doi: 10.22146/jpki.67701

CASE STUDY

JPKI

THIRD-YEAR HEALTH PROFESSIONS STUDENTS' INTERPROFESSIONAL EDUCATION IN THE COMMUNITY SETTING: WHAT DID THEY EXPERIENCE?

Siti Rokhmah Projosasmito[1*], Rilani Riskiyana[1], Supriyati[1]
[1]Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta - INDONESIA

Submitted: 16 Jul 2021, Final revision from authors: 13 Apr 2022, Accepted: 14 Apr 2022

ABSTRACT

Background: Learning by experiencing a real situation is believed to be more powerful than using simulation. This hypothesis is also applied to interprofessional learning for students in health professions education. Learning to collaborate and practice students' knowledge of health care in a community became the purpose of the community and family health care (CFHC) program in the Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada.

Aim: To describe the third-year students' experiences of learning interprofessional collaboration in a community setting based on their activity report.

Case Discussion: The CFHC team created a particular design for third-year students, focused on community health problems rather than family health problems. The groups conducted focus group discussions to explore health issues and to decide together with the community the main problem that would be given intervention. The groups documented the entire process through a written report, video, and an article about their intervention outcome.

Conclusion: The reports showed that students were able to demonstrate interprofessional practice in solving health problems in the community. They learned to work as an interprofessional team while experiencing it. Thus, conducting community-based IPE for undergraduate students is necessary to develop interprofessional collaboration competencies.

Keywords: asynchronous blended problem-based learning, knowledge, perception, midwifery students

PRACTICE POINTS

- Community-based interprofessional education improves student learning about interprofessional collaboration through experience.
- Preparatory program prior to assignment in the community is suggested to improve student readiness and might benefit the whole learning experience.

*corresponding author, contact: rara.projosasmito@ugm.ac.id

INTRODUCTION

Teamwork and communication between various health professionals, such as physicians, nurses and health nutritionists, are important to solve health problems,[1] including those in a community. Concomitant with the increased demand for teamwork and interprofessional communication, the traditional education process which only relies on a mono-professional approach becomes less appropriate. Interprofessional education gives students the opportunity to interact with other professionals from various health professions since their pre-licensure period to "learn about, from, and with each other to enable effective collaboration and improve health outcomes"[1] Interprofessional Education and Collaboration (IPEC) has already described four core competencies[2] that can be used as a guide to developing an interprofessional course within an educational institution. Case-based learning, simulation-based learning, clinical practice, or community-based are various learning methods for effective delivery of IPE.[3]

Health professions education institutions design their community-based IPE courses in various ways. The institution can assign their students as an IPE team to community-based health care, a non-profit organization that serves a specific community or even send them to a community to work with students from other institutions.[4-6] Assigning students into the community gives them the real context in learning and provides opportunities to experience working as a team to identify community needs[5-7] and solve health problems[4] through experiential learning.[8] Further, this type of IPE is also believed to inspire the joy of learning for students.[9] Through this mode of learning, students are expected to reach IPEC core competencies.[2]

Community and Family Health Care with Interprofessional Education (CFHC-IPE) is a longitudinal community-based IPE program conducted by the Faculty of Medicine, Public Health and Nursing (FMPHN), Universitas Gadjah Mada in Yogyakarta, Indonesia. CFHC-IPE is a compulsory program for 1st year until 4th year undergraduate students coming from medicine, nursing and nutrition. Since the 1st year, the program manager groups the students into an interprofessional team consisting of all three undergraduate study programs. The number of students from each study program is based on the proportion of the overall student population in each Faculty. The interprofessional teams are then assigned to family partners in the community who they have to visit as a team. Each team is facilitated by two facilitators, called field instructors. The backgrounds of the field instructors are one from the faculty of FMPHN and the other one is a health professional from local primary health care (PHC).[10]

CFHC-IPE course has different learning objectives and learning tasks for each year, which are designed by the year coordinator team consisting of faculty members with various backgrounds. In the first year, students learn on how to build an interprofessional team and identify health determinants for each assigned family, involving three families for each team, by completing profiles in a family folder. The second-year learning objectives are aimed at students discovering the families risk factors from three different professions' points of view and giving a simple education to the family based on the identified risk factors. Meanwhile, the third-year students are assigned to a group of 10 families, including the 3 families from the year before, to collect family folder information including risk factors data and conduct a simple intervention for the priority health problem in the community. Whereas the fourth-year course puts more emphasis on the village's disaster preparedness program. However, this article focuses only on the third year CFHC-IPE course.[10]

The learning objectives of the third-year CFHC-IPE course place more emphasis on community health care. After obtaining health information from 10 families, the students analyze the health problems from each family. Based on the analysis results, the students then discuss with the hamlet village, representatives of public health care, and family representatives of the hamlet to decide on a prioritized health problem using group discussion or multi-voting technique. Soon after the decision

is made, the team proposes a simple intervention and discusses it with their facilitator. The team then socializes their plan to the hamlet and gets an agreement on the agenda of the simple intervention and the time of its implementation. The simple interventions emphasize more on the prevention and promotion sides since the team members are still on the undergraduate level. The team should prepare the health promotion media such as a poster, booklet, educational video, props, or game. After the intervention, the team makes reports in the form of posters, videos, and an article.[10] Thus, this article aims to describe the third-year students' experiences of learning interprofessional collaboration in a community setting based on their activity report.

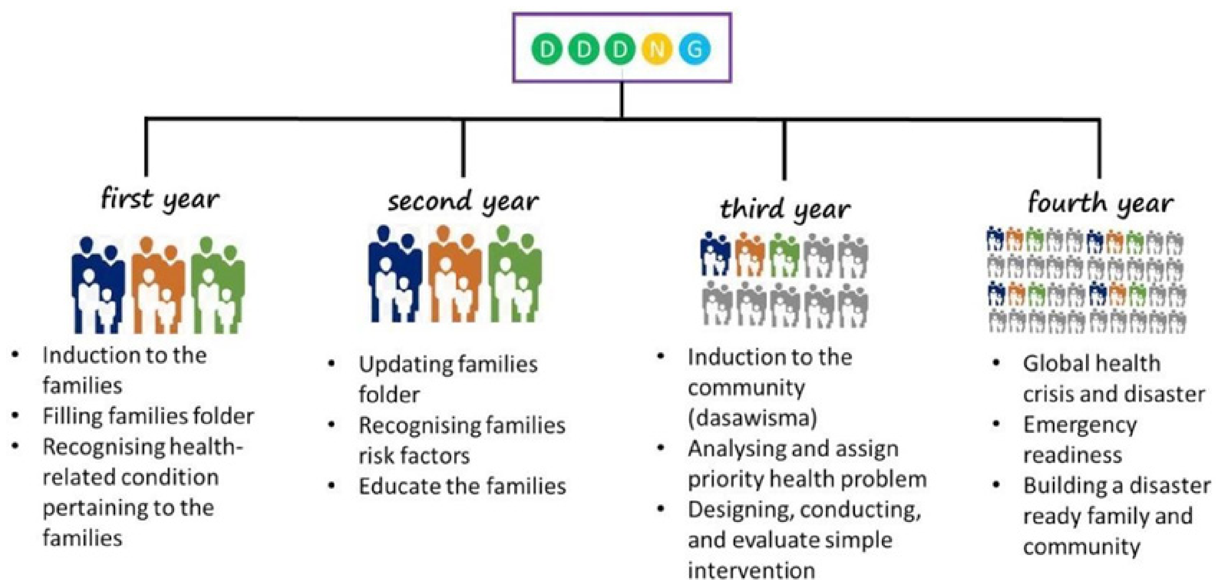

Figure 1. CFHC-IPE Course Design

CASE DESCRIPTION

The study population were third-year medical, nursing, and nutrition students who were engaged in their CFHC-IPE activity. A sample of 30 groups was included in the study from 90 groups in total. A document study was conducted on the 30 group reports. The reports were examined to answer the research question and objective. The extraction of the data was based on the indicators of learning objectives as explained in the 3rd year module i.e community communication, community engagement, and simple intervention. The abstraction was analyzed using content analysis methods [11]. A narrative approach was used to synthesize the data and enable meaning-making by the investigators (Figure 2).

Figure 2. Sample and the Flow of Investigation

Project characteristics

The program was followed by all third-year students from the medical, nursing, and dietetics programs. Thirty groups (30 reports) were included in the study. Each group engaged with up to 40 families on average. The regional scope of the study (Figure 3) included 7 out of 17 districts in Sleman Province.

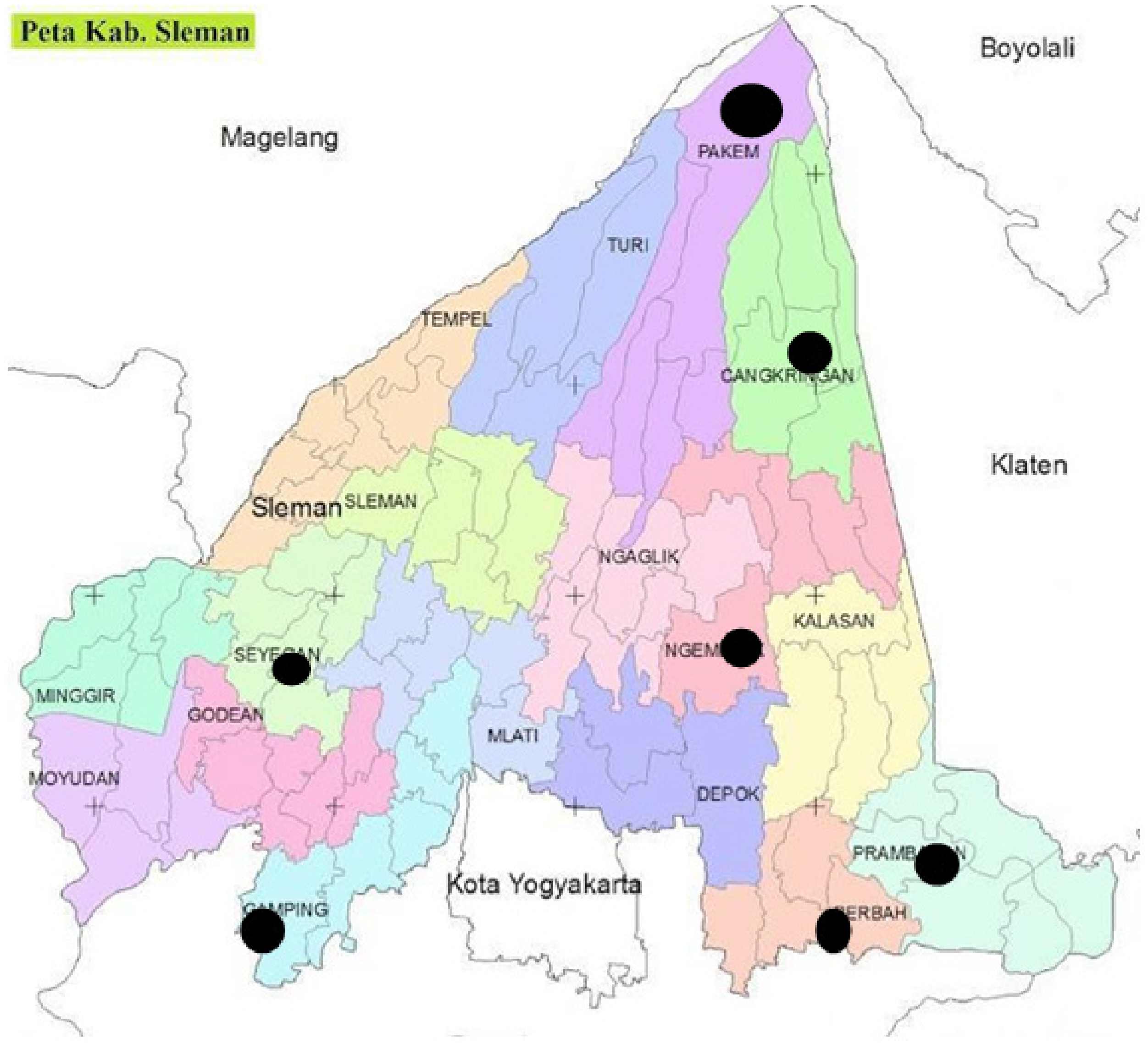

Figure 3. Regional Scope of Third Year CFHC-IPE Students Group Distribution.

The included regions (Figure 3) are identified with black dots. There were 9 groups distributed in Gamping region, 3 groups in Sayegan, 4 groups in Pakem, 2 groups in Cangkringan, 4 groups in Ngemplak, 6 groups in Prambanan, and 2 groups in Berbah.

Document Analysis

Table 1. Analysis of the student reports

Task Domain	Student Report Analysis	
	What the Students Did	Findings
Communication	Communicate with the community	Interview with families
		Focus group discussion involving community leader and members
		Establishing coordination with the village and local primary care
		Delivering health education
	Communicate within the group	Problem-solving discussion
	Communicate with other groups	Conducting coordination upon implementing health education project
Analyzing health problems in the community	Analyzing family folder to identify a condition that may cause health	Hypertension becomes the health problem priority as seen by the community.
	Analyzing conditions in families to identify health problems in the community level	
Determining priority of health problems in the community	Conducting focus group discussion in Dasawisma (smaller group in community consisting of 10 houses) level	
	Conducting multi-voting	
Conducting simple intervention in community	Screening program	Community empowerment is important to make the intervention sustainable
	Health promotion	
	Food supplementation	
	Training of cadre	
Preparing health education media	Brochure, leaflet	
	Video	
	Presentation slides	

Table 2. Critical Incidents during the Program and the Impact on the Students

Critical Incidents	Student Perception
Facilitators were unable to attend the health education program.	The absence of IPE facilitator during the community service program gave discouragement to the students.
The unexpected number of participants.	Students feel unconfident/incompetent to provide the health education program for a large number of people, especially if they received minimum supervision.

DISCUSSION

The CFHC-IPE course aims to help students to understand the process of conducting health problem analysis, determining priority health problems, planning simple interventions and evaluating health interventions in the community in a collaborative way. The student reports show that all of the course aims had been reached, and the course provided the opportunity for students to implement what they learned into practice. The RIPE project

in Victoria, Australia, that is focused on designing community-based interprofessional education for institutions all over Victoria had similar results with the CFHC-IPE course.[6]

The Scope of Learning

Students, in general, learned how to analyze health problems in the community. They learned how to perform identification of morbidity and risks factors in the community and investigate past medical history in the family. Students also learned to prioritize health problems in the community with a variety of cases ranging from hypertension, malnutrition, unhealthy eating habit, smoking behaviour, and low physical activity. Hence, students are able to learn the determinants of health in the community[5] and identify community needs.[6,7] Based on the findings, students learned to create health-promoting media such as brochures, posters, stickers, and a video. By the end of the program, they managed to design health promotional activities and determine the program evaluation method. The group was originally supposed to consist of students from three different professions, i.e. medical, nursing, and dietetics. Due to an imbalance of student enrollment from the three study programs, some groups finally consisted of two professions only. This did not seem to affect the group process. However, the depth of problem analysis and health promotional programs differed from the groups that consisted of three professions.

However, as reflected in the reports, it was suggested that students did not share their responsibilities in treating the family by their respective professional roles. Most of the students assigned the task among group members based on personal preferences and time availability. They failed to clearly articulate into the report how each profession contributed to the intervention. Thus, they are unlikely to learn how to develop trust and share professional responsibilities during the interaction. It is considered an undesirable outcome since the IPE program was intended to teach students about the sharing of roles and responsibilities according to their professional accounts. Students could not clearly describe how they recognized the roles and responsibilities of other professions in providing care for the family and community. It might suggest that students could not establish proper interprofessional communication as well. Interprofessional communication can be characterized by openness for collaboration, openness for information, and openness for discussion.[12] This model of interprofessional communication can be established if students work according to their professional competencies. In this study, however, students could not articulate clearly how they managed to communicate with other professions. On this occasion, the facilitator should take the initiative by helping students to understand their role clarification[7] and by giving feedback to improve their interprofessional communication skills.[13] Besides, supportive information, such as clear instruction, recommended references, should be made available in the learning module.

Interprofessional Learning is Driven by Community Engagement

During the program, some groups were able to engage the community to be actively involved in the health promotion program as the subjects. In contrast, some groups were only able to engage minimum community participation by involving them as the objects of health promotion. Some groups were keen in their awareness to involve the volunteer cadres. The health promotion programs mainly were targeting short-term goals and were evaluated based on the Kirkpatrick evaluation level 1.[14] The evaluation corresponds with the learning instructions.

Lack of students' preparedness to interact with the community might cause varying degrees of community engagement between groups.[15] To reduce the gap, before community placement, students should be provided with an introductory course on how to engage the community. The course discusses local culture, social structure, and social skills. These preparations are necessary to prevent future problems that might occur during the process of community placement due to inconvenience. Community active engagement becomes important in community-based IPE since it determines the success of the program.[16]

The Role of Facilitators

Facilitators have a crucial role in facilitating student engagement in the community. Students lose confidence in facing the community and delivering health promotion without the presence and encouragement from the facilitators. The role of facilitators in particular is needed to ensure the appropriateness of problem identifications and analysis. Although the groups were able to carry out the whole program, almost all of them could not show the proper alignment among problem identification, analysis and health promotional activities. This is where a facilitator is needed to guide students in creating justified action based on good rationale. Without any guidance and facilitation, the task load in the community will be too hard for the students to handle,[7] thus making the learning ineffective. Accordingly, the facilitator's role in IPE in the community is mainly to maintain teamwork and give encouragement[17] by giving timely and meaningful feedback.[16] Further, the facilitator needs to promote reflection on their community experiences and their learning.[16] Community-based IPE facilitators come from various backgrounds and for some of them engaging in teaching is a relatively new experience. Facilitators need to be equipped with knowledge, skills, and attitude to facilitate IPE learning in the community. Further, facilitators also need activities to standardize their understanding of the course's objectives, approaches, learning activities, and students' assessment. Thus, faculty development and practice on educational skills, especially facilitating IPE in a community setting, must be done continuously[16] and provided by the educational institution.[9]

CONCLUSIONS

The CFHC-IPE course that was held in the community demonstrated several positive results in helping students to learn and to experience interprofessional collaboration in the real setting. However, improvement should be done in facilitating the students and preparing the students before assigning them to the community. Further evaluation is needed to understand the effectiveness of the program and the effect of the program on the community.

ACKNOWLEDGEMENTS

This study was presented in the 12th Jakarta Meeting on Medical Education, organized by the Department of Medical Education, Faculty of Medicine Universitas Indonesia on October 19, 2019.

COMPETING INTERESTS

There is no conflict interest to be declared. There is no third party involved in funding this whole study.

AUTHORS' CONTRIBUTION

Siti Rokhmah Projosasmito - was responsible for managing the entire article writing process, writing the introduction, document analysis, discussion and conclusion, and managing the references.

Rilani Riskiyana - was responsible for data analysis, writing the results and discussion.

Supriyati - was responsible for data analysis, writing the results and discussion

REFERENCES

1. World Health Organization. Framework for action on interprofessional education and collaborative practice. https://apps.who.int/iris/bitstream/handle/10665/70185/WHO_HRH_HPN_10.3_eng.pdf. Published 2010. Accessed November 20, 2018.
2. Interprofessional Education Collaborative. Core competencies for interprofessional collaborative practice: 2016 update. Washington, DC: Interprofessional Education Collaborative.
3. Riskiyana R, Claramita M, Rahayu GR. Objectively measured interprofessional education outcome and factors that enhance program effectiveness: a systematic review. Nurse Educ Today. 2018; 66: 73-78.
4. Stubbs C, Schorn MN, Leavell JP, et al. Implementing and evaluating a community-based, inter-institutional, interprofessional education pilot programme. J Interprof Care. 2017; 31(5): 652-655.
5. Ryan M, Vanderbilt AA, Mayer SD, Gregory A. Interprofessional education as a method to

address health needs in a Hispanic community setting: a pilot study. J Interprof Care. 2015; 29(5): 515-517.

6. Stone N, McNair R. The time is RIPE for community-based interprofessional education. Talk presented at: 7th National Rural Health Conference, March 1-3, 2003; Hobart, Tasmania. https://www.ruralhealth.org.au/7thNRHC/Papers/refereed%20IO%20papers/stone.pdf. Accessed October 1, 2019.
7. Rhoda A, Laattoe N, Smithdorf G, Roman N, Frantz J. Facilitating community-based interprofessional education and collaborative practice in a health sciences faculty: Student perceptions and experiences. Afr J Health Prof Educ. 2016; 8(2): 225-228.
8. Rotz ME, Dueñas GG, Zanoni A, Grover AB. Designing and evaluating an interprofessional experiential course series involving medical and pharmacy students. Am J Pharm Edu. 2016; 80(5): 85.
9. Reeves S. Community-based interprofessional education for medical, nursing and dental students. Health Soc Care Community. 2000; 8(4): 269-276.
10. CFHC-IPE team. Community and family health care with interprofessional education (CFHC-IPE) module third year: community health. Yogyakarta, Indonesia: FMPHN UGM; 2018.
11. Creswell JW, Creswell JD. Research design: qualitative, quantitative, and mixed methods approaches. 5th ed. California, USA: Sage publications; 2017.
12. Claramita M, Riskiyana R, Susilo AP, Huriyati E, Wahyuningsih MS, Norcini JJ. Interprofessional communication in a socio-hierarchical culture: development of the TRI-O guide. J Multidiscip Healthc. 2019; 12: 191-204.
13. Kim SJ, Kwon OD, Kim KH, et al. Investigating the effects of interprofessional communication education for medical students. Korean J Med Educ. 2019; 31(2): 135-145.
14. Kirkpatrick D, Kirkpatrick J. Evaluating training programs: the four levels. 3rd ed. California, USA: Berrett-Koehler Publishers; 2006.
15. Asmara, F. Y., Bakri, S., Dewi, D. P., Afifah, D. N., & Kristina, T. N. Implementation of interprofessional education in community setting. JCOEMPH. 2019; 2(2): 222-228.
16. Mennin S, Petroni-Mennin R. Community-based medical education. Clin Teach. 2006; 3(2): 90-6
17. LeGros TA, Amerongen HM, Cooley JH, Schloss EP. Using learning theory, interprofessional facilitation competencies, and behavioral indicators to evaluate facilitator training. J Interprof Care. 2015; 29(6): 596-602.