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RESEARCH ARTICLE

Competence of physicians in providing health care to LGBT adolescents in a national tertiary hospital

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ABSTRACT

Objective: The competence of health workers to attend to vulnerable and marginalized populations is critical to health equity. The study determines the competence of physicians in providing health care to LGBT adolescents in a national tertiary hospital.
Methodology: All physicians from the departments of Pediatrics and Family and Community Medicine were recruited. An electronic form collected demographic data and responses to the Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale (LGBT-DOCSS). The responses were summarized and analyzed.
Results: Most respondents are male, with a mean age of 34.21 years. They are mainly staff of the Department of Pediatrics and post-residency fellows. Not all recall their participation in gender sensitivity training. They report scores towards the higher end of the scale: an overall score of 5.27 and mean subscale scores of 4.43 for clinical preparedness, 6.13 for attitudinal awareness, and 5.24 for basic knowledge. The heterogeneity and pertinacity of their experiences with LGBT individuals mediate their attitudinal awareness. Attaining the level of consultant suggests a better understanding of barriers and disparities against LGBT individuals. The tool has good internal reliability.
Conclusion: The demographic profile of the respondents suggests their involvement in healthcare, continuing education, and staff development. They report adequate competence in providing health care to LGBT adolescents.

Introduction

Background

The Philippines has 21,539,901 adolescents aged 10-19 years, comprising 19.82% of the population [1]. This includes adolescents in sexual and gender minorities (SGM) who have concerns regarding sexuality [2,3] In the 2021 Young Adult Fertility and Sexuality Study involving Filipinos aged 15-24 years, 2% of male respondents identify themselves as gay, and 4% of male respondents identify themselves as bisexual [4]. The National Capital Region has the highest percentage of male and female respondents who identified as the sex opposite their sex assignment at birth, comprising 8% of male and 5% of female respondents.

Health workers can sometimes disenfranchise individuals in SGM due to a lack of preparedness, humility, and understanding [2,3]. Recent studies on the competence of health workers to attend to individuals in SGM use the Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale (LGBT-DOCSS) [5-15]. It is a self-assessment tool that examines the capability of healthcare providers to identify the need for more training.

The competence of health workers to attend to vulnerable and marginalized populations is a critical component of health equity [15-25]. Adolescents in SGM, such as lesbian, gay, and bisexual (LGB), lesbian, gay, bisexual, and transgender (LGBT), and transexual adolescents, often have higher exposure to health risks, poor access to health services, and negative health outcomes with usually significant adverse social consequences [2,3]. Since healthy adolescents are crucial components of healthy societies, investing in their health brings benefits today, into adulthood, and for their future children [21].

Significance of the Study

Competence in providing health care for vulnerable and marginalized adolescents, including adolescents in SGM, is critical to reducing health disparities [24,25]. Determining competence in attending to LGBT adolescents is a necessary step that precedes crafting a learning and development plan [5-15]. It can also steer health facilities toward policies guaranteeing adolescent-friendly health services regardless of age, sex, and gender [16]. Educational institutions rely on initial determinations of competence to develop the curriculum for aspiring health workers [17]. This results in changes that accommodate disenfranchised adolescents and drive improvements in their health [21-25].

Research Question

What is the competence of physicians in providing health care to LGBT adolescents in a national tertiary hospital?

Study Objectives

General Objective

To determine the competence of physicians in providing health care to LGBT adolescents in a national tertiary hospital.

Specific Objectives

To determine the demographic profile of physicians caring for adolescents in a national tertiary hospital:
a. Age
b. Sex
c. Clinical department
d. Level of training
e. Participation in gender sensitivity training

To determine the clinical competence of physicians in LGBT adolescents in a national tertiary hospital in terms of LGBT-DOCSS scores on:
a. Clinical preparedness
b. Attitudinal awareness
c. Basic knowledge

To determine relationships between the demographic variables of age, sex, clinical department, level of training, participation in gender sensitivity training, and each domain of clinical competence in LGBT adolescents expressed as LGBT-DOCSS scores on clinical preparedness, attitudinal awareness, and basic knowledge.

To determine the internal reliability of the LGBT-DOCSS in determining the clinical competence of physicians in LGBT adolescents.

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Methodology

Study Design

The study utilized a descriptive cross-sectional design.

Study Population

The study included all physicians providing adolescent health care in a national tertiary hospital.

1. Inclusion criteria:
    a. Clinical department: Department of Pediatrics and Department of Family and Community Medicine
    b. Level of training: residents, post-residency fellows, consultants
2. Exclusion criteria:
    a. Incomplete data

Study Setting

The study was conducted at the University of the Philippines-Philippine General Hospital, a national tertiary hospital, from April to June 2024. It was begun after securing approval from the University of the Philippines Manila Research Ethics Board (UPMREB) Philippine General Hospital Review Panel.

Study Procedure

The primary investigator invited all residents, post-residency fellows, and consultants from the departments of Pediatrics and Family and Community Medicine to join the study. A uniform resource locator (URL) of an electronic questionnaire in *Google Forms* was forwarded to the chief residents of the departments. It began with an informed consent form that contained general information on the study, the procedure, the benefits and risks of joining the study, the responsibilities of the respondent, measures to maintain privacy and confidentiality, the right to refuse or withdraw participation, and measures to address any question regarding the study. The respondent indicated informed consent by affixing their initials and the date in text boxes. Text boxes and multiple-choice questions collected demographic data, while 7-point Likert scales laid out as multiple-choice questions gathered responses to LGBT-DOCSS [6]. Identifying information was not collected. This took approximately 15 minutes. Respondents were provided a copy of their answers on submission. Respondents may only respond once; modification of submitted responses, resubmissions, and multiple submissions was not allowed. The responses were summarized and analyzed.

Data Collection

Method

The study utilized a self-reporting survey.

Data Collection Tool

The study used an electronic questionnaire in *Google Forms*. Answering this survey took approximately 15 minutes. While text boxes collected age (in years), multiple-choice questions with a single answer collected sex (male or female), clinical department (Family and Community Medicine or Pediatrics), level of training (resident, post-residency fellow, or consultant), and participation in gender sensitivity training (yes or no). The electronic questionnaire also included LGBT-DOCSS. This was an 18-item, 3-factor, interdisciplinary self-assessment tool on the clinical competence of healthcare providers in LGBT clients developed by Bidell in 2017, utilized and validated in studies involving different groups of healthcare providers and students [5-15]. The subscale Clinical Preparedness (items 4, 10, 11, 13, 14, 15, and 16) explored LGBT clinical training and experiences; Attitudinal Awareness (items 3, 5, 7, 9, 12, 17, and 18) examined explicit biases about LGBT; and Basic Knowledge (item 1, 2, 6, and 8) assessed awareness of healthcare barriers and disparities. Each item had a 7-point Likert scale: Strongly Disagree (1), Disagree (2), Somewhat Disagree (3), Somewhat Agree/Disagree (4), Somewhat Agree (5), Agree (6), Strongly Agree (7). The electronic questionnaire was in the form of a multiple-choice question with a single answer. Reverse scoring was used in items 3, 4, 5, 7, 9, 12, 17, and 18. The total raw score for Clinical Preparedness was computed from scores in items 10, 11, 13, 14, 15, and 16 and the reverse score of item 4. The total raw score for Attitudes was computed by adding the reverse scores of items 3, 5, 7, 9, 12, 17, and 18. The total raw score for Knowledge was computed by summing the scores of items 1, 2, 6, and 8. The subscale score was calculated as the total raw score of the subscale divided by 7 for Clinical Preparedness, 7 for Attitudinal Awareness, and 4 for Basic Knowledge. Similarly, the total LGBT-DOCSS raw score was computed by adding the scores of items 1, 2, 6, 8, 10, 11, 13, 14, 15, and 16, and the reverse scores of items 3, 4, 5, 7, 9, 12, 17, and 18. The total LGBT-DOCSS score was computed as the total LGBT-DOCSS raw score divided by 18. Higher scores suggested more readiness, knowledge, and consideration toward LGBT patients and their care. Scoring instructions were not provided to the possible respondents. The primary investigator collected the data. No research assistants were involved in the study.

Data Collation and Encoding

The demographic profile was summarized. The following variables were included: age, sex, clinical department, level of training, and participation in gender sensitivity training to provide context on physicians caring for adolescents in a national tertiary hospital. The scores in each item, the subscale scores, and the total LGBT-DOCSS scores were also summarized to determine clinical competence in LGBT adolescents. Data was presented using tables and graphs.

Data Analysis

Statistical Tests

Descriptive statistics outlined the demographic variables, and the scores obtained from the questionnaire. Mean and frequency were used for age, sex, clinical department, level of training, and participation in gender sensitivity training. Mean was also used for each item, subscale, and overall LGBT-DOCSS scores.

Exploratory factor analysis was done to identify underlying unobservable factors that affected the clinical competence of physicians in LGBT adolescents [26,27]. Multiple regression analysis was also employed to examine associations concerning demographic variables and each domain of clinical competence [28]. A significance level of 0.05 was used. Lastly, Cronbach's alpha was used to determine the reliability of the questionnaire items to measure clinical competence in its domains [29].

Computer Program

Data was contained within *Microsoft Excel* spreadsheets. The programming language *R* was used in the analysis.

Ethical Considerations

The research protocol was submitted to the University of the Philippines Manila Research Ethics Board (UPMREB) PGH Review Panel for ethical review, and the study commenced with their approval.

The primary investigator recruited the study population through an announcement coursed through the chief residents of the departments. This included the URL of the electronic questionnaire. It explained the objectives and procedure of the study, the benefits and risks of participation, measures to ensure privacy and confidentiality, address queries and concerns, and secure electronic documentation of informed consent. The respondents chose whether to participate or not participate in the study. They could also withdraw during the study period without providing any reason. Their refusal to participate in the study did not affect their employment. They did not receive direct benefits and remuneration for their participation. Besides the time spent completing the electronic questionnaire and the risk of a breach of privacy, they did not incur additional risks or costs from participating in the study. They were also notified of their results, and their names were withheld from this paper. The primary investigator had no conflict of interest and shouldered all expenses in the study.

Data collected in this study were kept on a password-secured laptop, while electronic copies of the responses were held in *Google Accounts*. The records and passwords were only known to the principal investigator. The documents were confidential and would be deleted from the laptop and *Google Account* three years from the end of the study. Any breach of privacy would be forwarded to the Philippine General Hospital Data Privacy Officer for appropriate action.

Results

The survey was offered to 344 physicians providing adolescent health care from the University of the Philippines-Philippine General Hospital. This included 71 residents, 87 post-residency fellows, and 103 consultants from the Department of Pediatrics, and 39 residents, 5 post-residency fellows, and 39 consultants from the Department of Family and Community Medicine.

The study had 123 respondents, comprising 35.76% of the study population. None were excluded. Most were male, with a mean age of 34.21 years, from the Department of Pediatrics, post-residency fellows, and reported participating in gender sensitivity training (Table 1). While the respondents adequately provided estimates of the study population, more was needed to generalize an infinite population.

The competence of the respondents in LGBT adolescents was expressed in terms of LGBT-DOCSS scores (Table 2). The mean item scores ranged from 3.35 (1.66) in item 10 to 6.44 (1.27) in item 3. Mean subscale scores were 4.43 (1.13) for clinical preparedness, 6.13 (1.07) for attitudinal awareness, and 5.24 (1.29) for basic knowledge. The overall LGBT-DOCSS score was 5.27 (0.76).

Exploratory factor analysis was done using R between the demographic variables and the domains of clinical competence in LGBT adolescents. The varimax rotation was used since the demographic variables and subscale scores were uncorrelated. The least squares or minimum residual (Minres) factoring was used to acquire the best-fitting model.

Clinical training was strongly associated (1.00) with one latent factor in the factor analysis of the demographic variables and attitudinal awareness. In contrast, age (0.73) and training level (0.52) were substantially associated with another latent factor (Figure 1). This model was valid (RMSR: 0.03, RMSEA index: 0, TLI: 1.17). However, factor analysis of the demographic variables and the domains of clinical preparedness and basic knowledge resulted in models that poorly represented the data.

Multiple regression analysis examined associations among demographic variables and domains of clinical competence. The level of training of consultants was positively related to basic knowledge (P=0.005). The remaining demographic variables failed to demonstrate relationships with the other domains of clinical competence.

The tool had acceptable internal reliability in clinical preparedness (α=0.79) and good internal reliability in attitudinal awareness (α=0.86) and basic knowledge (α=0.85). Overall, it had good internal reliability (α=0.80) to determine physicians' competence in providing health care to LGBT adolescents.

Discussion

Adolescent health is central to any healthy society [15,16]. Hospital outpatient and clinic visits sometimes serve as initial contact points for health care [23,24]. The study includes a national tertiary hospital that offers specialized services to complex cases, provides clinical training to healthcare providers and students, and receives referrals nationwide. It also inherently provides frontline and essential services to adolescents, including those with concerns about their sexuality. Thus, despite exhaustive recruitment, most of the potential respondents are unable to participate in the study, citing the heavy workload and demands of clinical training.

The demographic profile of the respondents documents their involvement in healthcare, continuing medical education, and staff development. However, some cannot recall their participation in gender sensitivity training. The low priority given to determinations of clinical competence in patients in SGM and indifference towards current pedagogy (i.e., *gender sensitivity training*) is a concern.

Table 1. Demographic profile of physicians caring for adolescents in a national tertiary hospital (n=123)

Variables	Mean (SD) or n (%)
Age	34.21 (8.31)
Sex	
Male	88 (71.54%)
Female	35 (28.46%)
Clinical Training	
Family and Community Medicine	24 (19.51%)
Pediatrics	99 (80.49%)
Level of Training	
Resident	41 (33.33%)
Post-residency fellow	66 (53.67%)
Consultant	16 (13.00%)
Participation in gender sensitivity training	
Yes	81 (65.85%)
No	42 (34.15%)

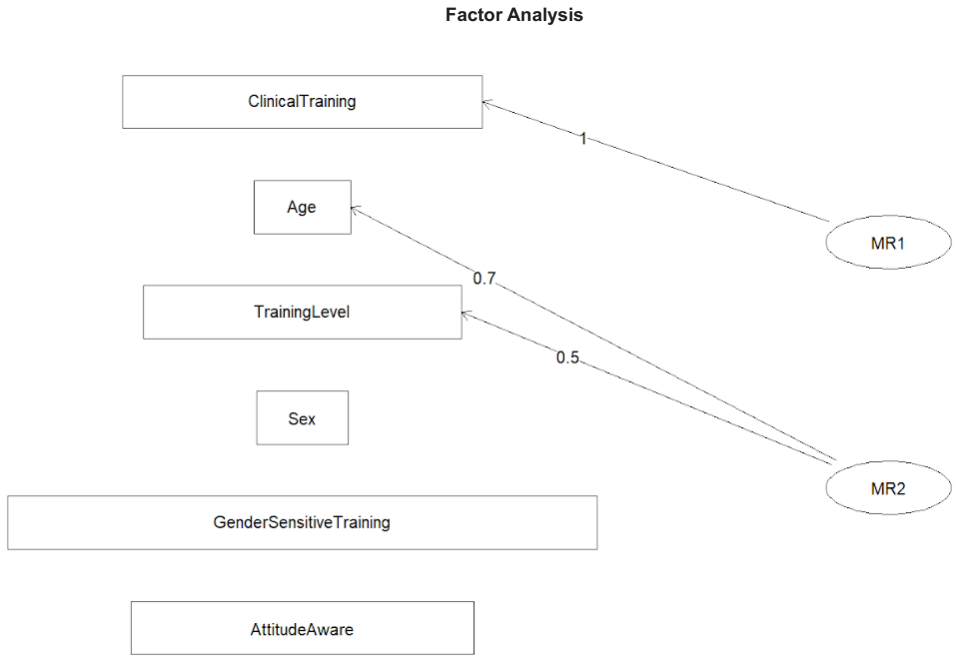

Figure 1. Exploratory factor analysis with the demographic variables and attitudinal awareness.

Table 2. Competence of physicians in providing health care to LGBT adolescents in a national tertiary hospital in terms of LGBT-DOCSS scores

Domain	Mean Score (SD)
Item 4. *I would feel unprepared talking with an LGBT client/patient about issues related to their sexual orientation or gender identi*	4.57 (1.71)
Item 10. *I have received adequate clinical training and supervision to work with transgender clients/patients.*	3.35 (1.66)
Item 11. *I have received adequate clinical training and supervision to work with lesbian, gay, and bisexual (LGB) clients/patients.*	3.46 (1.68)
Item 13. *I have experience working with LGB clients/patients.*	5.46 (1.57)
Item 14. *I feel competent to assess a person who is LGB in a therapeutic setting.*	4.90 (1.58)
Item 15. *I feel competent to assess a person who is transgender in a therapeutic setting.*	4.57 (1.67)
Item 16. *I have experience working with transgender clients/patients.*	4.70 (2.02)
Clinical preparedness subscale score	**4.43 (1.13)**
Item 3. *I think being transgender is a mental disorder.*	6.44 (1.27)
Item 5. *A same sex relationship between two men or two women is not as strong and committed as one between a man and a woman.*	6.27 (1.29)
Item 7. *LGB individuals must be discreet about their sexual orientation around children.*	5.56 (1.67)
Item 9. *When it comes to transgender individuals, I believe they are morally deviant.*	5.98 (1.56)
Item 12. *The lifestyle of an LGB individual is unnatural or immoral.*	6.20 (1.43)
Item 17. *People who dress opposite to their biological sex have a perversion.*	6.17 (1.43)
Item 18. *I would be morally uncomfortable working with an LGBT client/patient.*	6.30 (1.35)
Attitudinal awareness subscale score	**6.13 (1.07)**
Item 1. *I am aware of institutional barriers that may inhibit transgender people from using health care services.*	5.34 (1.47)
Item 2. *I am aware of institutional barriers that may inhibit LGB people from using health services.*	5.21 (1.47)
Item 6. *I am aware of research indicating that LGB individuals experience disproportionate levels of health and mental heal problems compared to heterosexual individuals.*	5.24 (1.70)
Item 8. *I am aware of research indicating that transgender individuals experience disproportionate levels of health and mental health problems compared to cisgender individuals.*	5.17 (1.58)
Basic knowledge subscale score	**5.24 (1.29)**
Total LGBT-DOCSS score	**5.27 (0.76)**

Items 3, 4, 5, 7, 9, 12, 17, and 18 were scored inversely.

Competence

Working with LGBT patients is crucially linked to the perception of competence [8]. The respondents report acceptable clinical competence in LGBT patients, with the overall score (5.27) approaching the higher end of the scale (7). The mean subscale scores on clinical preparedness (4.43), attitudinal awareness (6.13), and basic knowledge (5.24) were likewise acceptable. This pattern of high scores for attitude, moderate scores for knowledge, and low scores for readiness is present in other studies involving various groups of health workers and students [6,8,11-14].

The tool, LGBT-DOCSS, utilizes 18 brief statements relatable to Filipino health workers. Its non-judgmental tone and easily understandable terminology in English, the language of instruction and transaction in the country, make it suitable for the local setting. The good agreement among the respondents indicates that questionnaire items adequately measure the clinical competence of the respondents towards LGBT patients, as a whole, and in the different domains.

Clinical Preparedness

The mean scores in items 10 (3.35) and 11 (3.46), which inquire into the adequacy of their clinical experience to attend to LGBT individuals, lie below the midpoint (3.5) and the mean subscale score (4.43). Individual differences in the perception of adequate experience and training can explain the inconsistent scores on clinical preparedness [7]. While society expects physicians to graduate from medical school prepared to provide comprehensive healthcare to LGBT patients despite the life stage, research also shows that most physicians like to receive further education on the health of SGM due to inconsistent instruction [30-34].

While a low mean score (< 3.5) on the adequacy of clinical experience to work with LGB patients is in itself worrisome, the item with the lowest score, readiness to work with transgender patients, deserves particular attention [8,33]. Transgender adolescents have high rates of mental health issues, substance abuse, and unsafe sexual practices [16,21,35-42]. These issues are related to interior conflicts on identity and appearance, lack of health services, poor access to competent healthcare providers, and ostracization [2,3,43].

Attitudinal Awareness

Social desirability bias can explain the high scores (>3.5) for attitudinal awareness [44].As such, an affirmative attitude towards LGBT individuals does not entail better understanding and readiness. For example, health workers can form biases from limited information, which causes patients to feel upset and forced to fit into expectations [9,45-47]. In one study involving Filipino health workers, 13 to 17% of respondents prefer heterosexual over LGBT patients [48].

Exploratory factor analysis suggests that heterogeneity and pertinacity in life experiences with LGBT patients mediate attitudinal awareness. Differences in training among healthcare disciplines result in differences in attitudes toward LGBT populations [32,49-54]. Indeed, clinical training in Pediatrics and Family Medicine differs in curriculum and pedagogy. Likewise, physicians tend to accrue learning experiences with LGBT individuals with incremental levels of clinical training. Increasing age also tends to foster more interactions with LGBT individuals in their personal lives. Intergroup contact theory explains that frequent and sustained involvement with people in SGM reduces explicit bias [51].

Basic Knowledge

Adolescents in SGM experience minority stress and intersectionality [43,55-58]. For example, in one study, adolescents who label themselves as both LGB and transgender report higher levels of emotional stress and victimization due to bullying [55]. In another study, adolescents who are simultaneously part of several marginalized groups, including those identifying as transgender, engage in more risky sexual behaviors than others [57]. LGBT adolescents are simultaneously part of at least three marginalized groups due to age, sexual orientation, and gender [56]. While membership in a minority social group is often associated with overwhelming stress and poor health outcomes, simultaneous involvement in many marginalized groups creates overlapping and interrelated experiences of discrimination and disadvantage that lead to even poorer health outcomes [56,58]

Everyone has the task of addressing inequities against adolescents in SGM [50]. Multiple regression analysis shows that respondents at the training level of consultant are well aware of barriers and disparities in delivering health care to LGBT adolescents. While a hierarchical healthcare model can foster the belief that senior physicians know better, their accumulated life experiences with LGBT individuals can also help address individual and structural causes of discrimination in healthcare [30,31]. Accordingly, physicians can perpetuate or overcome healthcare barriers and disparities. Inequities attributable to bias can be minimized if they recognize their inclinations, deliberately attempt to take the perspective of their patients, and practice individuation when providing patient care [50].

Likewise, addressing bias in the health system is essential. While personal practices to control bias can increase awareness, the effectiveness of these measures is mediated by practices nurtured in learning and working environments [50]. Policy and educational interventions are necessary for changes inside and outside the healthcare system. Literature highlights the integration of gender-sensitive competency-based training in the education of healthcare professionals and students [17,24,30-34,59]. Indeed, training all health workers to be well-informed, skillful, and humble towards

adolescents in SGM ensures equitable access to healthcare. The lack of correlations among most demographic variables and domains of clinical competence greatly eases curriculum design across all levels of education of health workers. Indeed, the fundamental message of respect for adolescents in SGM remains true regardless of age, sex, clinical department, level of training, and previous involvement in gender sensitivity training.

Limitations of the Study

The study included physicians who deliver frontline services to adolescents and served as physicians of first contact within the institution. This excluded physicians providing episodic and specialty care, and health workers who are not physicians (e.g., nurses, laboratory technologists, psychologists, etc.) Thus, the study was not able to determine the effects of collaboration among physicians and other health workers as well as the delivery of interdisciplinary health care.

The cross-sectional design was limited against pre- and post-intervention determinations and longitudinal data collections. The survey was heavily dependent on the voluntary participation of the potential respondents. The tool, LGBT-DOCSS, was self-administered and was limited to quantitative determinations of competence in predefined items and domains. Despite high internal reliability, it potentially excluded other adolescents in SGM who do not identify, or who are not perceived, as LGBT.

Conclusions

This study determines the competence of physicians from a national tertiary hospital to provide health care to LGBT adolescents using LGBT-DOCSS. Most respondents are male, with a mean age of 34.21 years. They are mainly staff of the Department of Pediatrics and post-residency fellows. Many recall their participation in gender sensitivity training. They report an acceptable level of competence with an overall score of 5.27 and mean subscale scores of 4.43 for clinical preparedness, 6.13 for attitudinal awareness, and 5.24 for basic knowledge. The heterogeneity and pertinacity of their experiences with LGBT individuals mediate their attitudinal awareness. Attaining the consultant level is also related to more understanding of barriers and disparities for LGBT adolescents. The tool has good internal reliability in determining clinical competence in LGBT adolescents.

Recommendation

A comprehensive strategy is necessary to develop clinical competence towards adolescents in SGM across all levels of education. Educational institutions must integrate adolescent health and sexuality into the curriculum for future health workers. This entails involving adolescents in SGM in curricular design and education. Schools must retain competent faculty and ensure positive formative experiences. Interprofessional learning that capitalizes on the strengths of various disciplines enhances learning. Involvement in clinical rotations, community work, and extension programs provides students with numerous opportunities for experiential learning.

Health facilities must adopt policies guaranteeing the availability of competent healthcare providers. Specifically, the national tertiary hospital should avoid relying on gender sensitivity training as their only intervention to address the learning needs of health workers on human sexuality. Fostering diversity and inclusivity in the workplace is also essential.

Further research on the competence of health workers to attend to adolescents in SGM should recruit sufficient respondents from health facilities nationwide to improve generalizability. While longitudinal research in the same national tertiary hospital can show the effects of learning interventions on the competence of health workers, this study can also be expanded to a mixed-methods research to further enrich our current understanding of healthcare for marginalized and vulnerable Filipino adolescents.

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Appendix

The appendices will be available upon request. Please contact the corresponding author for access.