The Role and Challenges of Faculty in Reproductive Health Promotion: A Conceptual Paper of Interventions Addressing Student Sexual Risk Behavior

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Abstract. University students in *emerging adulthood* face heightened vulnerability to risky sexual behaviours due to increasing independence, social exploration, and ongoing negotiation of norms. Prevailing campus approaches—passive clinical services and generic health promotion—are insufficient to address multi-level determinants and the persistent knowledge-to-action gap. The objectives of this concept paper is to delineate the roles and challenges of faculties in advancing students' sexual and reproductive health within Indonesia's religious-cultural context, and to propose a socio-ecologically grounded framework for a safe, inclusive, and rights-based campus. Conceptual synthesis drawing on the Socio-Ecological Model (SEM), *in loco parentis*/duty of care, and Indonesian higher-education/communal norms. Evidence and policies were mapped across five levels (individual, relational, organizational, community, policy) to specify mediating mechanisms and moderating conditions, and to derive a multilayered intervention agenda. Key mediators include confidentiality, trust, a non-stigmatizing organizational climate, and policy–curriculum–service coherence. Moderators comprise generation gaps, moral construction/moral panic, staff capacity, and privacy–autonomy concerns. The framework specifies integrated, multilayered actions: skills-based comprehensive sexuality education (CSE); confidential, youth-friendly counseling; peer support; sexual-violence prevention and referral SOP's; staff training; and strategic collaboration with community services and leaders. Faculties can operationalize a Healthy University model by aligning governance, curricula, and services to cultivate a safe, inclusive, rights-based ecosystem for SRH. A staged empirical agenda—qualitative, participatory, comparative, and longitudinal evaluative studies—is proposed to test, refine, and scale the framework in Indonesian universities.

Keywords: *Risky sexual behavior, socio-ecological model, university.*

A. Introduction

Entering college is one of the most anticipated times for youth. It's a time of independence, social exploration, and self-discovery. Promises and self-motivation are strengthened to hone their intellect and achieve a brighter future. Meanwhile, emerging adulthood quietly haunts their lives, making them more vulnerable to risky sexual behavior.

Various global data show that reproductive and sexual health among youth, including students, still faces significant challenges and is a priority in health care efforts. UNAIDS report indicates that in 2024, approximately 4,000 adolescent girls and young women aged 15-24 infected with HIV every week (1). Another indicator is the incidence of unwanted pregnancies, which is still high around 121 million cases during 2015-2019 per year worldwide (2) . These two things indicate the vulnerability of the young age group as well as the gap in information and youth-friendly services.

In Indonesia, data from the 2017 Indonesian Demographic and Health Survey (IDHS) showed that approximately 8% of male adolescents and 2% of female adolescents aged 15-24 years stated that they had engaged in premarital sexual relations. The IDHS data also stated that 59% of sexually active women and 74% of sexually active men began their sexual relations between the ages of 15-19 years, of which 11% experienced an unintended pregnancy (3). A study conducted by Noer and Nurfadilah in high schools in Bekasi showed that 17.9% of students admitted to be involved in sexually active and 47% frequently watched pornography(4).

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The approach to reproductive and sexual health in universities in Indonesia is generally centered on general health promotion programs such as seminars, counseling or posters while the latest global guidelines emphasize that services for adolescents and students must be integrated across systems, youth-friendly, participatory and sustainable (5). UNESCO also emphasized that evidence-based, skills-focused, and culturally relevant comprehensive sexuality education (CSE) is an important intervention step compared to the one-way lecture model (6). In practice, many students still face challenges in utilizing reproductive health services and a "knowledge-to-action gap" occurs where students have difficulty translating knowledge into safe sexual behavior (7).

Faculty, as an institution that accommodates students, must be able to play a strategic role in promoting student reproductive health. If the faculty ignores this strategic role, it will directly impact student health and well-being and pose institutional risks. For students, gaps in reproductive health services and education may increase exposure to sexually transmitted infections, unwanted pregnancies, mental health issues, and other problems that have long-term impacts and reduce their quality of life (4,8). For institutions, the lack of integration of reproductive and sexual health into policies, curricula, counseling, and referral systems will undermine the institution's core mission of academic achievement, retention, and a safe campus climate, thereby risking a decline in reputation and public trust

In Indonesia, the role of faculty in addressing risky sexual behavior is complex due to several fundamental factors. First, the concept of in loco parentis applies, where faculty act as substitute parents with a duty of care to safeguard the health, safety, and well-being of students. This concept mandates and provides moral justification for faculty to intervene in non-academic areas of students' lives, including their sexual behavior (9). Second, the strong cultural and religious context in Indonesia often makes discussing sexual behavior taboo. Sexual behavior is always associated with violations of morals, social norms, and religion, thus hindering access to reproductive health services and information for young people, including students (4,10–12). Third, there is a lack of capacity and adequate training on reproductive and sexual health for faculty members. Research shows that strong religious and cultural norms make educators reluctant to discuss sexuality and consider it a sensitive topic (10). Other research shows that the internet is the most widely accessed source of information for young people to gain knowledge regarding sexual behavior, while only a few take advantage of access to consultations with educators and parents(4).

Based on these fundamental problem factors, a significant conceptual gap can be seen. Although faculties have made several efforts related to reproductive health, there is no theoretical framework that maps, analyzes, and frames the role of faculty in the context of reproductive health promotion and prevention of risky sexual behavior among students. This conceptual gap aims to fill. The main objectives of this article are: first, to conceptualize the role of faculty in efforts to promote student reproductive health and possible interventions; second, to identify and analyze the challenges and dynamics arising from institutional mandates, sociocultural and religious norms, and the basic principles of evidence-based public health; and third, to offer a conceptual framework that serves as a roadmap for future empirical research and a foundation for developing reproductive health policies at the university level.

B. Method

Risky Sexual Behavior

In this article, risky sexual behavior is defined as any pattern of sexual activity that increases the likelihood of negative health consequences, either physical or psychosocial (13). The Centers for Disease Control and Prevention states that these behaviors include, but are not limited to, unprotected sex, having multiple sexual partners, engaging in sexual intercourse at a young age, engaging in sexual intercourse under the influence of substances that can impair judgment, and non-consensual sexual practices (14).

A study based on the Global School-based Student Health Survey conducted on adolescents aged 12-15 in 69 low- and middle-income countries showed a prevalence of adolescents who had ever had sexual intercourse of 6%. Of this group, 52% had multiple partners, and 41.9% did not use a condom at their last sexual intercourse. Trend analysis from 2003-2017 in 17 countries showed a decrease in the proportion of those who had ever had sexual intercourse, but an increase in multiple

partners and a decrease in condom use, especially among boys and adolescents aged 14-15. This illustrates a gap in protection, despite the relatively slow age at first intercourse (15).

At the student level, the results of research conducted at several universities in China on 8794 sexually active heterosexual students showed that 41.9% of students did not always use contraception, 41% used ineffective contraceptive methods, 13.2% had multiple partners, and 60.6% engaged in integrated risky sexual behavior (16). Another study in Nepal, conducted among adolescents aged 15-24, including university students, showed a composite risky sexual behavior rate of 18.6% among all respondents and 60% among the sexually active subgroup. The risk was consistently higher among males and those aged 15-19 (17).

In Indonesia, a study conducted on several campuses among 530 university students showed a prevalence of premarital sexual relations of 4.2%. Of these, only 63.6% used condoms, and 22.7% reported multiple partners. Exposure to pornography emerged as the strongest predictor of premarital sexual practices. This study demonstrated a "knowledge-attitude paradox," where high levels of knowledge do not automatically lead to protective attitudes (11).

Another study, conducted through an analysis of the 2017 Indonesian Demographic and Health Survey on two unmarried age groups: 15-19 years (adolescents) and 20-24 years (young adults), showed a prevalence of having had pre-married sexual intercourse of 11.6% in the adolescent group and 40.7% in the young adult group. The results also indicated that adolescents and males were at higher risk for engaging in risky sexual behavior. Other factors influencing risky sexual behavior were low education level, employment status, having a boyfriend/girlfriend, and substance use such as cigarettes, alcohol, and drugs (18).

Theoretical Foundation

The role of faculty in promoting reproductive and sexual health can be grounded in the socio-ecological model (SEM) theory. This theory is understood as a multi-level effort, from individuals to policy, that interacts dynamically to shape individual behavior (19). The conceptual roots of SEM rest on developmental ecology starting from the micro-meso-macro-chronosystem by Bronfenbrenner and extended to the realm of health promotion by McLeroy et al (20–22). Guided by the SEM framework, reproductive health promotion efforts among adolescents can be systematically developed through the mapping of determinants and the identification of strategic intervention point.

At the individual level, factors such as students' knowledge, attitudes, communication skills, and personal values shape their sexual behavior. Faculty can play a significant role in facilitating the improvement of reproductive health literacy and skill training, particularly in responsible decision-making. At the interpersonal level, factors such as close social networks, including family, peers, and partners, influence individuals through social support, pressure, or behavioral modeling (19). At this level, faculty can play a role in facilitating students by providing advisors or counselors who are close to the students and can also be a role model.

At the organizational level, factors influencing student sexual behavior include rules, norms, values, culture, and organizational structures that strongly shape what is considered as acceptable behavior (19). At this level, faculties, as part of the larger institution, are strategically positioned to develop or formulate campus policies that support reproductive health. Steps at this level can be taken by creating a stigma-free environment, providing youth-friendly reproductive health services, integrating reproductive health materials into the curriculum, and implementing efforts to prevent sexual violence.

At the community level, this involves the relationships between organizations and their environment and other stakeholders. Collaboration between the faculty and health service units, counseling centers, and community organizations is a critical determinant (19). Faculty can act as a frontline, directing students who need further assistance to professional services within the campus community. At the outermost level, which is the public policy level, the most determining factor is government policy that supports reproductive health. At this level, the faculty's role is to facilitate advocacy by academics, including faculty leaders, to promote evidence-based policies (19).

Another theoretical basis that can be used to develop interventions to promote reproductive health and sexual behavior among students is the concept of *in loco parentis*, which literally means "in the place of parents" (23). Historically, the concept of *in loco parentis* remains very strong in the educational tradition of many countries that adhere to family and paternalistic values, such as

Indonesia. In this context, the faculty plays a role in shaping the character and safeguarding the morals of students. This concept explains the relationship between educational institutions and students, where the institution acts as a guardian, regulating the students' lives, both academically and non-academically (23).

This concept grants authority and responsibility to higher education institutions, including faculty, to act as surrogate parental figures with the obligation to protect, guide, and discipline students while they are under the institution's supervision. Although students have entered the group of adults with legal autonomy, efforts to prevent foreseeable harm through policies, services, and a safe environment remain the responsibility of the institution (23).

Currently, the concept of *in loco parentis* has evolved into the concept of duty of care in higher education. This concept mandates institutions to act reasonably and skillfully in organizing learning and supporting student welfare, without reverting to paternalistic parenting patterns that limit student autonomy (23). This concept in Indonesia has a normative basis through Regulation of the Minister of Education, Culture, Research, and Technology Number 30 of 2021 concerning the Prevention and Handling of Sexual Violence. This policy establishes the goal for higher education institutions to develop policies and take steps to prevent and handle sexual violence as part of the Tri Dharma of Higher Education. Its implementation includes learning, strengthening governance, community culture, services, and reporting and referral mechanisms. Through this policy, efforts to promote reproductive and sexual health do not stand alone as health education but are integrated into the campus protection ecosystem (9).

In practice, the role of faculty within the duty of care framework includes: (1) ensuring access to comprehensive and youth-friendly reproductive and sexual health services, (2) designing evidence-based curricula and education that builds decision-making skills, as well as digital literacy to combat misinformation, (3) creating a safe environment through the preparation and publication of standard procedures for reproductive health promotion, training for staff and lecturers, and a zero-stigma campus culture; and (4) structured monitoring and evaluation across units to prevent risks and close access gaps (9). This recommendation places student welfare, dignity and rights as the axis of intervention.

C. Result and Discussion

Although driven by the duty of care, reproductive health promotion interventions undertaken by faculties face several complex challenges that could undermine the program's effectiveness. These challenges include generational gaps that lead to differences in perception; social, cultural, and religious values and norms; faculty capacity and limitations; and issues of student privacy and autonomy.

The first challenge is the generation gap, which creates differences in perception between students and staff and lecturers. Students in the emerging adult stage, living in a digital environment, may view sexual behavior as a normal part of discovering identity and autonomy, while staff and lecturers view the same behavior as a violation or threat to students' morals, reputations, and futures. This difference in perception leads to differing responses, with faculty generally responding with prohibitions, while students prioritize autonomy and privacy (11).

The second challenge is that reproductive health and sexual behavior issues in Indonesia are often linked to moral, social, cultural, and religious values. Risky sexual behavior is viewed as a violation of norms, rather than a public health issue. This can trigger moral panic, an overreaction by the public that focuses on controlling behavior rather than safety, skills, and rights. This perspective transforms students from being "subjects of assistance" into "agents disrupting the moral order" who should be controlled. Furthermore, this can lead to a situation known as moral policing, a situation where symbolic policies are created that suppress open discussion and create negative stigma to restore order (4,10).

The third challenge is the limited capacity of both staff and lecturers in reproductive health aspect. Majority of the staff and lecturers do not have formal training in counseling and/or reproductive health, often lacking the confidence to provide counseling, especially on sensitive topics. Without adequate training, it is feared that well-intentioned guidance will turn into judgmental,

uninformed, or even stigmatizing advice (4,10).

The fourth challenge concerns the privacy and autonomy of students, who are generally entering adulthood. Reproductive health promotion interventions must be structured with the principles of confidentiality and clear consent. Interventions perceived as intrusive and violating privacy boundaries will trigger defense mechanisms and subtle resistance, such as withholding information, avoiding advisors, or being reluctant to access services for fear of gossip. These four challenges are interconnected and mutually reinforcing. Failure to address these challenges will result in the risk of psychosocial harm and hinder the shared goal of protecting and saving the nation's future generations.

Conceptual Framework

This conceptual framework was developed based on the Socio-Ecological Model (SEM) which emphasizes that health behavior is the result of complex interactions between individual, interpersonal, organizational, community, and public policy factors (19,20). In the context of higher education, this model provides an understanding that students' sexual behavior is not only influenced by personal knowledge and values, but also by the social environment, institutional systems, and policy structures that support them, with the ultimate goal of a safe, inclusive, and rights-based campus.

At the individual level, students' sexual behavior is influenced by reproductive and sexual health literacy, attitudes toward sexuality, moral values, and safe decision-making skills. Low literacy and misconceptions about sexuality often trigger risky sexual behavior (6,24). The interpersonal level includes social relationships with peers, partners, lecturers, and educational staff. Social support and non-judgmental interactions have been shown to increase students' acceptance of KRS education and services, while stigmatizing or oppressive relationships actually worsen help-seeking behavior (6,24).

At the organizational level, faculties and universities play a strategic role as environments that can shape healthy behaviors through internal policies, curricula, and the provision of youth-friendly health and counseling services. Faculties also have a duty of care to students, that is, an obligation to ensure a safe, inclusive, and violence-free learning environment. This principle is emphasized in Minister of Education, Culture, Research, and Technology Regulation No. 30 of 2021 concerning the Prevention and Handling of Sexual Violence, which mandates universities to integrate prevention, handling, and education efforts as part of their institutional responsibilities (9).

Furthermore, the community level includes collaboration between campus and health care facilities (community health centers, hospitals, and NGOs), as well as the involvement of community and religious leaders in building support networks. The WHO, through its Adolescent Health and Well-being (AA-HA! 2.0) guidelines, emphasizes that strong community networks can improve the affordability and sustainability of reproductive health services for students (5).

Meanwhile, the public policy level provides the legal framework and social norms that determine the direction and scope of intervention at the campus level. In Indonesia, policies such as Minister of Education, Culture, Research, and Technology Regulation No. 30/2021 serve as the regulatory basis for guaranteeing the rights to confidentiality, security, and fairness in health reproduction services for students (9).

This framework also emphasizes the role of mediators and moderators in clarifying the inter-level relationship mechanisms. Mediator factors include confidentiality, trust, organizational climate, and policy-curriculum-service coherence, which serve as bridges between structural factors and behavioral outcomes. Meanwhile, moderator factors such as generation gaps, moral panic, staff capacity, and privacy and autonomy issues can strengthen or weaken the effectiveness of implemented interventions.

Ultimately, this entire process culminates in the creation of a safe, inclusive, and rights-based campus ecosystem as recommended by the UNESCO's goal of creating a learning environment that supports students' physical, psychological, and social well-being. Such an ecosystem not only prevents risky behavior and sexual violence but also strengthens the role of the faculty as an institution that protects and empowers students holistically (24).

Recommendations for Future Research

The conceptual framework developed in this article opens up ample scope for further

empirical research to deepen our understanding of the role of faculty in promoting student sexual and reproductive health. Currently, scientific evidence in Indonesia remains limited to descriptive surveys or evaluations of general health education programs, while studies examining institutional dynamics, socio-religious norms, and faculty capacity in carrying out their duty of care are relatively rare. Therefore, more contextual, cross-level empirical research is needed, oriented toward systemic change within higher education institutions.

First, exploratory qualitative research is needed to explore the experiences, perceptions, and negotiation of meaning among students, lecturers, faculty administrators, and community stakeholders regarding health reproduction issue. Such studies can uncover the hidden curriculum and culture of silence that often hinder effective health reproduction promotion (8,13). A phenomenological or grounded theory approach can be used to develop substantive theory about how the duty of care is realized or ignored at the micro (lecturer-student relationship) and meso (faculty policy) levels.

Second, campus-based participatory research can be a promising empirical model. Involving students as co-researchers or peer facilitators allows for the exploration of interventions that are more relevant to the needs of young people and more socially acceptable (5). This approach can also test the effectiveness of co-design models in creating digital-based KRS promotion innovations, educational games, or empathy-based peer counseling.

Third, quantitative or mixed methods research can be directed at examining the interlevel relationships described in the conceptual framework, for example, the relationship between campus climate, trust in services, and help-seeking behavior; or between the integration of policies and the effectiveness of health reproduction interventions. Multilevel modeling or structural equation modeling (SEM) analysis can be used to map the influence pathways and significant mediating/moderating variables.

Fourth, longitudinal evaluative research is essential to assess the sustainability and impact of healthy campus policies and national regulations on changes in institutional culture and student behavior. Long-term evaluation will help understand whether duty-of-care-based policies effectively reduce cases of sexual violence, improve student learning literacy, and build a supportive and stigma-free campus ecosystem (9,24)

Finally, cross-university research with a comparative approach for example, between religion-based and public universities, or between public and private universities can enrich the literature by demonstrating contextual variations, cultural resistance, and innovative best practices. Such empirical evidence is crucial for developing a “Healthy and Inclusive Campus Framework” model that can serve as a national and regional reference for health reproduction promotion among students.

D. Conclusion

University students are in a developmental transition phase that makes them vulnerable to risky sexual behavior. Therefore, faculty have a strategic role in building a safe, inclusive, and empowering campus environment through the promotion of sexual and reproductive health. Using the Socio-Ecological Model (SEM) and the principle of *in loco parentis*, duty of care, the role of faculty is understood not only as a provider of clinical services, but also as a driver of a learning ecosystem that supports the overall well-being of students. Challenges such as cultural taboos, generational gaps, limited staff capacity, and issues of privacy and morality require an intervention approach that is sensitive to the social context and religious values. Therefore, strengthening institutional capacity, cross-sector collaboration, and future empirical research are essential to strengthen the evidence base and create a healthy, youth-friendly, and stigma-free campus ecosystem.

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