

## READINESS OF INTERPROFESSIONAL EDUCATION IN COMMUNITY MEDICINE: MEDICAL AND DENTISTRY STUDENTS

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### **Abstract**

*The condition of public health is a reflection of the level of complexity of health problems. Many health care systems have innovated but failed in the practice of collaboration, teamwork, and communication. Family-based care will ease the workload of doctors and improve the level of health for patients in the community. Interprofessional education program was designed to increase of collaborative practice and teamwork among health team. This review aims to analyze the readiness of interprofessional education (IPE) in medical and dentistry students in collaborative field practice community medicine with a family approach. Quantitative methods using cross sectional with the readiness interprofessional learning scale (RIPLS). Total sampling with 142 medical students and 43 dental students carried out collaborative practice on 16 families to find priority health problems and carry out preventive interventions. The average readiness of interprofessional education descriptively for students is 65.36% (range 50%-76%). 100% student ready for interprofessional education. No difference among medical and dentistry student in readiness of interprofessional education with p value 0,810 (>0,05). That all student ready to interprofessional education community medicine with family approach.*

**Key word:** community medicine, dental students, medical students, interprofessional education, readiness

### **Abstrak**

Keadaan kesehatan masyarakat tercemar dari kompleksitas masalah kesehatan. Berbagai sistem pelayanan kesehatan telah berinovasi, tetapi gagal dalam praktik kolaborasi, kerjasama tim dan komunikasi. Pelayanan berbasis pada keluarga akan meringankan beban kerja dokter dan meningkatkan derajat kesehatan pasien di masyarakat. Program Interprofesional education dirancang untuk meningkatkan praktik kolaborasi dan kerjasama antar tim kesehatan. Penelitian ini bertujuan untuk menganalisis kesiapan pembelajaran interprofesional (IPE) pada mahasiswa kedokteran dan mahasiswa kedokteran gigi. Metode kuantitatif dengan potong lintang dengan pengukuran kesiapan pembelajaran interprofesional (RIPLS). Total sampling dengan 142 mahasiswa kedokteran dan 43 mahasiswa kedokteran gigi dalam praktik kolaborasi pada 16 keluarga untuk menentukan prioritas masalah kesehatan dan memberikan intervensi berupa pencegahan. Rata-rata kesiapan pembelajaran interprofesional secara deskriptif pada mahasiswa sebesar 65,36% (rentang 50-76%). 100% mahasiswa siap dalam mengikuti pembelajaran interprofesional. Tidak ada perbedaan antara mahasiswa kedokteran dan mahasiswa kedokteran gigi dalam kesiapan pembelajaran interprofesional dengan p value 0,810 (>0,05). Bahwa semua mahasiswa siap dalam mengikuti pembelajaran interprofesional kedokteran komunitas dengan pendekatan keluarga.

**Kata kunci :** kedokteran komunitas, mahasiswa kedokteran gigi, mahasiswa kedokteran, interprofesional education, kesiapan

## INTRODUCTION

Currently, the health care system was increasing pressure on global health issues and the need for health professions<sup>1</sup>. The global health issue this period is the Covid-19 pandemic has a very big effect on medical education. Medical education institutions must be able to design the learning programs, quality, achieve competencies and remain focused on keeping the academic community safe during pandemic<sup>2</sup>.

Health care systems want to innovative, effective and patient- and family-centered care<sup>3</sup>. Many healthcare systems try to innovate health care but fail in the practice of collaboration, teamwork, communication, patient outcomes<sup>4</sup>. The patient belongs to the whole part of one family, by doing care to the family will ease the workload of the doctor and improve the health outcomes in the patient<sup>5</sup>.

Interprofessional education (IPE) dismantles the isolated education that has been formed in the medical and health science education system<sup>6</sup>. IPE becomes an interdisciplinary collaborative promotion in overcoming barriers and misunderstandings between health care providers<sup>7</sup>. IPE also provides reinforcement between professional competencies that are collaborated to improve the quality of patient care and reduce patient safety incidents<sup>8-10</sup>. The health care providers in the future must to providing of clinical knowledge and experience high-quality patient care. Students should be provided with opportunities in substantial interprofessional learning.

The health conditions in the community was reflect the level of complexity of the health problems. Community patients demand that health care providers be able to work with teams and communicate effectively in problems solving in the community<sup>11,12</sup>. Field collaboration practices in the community allow students to learn on a small scale

collaborative teams in patient health care<sup>13,14</sup>. IPE with collaborative practices among students, patients, families and communities has been proven to provide the highest quality of patient care. Therefore, it must will be prepared<sup>7,14,15</sup>. This review aims to analyze the readiness of interprofessional education (IPE) in medical and dentistry students in collaborative field practice community medicine with a family approach.

## METHODS

The sample of this study used the total sampling method. 3<sup>rd</sup> year preclinic medical and dentistry students Muhammadiyah University of Semarang. In this period, students have gained basic and advanced clinical skills learning, cognitive material about various types of diseases and their treatments. A total of 185 students consisting of 142 medical students and 43 dental students. Students are divided into 16 groups, 1 group of 11-12 students consisting of 8-9 medical students and 2-3 dental students.

IPE learning with several methods such as lectures, small group discussions with problem-based learning, clinical skills, field collaboration practices. The IPE learning lasts for 1 month on January 2022. During the collaboration practice of field learning accompanied by supervisors from medicine and dentistry of each group. Collaborative practice in Sendangmulyo Village, where 1 group visits 1 family by assessing the health status of individuals and families for preventive interventions to improve the degree of health of individuals and families.

Data taken directly to students using the Readiness Interprofessional Learning Scale (RIPLS) questionnaire which has been analyzed and validated by the Indonesian version by Tyastuti *et.al* (2014)<sup>16</sup> into 16 questions divided into 3 subscales, namely teamwork and collaboration; negative professional

identity; and a positive professional identity. Answers options of questions on RIPLS using likert scale. A descriptive univariate analysis and a bivariate analysis by comparing readiness between medical and dental students using Mann Whitney.

## RESULTS

Based on the results and data processing, the results of the research was presented as follows:

**Table 1.** Respondens distribution

Item	n	%
Study programs		
Medical student	142	76,8
Dentistry student	43	23,2
Gender		
Male	51	27,6
Female	134	72,4

Source: Primary data, 2022

Medical students dominate frequency than dental student 3 times. Male students dominate frequency than female students.

**Table 2.** Readiness interprofessional education

Item	n	%	p value
Quantity	185	100	
Quality		65,36	
Difference			0,810

Based quantity that all student (185 students) ready to join interprofessional education. But, based quality of readiness that only 65,36% from student. Readiness is called good if the score is 49-80 and not good if the score is 16-80. There was no difference between medical students and dental students regarding IPE readiness.

## DISCUSSION

Although IPE has never been heard of by medical and dental students at Muhammadiyah University of Semarang, but the result study show that students are ready for IPE learning process. The students ready to become professional

workers to work in a collaborative environment. This was clearly indicated in their responses to the questionnaire. Students seem to value collaborative learning, respect for roles from other professions, excited to learn communication and collaboration interprofessional. They demonstrated positive responses (aggrement) for all questionares with strongly agree and agree for her answers.

In this study, it was found that the quantitatively all medical students are ready to run the IPE program. These findings were consistent with medical students responses form UGM and UMY<sup>17,18</sup>. While for the qualitative that students of readiness was 65,36 with a maximum score of 80 indicating good criteria, this is the same as other study. Readiness of IPE with a good category for medical student at UGM was 92,8% with a maximum score of 100% which has been started in 2009. While medical students at UMY have a good readiness in the IPE program by 75% from 100%.

In this study, it was found that the quantitatively all dental students are ready to run the IPE program. These findings were consistent with responses of dental students from UMY and Udayana University. Readiness of IPE with a good category for dental student at UMY was 78,9% with a maximum score of 100%. While dental student at Udayana University have a good readiness in the IPE program by 94,1% from 100%<sup>17,19</sup>.

Readiness for IPE as an important element in creating collaborative teamwork in their programs. The early IPE in pre-clinic will enhance collaboration in management and patient care especially collaborative care and teamwork in community with approach patient-family center care. When students was ready for the IPE program, they will have multiple opportunities to involve them in integrated work, and develop their competencies for interprofessional practice, increasing students confidence and readiness for

effective teamwork and joint decision in professional practice. Good preparedness will have an impact on positive outcomes in various aspect of health care, including increased competence of practitioners and satisfaction of patients and families in the community.

The difference in the level of readiness between students is due to various factors. These factors include perception, self-efficacy, level of knowledge and personality type. All of these factors are internal factors of students.

There is a significant relationship between perceptions with student readiness in IPE. The better perception, the more prepared students are to run the IPE program<sup>20</sup>. Self-efficacy in a person is formed through four processes, namely cognitive, motivational, affective and selective. Self-efficacy is able to affect student readiness to run the IPE program<sup>21</sup>. Knowledge is one of the important things in determining action. Student knowledge about IPE will effect student attitudes towards IPE program readiness<sup>17</sup>. Personality type is related to readiness of IPE program. Extrovert personality types was more prepared than introverts because they are better at adjusting to the environment, realistic and communicative<sup>22</sup>.

External factor that can affect IPE readiness such as policies, learning system, facilities, infrastructure, lecturers, etc. So, to get the best readiness, it is necessary to suppress factors that can decrease readiness and increase factors that can improve the level of readiness of students to run the IPE program.

In this study, there was no significant difference in IPE readiness of medical students. This was different from Numasawa's study, 2021 in Japan which states that there is a significant difference in the readiness of medical and dental students. The difference is based on the statement that dental students rarely felt the need for interprofessional collaborations, dentists often worked without the need for

interprofessional collaborations dan dental students believed their contribution was insufficient<sup>23</sup>. Likewise, study at the National University of Singapore started that the readiness of dental students was lower than medical students<sup>24</sup>. So it is necessary to increase the explanation of their professional roles in collaborative practice and the benefit of IPE.

But, in this study readiness of dental students was good, which meant that students were ready to collaborate, understand roles interprofesional, and ready to teamwork with other professions. This is a positive result because both groups of students was ready to run the IPE program. If only one of them is ready, it will be difficult to practice collaboration, teamwork, and understand roles between professions.

## CONCLUSION

Medical and dental students, both of whom are well prepared to join the IPE program. There was no difference of IPE readiness between medical students and dental students.

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