) were relatively commonly accessed prior to entering university, these sources were notably less likely to be indicated as a currently preferred resource. Just 37.3% of students indicated friends and/or peers as a preferred source of information, while only 10.7% indicated family and/or relatives as a preferred source. Health professionals were quite commonly reported as a preferred source of sexual health information. General health professionals were slightly more preferred by students (42.7%) than sexual health professionals (38.7%) as a resource. It was very rare for students to report not using any of the aforementioned sources of sexual health information, as only 4% of students indicated that none was considered a preferred resource.

Item 12 assessed respondents' knowledge about obtaining pertinent sexual health services in their country of residence (Japan). These sexual health services included testing for common STIs, acquiring emergency contraception and birth control, and receiving a health checkup from a reproductive health professional. Most students reported that they did not know how to obtain testing for any of the STIs mentioned, with gonorrhea showing the greatest disparity between students who did not know how to obtain testing (46.7%) versus those who did (24%). Compared to the definite "no", students less commonly reported that they were "not sure" if they knew how to obtain testing. However, this uncertainty was still more prevalent than students knowing how to obtain the testing. This phenomenon was most distinguished regarding testing for genital herpes, where 41.3% of students reported not knowing how to obtain the testing, 34.7% were unsure if they knew, and only 24% reported they did know how to obtain the testing. More students knew how to receive birth control pills (42.7%) than emergency contraception (26.7%), and in general receiving of birth control pills was the most commonly known sexual health service. Aside from receiving birth control pills, receiving a health checkup from a reproductive health professional (e.g. urologist, gynecologist) was the only other sexual health service where more students reported knowing how to obtain the service than not. Forty percent of students reported knowing how to obtain a health checkup, compared to 32% of students who did not know.

Communication Related to Sexual Experiences

Items 14 and 15 examined trends in communication with both non-committed sexual partners (e.g. hook ups, one-night-stands) and committed sexual partners (e.g. long-term romantic partners, repeat sexual partners). In general, there was a much greater level of comfortability and expectation for communication with committed sexual partners compared to non-committed sexual partners. While only 6.7% of student reported being uncomfortable communicating with their committed sexual partners, 21.3% reported being uncomfortable communicating with non-committed sexual partners. However, for both non-committed and committed sexual partners, students more commonly expected to communicate about the use of birth control. Approximately 41.3% of students expected this communication with non-committed sexual partners, while 68% of students expected it with committed sexual partners. Regarding the status of STIs, whether their own or their partner's, the number of students who expected this kind of communication doubled for committed sexual partners (64%) versus non-committed sexual partners (32%). Students were notably more comfortable discussing their physical or emotional wants and needs for the sexual experience with committed partners compared to non-committed partners. For physical wants and needs, 30.7% of students reported expecting this communication with non-committed sexual partners compared to 68% expecting it with committed sexual partners. For emotional wants and needs, only 22.7% of students expected this communication with non-committed sexual partners versus 58.7% who expected it committed sexual partners.

Value and Practice of Consent

Items 16 through 21 assessed the respondents' value and practice of consent across a variety of dimensions, including verbal consent, nonverbal consent, and withdrawal of consent. The majority of students felt either definitely confident (48%) or somewhat confident (32%) in their ability to consistently express verbal consent to a sexual partner. Furthermore, the majority of students either definitely agreed (65.3%) or somewhat agreed (32%) that verbal consent from all people involved was always required to engage in a sexual experience. However, for both of these questions, students more commonly reported being unfamiliar with expressing verbal consent (in order, 13.3% and 10.7%), than being unconfident expressing their consent (6.6%) or disagreeing that it was required in sexual experiences (6.7%).

Students showed the greatest lack of familiarity with practicing nonverbal consent. Between the two questions assessing this dimension of consent, in order, 17.3% and 20% of students reported being unfamiliar with expressing nonverbal consent. Most students reported using nonverbal cues (e.g. nodding, touching) either definitely (36%) or somewhat (37.3%) to express their consent to a sexual partner. In addition, most students reported either definitely (50.7%) or somewhat (24%) trying to pay attention to the nonverbal consent cues of their sexual partner.

Of all the dimensions of consent, students showed the greatest amount of disagreement toward the idea of withdrawing consent. Approximately 14.9% of students did not believe it was ok for them to change their mind at any time and withdraw consent, and 9.4% did not believe it was ok for their partner to do so. Moreover, while 59.5% of students definitely agreed that it was ok for them to personally withdraw consent, noticeably more students (70.7%) definitely agreed that it was ok for their sexual partners to do so. Surprisingly, this appears to suggest students are more comfortable with the idea of their sexual partners withdrawing consent, than with idea of personally withdrawing consent themselves.

Attitudes Toward Pleasure in Sexual Experiences

Students' attitudes toward pleasure in sexual experiences revealed very interesting trends. First, students were more likely to report being unfamiliar with experiencing pleasure (e.g. emotional pleasure, physical pleasure) during sexual experiences in regards to their own pleasure (14.7%) versus their sexual partner's pleasure (10.8%). This suggests that respondents were more attuned to the idea of their sexual partner experiencing pleasure. This idea is similarly reflected by the fact that students reported their partner's experience of pleasure during sexual experiences as definitely important much more often (74.3%) than their own personal experience of pleasure (48%). Finally, while 4% of students indicated that their own pleasure during sexual experiences was "not so much" or "not at all" important, not a single student held this attitude toward their partner's experience of pleasure.

Prevention of STIs and Unplanned

These two subscales explored respondents' knowledge of STIs and methods of protection from both STIs and unplanned pregnancy. It is worth noting that the first question of this section asked respondents to examine a list of activities, including acts such as kissing, oral stimulation, and various forms of penetration, and indicate which they considered to be sexual activities. Of the list of activities mentioned, vaginal penetration with genitals was the only acted that none of the respondents firmly believed was not a sexual activity. For every other form of penetration, including anal penetration with genitals and penetration with fingers, at least one student firmly did not see the act as a sexual activity. However, across all response options, the majority of students (86.7% to 93.3%) indicated each act as a sexual activity, including the act of kissing (48%).

Item 26 inquired about respondents' knowledge of the six prevalent sexually transmitted illnesses: chlamydia, genital herpes, human papilloma virus (HPV), gonorrhea, syphilis, and human immunodeficiency virus (HIV). The majority of students (56% to 81.3%) reported awareness for each STI, with the greatest majority showing awareness for HIV (81.3%) and the least awareness for HPV (56%). Of the STIs mentioned, most students reported that they had not heard of both HPV and gonorrhea (29.3% for both). The number of students reporting they were unsure if they had heard of the STI remained fairly consistent across the response options, with HPV showing the greatest number of students unsure of their awareness (14.7%). Regarding methods of protection from STIs, the overwhelming majority of students (96%) were aware of condoms when compared to dental dams (18.7%) and internal "female" condoms (60%). Dental dams were the only method of protection from STIs for which more students were either not aware (53.3%) or unsure of their awareness (26.7%). Students' high awareness of condoms was well reflected in their comfortability with both personally using them (77.3%) and asking their partner to use them (76%) as a method of sexual protection. For all other methods of sexual protection from STIs, students were mostly unsure of their comfort in personally using them (48% to 54.7%) and unsure about asking their partner to use them (37.3% to 53.3%).

Respondents were asked if they believed that engaging in certain acts, including oral stimulation, vaginal penetration with genitals, and anal penetration with genitals, without protection increases the likelihood of obtaining an STI. The majority of students (60% to 78.7%) agreed that engaging in all of the acts mentioned without protection would increase their risk. However, the results also showed a notable amount of uncertainty toward the risk of unprotected oral stimulation. While 60% of students agreed there was increased risk, 34.7% of students reported that they were unsure if not using protection increased their risk of obtaining an STI during oral stimulation. Comparatively, only 17.3% of students reported this uncertainty for both vaginal and anal penetration. It is important to note that for each activity, at least 4% to 5.3% of students firmly believed that a lack of protection did not increase their risk of obtaining an STI. Finally, the majority of students (66.7%) believed it was possible to have an STI and not show symptoms, however nearly a third of students (29.3%) reported that they were not sure if this was possible.

In general, compared to knowledge of STI prevention, students were more knowledgeable about methods for preventing unplanned pregnancy. Condoms, internal “female” condoms, birth control bills, and the intrauterine device (IUD) emerged as the most commonly known methods of protection (92%, 66.7%, 89.3%, and 52%, respectively).

Emotional Wellbeing with Sexual Experiences

While the clear majority of students reported that their sexual experiences can affect their personal emotional wellbeing, there was significantly more variability for whether or not students felt comfortable asking for emotional support from trusted resources when needed. In regards to their comfortability seeking emotional support, a notable number of students reported “not so much” (18.7%) or “not at all” (6.7%). Furthermore, while that majority of still expressed some degree of comfortability in asking for emotional support, the majority of the students only indicated they were only somewhat comfortable (40%) with this process. Compared to dimensions of sexual health such as practicing consent and valuing pleasure, students showed much more discomfort in this area of seeking emotional support for their sexual experiences when needed.

Discussion

Questionnaire Strengths

The final Student Sexual Health and Wellbeing Questionnaire includes clear instructions for the questionnaire as a whole, but also for each individual section. I also included definitions for key terms in the section instructions in order to direct respondents on how to interpret and answer the items. My final items were edited for comprehensibility and readability by editing for conciseness, revising language to account for lower reading levels, eliminating convoluted questions that were not crucial to my constructs, attempting to account for gender inclusivity in my items, and formatting sensitive questions to be as inconspicuous as possible (Robinson and Leonard, 2019). I prioritized centering the respondent's experience in navigating my questionnaire as I formatted it—I wanted to ensure the greatest amount of ease in completing the questionnaire, regardless of the research topic (Robinson and Leonard, 2019). Throughout the questionnaire, Likert-scale items were effective in that participants made use of all response options. The use of the non-substantive midpoint also helped to reduce ambiguity in the participants response, and therefore reduce measurement error (Robinson and Leonard, 2019).

Questionnaire Weaknesses

I can acknowledge several weaknesses of my questionnaire. For one, my questionnaire has reduced cultural responsiveness as I only include clinical health terms in English, which may not be recognizable for students of varying cultural backgrounds at the university. My questionnaire has a very direct approach to asking about attitudes towards sexual health and wellbeing, which may be extremely inappropriate and uncomfortable for some cultures. Moreover, my questionnaire is biased towards heteronormative sexuality and sexual experiences, as well as sexual relationships that only include a single partner. My questionnaire is relatively long, and divided into nine separate sections in order to group relevant questions, but this may feel lengthy and tiring for respondents (Robinson and Leonard, 2019). Finally, while I attempted to accommodate for a variety of subjective experiences when crafting the response options for my questionnaire, I know that I was unable to cover all possible responses that my target audience may have, so I am aware some respondents may not see themselves represented in my response options (Robinson and Leonard, 2019).

Limitations

One major limitation of my questionnaire is its limited cultural relevance in the multicultural environment of the target population's university. Although I based the cultural relevance of my questionnaire on the Western-style university environment, this cannot eclipse the differences inherent in the many cultures represented. Though not critical to my research purpose, I would like to revise the question on background of sexual and reproductive health education to inquire about the specific information covered in these classes. This would be helpful in understanding a baseline for the sexual health knowledge and experience students enter our university with. The final limitation of this study was also the limited sample size included in the analysis.

Suggestions for Improvement

If I were to revise this questionnaire, I would try to address the heteronormativity in my questions and response options. I would likely include sexual preferences as a filter question and include additional or tailored sexual health and wellbeing items for specific demographics. I would also like to better inquire about cultural background in order to identify trends in cultural concepts of sexual health, and factor in how cultural concepts of sexual health may influence self-perceived sexual wellbeing. Ultimately, it is not feasible to create a questionnaire that perfectly matches the unique needs of every cultural background represented in the target population, therefore it would be appropriate to create several adapted versions of this questionnaire to administer to different demographics present in the university.

Regarding improvements for specific items, I would revise the response options for Item 12, which assessed knowledge of obtaining sexual health services in Japan. The way the response options were worded led to an unclear difference between the option "Not sure" and the option "No." In the future, I would revise this item to clearly delineate the response options, noting that "Not sure" was in relation to not understanding the question being asked or not being familiar with the topics mentioned versus not being sure how to obtain the service itself.

Conclusion

This study developed a questionnaire that highlights trends in students' experiences of sexual health and wellbeing and can inform potential improvements for related resources in the university setting. The results of the inter-item reliability showed adequate to good reliability across all relevant subscales. Results showed that most students had received sexual health education during their schooling prior to entering university, and that outside of schooling the internet was, and continues to be, a primary source for sexual health information. Overall, the development of digital resources appears to be especially relevant and useful. The study's findings also suggested that providing information on how to obtain pertinent sexual health services would greatly benefit students. Providing support regarding communication and practicing consent with partners appears to be another beneficial resource, as some students were entirely uncomfortable communicating with sexual partners and even unfamiliar with expressing consent. Furthermore, while most students reported confidence in expressing consent, notably fewer felt confident with withdrawing consent. Regarding methods of sexual protection, students overwhelming showed comfortability with using condoms, yet were commonly unsure about using any other methods of sexual protection. Finally, while the majority of students acknowledged their sexual experiences affecting their emotional wellbeing, they much less commonly felt comfortable seeking related emotional supported when needed. Results of this study support previous research that the internet is a significant source of sexual health information (Martin, 2017). The acceptable reliability and validity across subscales support the implementation of a more expanded, comprehensive definition for young adult sexual health and wellbeing.

Ultimately, this present study suggests that the Student Sexual Health and Wellbeing Questionnaire can be a useful tool for measuring university students' sexual health, while providing key insights into directions for improvements that universities can take to support their students' needs. Provided the limited sample size of this study and the limited cross-cultural relevance for this measure, future research and revision of the questionnaire should include larger samples and consider adapting the measure to be specifically relevant for distinct cultural backgrounds.

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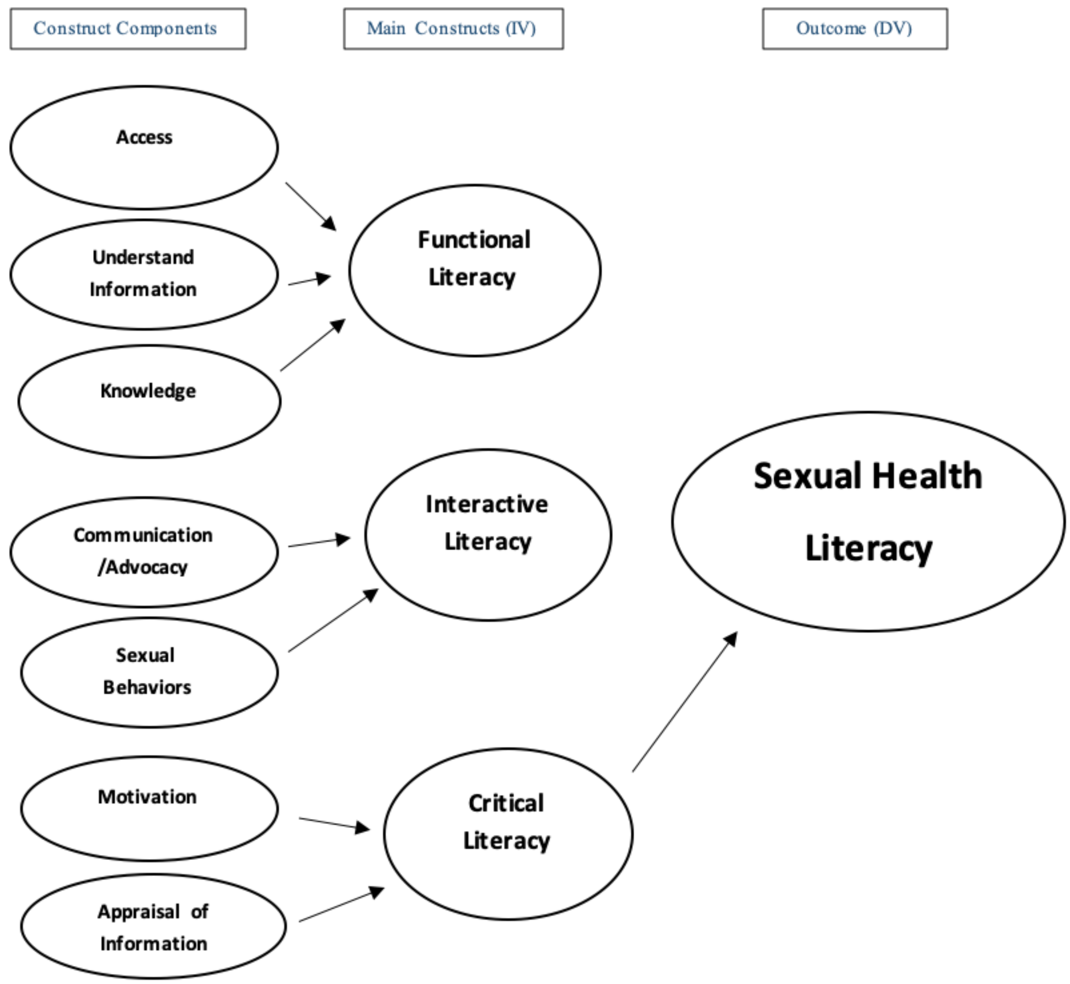
Appendix A

Initial Questionnaire Conceptual Framework

Figure 1

Conceptual Framework for Sexual Health Literacy



Note. This original conceptual framework of sexual health literacy was abandoned as the overarching construct for the questionnaire later in the survey design process.

Appendix B

Initial Questionnaire Construct Definitions

Figure 2
Construct Definitions for Sexual Health Literacy

Functional Literacy: Functional Literacy refers to an individual's ability to understand health information. In my conceptual framework, I divide this construct into three components: access to and skill of accessing resources, ability to understand information, and knowledge related to sexual health.

Interactive Literacy: Interactive Literacy refers to one's ability to interpret and use information, as well as to communicate with others. In my conceptual framework, I divide this construct into two components: communication and advocacy skills, and sexual behaviors.

Critical Literacy: Critical Literacy is the least tangible of the SHL constructs, as it refers to one's ability to analyze and question information in order to exercise more control over sexual health decisions and behaviors. In my conceptual framework, I divide this construct into two components: motivation for positive sexual health and appraisal (evaluation and analysis) or sexual health information. Though motivation was not explicitly included in Nutbeam's SHL model, more recent research has cited motivation as an important contributing factor to SHL (Vongxay et al., 2019).

Note. The above construct definition for sexual health literacy were informed by the framework for sexual health literacy proposed by Don Nutbeam (2000).

Appendix C

Questionnaire Cover Letter

TEMPLE UNIVERSITY
Japan Campus

Student Sexual Health and Wellbeing Questionnaire

Dear TUJ Students,

Greetings, and thank you for your participation in this survey. Please read the following introduction before you begin:

> University can be an important time to learn more about sexual health and identity, and to explore sexual relationships. As such, it is normal for students to need support in navigating this new or changing territory. In the culturally diverse environment of Temple University, Japan Campus—where students bring a wide variety of backgrounds, attitudes, and expectations—it is likely that these needs will differ.
>
> In order to inform how TUJ can support these needs, this survey aims to better understand students' attitudes, expectations, and experiences across several dimensions of sexual health and wellbeing. By completing this survey, you are contributing to a crucial effort to develop student-informed sexual health resources on campus. With these resources, we hope to support students in making well-informed decisions that empower their sexual health and wellbeing.
>
> This questionnaire is meant to be nonjudgmental. There is nothing wrong with answering one way or another, as long as your answer is honest. All responses will be anonymous, kept confidential, and only used for research purposes. While some of the questions may feel sensitive, it is important that you answer every question to the best of your ability. This will help us best understand how we can support the student body and TUJ community.

Ths survey will take approximately **20 minutes** to complete.

This study is sponsored by Temple University, Japan Campus professor Dr. Ada Angel. There are no direct incentives for completing the survey, however, your responses benefit the development of sexual health resources at the university.

For any questions, comments or concerns, contact the researcher at tuk84337@temple.edu.

Appendix D

Initial Version of the Questionnaire

Student Sexual Health Literacy Questionnaire

The following questions inquire about your cultural and educational background.

1. According to your passport, what is your nationality? If more than one, please state both.
   ____

2. Which official passport nationality do you identify the most with culturally? If you do not identify either, how do you define your cultural background? (E.g. if you were born in one country, but spent more of your time growing up somewhere else)
   ____

3. Looking at the list below, which age group do you fit into?
   16 – 20 years old
   21 – 25 years old
   26 – 30 years old

4. Before you came to university, did your schooling (public school, private school, home school, etc.) include any sexual and reproductive health education classes?
   Yes
   No
   Not sure

5. Before you came to university, did you receive sexual and reproductive health education from any of the following sources outside of school? Check all that apply.
   Internet websites (other than social media websites)
   Social media
   Family or friends
   Printed reading (e.g. books, magazines)
   Doctor
   Other; please specify: ___________

The following questions inquire about your experience with sexual health information.

6. Information about sexual health is personally important to me.
   0 Strongly Disagree
   1 Disagree
   2 Slightly Disagree
   3 I am not familiar with sexual health information
   4 Slightly Agree
   5 Agree
   6 Strongly Agree

7. I am interested in knowing/learning information that benefits my sexual health.
   0 Strongly Disagree
   1 Disagree
   2 Slightly Disagree
   3 I am not familiar with sexual health information
   4 Slightly Agree
   5 Agree
   6 Strongly Agree

8. Currently, where do you obtain information about sex? Check all that apply.
   Internet websites (*other* than social media websites)
   Social media
   Family or friends
   Printed reading (e.g. books, magazines, posters)
   Health professional (e.g. physician, gynecologist, sex therapist)
   I do not use any of these sources
   Other; please specify: ___________

9. Currently, where do you obtain information about sexual and reproductive health? Check all that apply.
   Internet websites (*other* than social media websites)
   Social media
   Family or friends
   Printed reading (e.g. books, magazines, posters)
   Health professional (e.g. physician, gynecologist, sex therapist)
   I do not use any of these sources
   Other; please specify: ___________

10. I know how to obtain these sexual health services in Japan:
   Testing for common sexually transmitted infections
   Testing for less common sexually transmitted infections

The following questions inquire about consent during your experiences with sexual partners during the past 12 months.

11. I communicate with my *non-committed* sexual partners (e.g hook ups) about: (check all that apply)
   Status of STIs
   Use of birth control
   What I physically want/need to enjoy myself
   What I emotionally want/need to enjoy myself
   I do not feel comfortable communicating with *non-committed* sexual partners
   I have not been sexually active in the past 12 months or do not have non-committed partners

12. I communicate with my *committed* sexual partners (e.g. long-term romantic partner) about: (check all that apply)
    Status of STIs
    Use of birth control
    What I physically want/need to enjoy myself
    What I emotionally want/need to enjoy myself
    I do not feel comfortable communicating with *committed* sexual partners
    Not applicable (e.g. have not been sexually active in the past 12 months,

13. I expect my *non-committed* sexual partners to communicate with me about: (check all that apply)
    Status of STIs
    Use of birth control
    What they physically want/need to enjoy themselves
    What they emotionally want/need to enjoy themselves
    I do not expect communication from non-committed sexual partners.
    I have not been sexually active in the past 12 months

14. I expect my *committed* sexual partners to communicate with me about: (check all that apply)
    Status of STIs
    Use of birth control
    What they physically want/need to enjoy themselves
    What they emotionally want/need to enjoy themselves
    I do not expect communication from non-committed sexual partners.
    I have not been sexually active in the past 12 months

The following questions inquire about consent during your experiences with sexual partners.

15. I feel confident expressing my verbal consent to a sexual partner.
    0 Strongly Disagree
    1 Disagree
    2 Slightly Disagree
    3 I do not know about expressing verbal consent
    4 Slightly Agree
    5 Agree
    6 Strongly Agree

    If you DO NOT engage in sexual activity, please check this box.

16. Verbal consent from all people involved is required to engage in a sexual experience.
    0 Strongly Disagree
    1 Disagree
    2 Slightly Disagree
    3 I do not know about expressing verbal consent
    4 Slightly Agree
    5 Agree
    6 Strongly Agree

    If you DO NOT engage in sexual activity, please check this box.

17. It is ok for me to change my mind and withdraw consent.
    0 Strongly Disagree
    1 Disagree
    2 Slightly Disagree
    3 I do not know about withdrawing consent
    4 Slightly Agree
    5 Agree
    6 Strongly Agree

    If you DO NOT engage in sexual activity, please check this box.

18. It is ok for my partner to change their mind and withdraw consent.
    0 Strongly Disagree
    1 Disagree
    2 Slightly Disagree
    3 I do not know about withdrawing consent
    4 Slightly Agree
    5 Agree
    6 Strongly Agree

    If you DO NOT engage in sexual activity, please check this box.

19. What of the following do you consider sexual acts? (check all that apply)
    Kissing
    Touching beneath clothing (including genitalia)
    Oral stimulation (mouth to genitals)
    Penetration with fingers
    Penetration with sexual toys
    Penetration with genitals
    I do not consider any of these sexual acts

20. Have you done any of the following acts within the past 12 months?
    Kissing
    Touching beneath clothing (including genitalia)
    Oral stimulation (mouth to genitals)
    Penetration with fingers
    Penetration with sexual toys
    Penetration with genitals
    No, I have not done any of these acts

21. Have you heard of the following STIs: (check all that apply)
    Chlamydia
    Genital herpes
    Human papilloma virus (HPV)
    Gonorrhea
    Syphilis
    Human immunodeficiency virus (HIV)

22. Engaging in certain sexual acts without protection increases the likelihood of obtaining a sexually transmitted infection (STI).
    0 Strongly Disagree
    1 Disagree
    2 Slightly Disagree
    3 I do not know about expressing verbal consent
    4 Slightly Agree
    5 Agree
    6 Strongly Agree

23. It is possible to have an STI and not show symptoms.
    0 Strongly Disagree
    1 Disagree
    2 Slightly Disagree
    3 I do not know about expressing verbal consent
    4 Slightly Agree
    5 Agree
    6 Strongly Agree

24. What methods of protection from STIs have you seen and/or heard of? (check all that apply)
    Condom
    Spermicide
    Dental dam
    ***
    Other; please specify: ___________

25. I feel comfortable personally using the following sexual protection methods: (check all that apply)
    Condom
    Spermicide
    Dental dam
    ***
    Other; please specify: ___________

26. I feel comfortable asking my sexual partner to use the following sexual protection methods: (check all that apply)
    Condom
    Spermicide
    Dental dam
    ***
    Other; please specify: ___________

27. Sometimes I need emotional support about my sexual experiences.
    0 Strongly Disagree
    1 Disagree
    2 Slightly Disagree
    3 I do not know about emotional support
    4 Slightly Agree
    5 Agree
    6 Strongly Agree

28. I feel comfortable asking for emotional support from trusted resources about my sexual experiences when I need it.
    0 Strongly Disagree
    1 Disagree
    2 Slightly Disagree
    3 I do not know about emotional support
    4 Slightly Agree
    5 Agree
    6 Strongly Agree

Within the past 12 months…

29. How many times did you feel safe in your sexual experiences?
` Always
    Most of the time
    About half of the time
    Sometimes
    Never

30. How many times did you enjoy your sexual experiences?
    Always
    Most of the time
    About half of the time
    Sometimes
    Never

31. How many times with you feel respected by your sexual partner?
    Always
    Most of the time
    About half of the time
    Sometimes
    Never

Appendix E

Final Version of the Questionnaire

TEMPLE UNIVERSITY
Japan Campus

Student Sexual Health and Wellbeing Questionnaire

Dear TUJ Students,

Greetings, and thank you for your participation in this survey. Please read the following introduction before you begin:

> University can be an important time to learn more about sexual health and identity, and to explore sexual relationships. As such, it is normal for students to need support in navigating this new or changing territory. In the culturally diverse environment of Temple University, Japan Campus—where students bring a wide variety of backgrounds, attitudes, and expectations—it is likely that these needs will differ.
>
> In order to inform how TUJ can support these needs, this survey aims to better understand students' attitudes, expectations, and experiences across several dimensions of sexual health and wellbeing. By completing this survey, you are contributing to a crucial effort to develop student-informed sexual health resources on campus. With these resources, we hope to support students in making well-informed decisions that empower their sexual health and wellbeing.
>
> This questionnaire is meant to be nonjudgmental. There is nothing wrong with answering one way or another, as long as your answer is honest. All responses will be anonymous, kept confidential, and only used for research purposes. While some of the questions may feel sensitive, it is important that you answer every question to the best of your ability. This will help us best understand how we can support the student body and TUJ community.

This survey will take approximately **20 minutes** to complete.

This study is sponsored by Temple University, Japan Campus professor Dr. Ada Angel. There are no direct incentives for completing the survey, however, your responses benefit the development of sexual health resources at the university.

For any questions, comments or concerns, contact the researcher at tuk84337@temple.edu.

Cultural and Educational Background

The following questions will ask about your cultural and educational background.

1. According to your passport, what is your nationality? If more than one, please state both.
   ____

2. Looking at the list below, which age group do you fit into? Check one.
    16 – 20 years old
    21 – 25 years old
    26 – 30 years old
    31 – 35 years old
    36 years or older

3. Before becoming a university student, did your schooling (e.g. public school, private school, home school, etc.) include any classes on sexual and reproductive health?
    Yes
    Not sure
    No

4. Outside of schooling, did you learn about sexual and reproductive health information from any of the following sources? Check all that apply.
    Internet websites (*other* than social media websites)
    Social media
    Family and/or relatives
    Friends and/or peers
    Printed reading (e.g. books, magazines, posters)
    General health professionals (e.g. physician, gynecologist)
    Sexual health professionals (e.g. sex educator, sex therapist)
    I did not receive education out of school
    Other; please specify: ____

OPTIONAL: Would like to make any comments about the answers you provided in this section?

____

Interest and Experience with Sexual Health Information

The following questions will ask about your interest in, and experience with, sexual health information.

When answering Question 6, refer to this definition of sexual health:

"Sexual health is a state of well-being in relation to sexuality across the life span that involves physical, emotional, mental, social, and spiritual dimensions."

- World Health Organization (2002)

5. Information about sexual health is personally important to me.
   ☐ Definitely
   ☐ Somewhat
   ☐ I am not familiar with sexual health information
   ☐ Not so much
   ☐ Not at all

6. I am interested in learning information that helps me avoid sexual transmitted infections (e.g. chlamydia, HIV, gonorrhea, etc.).
   ☐ Definitely
   ☐ Somewhat
   ☐ I am not familiar with this idea
   ☐ Not so much
   ☐ Not at all

7. I am interested in learning information that helps me avoid experiencing or creating an unplanned pregnancy.
   ☐ Definitely
   ☐ Somewhat
   ☐ I am not familiar with this idea
   ☐ Not so much
   ☐ Not at all

8. I am interested in learning information that helps me physically and emotionally enjoy my sexual experiences.
   ☐ Definitely
   ☐ Somewhat
   ☐ I am not familiar with this idea
   ☐ Not so much
   ☐ Not at all

9. I am interested in learning information that helps me avoid physical harm (e.g. assault, coercion) during my sexual experiences.
   ☐ Definitely
   ☐ Somewhat
   ☐ I am not familiar with this idea
   ☐ Not so much
   ☐ Not at all

10. I am interested in learning information that supports my physical and emotional safety during sexual experiences.
   ☐ Definitely
   ☐ Somewhat
   ☐ I am not familiar with this idea
   ☐ Not so much
   ☐ Not at all

11. Looking at the list below, which sources of sexual health information do you, yourself, prefer to use? Check all that apply.
   ☐ Internet websites (*other* than social media websites)
   ☐ Social media
   ☐ Family and/or relatives
   ☐ Friends and/or peers
   ☐ Printed reading (e.g. books, magazines, posters)
   ☐ General health professionals (e.g. physician, gynecologist)
   ☐ Sexual health professionals (e.g. sex educator, sex therapist)
   ☐ I did not receive education out of school
   ☐ Other; please specify: ____

12. I know how to obtain information about these sexual health services in Japan:

	Yes	Not sure	No
Testing for chlamydia (STI)	☐	☐	☐
Testing for genital herpes (STI)	☐	☐	☐
Testing for gonorrhea (STI)	☐	☐	☐
Receiving emergency contraceptive pills	☐	☐	☐
Receiving birth control pills	☐	☐	☐
Health check-up with the urologist/gynecologist	☐	☐	☐

OPTIONAL: Would like to make any comments about the answers you provided in this section?
____

Gender and Communication with Sexual Partners

The following questions will ask about your gender identity and communication (written and/or verbal) with sexual partners.

When answering Questions 14 and 15, think about your experiences in the past 12 months.

If either question is uncomfortable or not relevant to you, please choose the "Not applicable" option.

13. Looking at the list below, which gender do you most identify with?
    - Transgender woman
    - Transgender man
    - Non-binary
    - Cisgender woman (usually called “female”)
    - Cisgender man (usually called “male”)
    - Genderfluid, genderqueer, or gender non-conforming
    - Prefer not to answer

14. When relevant to our sexual activity, I expect to communicate with my non-committed sexual partners (e.g hook ups) about: (Check all that apply)
    - Status of sexually transmitted infections (STIs)
    - Use of birth control
    - What I physically want/need to enjoy myself
    - What I emotionally want/need to enjoy myself
    - I do not feel comfortable communicating with *non-committed* sexual partners
    - Not applicable

15. When relevant to our sexual activity, I expect to communicate with my committed sexual partners (e.g. romantic partner) about: (Check all that apply)
    - Status of sexually transmitted infections (STIs)
    - Use of birth control
    - What I physically want/need to enjoy myself
    - What I emotionally want/need to enjoy myself
    - I do not feel comfortable communicating with *committed* sexual partners
    - Not applicable

OPTIONAL: Would like to make any comments about the answers you provided in this section?

___

Consent and Pleasure in Sexual Experiences

The following questions ask about your thoughts towards consent and pleasure during your sexual experiences. If you do not have sexual partners, please respond based on your ideal scenario.

When answering Questions 16 through 21, refer to this definition of consent:

"Consent is an agreement between participants to engage in sexual activity.
It can occur verbally and nonverbally, through physical cues."

- Rape, Abuse & Incest National Network, n.d.

16. I always feel confident in my ability to express my verbal consent to a sexual partner.
    - Definitely
    - Somewhat
    - I am not familiar with expressing verbal consent
    - Not so much
    - Not at all

17. Verbal consent from all people involved is always required to engage in a sexual experience.
    - Definitely
    - Somewhat
    - I am not familiar with expressing verbal consent
    - Not so much
    - Not at all

18. I use nonverbal cues (e.g. nodding, touching) to express my consent to my sexual partner.
    - Definitely
    - Somewhat
    - I am not familiar with expressing nonverbal consent
    - Not so much
    - Not at all

19. I try to pay attention to nonverbal cues (e.g. nodding, touching) that my sexual partner uses to express their consent.
    - Definitely
    - Somewhat
    - I am not familiar with expressing nonverbal consent
    - Not so much
    - Not at all

20. It is always ok for me to change my mind at any time and withdraw consent.
    - Definitely
    - Somewhat
    - I am not familiar with expressing consent
    - Not so much
    - Not at all

21. It is always ok for my partner to change their own mind at any time and withdraw consent.
    - Definitely
    - Somewhat
    - I am not familiar with expressing consent
    - Not so much
    - Not at all

22. It is important to me that I, personally, experience pleasure (e.g. physical pleasure, emotional pleasure) during my sexual experiences.
    - Definitely
    - Somewhat
    - I am not familiar with experiencing pleasure
    - Not so much
    - Not at all

23. It is important to me that my sexual partner experience pleasure (e.g. physical pleasure, emotional pleasure) during our sexual experiences..
    - Definitely
    - Somewhat
    - I am not familiar with experiencing pleasure
    - Not so much
    - Not at all

OPTIONAL: Would like to make any comments about the answers you provided in this section?

____

Sexual Activities and Related Health Risks

The following questions* ask about sexual activities and sexually transmitted illnesses.

* Some of these questions may feel especially sensitive. We want to remind you that all of your responses are anonymous. They will only be used to help better understand what services and resources are relevant to TUJ students.

24. Which of the following do you consider sexual acts? (check all that apply)

	Yes	Not sure	No
Kissing	☐	☐	☐
Touching beneath clothing (including genitalia)	☐	☐	☐
Oral stimulation (mouth to genitals)	☐	☐	☐
Genital-to-genital stimulation (e.g. "tribbing" or "scissoring")	☐	☐	☐
Penetration with fingers	☐	☐	☐
Penetration with sexual toys	☐	☐	☐
Vaginal penetration with genitals	☐	☐	☐
Anal penetration with genitals	☐	☐	☐

25. Have you personally experienced any of the following activities within the past 12 months?

	Yes	Not sure	No
Kissing	☐	☐	☐
Touching beneath clothing (including genitalia)	☐	☐	☐
Oral stimulation (mouth to genitals)	☐	☐	☐
Genital-to-genital stimulation (e.g. "tribbing" or "scissoring")	☐	☐	☐
Penetration with fingers	☐	☐	☐
Penetration with sexual toys	☐	☐	☐
Vaginal penetration with genitals	☐	☐	☐
Anal penetration with genitals	☐	☐	☐

26. Have you heard of the following sexually transmitted infections (STIs)?

	Yes	Not sure	No
Chlamydia	☐	☐	☐
Genital herpes	☐	☐	☐
Human papilloma virus (HPV)	☐	☐	☐
Gonorrhea	☐	☐	☐
Syphilis	☐	☐	☐
Human immunodeficiency virus (HIV)	☐	☐	☐

27. What methods of protection from STIs have you seen and/or heard of?

	Yes	Not sure	No
Condom	☐	☐	☐
Dental dam	☐	☐	☐
Internal condom (usually called a "female condom")	☐	☐	☐

28. What methods of protection from unplanned pregnancy have you seen and/or heard of?

	Yes	Not sure	No
Condom	☐	☐	☐
Spermicide	☐	☐	☐
Dental dam	☐	☐	☐
Internal condom (usually called a "female condom")	☐	☐	☐
Birth control pills	☐	☐	☐
IUD (Intrauterine device)	☐	☐	☐

29. I feel comfortable personally using the following sexual protection methods:

	Yes	Not sure	No	Not applicable
Condom	☐	☐	☐	☐
Spermicide	☐	☐	☐	☐
Dental dam	☐	☐	☐	☐
Internal condom (usually called a "female condom")	☐	☐	☐	☐

30. I feel comfortable asking my sexual partner to use the following sexual protection methods:

	Yes	Not sure	No	Not applicable
Condom	☐	☐	☐	☐
Spermicide	☐	☐	☐	☐
Dental dam	☐	☐	☐	☐
Internal condom (usually called a "female condom")	☐	☐	☐	☐

31. Do you believe that engaging in the following activities without protection increases the likelihood of obtaining a STI?

	Yes	Not sure	No
Oral stimulation (mouth to genitals)	☐	☐	☐
Vaginal penetration with genitals	☐	☐	☐
Anal penetration with genitals	☐	☐	☐

32. Do you believe it is possible to have an STI and not show symptoms?
    - ☐ Yes
    - ☐ Not sure
    - ☐ No

OPTIONAL: Would like to make any comments about the answers you provided in this section?

____

Sexual Experiences and Emotional Wellbeing

The following questions ask about your emotional wellbeing in relation to your sexual experiences.

33. My sexual experiences can affect my personal emotional wellbeing.
    - Definitely
    - Somewhat
    - I do not have sexual experiences
    - Not so much
    - Not at all

34. I always feel comfortable asking for emotional support from trusted resources (e.g. a close friend, school counselor, etc.) about my sexual experiences when I need it.
    - Definitely
    - Somewhat
    - I do not have sexual experiences
    - Not so much
    - Not at all

OPTIONAL: Would like to make any comments about the answers you provided in this section?
____

Feelings Toward Recent Sexual Experiences

Please answer the following question so we can make sure this section of the survey is relevant to you:

35. Have you had sexual experiences with another person in the past 12 months?
 Yes
 No

IF you answered YES to Question 35:

35a. How many times did you feel physically safe (e.g. felt safe from coercion or assault) during your sexual experiences?
 Always
 Most of the time
 About half of the time
 Sometimes
 Never
 I do not know about physical safety during sexual experiences

35b. How many times did you feel emotionally safe (e.g. felt respected) during your sexual experiences?
 Always
 Most of the time
 About half of the time
 Sometimes
 Never
 I do not know about emotional safety during sexual experiences

35c. How many times did you enjoy your sexual experiences (e.g. experience physical and/or emotional pleasure)?
 Always
 Most of the time
 About half of the time
 Sometimes
 Never
 I do not know about pleasure during sexual experiences

OPTIONAL: Would like to make any comments about the answers you provided in this section?

You have completed the survey, thank you for your participation.

Appendix F

Questionnaire Participants' Demographic Information

Table 1

Demographics Information for the Questionnaire Participants

Demographic Characteristics	Full Sample	
	n	%
Age		
16 – 20 years old	26	35.1
21 – 25 years old	37	50
26 – 30 years old	8	10.8
31 – 35 years old	2	2.7
36 years or older	1	1.4
Nationality		
U.S.	20	26.7
Japanese	28	37.3
Japanese-U.S.	7	9.3
Other	20	26.7
Gender		
Cisgender woman	40	53.3
Cisgender man	25	33.3
Transgender	2	2.7
Nonbinary	3	4
Genderfluid	1	1.3
Other	1	1.3
No Answer	3	4

Note. N = 75; Japanese-U.S. = dual Japanese and U.S. nationality; genderfluid = genderfluid, genderqueer, or gender non-conforming.