2023-04-04

Creating a Culturally Adaptable Comprehensive Sexuality Education Teacher's Manual

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A project submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Science

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ABSTRACT

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Purpose: The purpose of this project was to create a culturally adaptable comprehensive sexual education teacher's manual by (a) standardizing content using The United Nations Educational, Scientific and Cultural Organization's (UNESCO) 2018 International Technical Guidance on Sexuality Education (CSE), (b) providing evidence-based CSE pedagogy in the form of classroom activities, and (c) including adaptable teaching methods to fit diverse cultural contexts.

Development: The manual lessons were derived from UNESCO's 2018 International Technical Guidance on Sexuality Education, and the pedagogy followed Anderson and Krathwohl's revision of Bloom's Taxonomy. Health information was obtained from various medical and university resources. We surveyed eight experienced health teachers in the United States, South Korea, and the Philippines through purposive sampling. We chose the health teachers for their extensive knowledge and experience teaching comprehensive sexual education. They were each provided a copy of the completed manual and instructed to complete a questionnaire.

Results: Responses focused on standardized content, pedagogy, and adaptation to different cultural contexts. The participants favored the standardized lessons and called the manual a guide for health educators. The pedagogy received mixed reviews with most participants suggesting more activities and visual aids. Most participants appreciated the cultural notes, although some suggested adjusting for LGBTQIA+, socioeconomic, and age-based issues. Overall, the participants deemed the manual positively.

Keywords: comprehensive sexuality education, adolescent, teaching pedagogy, sexual and reproductive health, international technical guidance on sexuality education, health teacher, school nurse

ACKNOWLEDGEMENTS

I am grateful for the guidance of my chair, Sheri Palmer. Her dedication to helping the international population is incredible. Until her retirement, she worked to educate people and ease their suffering. I also thank my committee members for their insight and assistance throughout this project. Their knowledge ensured that our project was on the right track. I am also grateful to my parents for bringing our family to a new country for better opportunities. Finally, I thank my husband, Darryl, for his listening ears and our daughter, Cece, for her hugs and kisses.

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Creating a Culturally Adaptable Comprehensive Sexuality Education Teacher's Manual

In 2009, The United Nations Educational, Scientific and Cultural Organization (UNESCO) released the International Technical Guidance on Sexuality Education ("2009 Guidance") and championed Comprehensive Sexuality Education (CSE) (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2009). The 2009 Guidance outlined key concepts regarding adolescent sexual and reproductive health issues for the use of groups, schools, and organizations. Consequently, communities around the world embraced its transformative points. However, adolescents worldwide continued to face new challenges associated with maturation and growth not included in the 2009 Guidance. One of the challenges involved the inadequate or inaccurate education on the social, emotional, and physical changes related to maturation. In response, UNESCO, The Joint United Nations Programme on HIV/AIDS, The United Nations Population Fund, The United Nations Children's Fund, The United Nations Entity for Gender Equality and the Empowerment of Women, and The World Health Organization released an updated version of the International Technical Guidance on Sexuality Education ("2018 Guidance") in January 2018 (Herat et al., 2018). The purpose of the 2018 UNESCO revision was to

> …equip children and young people with knowledge, skills, attitudes, and values that will empower them to: realize their health, well-being, and dignity; develop respectful social and sexual relationships; consider how their choices affect their own well-being and that of others; and, understand and ensure the protection of their rights throughout their lives. (p. 16).

The 2018 Guidance outlined sexual and reproductive health (SRH) concepts vital for all adolescents. These eight key concepts included relationships; values, rights, culture, and sexuality; understanding gender; violence and staying safe; skills for health and well-being; the human body and development; sexuality and sexual behavior; and sexual and reproductive health. The creators of the 2018 Guidance had designed it to be implemented as a sexuality education program (UNESCO, 2018). However, there had been no published CSE curriculum based on all key concepts of the 2018 Guidance.

Review of Literature

Search Strategy

The search strategy was three-fold and included conducting an electronic search of published CSE manuals based on the 2018 Guidance, successes and shortcoming of CSE worldwide, and sexual education teaching pedagogy. An initial electronic search was conducted to check for published CSE manuals based on the 2018 Guidance. The search came up with nothing. Additionally, an electronic search of CINAHL, ERIC, PsychInfo, Google Scholar, and PubMed for peer-reviewed articles published between January 2009 and December 2021 was conducted for the literature review. The standard time frame of five years was widened to 12 to account for a sentinel article. Selected articles from journals included cross-sectional surveys, case studies, pilot studies, longitudinal studies, qualitative studies, and review articles. Boolean phrases included *comprehensive*, *sex education*, *adolescents*, *teenagers*, *teaching methods*, *health education*, and *pedagogy* with parameters limited to English articles.

Theoretical Frameworks

Anderson and Krathwohl - Bloom's Taxonomy Revised

The creation of the CSE teacher's manual based on the 2018 Guidance was rooted in the theory of Anderson and Krathwohl's revision of Bloom's Taxonomy. Anderson and Krathwohl's revision of Bloom's Taxonomy posited that students gained sequential knowledge by following a "hierarchical system of verbs, starting with the lowest and simply conceived Remember, through Understand, Apply, Analyze and Evaluate to the highest and more complex Create" (Goldman, 2011, p. 531). The verb remember, the act of recall, required lower-order cognitive skills whereas create, the application of critical thinking, required higher-order cognitive skills from students. The use of all educational verbs helped students gain information and acquire skills necessary to change behavior (Woloshyn & Rye, 1995). According to Goldman (2011), many sexuality education programs were often not based on educational theory, and she expressed that "a sound theoretical approach can provide necessary and specific pedagogical focus on objectives, content, teaching, learning and effective outcomes" (p. 529).

Leininger's Culture Care Theory

To be effective against adolescent challenges, UNESCO (2015) emphasized the need for CSE lessons to acknowledge the different cultural situations of adolescents worldwide. To address the necessity for cultural humility, our project was additionally grounded in Madeleine Leininger's Culture Care Theory. Leininger (2002) explained that caring for people is central, and "the purpose and goal of the theory is… to provide culturally congruent, safe, and meaningful care to clients of diverse or similar cultures" (p. 190). Leininger expressed that addressing the cultural needs of people fostered better relationships, understanding, and healing.

Background

Adolescent Sexual and Reproductive Health Challenges

Although teenage birth rates had fallen in most countries between 1990 to 2010, adolescents around the world faced challenges in relationships, violence, puberty, contraception, pregnancy, abortion, gender differences, HIV/AIDS, and mental health (UNESCO, 2018; United Nations, 2013). The following paragraphs focus on the different challenges that adolescents encounter in each continent.

In Asia, adolescents face several sexual and reproductive health issues. In Arab countries, child marriage rates were high, and the minimum age for marriage was 9 years of age (Najafi-Sharjabad & Haghighatjoo, 2019). In Iran, adolescents had high rates of HIV/AIDS, risky sexual behaviors, gender inequality, and violence against women (Gelehkolaee et al., 2021). The widespread use of smartphones among Korean adolescents was associated with increased exposure to pornography and distorted sexual beliefs (Kim & Choi, 2021).

In Europe, sexuality education varies between countries, states, and organizations. People in countries such as Belgium, Finland, The Netherlands, Germany, Norway, Sweden, and Denmark viewed young people as inherently sexual beings. These countries generally provided liberal comprehensive sexual education and access to contraception. On the other hand, countries previously under Soviet rule or heavily influenced by the Roman Catholic church had varied attitudes towards comprehensive sexual education. For example, countries like Spain and Portugal had relaxed attitudes towards adolescent sexuality, whereas countries such as Latvia, Lithuania, and Italy viewed sexuality education as controversial and taboo (Parker et al., 2009).

In Africa, various SRH challenges existed. The World Health Organization estimated that 36.6% of women experience intimate partner violence (UNESCO, 2018). HIV infections and

child marriage rates were also high (Chandra-Mouli et al., 2021). In addition, although female genital mutilation rates had decreased considerably, the practice persisted (UNICEF, 2021).

In North America, adolescent pregnancy rates had decreased, but sexually transmitted infections such as chlamydia, gonorrhea, and syphilis had increased (Maziarz et al., 2020). Adolescents who experienced socio-economic hardships were also more likely to have higher rates of teenage pregnancy (Penman-Aguilar et al., 2013). Furthermore, the acceptance and subsequent funding for sexuality education programs and sexual health services in the United States had steadily decreased in recent years (Bonjour & van der Vlugt, 2018).

In Latin America and the Caribbean, many adolescents faced forced child marriage, early sexual debut, teenage motherhood, and limited access to contraception (Caffe et al., 2017; The Latin American and Caribbean Committee for the Defense of Women's Rights, 2016; de Castro et al., 2018). According to The Latin American and Caribbean Committee for the Defense of Women's Rights (2016), most child pregnancies occurred because of sexual violence. Despite this connection between pregnancy and sexual violence, political and societal pressures led to forced pregnancies and deliveries among girls in Latin America and the Caribbean. For example, in the Dominican Republic, El Salvador, Honduras, and Nicaragua, termination of pregnancy in any form was not legal. In other countries, termination of pregnancy was allowed if it was a product of rape or put the mother at risk; nevertheless, societal taboos prevented the practice anyway. In consequence, the health and life trajectory of child mothers were poor and long-lasting (The Latin American and Caribbean Committee for the Defense of Women's Rights, 2016).

Globally, access to SRH services was challenging (de Castro et al., 2018; Kim & Choi, 2021). Darroch et al. (2016) wrote, "49 of the 93 countries providing information to the World

Health Organization have laws and regulations that allow minor adolescents to seek contraceptive services without parental or spousal consent" (para. 27). Additionally, adolescent abortions continued to persist despite being a cause of cause maternal death; teenage girls were more likely to induce abortions themselves or obtain the procedure from unlicensed or traditional providers (Darroch et al., 2016).

Comprehensive Sexuality Education

Sexuality education in the past aimed to address sexual development of the human body and sexuality, and several approaches emerged. Abstinence-only education focused on restraining sexual intercourse until after marriage. Abstinence-plus education or risk-prevention sexual education taught safe sex and contraceptives but encouraged abstaining from sexual intercourse to prevent teenage pregnancy and sexually transmitted infections (STIs) (Bonjour & van der Vlugt, 2018). Comprehensive sexual education (CSE) was an "age-appropriate, culturally relevant approach to teaching about sexuality and relationships by providing scientifically accurate, realistic, non-judgmental information" (UNESCO, 2009, p. 2). Proponents of abstinence-only and abstinence-plus education perceived sexuality negatively, whereas proponents of CSE promoted sexuality positively.

CSE addressed sexuality, inherent rights, values, and gender equality and centered education on the needs of individual students. Rather than focusing primarily on risk aversion, CSE enhanced well-being by presenting a balanced view of sexuality (Francis, 2010). CSE addressed relationships including family, friendships, romantic, and sexual, and discussed violence, discrimination, gender, and power structures (Bonjour & van der Vlugt, 2018; UNESCO, 2018).

CSE was effective. UNESCO (2015) stated that "CSE has a positive impact on sexual and reproductive health (SRH), notably contributing towards reducing sexually transmitted infections (STIs), the Human Immunodeficiency Virus (HIV) and unintended pregnancy" (p. 7). In Paraguay, a student exposed to CSE expressed increased self-esteem and health education and reduced the possibility of teenage pregnancy (Palmer et al., 2021). In Ghana, CSE improved the rates of sexual abstinence among adolescent girls versus no education (Yakubu et al., 2019). When compared to the results of abstinence-only education, CSE correlated to reduced rates of pregnancy and SRH issues among adolescents worldwide (Chin et al., 2012; de Castro et al., 2018). Despite the positive effects, there were challenges to implementing CSE, and abstinence-only education or no sex education remained prevalent in many areas worldwide (Haberland & Rogow, 2015).

Challenges with Implementing Comprehensive Sexual Education

Although CSE helped reduce rates of pregnancy and SRH issues among adolescents, three main problems existed: CSE did not have an established definition or set content; teachers were not well trained to teach CSE; and CSE needed to be tailored to students' cultures and needs.

First, the definition and the content of CSE varied among cultures and locations (Parker et al., 2009). Miedema et al. (2020) wrote about the discrepancies between different CSE curricula and expressed that curricula often overlapped with abstinence-plus education. The authors also argued that organizations had different curricula and overall goals. For example, larger organizations such as UNFPA and UNESCO focused mainly on public health and global development while the curricula of local groups leaned towards abstinence-plus education.

Second, teachers lacked the knowledge, skills, and pedagogy to teach CSE (Clark, 2010; Parker, et al., 2009; Gelehkolaee et al., 2021). According to Gelehkolaee et al. (2021), "CSE should be delivered by well-trained teachers who are willing to teach. A combination of knowledge, attitude, and skills-based learning is critical for empowering young people and enabling learners to take action" (para. 47). Clark (2010) wrote that teachers in Asia lacked systematic training in sex education. For example, school nurses in the Philippines who provided health education to high school students tended to focus more on nutrition and prevention of infectious diseases rather than sexual education because of a lack of awareness and knowledge (Choi & Lee, 2021). Around the world, teachers also complained that certain health concepts were difficult to understand (Chavula et al, 2021). UNESCO (2015) recognized the lack of CSE training among teachers and stated, "teachers often feel uncomfortable and avoid discussing sensitive issues like sexual behaviour, sexuality, and how students can access contraception and obtain referrals for SRH services. They also do not consistently use participatory methodologies to engage pupils fully" (p. 8).

Lastly, cultural adaptation was necessary to facilitate learning. In many countries and cultures, sexuality education was generally taboo, and opposition to CSE was growing (Bonjour & van der Vlugt, 2018; Gelehkolaee et al., 2021). Additionally, in areas where sexuality education was taught, UNESCO (2015) expressed that CSE content "must respond appropriately to the specific context and needs of young people in order to be effective. This adaptability is central to culturally relevant programming, and includes understanding the messages that cultures convey around gender, sex and sexuality" (p. 8). Besides cultural adaptability, teachers also wanted CSE manuals to be translated into local languages (Chavula et al., 2021). Najafi-Sharjabad and Haghighatjoo (2019) stated that socio-cultural challenges among South Asian

youth were barriers to adequate sexual education teaching and concluded that culturally-appropriate interventions would help improve adolescent SRH challenges.

Purpose

The purpose of this project was to create a culturally adaptable comprehensive sexuality education teacher's manual by (a) standardizing content using UNESCO's 2018 International Technical Guidance on Sexuality Education, (b) providing evidence-based CSE pedagogy in the form of classroom activities, and (c) including adaptable teaching methods to fit different cultural contexts.

Methods

Design

UNESCO's 2018 International Technical Guidance on Sexuality Education was used to create the Comprehensive Sexual Education Teacher's Manual lesson contents. There were eight key concepts included in the 2018 Guidance, with subsequent topics and learning objectives. These included (1) Relationships; (2) Values, Rights, Culture and Sexuality; (3) Understanding Gender; (4) Violence and Staying Safe; (5) Skills for Health and Well-being; (6) The Human Body and Development; (7) Sexuality and Sexual Education; and (8) Sexual and Reproductive Health. The learning objectives for key concepts one through five and seven through eight were written for youth ages 12 to 15 years. Key concept six was geared for youth ages 9 to 12 years of age. Each key concept was organized as one lesson in the booklet. Current health information was compiled from UpToDate, The American Pediatrics Association, The American Congress of Obstetricians and Gynecologists, The United Nations, The World Health Organization, International Planned Parenthood Federation, and various university and children's hospitals. Evidence-based CSE pedagogy and student activities were derived from Anderson and

Krathwohl's version of Bloom's Taxonomy (Goldman, 2011), and visual aids were inserted. Cultural notes were also added to help educators adjust lessons according to student needs.

Sample and Setting

Fifteen experienced health teachers that taught sex education to students ages 12 to 17 years were recruited to evaluate this project. These teachers were located in the United States, South Korea, and the Philippines. We obtained our sample with a non-probability method through purposive sampling, and we chose the health teachers because of their extensive and previous experience with CSE curricula. IRB approval was not required as this was deemed exempt as a quality assurance project. We provided the participants with a copy of the completed manual and instructed them to evaluate Lesson 8: Sexual and Reproductive Health. We also asked each participant to complete a questionnaire (See Table 1). Out of the 15 participants, 11 responded, and eight completed the questionnaire.

Procedure and Data Collection

Each participant was given an electronic copy of the manual and instructed to focus their evaluation on Chapter 8: Sexual and Reproductive Health. Chapter 8 consists of three sections: Pregnancy and Pregnancy Prevention; HIV and AIDS Stigma, Treatment, Care and Support; and Understanding, Recognizing and Reducing the Risk of STIs, including HIV. Section one Pregnancy and Pregnancy Prevention discussed different types of contraception, access to contraception, and birth spacing. Section two HIV and AIDS Stigma, Treatment, Care and Support addressed equal rights for people with HIV. Lastly, section three Understanding, Recognizing and Reducing the Risk of STIs, including HIV focused on common STIs, prevention and treatment of STIs, and access to SRH services.

Participants were also given an online questionnaire through Qualtrics and instructed to submit their responses within a 2-week deadline. The questionnaire included eight demographic questions (See Table 2). As only four responses were obtained by the deadline, a reminder email was sent encouraging participation, and a new deadline granting an additional 2 weeks was instituted. In all, eight of the 15 recruited teachers returned questionnaires; each participant who completed the questionnaire was given a $10 Amazon gift card or G-cash of equal value.

Findings

Questionnaire Responses

Responses focused on standardized content, pedagogy, and adaptation to different cultural contexts.

Standardized Content

All the participants responded positively to the standardized content and objective approach to SRH in Chapter 8. The following quotes were derived from five participants and adjusted for spelling and grammar. "Chapter 8 would really help keep accurate facts straight and keep organized notes." "I think the information was factual and written in student-friendly language." "Technical terms are used, as well as background knowledge provided." "Great content and specific."

Three participants wrote about the manual's ease of use and described it as a guide. "This will help teachers that are needing guidance to properly discuss these concepts with students." "It will act as a guide on how to better teach sex ed to the new generation." "It will help me a lot as an educator. It is really hard to explain or teach sexual education, especially in the lower grades."

Suggestions for improving the standardized content included a further explanation of contraception efficacy rates and the inclusion of a new STI. "For contraceptives, I'm wondering

if you want to mention anything about why the condom is only 85% effective. It could be more effective, but it's not used properly or people use expired ones, etc. With emergency contraception, the longer the wait after sex, the less effective the pill is. . . Mycoplasma Genitalium is a new STI."

When asked whether any information or section needed to be removed from Chapter 8, all participants stated that they did not want anything removed. The following quotes were from three different responses. "I thought everything in Chapter 8 should be included." "None so far." "Nothing. I think it's very useful."

Pedagogy

The participants were asked how the manual would help teach concepts to students. One participant stated that the easy implementation of the included activities was helpful. "The activities were good activities that could be used in my classes right away." Another participant remarked the inclusion of data was positive. "I love all the data that is provided. I enjoy speaking statistics when teaching this topic."

However, two participants wanted to include more teaching tools such as different activities, posters, printable charts, videos, links to information, or artwork. One participant suggested, "Throughout the entire booklet, maybe example scenarios to make it more relevant to the adolescent or ways to help connect more to the topics and remember such as acronyms. FRIES is a great one to use for consent." Another participant recommended, "Maybe just more creativity around activities in the classroom." One participant also wanted more clarification on the delivery of the teaching material. "Maybe a description on how it [the content] should be delivered ([PowerPoint], printed notes, links to websites, etc.)."

Adaptation to Different Cultural Contexts

The participants were asked how the manual could be more culturally sensitive to the youth in their communities. One participant remarked, "I think this booklet is suitable for the community that I teach in." Another stated, "This booklet is fine." A third one said the manual "will help them [the youth] understand that learning sex education is important."

However, four participants suggested the inclusion of several cultural contexts. One participant wanted to address the needs of students from a socioeconomic lens. "More analysis of cultural differences from a socio-economic viewpoint rather than geological viewpoint." Another participant wanted more inclusion of LGBTQIA+ issues. "I think you need to add more on LGBTQIA+." Another participant suggested age-appropriate approaches to the lessons. "Sharing appropriate information for each age group. Information can be more in-depth for more mature age groups vs. middle school students that may need more facts to understand the concepts and terms." A fourth participant suggested tailoring lessons according to how students viewed their surroundings. "Maybe start the lessons with having the students share their views on various influences and pressures that they receive from their families, communities, cultures, or governments about these topics."

Overall Thoughts and Usefulness

In terms of comfort, the manual helped the participants teach CSE. Before looking through the manual, the participants rated their comfort with teaching CSE on a 10-point scale. The scores ranged from 5 to 10, with a mean of 7.91 (See Table 3). After looking through the manual, the participants again rated their comfort in teaching CSE on a 10-point scale. The scores ranged from 7 to 10, with a mean of 8.63 (See Table 3).

The participants also rated the usefulness of the manual on a 10-point scale. When the participants were questioned on the usefulness of the manual with no changes, the scores ranged from 6 to 10 (See Table 3). However, when the participants were asked to rate the usefulness of the manual if their suggestions were implemented, the scores ranged from 8 to 10 (See Table 3). None of the participants suggested the removal of any information from the manual.

Discussion

The findings of this project reiterated the necessity for standardized CSE. The repetition of the word "guide" throughout the participants' responses evoked the need for organization and training for sexuality education teachers. Using the manual, comprehensive sexuality education could be organized. We encourage all teachers to stick to the lessons as outlined, as the materials were evidence-based and adapted from the 2018 Guideline. Following the manual's logical sequence would allow students to strengthen and explore values regarding sexuality before addressing the concepts of consent, interpersonal violence, and pregnancy prevention (UNESCO, 2018). In addition, any modifications, reduction, or skipping of lessons reduced a program's effectiveness (Michielsen et al., 2010; UNESCO, 2018). UNESCO (2018) stated, "when effective curricula are delivered as intended, (programs) are much more likely to have the desired positive impact on young people's health outcomes than programmes that do not remain faithful to the original design, content or delivery approaches" (p. 29). However, UNESCO (2018) also encouraged small adjustments to the lessons, such as the inclusion of different images or cultural references, to teach students effectively. Addressing different populations' cultural contexts and educational needs with adjustment to cultural references would not change the curriculum's effectiveness (UNESCO, 2018).

We specifically opted not to include many teaching aids in our pedagogy, and we focused solely on activities that teachers and students could do without many supplies. Michielsen et al. (2010) reported that the unavailability of resources hampered the use of sexuality education activities. Some activities typically found in different CSE manuals were also western-focused and would not apply to different locations and cultures. For example, a lesson about social norms asked students to pretend what it would be like if a person faced the back of an elevator rather than the front (Gavac et al., 2017). This particular hook would pique the attention of students living in an urban community but would not apply to students who were unaware of elevators and the social cues related to their use. The included activities in the manual, such as instructing the students to converse with one another, were based on evidence, promoted critical thinking, and relied on materials that were readily available (Goldman, 2010; UNESCO, 2018).

Some of the participant's pedagogical recommendations like the inclusion of mnemonics, PowerPoints, or internet sites would be helpful in a technologically-integrative approach with teaching CSE (Decker et al., 2022; Goldman, 2010; van Lieshout et al., 2017). Positive findings included interactivity, engagement, and accessibility (Decker et al., 2022; UNESCO, 2020; van Lieshout et al., 2017). In contrast, the use of technology would also come with challenges. Decker et al. (2022) noted issues with battery life, internet connectivity, data storage, and student distraction with technology-based activities. van Lieshout et al. (2017) also expressed constraints with computer availability and school access to sex-related websites. In addition, technology would not be appropriate or usable in areas with limited access as a digital gap existed between developed and developing countries (UNESCO, 2020).

Lastly, we encourage community and parental involvement to complement school-based CSE. Since the lack of access to SRH services was often cited as a significant barrier to effective

CSE, we urge future users of the manual to seek local SRH services and integrate them with the lessons (de Castro et al., 2018; Najafi-Sharjabad & Haghighatjoo, 2019; Thongmixay et al., 2019; UNESCO, 2018). UNESCO (2018) concluded, "Sexuality education is most impactful when school based programmes . . . link school-based sexuality education with non-school-based, youth-friendly health services" (p. 30).

Objective Achievement

Overall, this project achieved its goals albeit with caveats. We sought to standardize CSE content by utilizing the key concept outlines provided in the 2018 Guidance, and the participants regarded the manual's content positively. We also provided pedagogy by including evidence-based activities following the education theory of Anderson and Krathwohl's revised Bloom's Taxonomy. However, participant responses were mixed on the activities provided in the manual and asked for the inclusion of more teaching aids. Lastly, we wrote cultural notes to address different population needs, but additions including marginalized groups such as the LGBTQIA+ adolescents and students with low socioeconomic status would be appropriate.

Recommendations

Implications

We anticipate this manual to help educators or organizations teach CSE effectively. The lessons were evidence-based, and the pedagogy was centered on a solid educational theory. The inclusion of cultural notes in the manual was written to account for population needs and different cultural contexts. The manual's ease of use would allow educators to briefly prepare lesson content and apply activities. We encourage educators to seek local SRH services and study concepts as part of additional preparation work. However, the manual's quick and easy implementation would make it attractive to new or experienced teachers.

Limitations

This project was subject to several limitations. The sampling method and the small sample size were vulnerable to bias, and participants' opinions may not be generalizable to educators around the world. Furthermore, the participant demographics and their students were not representative of all cultures. The ethnicities of the respondents were white or Asian, and no participants taught in an area considered lower socioeconomically. Additionally, the manual and the survey were written in English, which may have elicited a language barrier from participants whose native language was different.

Future Steps

Overall, there is a need to expand on the creation and use of the manual. Because this manual was adapted from the outline geared for youth ages 12-15 years old in the 2018 Guidance, the creation of other manuals focused on different age groups would be significant. We also encourage future evaluation and implementation of the complete manual to student populations globally to check for understanding, efficacy, adaptability, and success. Furthermore, conducting longitudinal studies on the use of the manual and the rate of adolescent SRH challenges changes such as teenage pregnancy or transmission of STIs will be appropriate.

Conclusion

Adolescents worldwide face struggles related to sexual and reproductive health. In response to the global need for CSE, UNESCO released the International Technical Guidance on Sexuality Education. However, no published curriculum based on the guidance exists. We sought to address these issues by creating a CSE teacher's manual by using the 2018 Guidance for lesson contents, inserting pedagogy, and involving culturally-adaptable teaching methods. Eight experienced sex education teachers in the United States, South Korea, and the Philippines

provided feedback on the manual. Most participants liked the lesson contents and the inclusion of cultural notes, whereas the pedagogy received mixed responses. The project was limited by the small sample size and the need for more cultural diversity. Overall, the manual solved various issues that educators faced when teaching comprehensive sexuality education, and if implemented, adolescents worldwide would benefit from its lessons.

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Table 1

Survey Questions

1. BEFORE looking through the booklet modules, on a scale of 0-10, how comfortable are you in teaching sexuality education?
2. AFTER looking through the booklet modules, on a scale of 0-10, how comfortable are you in teaching sexuality education?
3. How would this booklet help you in teaching this concept to your students?
4. What suggestions would you make in teaching this concept?
5. What concepts had you not thought about before?
6. How could this booklet be more culturally sensitive to the youth in your community?
7. Keeping in mind the answers to the previous questions, on a scale of 0-10, how useful is this booklet?
8. If we made all the changes that you suggested in the above questions, on a scale of 0-10, how useful do you think this would be for you?
9. Is there anything you think should not be in the booklet?

Table 2

Participant Demographics

Demographics	Number of Participants
What is your ethnicity?	
● White	4
● Black or African American	0
● American Indian or Alaska Native	0
● Asian	4
● Native Hawaiian or Pacific Islander	0
● Other	0
What is your age?	
● 20-30 years old	3
● 31-40 years old	5
● 41-50 years old	0
● 51-60 years old	0
● 60+ years old	0
How long have you been teaching sex education in the school classroom?	3
● 0-1 year	0
● 1-2 years	1
● 2-3 years	2
● 3-4 years	1
● 4-5 years	1
● 5+ years	
What is the age range of students that you teach? Please select all that apply.	
● 12-13	6
● 14-15	6
● 16-17	1
● 18+	0
If you teach sexuality education in your school, how many classes per year do you teach?	2
● 1	0
● 2	0
● 3	6
● 4+	

Demographics	Number of Participants
If you teach sexuality education in your school, about how many students per year do you teach?	
● 1-10	1
● 11-20	0
● 21-30	1
● 31-40	1
● 41-50	0
● 51-60	0
● 61+	5
What is the socio-economic background of the majority of your students in your classes?	
● Lower than average for your community	0
● Average for your community	4
● Above average for your community	4
Do you teach in a rural or urban setting?	
● Rural	3
● Urban	5
Where are you located?	
● Bulacan, Philippines	3
● Seoul, South Korea	4
● Utah, United States	1

Table 3

Comfort with Teaching Sexuality Education Before and After Manual

BEFORE looking through the booklet modules, on a scale of 0-10, how comfortable are you in teaching sexual education?
(0 = Not very comfortable, 10 = Very comfortable)

Minimum	Maximum	Mean	Standard Deviation	Variance	n
5.00	10.00	7.91	1.56	2.45	11

AFTER looking through the booklet modules, on a scale of 0-10, how comfortable are you in teaching sexual education?
(0 = Not very comfortable, 10 = Very comfortable)

Minimum	Maximum	Mean	Standard Deviation	Variance	n
7.00	10.00	8.63	0.99	0.98	8