

Perception and readiness of medical students and teaching staff to implement interprofessional education



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ABSTRACT

Introduction: Interprofessional education is a learning method that involves two or more professions learning from each other to create effective collaboration. Meanwhile, the education program at the medical faculty still adheres to each study program's curriculum, which creates obstacles in implementing IPE courses. This study aimed to assess the readiness and perceptions of students and teaching staff at the Faculty of Medicine, Universitas Udayana, regarding implementing IPE.

Methods: This study used a cross sectional design. Research subjects were collected using the total sampling method, and data were collected using IEPS and RIPLS questionnaires and distributed online. Data were analyzed using the SPSS ver.25.0 programs using the chi-square test, with a $p < 0.05$, considered statistically significant.

Results: Based on the research results, the total number of research respondents was 37 supervisors and 416 students with an average age of 40.6 ± 6.15 years and 19.05 ± 1.04 years, respectively. Based on the results of research on supervisor respondents, it was found that the average IEPS and RIPLS scores were 85.41 ± 9.15 and 76.86 ± 5.35 , respectively, with a distribution of readiness levels dominated by good IPE readiness (>75) of 22 people (59.5%). While the student respondents found an average score of IEPS and RIPLS, respectively 86.42 ± 10.64 and 75.58 ± 5.94 , with a distribution of readiness levels dominated by good IPE readiness (>75) of 229 people (55.0%).

Conclusion: Based on the study results, it can be concluded that supervisors and students of the Faculty of Medicine, Universitas Udayana, have a good level of perception and readiness for IPE.

Keywords: *Interprofessional education (IPE), readiness, perception, faculty of medicine.*

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INTRODUCTION

The existence of various professions working in the health sector makes communication skills and the ability to work together well vital to be able to provide full health services.¹ Unqualified relationships between health professionals can lead to a decrease in the quality of health services. Various health professions cause complexity in learning and coordination between health professions, so learning methods are needed to provide opportunities for students from various health study programs to work together. The World Health Organization (WHO) offers a learning method in the form of Interprofessional Education (IPE) to support student collaboration between health study programs.¹

However, when viewed from the facts on the ground, medical and health professional education programs still adhere to the curriculum of each study program, causing obstacles in implementing the IPE course curriculum.² Not only for students but for teaching lecturers, both lecture givers and facilitators/supervising lecturers in each IPE group. This is caused by many factors, such as teaching lecturers who feel awkward or not good enough at mastering knowledge from other study programs.³ When viewed from the readiness of students to take part in IPE learning, in Riduan et al.'s study at Universitas Sari Mulia Banjarmasin, it was found that around 93.7% of the respondents involved in this study had good readiness to take the IPE approach.⁴ This indicates that

students tend to have positive perceptions and good readiness for the IPE approach.

However, on the other hand, no invention has discussed the perceptions and readiness of students and teaching staff in implementing the IPE approach at the Faculty of Medicine, Universitas Udayana. In addition, not many studies have evaluated the implementation of IPE in the medical curriculum based on the perspectives of lecturers and students. This underlies the making of this research proposal related to the perceptions and readiness of students and teaching staff at the Faculty of Medicine, Universitas Udayana, regarding the implementation of IPE so that it can provide an overview of the readiness and perceptions of students and teaching staff regarding the implementation of IPE and become

evaluation material to improve the quality of the medical education curriculum in the Faculty of Medicine, Universitas Udayana.

METHODS

Study Design

This research was conducted with a cross-sectional design using an online survey to assess the readiness and perception of medical students and teaching staff to implement interprofessional education in the Faculty of Medicine, Universitas Udayana.

Sample Selection

The inclusion criteria for this study were subjects are first-year and second-year medical faculty students, physically and mentally healthy students, an IPE supervisor following the supervisor's decree from the faculty, and willing to become research subjects. From these inclusive criteria, there were 453 respondents involved in this study who met the minimum sample criteria according to the Lemeshow formula for cross-sectional research.⁵

Data Collection

Research subjects who fit the inclusion criteria and do not meet the exclusion criteria will be distributed questionnaires according to the specified schedule. The questionnaire contained several instruments: an informed consent form and the respondent's data (age, gender, study program, educational level, experience as a lecturer, and IPE training experience). The questionnaire used to evaluate the perceptions of students and supervisors is the Interdisciplinary Education Perception Scale (IEPS). Meanwhile, the Readiness for Interprofessional Learning Scale (RIPLS) was used to evaluate the readiness level of students and supervisors for IPE. The two questionnaires are translations from previous studies that have gone through validity and reliability tests. The answers to this questionnaire will be given a score and input on the data collection sheet later, followed by the data analysis process.

Data Analysis

The data obtained will then be analyzed using the Statistical Package for Social Science (SPSS) version 23 software,

specifically using descriptive analysis to describe the level of readiness and perception.

RESULT

The research has collected as many as 453 respondents' answers through questionnaires distributed via Google Forms. We got 416 answers from students and 37 from supervising lecturers.

Based on the results of a descriptive analysis conducted on student respondents, it was found that the average age of the research respondents was 19.05 ± 1.04 years, with a distribution of 105 people (25.2%) men and 311 people (74.8%) women. Regarding programs and study batch, most respondents are undergraduate medical students, with as many as 176 people (42.3%) from the 2021 class of 145 people (34.9%).

The mean IEPS score for students was 86.42 ± 10.64 . Grouping was done based on the IEPS score so that a group of students with a good perception (51.2%) and a poor perception (48.8%) was obtained. Furthermore, when viewed from the readiness of students to undergo IPE, the results of data collection using RIPLS

showed an average score of 75.58 ± 5.94 with a good score distribution (>75) of 229 people (55.0%) and moderate (55-75) as many as 187 people (45.0%).

Furthermore, based on the descriptive analysis conducted on IPE supervisor respondents, it was found that the average age of the research respondents was 40.6 ± 6.15 years, with a distribution of 13 people (35.1%) men and 24 people (64.9%) women. Viewed from the study program, most research respondents were teaching lecturers in the medical education study program, as many as 15 people (40.5%).

Based on the data collection results related to the supervisor's perception of IPE, the average IEPS score was 85.41 ± 9.15 . Grouping was done based on the IEPS score so that a group of supervisors with a good perception (54.1%) and a poor perception (45.9%) were obtained. Furthermore, if viewed from the readiness of the supervising lecturers in undergoing IPE, the results of data collection using RIPLS showed an average score of 76.86 ± 5.35 with a good score distribution (>75) of 22 people (59.5%) and sufficient (55-75) as many as 15 people (40.5%).

Table 1. Student Sample Characteristics.

Variables	n (%)
Age (Mean±Standard Deviation)	19.05±1.04 years
Gender	
Male	105 (25.2%)
Female	311 (74.8%)
Course of Study	
Medicine	176 (42.3%)
Public Health	27 (6.5%)
Physiotherapy	43 (10.3%)
Psychology	52 (12.5%)
Nursing	90 (21.6%)
Dentist	28 (6.7%)
Year of Study	
2019	20 (4.8%)
2020	118 (28.4%)
2021	145 (34.9%)
2022	133 (32.0%)
IEPS Score (Mean ± Standard Deviation)	86.42±10.64
Good perception (score ≥85)	213 (51.2%)
Poor perception (score <85)	203 (48.8%)
Skor RIPLS (Mean ± Standard Deviation)	75.58±5.94
Good readiness (score >75)	229 (55.0%)
Moderate readiness (score 55-75)	187 (45.0%)
Less readiness (score <55)	0 (0.0%)

Table 2. Teaching Staffs Sample Characteristics.

Variable	n (%)
Age (Mean ± Standard Deviation)	40.6±6.15 years
Gender	
Male	13 (35.1%)
Female	24 (64.9%)
Course of Study	
Medicine	15 (40.5%)
Public Health	7 (18.9%)
Physiotherapy	2 (5.4%)
Psychology	4 (10.8%)
Nursing	5 (13.5%)
Dentist	1 (2.7%)
Pharmacy	3 (8.1%)
IEPS Score (Mean ± Standard Deviation)	85.41±9.15
Good perception (score ≥87)	20 (54.1%)
Poor perception (score <87)	17 (45.9%)
Skor RIPLS (Rerata ± Simpangan Baku)	76.86±5.35
Adekuat (skor >75)	22 (59.5%)
Cukup siap (skor 55-75)	15 (40.5%)
Kurang siap (skor <55)	0 (0.0%)

DISCUSSION

Student Perceptions in the Implementation of IPE

Based on the study's results, it was found that most students had a good perception of IPE at 54.9%. Perceptions from students are influenced by several components, including competence and autonomy from students, perceptions related to the need to cooperate, the implementation of cooperation that has been carried out as a form of IPE implementation, and an understanding of the role of the profession itself and other professions involved in IPE so that can find out the position and function of each profession in carrying out IPE.⁶ Based on the results of this study, it can be concluded that most students of the Faculty of Medicine at Universitas Udayana have a good perception of these points so that they can run the IPE program well.

Various studies support the results of this study, one of which is a study conducted by Sedyowinarso et al., which found that health students had a good perception of the implementation of IPE, as much as 73.62%.⁷ This is also supported by research conducted by Ulung, 2014 which examined the perceptions of students of the Faculty of Medicine and Health Sciences at UIN Syarif

Hidayatullah Jakarta towards IPE. This study found that most research samples had a good perception of IPE (97.21%). In addition, this research also carried out a descriptive analysis of perceptions of IPE in each study program, namely public health, pharmacy, nursing science, and medical education, where the results were in accordance with the overall descriptive results, which showed that almost all of the research respondents had this perception. Good impact on the implementation of IPE.^{8,9}

The theory regarding the perceptions of health students in carrying out the IPE program was explained by McFadyen in 2007. This literature explains the four components that make up the points of assessment of health student perceptions in implementing IPE. These are not used to assess the level of understanding of academic-level students who have not been exposed to the Interprofessional work environment.⁹ This will lead to a lack of experience and limit students' perspective in each study program in assessing the role and scope of work of other professions. In this case, health students' perceptions of undergoing IPE must be assessed on those with experience in a clinical environment that requires them to work in the same workspace.¹⁰

Readiness of Students in the Implementation of IPE

Based on the research results, it was found that the majority of student readiness in implementing IPE was classified as adequate (>75) of 120 people (52.6%). Students' readiness is influenced by several components, such as the identity of each profession involved in IPE activities. It is also determined by each member's roles and responsibilities and cooperation in a group. Based on this, with good readiness from students regarding the implementation of IPE, it can be analyzed that students who carry out IPE can work together in groups, then know and understand the roles, responsibilities, and identities of each profession so that they can work well together.¹¹

This is also supported by research conducted by A'la et al., which examined the readiness of medical faculty students at Universitas Gajah Mada regarding IPE. This study found that student readiness in implementing IPE was relatively good. This study also found that perceptions about the importance of collaboration between professions influenced the readiness of these students.^{7,11} Then, the same thing was obtained by Annisa et al., which showed that the readiness of the research respondents who were tested belonged to the very good category of 60%, and 40% of the respondents were classified as good. When viewed from the three components in the form of teamwork and collaboration, the good category was obtained at 36%, then professional identity was in the very good category at 53%, and also the roles and responsibilities of the profession at 50%.

Then, based on research conducted by Faudah et al., it was found that student readiness regarding IPE was quite good. This study also examines that the readiness of students to implement IPE is very influential in implementing activities. This is because students who have readiness when they meet the competency requirements that have been determined. In implementing IPE, the competencies developed are skills, knowledge, abilities, and teamwork skills so they can carry out joint practices. Then the role of the supervising lecturer in the implementation

of IPE learning can indirectly affect student readiness.¹³

Perceptions of Supervisors in the Implementation of IPE

In this study, it was found that respondents dominated the perceptions of supervisors regarding the implementation of IPE, with a good level of perception of 54.1%. Not unlike the evaluation of perceptions regarding IPE conducted on students, the assessment points from the perceptions of supervising lecturers in implementing IPE consist of four components which include competence and autonomy from students, perceptions related to the need to cooperate, implementation of cooperation that has been undertaken as a form of IPE implementation, and an understanding of the role of the profession itself and other professions involved in IPE to know the position and function of each profession in carrying out IPE.⁶

The research results are in line with several studies that have been conducted. Based on research conducted by Patricia et al., who conducted research with a research population of Universitas Diponegoro Faculty of Medicine lecturers, found that the majority of the study sample (68.6%) had a good perception of IPE.³ The results of this study are also supported by research conducted by Yuniawan et al. The study found that most supervisors' perceptions were in a good category at 84.9%.¹⁴ This preliminary finding can be used for evaluation and investigation regarding the factors that influence the supervisor's perception of the implementation of IPE at the Faculty of Medicine, Universitas Udayana.

Readiness of Supervisors in the Implementation of IPE

In this study, it was found that the readiness of the supervising lecturers showed good results, namely as many as 21 respondents (61.8%), and the sufficient category was 13 people (38.2%). Similarly, in measuring the readiness to implement IPE for students, the readiness for implementing IPE for supervisors is measured from three main components: teamwork and collaboration, professional identity, and the components of roles and responsibilities. Based on research conducted by Yuniawan et al.

showed that the supervisor's readiness for teaching was relatively good. The highest good component was obtained from the teamwork and collaboration component at 98.6%, and the lowest score was the role and responsibility component at 63%. The readiness regarding the implementation of IPE, which is classified as good for supervisors, is based on the lecturer as a facilitator and material provider who already knows and is aware of the importance of learning IPE.¹⁴

The same thing was also found in research conducted by Yuliyana et al., which found that the level of knowledge about IPE also affected the supervisors' readiness regarding the implementation of IPE. This is evidenced by supervisors who have sufficient knowledge tend to be unprepared in guiding the implementation of IPE up to 2,567 times compared to supervisors who have good knowledge of IPE.¹⁵ Then, Patricia et al., who examined the description of the level of readiness of supervisors in implementing IPE, found that readiness regarding IPE was relatively good. Good preparedness in this research can later help students, especially in the implementation process and the expected achievements in IPE activities. Not only that, the readiness of lecturers who are positive or good can also encourage and support IPE activities.³

CONCLUSION

Based on the results of research on the readiness and perceptions of students and teaching staff of the Faculty of Medicine, Universitas Udayana, regarding the implementation of Inter-Professional Education (IPE), it can be concluded that most students have good readiness with perceptions that almost balanced between good and bad perceptions. As for the teaching staff, it was found that most of them had good perceptions and readiness

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ETHICAL CONSIDERATIONS

This research was conducted from May to December 2022, ethically approved by ethical number 1213/UN14.2.2.VII.14/

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CONFLICT OF INTEREST

The authors affirm no conflict of interest regarding this study.

AUTHOR CONTRIBUTIONS

All Authors contribute equally in conducting research and writing manuscripts.

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