**Interprofessional education for reproductive health service: a review**

Wiwik Afridah, Trimartiana, Prihartini Widiyanti, Mochammad Bagus Qomaruddin

**ABSTRACT**

Safe and quality health services are to avoid interruption of communication between health professionals. Reproductive health services for adolescents can be improved by providing comprehensive reproductive health services. One of the efforts to realize effective collaboration between professions is by training students to use the interprofessional education learning method. This review aims to comprehensively discuss student inter-professionalism to combine various attributes, including self-confidence, flexibility in managing conflict, and commitment to promoting adolescent reproductive health. Study Review and data collection were conducted between 2010 and 2019. Health Promotion Model (HPM) can improve health promotion behavior, identify the quality of life, and predict changes in factors influencing health promotion behavior. Quality adolescent reproductive health services by improving communication skills, teamwork, care, ethics, and responsibility in interprofessional education. Interprofessional education can be effective if students have self-awareness and a good level of self-confidence. The students with health majors have opportunities to train in the application of interprofessional education in the health education curriculum, which can improve communication skills and work in teams. To gain competency of mutual respect, keep the ethic, communicate effectively, work in teams, care, and be responsible, one must be given training about Interprofessional Education with additional self-awareness owned by students in implementing adolescent reproductive health services. Understanding the factor of the Health Promotion Model (HPM) can positively contribute to increasing student self-confidence as a Reproductive Health Peer Educator.

**Keywords:** interprofessional education, reproduction health, self-awareness, self-confidence, health promotion.


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**INTRODUCTION**

Safe and quality health services are to avoid interruption of communication between health professionals. So far, medical students have been trained by members of the same profession (uni-professional). However, when students carry out their assignments, they need interprofessional support and awareness to collaborate between professions. One of the efforts to realize effective collaboration between professions is by training students to use IPE strategies. Previous research stated the need for IPE to train self-confidence. The IPE strategy was chosen because several advantages can be obtained, including helping prepare students to be involved, actively contributing to solving problems, and improving the quality of health services.

The quality of health services in Indonesia, especially reproductive health, can be improved by providing comprehensive reproductive health services to women, including sexual life and reproductive rights, to increase women's independence in regulating the functions and processes of reproduction. The students with health majors have a role as potential health promoters as reproductive health peer educators. However, many practitioners still lack confidence in health promotion and feel uncomfortable and less skilled in handling sexual and reproductive health by interprofessional providers. Some literature shows that new graduates, both practitioners and postgraduate students, generally feel inadequate or unprepared to assume themselves as “experts”. Benner's Theory explains that transitioning from beginner to expert takes 3-5 years.

Gaining learning outcomes, such as information, abilities, and attitudes for each profession, is essential for professional identity development. Both interpersonal and intrapersonal components make to professional identity. Along with professional identity, a number of crucial learning outcomes are also related to team dynamics, such as the ability to communicate and comprehend how one's area of expertise and others' interact. Additionally, it equips medical practitioners with a category of outcomes for healthcare that refers to three objectives: better care, better health, and lower costs.

Managers must facilitate students' interprofessional skills to combine various attributes, including self-confidence, flexibility in managing conflict, and commitment. That study has yet to be done much, even though these skills are essential for developing professional identity. Therefore, this review article is possible to find out the needs of health students in improving their professional identity, especially...
reproductive health services. This review aims to comprehensively discuss student inter-professionalism to combine various attributes, including self-confidence, flexibility in managing conflict, and commitment to promoting adolescent reproductive health.

**METHOD**

This study is a literature review. The literature sources used come from the PubMed and Google Scholar databases; Identification, evaluation, and synthesis of research works, as well as the opinions of academics and practitioners, can be accomplished through a systematic, explicit, and repeatable process called a literature review. A summary of the theory, research findings, and further research materials gathered from reference materials that will serve as the foundation for research activities are included in the literature review.

**RESULTS AND DISCUSSION**

**IPE and Implementation in Higher Education**

Several higher education institutions integrating IPE competencies into the curriculum are Universitas Indonesia, Universitas Gadjah Mada and Universitas Airlangga. The Integrated Curriculum Coordinator of the Health Sciences Group at the University of Indonesia conveyed that Universitas Indonesia had held IPE activities since 2012, with a special unit, it is the administrative center RIK, which oversees campus management with five faculties and manages multi-professional and inter-professional learning modules.

IPE in Universitas Gajah Mada initiated in 2013, longitudinal learning known as Community and Family Health Care with Interprofessional Education (CFHC-IPE). CFHC-IPE activity is a longitudinal activity from the first semester to the seventh semester, following the competencies that will be applied in the target community. CFHC-IPE involved three study programs in the Medicine Faculty, Medical Sciences, Nursing Science Study Program, and Nutrition-Health Study Program that is built on the principles of interprofessional education. The main activity of the curriculum CFHC-IPE is Family Attachment to develop the ability to manage health centered on individuals, families, and communities. This program has many benefits for students. The students can learn about interprofessional collaboration, families, and assisted communities by implementing promotive and preventive programs.

Universitas Airlangga has also carried out community setting activities through KKN-IPE since 2019, followed by students who had completed their studies in semester 5 (five) from 15 faculties. Through this program, students can learn in interprofessional collaboration while simultaneously making a real impact on society; they are creating rules disaster prepared village. Since 6 September 2021, it has become a curriculum setting through courses Collaborative Basic Learning-Introduction to Scientific Collaboration course.

Based on the experience of several universities shows that IPE has considerable benefits and has great opportunities to be implemented. In support of client-centered care, IPE implementation can boost one's level of assurance, coordination (planning), restraint and composure (which reduces anxiety), and commitment (which fosters persistence). It also can effectively build capabilities in collaborating with other health workers.

**The Importance of Self-Awareness in Indonesian Adolescent Reproductive Health Services**

Reproductive health is considered during the reproductive process. Adolescents should be assisted in making a healthy transition into adulthood by involving them in programs that prevent unwanted pregnancies, sexually transmitted infections, and reproductive health disorders. Identification of the fertile period, prevention of STD transmission, irregular menstruation, lack of knowledge, understanding, and responsibility on the part of adolescents, and difficulty in obtaining information about reproductive organs and functions are some issues with adolescents' reproductive health. The Youth Care Health Service activities at the Community Health Center level are still limited to counseling at schools, youth access to Community Health Center is hampered by learning activities, and cross-sectoral collaboration has not been carried out.

Improving health promotion behavior, identifying the quality of life, and predicting the stage of change in factors that influence health promotion behavior can be done with a health promotion using the Health Promotion Model (HPM) Pender's. Through the Peer education program, teenagers learn better than their peers. However, the peer communication factor is still a cause. There are also planning generation programs with two approaches: Youth Family Development and the Counseling Information Center, which is able to increase reproductive health literacy in the adolescent population and become a mutually beneficial community relationship.

Findings for novel strategies are encouraging because of addressing the need to create new techniques for the continuous interprofessional collaboration processes of public health employees. Interprofessional education can therefore be a tactic since it can raise students' self-efficacy (belief in one's own abilities), coordination (planning), restraint and calm (which reduces anxiety), and commitment (perseverance) in support of patient/client-centered care. Thus, interprofessional education programs in various health disciplines have a positive impact.

Since health institutions are the leading providers of prospective health professionals, health students have opportunities to be trained in the application of interprofessional education in the health education curriculum, which can improve communication skills and work in teams. Focus on interprofessional education skills, increasing student readiness leading to better healthcare systems and outcomes for patients or clients, on this occasion, able to carry out health promotion through the role of a peer educator.

Four dimensions are essential for its success: self-awareness, relational transparency, balanced processing, and internalized moral perspective. The concept of self-awareness can be used in future studies to maximize benefits. With
### Table 1. Mapping Previous Research

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Title and Journal</th>
<th>Result</th>
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<tbody>
<tr>
<td>Siti Hikmah Anas</td>
<td>Adolescent Reproductive Health Depiction Jurnal Studi Gender &amp; Anak Yinyang</td>
<td>The problems related to reproduction are irregular and painful menstruation, wet dreams/nocturnal emission, sexual desire and ways to get sexual satisfaction, identifying fertile periods, inviting kisses and having sex by girlfriends, the genitals are soaked and washed with detergent so that the germs die</td>
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<tr>
<td>Amanda Nazira, Shrimarti Rukmini Devy</td>
<td>The Influence of Personal Reference, Thought and Feeling on the Reproductive Health of X. Islamic Boarding School Students Jurnal Promkes</td>
<td>Teenagers generally lack knowledge, awareness, and maturity, and it can be challenging to get information on the anatomy and function of the reproductive system. Therefore, in this situation, outstanding and accurate maintenance of personal cleanliness is required in order to lower the issue of infectious diseases near the reproductive organs.</td>
</tr>
<tr>
<td>Queen Khoirun Nisa Mairo, Sri Endah Rahayuningsi, Benny Hasan Purwara</td>
<td>Reproductive Health of Female Adolescents in Islamic Boarding Schools in Sidoarjo Jawa Timur Majalah Kedokteran Bandung</td>
<td>Peer communication is the factor most related to female adolescents’ reproductive health in Islamic boarding schools (p=0.001).</td>
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<tr>
<td>Devi Yulianti Dosen</td>
<td>Planned Generation Program (Genre) in the Context of Human Development Towards Quality National Development Jurnal Analisis Sosial Politik Volume 1, No 2, Desember 2017</td>
<td>This program has two approaches: Youth Family Development (Bina Keluarga Remaja/BKR) and Counseling Information Center (Pusat Informasi Konseling/PIK).</td>
</tr>
<tr>
<td>Kenti Friskarini, Helper Sahat P Manalu</td>
<td>Program Implementation Pelayanan Kesehatan Peduli Remaja (PKPR)/Adolescent Care Health Services at Level Puskesmas DKI Jakarta. Jurnal Ekologi Kesehatan</td>
<td>PKPR activities are still limited to school counselling with adolescent reproductive health material. Adolescents who come to the PUSKESMAS have yet to receive services like the PKPR service model flow. Learning activities hamper adolescent access to the Puskesmas. Puskesmas still need to conduct peer counsellor training, cross-sector collaboration has not been used to garner support for holding PKPR specifically for schools.</td>
</tr>
<tr>
<td>Salman Yousuf Guraya, Hugh Barr</td>
<td>The effectiveness of interprofessional education in healthcare: A systematic review and meta-analysis Kaohsiung.</td>
<td>This meta-analysis illustrates the beneficial effects of the IPE program and the efficacy of educational interventions across numerous health fields.</td>
</tr>
<tr>
<td>Puput Risti Kusumaningrum, Anggorowati</td>
<td>Interprofessional Education (IPE) as an Effort to Build the Ability of Nurses to Collaborate with Other Health Workers. Jurnal Kepemimpinan dan Manajemen Keperawatan</td>
<td>IPE is an efficient way to increase nurses’ capacity for teamwork with other medical professionals. It is hoped that the adoption of IPE may be done in a sustainable manner, keeping in mind that medical schools are the primary sources of future medical professionals.</td>
</tr>
<tr>
<td>Reeves S, Perrier L, Goldman J, Freeth D, Zwarenstein M</td>
<td>Interprofessional education: effects on professional practice and healthcare outcomes (Review) Cochrane Database of Systematic Reviews</td>
<td>A potential strategy to improve interprofessional cooperation and patient care is interprofessional education (IPE).</td>
</tr>
<tr>
<td>Tien Jianga, Mary A. Tavaresa, Shenam H. Tickua, Christine A. Riedya, Hugh J. Silk, Kate M. Sullivanb, Judith A. Savageau</td>
<td>Interprofessional education in dental schools: Results of a national survey. Journal of Interprofessional Education &amp; Practice</td>
<td>Dental schools work with various health professionals, but a careful evaluation of IPE among educators needs to be improved. The many forms of IPE used in schools should be assessed, as well as their efficacy, by ongoing IPE studies. By putting more of an emphasis on clinical IPE abilities, students can become more prepared for interprofessional practice, which will improve healthcare systems and patient outcomes. Participants who were adolescents believed that peer learning was superior to teacher-led instruction in regular health classes.</td>
</tr>
<tr>
<td>Carolyn Layzer, Lauren Rosapep, Sherry Barr</td>
<td>A Peer Education Program: Delivering Highly Reliable Sexual Health Promotion Messages in Schools. Journal of Adolescent Health</td>
<td></td>
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<tr>
<td>Researcher</td>
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<tr>
<td>Salman Yousuf Guraya, Hugh Barr</td>
<td>The Effectiveness of Interprofessional Education in Healthcare: A Systematic Review and Meta-Analysis</td>
<td>The IPE intervention had a significant impact, as determined by a random effects model, according to systematic reviews and meta-analyses. This meta-analysis illustrates the beneficial effects of the IPE program and the efficacy of educational interventions across numerous health fields.</td>
</tr>
<tr>
<td>Son Ji, Miller Willa M, Tossone, Krystal, Butcher, Fredrick, Kuo Kelly</td>
<td>The Effect of Interprofessional Student-Led Reproductive Health Education on Youths in Juvenile Detention.</td>
<td>Positive community interactions to raise the population's awareness of reproductive health issues among teenagers.</td>
</tr>
<tr>
<td>Linda J Mast, Ateequr Rahman, Bard I Schatzman, Diane Bridges, Neil Horsley</td>
<td>Innovations in continuing professional education: A model to impact interprofessional collaboration</td>
<td>This preventive care model was created in response to the demand for fresh approaches to the continued education of public health professionals in cross-disciplinary collaboration. According to preliminary data, a novel approach to continuing education enhanced interprofessional collaborative behaviors and favorable attitudes for working in interprofessional teams.</td>
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<tr>
<td>Endah Sulistyowati</td>
<td>Interprofessional Education (IPE) In Curriculum Health Education as a Strategy for Improving the Quality of Maternity Services.</td>
<td>The integration of interprofessional education into the health education curriculum can enhance teamwork and communication skills, which are crucial for collaborative practice among health professionals.</td>
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<tr>
<td>Jane Anthony Peterson, Margaret Brommelsiek</td>
<td>Inter-professional education fostering communication and resilience among health professional students.</td>
<td>IPE can improve students’ self-efficacy (belief in one’s own abilities), coordination (planning), restraint and tranquility (decrease of worry), and commitment (perseverance) in promoting patient-centered care.</td>
</tr>
<tr>
<td>Delyse Hutchinson, M.Clin.Psych, George J. Youssef</td>
<td>Adolescent Care-Orientaion and Positive Development in Young Adulthood.</td>
<td>The findings imply that fostering caring attitudes and behaviors throughout youth can improve adult development by raising levels of PD.</td>
</tr>
<tr>
<td>Agoes Dariyo</td>
<td>Peran Self-Awareness Dan Ego Support Against Adolescent Life Satisfaction Tionghoa.</td>
<td>There is an effect of self-awareness on life satisfaction (r² = 0.052; t = -0.3.467; p = 0.001 &lt; 0.01); There is an effect of ego support on life satisfaction (r² = 0.219; t = 7.877; p = 0.000 &lt; 0.01), and there is the effect of Self-awareness and Ego Support on life satisfaction (r² = 0.243; F = 35.307; p =0.000 &lt; 0.01).</td>
</tr>
<tr>
<td>Anthony R. Gatling, Patricia A. Castelli, Matthew L. Cole</td>
<td>Authentic Leadership: The Role of Self-Awareness in Promoting Coaching Effectiveness</td>
<td>Success in leadership depends on four factors: self-awareness, relational transparency, balanced thinking, and an internalized moral worldview.</td>
</tr>
<tr>
<td>Anna Sutton</td>
<td>Measuring the Effects of Self-Awareness: Construction of the Self-Awareness Outcomes Questionnaire</td>
<td>By identifying distinctive results connected to the ideas of self-reflection, insight, reflection, contemplation, and mindfulness, these research serve to refine the concept of self-awareness. Future research can use the results of this questionnaire to assess the effectiveness of mindfulness-raising strategies and to develop new ones that will maximize the advantages of self-awareness while lowering associated costs.</td>
</tr>
<tr>
<td>Heydari, Abbas Khorashadizadeh, Fatemeh</td>
<td>Pender’s health promotion model in medical research</td>
<td>Predicting practical factors/barriers in health promotion, detecting effects of intervention programs to improve health promotion behavior, identifying the quality of life, predicting stage of change in factors influencing health promotion behavior</td>
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</tbody>
</table>
the role of self-awareness, life satisfaction in adolescents can increase. Promoting youth-oriented attitudes and behavior can enhance adult development by increasing the level of Positive Development. The link between adolescent reproductive health education and the need for skills to increase self-confidence can be seen in several previous studies, as explained in Table 1 above.

**IPE Based Reproductive Health**

The Health Promotion Model investigates the biophysical mechanisms that influence people to adopt healthy behaviors. The Health Promotion Model (HPM) is cognizant of the complexity of individual traits and the ways in which encountering cognitive and affective factors might improve self-efficacy. Self-efficacy is linked to health, as well as the perceived advantages and obstacles to engaging in health-promoting activities. The best predictor of teenage health-promoting behavior to date has been self-efficacy. Further research is needed to understand the connection between self-efficacy, commitment to action, and behavior. By incorporating self-awareness into the HPM idea and utilizing Interprofessional Education (IPE) methodologies, it is also crucial for study health students to have self-confidence inspired by a resolve to remain constant while facing assignments.

The term HPM refers to a method for predicting health behavior that takes into account three major factors: 1) Individual Characteristics and Experiences (ICE); 2) Behavior - Specific Cognition and Affect; and 3) Behavioral Outcomes. These factors all flow linearly toward health-promoting activities. HPM identify eight factors that influence health behavior: individual characteristic and experiences (ICE) with two indicators, and Behavior - Specific Cognition and Affect (BCA), which has six indicators, which will result in Behavioral Outcomes (BO) in this study namely student self-confidence as a Peer Educator of reproductive health.

The low development of reproductive health education and youth participation in the Health / Student Information and Counseling Center program (PIK R/M) due to lack of self-confidence can be influenced by the commitment of students to act as peer educators, referred to as Commitment to Plan Action (CPA).

Commitment to Plan Action (CPA) is a new construction added to the HPM (Pender edition 1996). According to Pender’s eleventh thesis, “The greater the commitment to a particular action plan, the more likely the health promotion behavior is to be sustained over time.” Commitment is influenced by Perceived Benefit of action and Activity Related Affect which can be felt if one has positive self-efficacy, which will reduce perceived barriers (Perceived Barriers to action). Barriers affect health promotion directly by acting as degrading locks Commitment to Plan Action (CPA).

The action will only be accomplished when readiness to act is low, and barriers are high. The higher the readiness to act and the lower the barriers, the greater the possibility of taking action.

Attitudes towards the implementation of reproductive health education are influenced by benefits (Perceived Benefit of action), and self-efficacy perceived is a significant factor in predicting physical activity (Activity Related Affect), from now on referred to as Behavior-Specific cognition and Affect (BSA). Behavior-Specific cognition and Affect (BSA) influenced by personal factors and Prior Related Behavior that inform future behavior.

Three areas of emphasis comprise the IPE integration into the health education curriculum. Increasing students’ knowledge, abilities, and attitudes about teamwork in the health professions is the first goal. The second part of the lesson centers on discovering ways to foster productive teamwork. Third, create effective collaboration to improve the quality of service to patients.

**General perspective and recommendations**

This review shows that Interprofessional Education (IPE) can enhance professional identity. Through applying mutual respect, keeping ethics, communicating effectively, working in teams, caring, and being responsible. It is hoped that entry-level professionalism will be created for health services and especially in adolescent reproductive health services, which students can do as peer-educators. Self-Awareness and high commitment can increase students’ self-confidence as Reproductive Health Peer Educators through Interprofessional Education competencies based on the Health Promotion Model (HPM).

**CONCLUSION**

The students with health majors have opportunities for training in the application of interprofessional education in the health education curriculum, which can improve communication skills and work in teams. To gain competency, mutual respect, keep ethics, communicate effectively, work in teams, care, and be responsible, training must be carried out in Interprofessional Education with the additional self-awareness students possess in implementing adolescent reproductive health services. Understanding the factor...
of the Health Promotion Model (HPM) can positively contribute to improving students' self-confidence as Peer Educator health reproductive. Therefore, further research is needed to evaluate other factors that affect the student inter-professionalism to combine various attributes, including self-confidence, flexibility in managing conflict, and commitment to promoting adolescent reproductive health.

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No potential conflict of interest relevant to this article was reported.

Author Contribution

All authors similarly contribute to the think about from the investigate concepts, information acquisitions, information investigation, factual investigations, changing the paper, until detailing the consider comes about through publication.

Ethical Consideration

None.

REFERENCES