

EFFECTIVENESS OF INTERPROFESIONAL EDUCATION (IPE) PROGRAM ON STUDENTS PERCEPTION OF TEAMWORK

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ABSTRACT

Introduction: Health problems more complex and require teamwork professions. Teamwork requiring the same perception among members of the profession. This study aimed to evaluate the effectiveness of IPE program on students' perceptions of team work. **Methods:** It is a combination of research (mixed research) to measure the effectiveness of IPE program to change students' perceptions of teamwork. Subjects were 8 department of Surakarta Health Polytechnic students who carry out programme IPE in Ngemplak, Boyolali, with a number of 652 respondents. The sample is 50% of students from each department. Student perceptions were measured using a questionnaire Interdisciplinary Education Perception Scale (IEPs) according Luecht, Madsen, and Taugher (1990) combined with FGD students perseption. Data were analyzed using Two Way ANOVA using SPSS 18 series. **Results:** (1) The value of the average of student perceptions before implementing IPE program is 54.32, the highest in orthotic prostetic (2) The value of the average perception after implementing IPE program is 67.48, the highest in Jamu (3) Program IPE can add friends and new knowledge from other professions (4) IPE program effectively to improve student perceptions. **Conclusions:** IPE programs can effectively improve students' perceptions of teamwork across professions ($t = -13.229$; $p=0.000$).

Keywords: Interprofesional Education (IPE), Teamwork, Student Perception

INTRODUCTION

One of the program *Nawa Cita Indonesian* government is to improve the quality of Indonesian human life with agenda called Program Indonesia Sehat. Based on this agenda then all of Indonesian society are required to actively participate in efforts to improve the health and welfare of community. Indonesia Sehat program would then become a major program of health development by the Department of Health then applied in the form Year Strategic Plan 2015-2019 Ministry of Health (MOH, 2016). On the other hand the health problems faced by an increasingly complex society. Apart from the number is increasing, the factors causing health problems are also more complicated anyway. That requires a multidisciplinary cooperation of health professions (Zwarenstein M et.all, 2009). Multidisciplinary collaboration of

healthcare professionals can work well, if from the beginning of health workers have the same perception on cooperation interprofesional (Thistlethwaite, 2012). One effort to do is do the introduction of multidisciplinary cooperation early on medical students in teamwork interprofesi known as Interprprofesional Education (IPE). Collaboration among health professions is an effort to improve the quality of health services. As well as the opinion Hind (2003) which states that the collaboration is an attempt to improve the quality of health services.

WHO (2010) has made a grand design for the character formation of collaboration in a form of formal education in the form of interprofessional education. Interprofessional education (IPE) is an implementation of learning followed by two or more different professions to improve collaboration and the quality of service and

its implementation can be done in all learning, both undergraduate stage or stages of clinical education to create professional health workers.

Understanding and maturity of each member of the profession to interact and work together across professions will determine the successful completion of the health problems that are found. Improved knowledge, attitude, and cooperation of medical students during the activities IPE IPE program is the main objective. Related to this it is essential to do a study on the evaluation of a change of attitude and cooperation skills (teamwork) medical students during the IPE program.

This study aimed to identify the effectiveness of IPE program to increase students' perceptions of health Polytechnic Surakarta on cooperation across professions

METHODS

This research is combined (mixed research) to measure the effectiveness of IPE programs in the community to change students' perceptions of cooperation across professions. Subjects were all students of Surakarta Health Polytechnic implementing IPE program in District Ngemplak of Boyolali, a number of 326 respondents, consisting of the departments of nursing, physiotherapy, speech therapy, occupational therapy, midwifery, acupuncture, orthotics prosthetics, and Jamu. IPE students' perceptions of the program was measured using a questionnaire Interdisciplinary Education Perception Scale (IEPs) developed by Luecht, Madsen, and Taugher (1990) combined with FGD persespi students. Research start on July to August 2016 Data were analyzed using Two Way ANOVA using SPSS 18 series.

The subjects of this study were all students of Surakarta Health Polytechnic implementing IPE program Ngemplak District of Boyolali, a number of 326 respondents, consisting of the departments of nursing, physiotherapy, speech therapy, occupational therapy, midwifery,

acupuncture, orthotics prosthetics, and Jamu. Samples were taken by cluster random sampling, where each department is taken at random as much as 50% of each department. The number of samples as in the first table.

Table 1. Distribution Frequency Number of Respondents

| Department | f | % |
|----------------------|-----|-------|
| Nursing | 65 | 19,94 |
| Midwifery | 55 | 16,87 |
| Physiotherapy | 64 | 19,63 |
| Acupuncture | 30 | 09,20 |
| Occupational Therapy | 25 | 07,67 |
| Orthotic Prosthetic | 28 | 08,59 |
| Speech therapy | 23 | 07,06 |
| Jamu | 36 | 11,04 |
| Total | 326 | 100 |

RESULT

All respondents totaling 326 students can follow the research process until completed, and the results are as follows:

1. Perception of Students Before Program IPE

Table 2. Perception of Students Before Program IPE

| Program | Mean | Max |
|----------------------|-------|-------|
| Midwife | 53,04 | 67,00 |
| Physiotherapy | 51,58 | 65,00 |
| Acupuncture | 51,18 | 67,00 |
| Occupational Therapy | 58,22 | 71,00 |
| Orthotic Prosthetic | 64,38 | 83,00 |
| Nurses | 52,23 | 67,00 |
| Speech therapy | 52,60 | 67,00 |
| Jamu | 52,52 | 67,00 |
| Mean | 54,32 | 83,00 |

The second table provide information value - average student perception of the whole departement was 54.32 with a maximum value or highest is 83.00 OP (Orthotic Prosthetic)

Table 3. Results of ANOVA analysis (Post Hoc) Value Perception Before IPE Program

| Program | Mean | Max |
|----------------------|--------|------|
| Midwife | 11,33* | ,002 |
| Physiotherapy | 12,79* | ,000 |
| Acupuncture | 13,19* | ,000 |
| Occupational Therapy | 6,15 | ,379 |
| Nurses | 12,15* | ,000 |
| Speech therapy | 11,77* | ,001 |
| Jamu | 11,85* | ,001 |

Results of ANOVA analysis (Post Hoc) Value Perception Before IPE Program Based on Table 2 and 3. It is seen that the highest average value is majoring in OT(Occupational Therapy) and these values are different from other majors midwives ($p = 0.002$), Physiotherapy ($p = 0.000$), Acupunktur ($p = 0.000$), Nurses ($p = 0.000$), Speech therapy ($p = 0.001$), and Jamu ($p = 0.001$). As for the majors OT no difference where the value of $p = 0.379$.

2. Perception of Students After IPE Program

Table 4. Value Perception of Students After IPE Program

| Program | Mean | Max |
|----------------------|-------|-------|
| Midwife | 67,69 | 85,00 |
| Physiotherapy | 67,12 | 83,00 |
| Acupuncture | 58,31 | 74,00 |
| Orthotic Prosthetic | 65,04 | 72,00 |
| Occupational Therapy | 70,47 | 84,00 |
| Nurses | 69,53 | 86,00 |
| Speech therapy | 70,13 | 88,00 |
| Jamu | 71,38 | 89,00 |
| Mean | 67,48 | 89,00 |

Table 4. Provide information value - average student perception of the entire department after IPE program increased to 67.48 with a maximum value or highest also increase to 89.00 are majoring in Jamu. With the results of ANOVA $F = 5.920$ and $p = 0.000$ showed there were differences between each department.

Table 5. Results of ANOVA analysis (Post Hoc) Value Perception After IPE program

| Program | Mean | Max |
|---------------|--------|------|
| Midwife | -9,37* | ,008 |
| Physiotherapy | -8,80* | ,016 |

| | | |
|----------------------|---------|------|
| Occupational Therapy | -6,72 | ,169 |
| Orthotic Prosthetic | -12,15* | ,000 |
| Nurses | -11,22* | ,000 |
| Speech therapy | -11,81* | ,000 |
| Jamu | -13,06* | ,000 |

Based on Table 4 and 5. It is seen that the increase in value - average low is majoring in acupuncture, while the lowest maximum value is majoring in OP (Orthotic Prosthetic) is 72. The result of ANOVA $F = 5.290$ and $p = 0.000$ shows there is a difference between the majors, except with the department of acupuncture with the OT there is no difference ($p = 0.169$)

3. Effectiveness IPE against Student Perception

Table 6. t-test Results Student Perception Before and After Program IPE

| Pre | Post | t | p |
|-------|-------|--------|------|
| 54,32 | 67,48 | -13,22 | ,000 |

Table 6 shows the average value of students' perceptions after IPE program is higher than before implementing IPE program, as well as the value of the t-test $p = 0.000$ (significant differences) so that it can be concluded that the IPE program is effective to improve students' perceptions of the IPE.

DISCUSSION

The results showed the program Interprofessional Education (IPE) can significantly improve the perception of the students ($p = 0.000$). IPE activities in 2016 by the Health Polytechnic Surakarta conducted by practicing eight department with a total number of students each department between 42 up to 52 students. With the number of department that are very much needed coordination across the profession quite intensively. The principle of such activities in accordance with the understanding IPE According to the Centre for the Advancement of interprofessional Education (CAIPE), which IPE is two or more professions learn with, from and about each other to improve collaboration and quality of service. IPE is an approach to education process two or more different

disciplines collaborate in the teaching-learning process with the aim of fostering interdisciplinary or interprofessional interactions that increase practices of each discipline (ACCP, 2009). IPE occurs when two or more students of different health professions implement interactive learning with the aim of enhancing collaboration interprofessional and improve the health or well-being of patients. Interest interprofessional education according Freeth and Reeves (2004) is to prepare students for healthcare professionals with the knowledge, skills, attitudes and professional behaviors that are essential to the practice of collaboration interprofessional.

The corresponding concept of IPE, the main purpose is to train students in health professions resolve health problems through collaboration team and collaboration among health professions. Implementation in Health Polytechnic Surakarta 8 department practiced together in one team tasked to investigate and resolve the health problems found in the family or community. During the IPE program implementation through supervision and guidance of the lecturer.

Changes in student perception of the IPE highly variable but generally increasing toward the better. According to table 6, it is clear that the value of perception after the IPE program better than before with the value of the test results of t-test 0.000 (<0.005).

Quantitative Analysis

Student perceptions about IPE as quantitatively measuring the Interdisciplinary Education Perception Scale (IEPs) that researchers meaning into Indonesian. In the quantitative value of all the factors of the 18 components of perception has increased, which indicated the average value before implementing IPE program amounted to 54.32 increased to 67.48. Analysis of changes in each departement of study show departement that have increased the value of the highest

perception is a departement as jamu (18.86 points) and the lowest is Orthotic Prosthetic department with rising 6.10 points. As a group basis questionnaire also showed an increase as shown in Table 7

| Faktor | Pre | Post | Range |
|--|------|------|-------|
| Factor 1: Professional Competence and Autonomy | 67,8 | 71,6 | 3,84 |
| Factor 2: Perceived Need for Professional Cooperation | 58,7 | 72,4 | 13,6 |
| Factor 3: Perception of Actual Cooperation Resource Sharing Within and Across Professions | 65,8 | 70,5 | 4,68 |
| Factor 4: Understanding the Value and Contributions of Other Professional/Profession | 52,5 | 69,7 | 17,1 |

Table 7. Shows IPE program provides contribution in improving student perception about interprofessional teamwork or cooperation across professions. On the first factor is about the professional competence and autonomy, the average student's ability to realize the importance and autonomy of each profession so that they feel able to solve a health problem. However, students are also beginning to realize that there are other professions that also has the competence and autonomy to overcome health problems. On the second factor also experienced an increase in value - average high enough. This data shows the IPE program can improve the perception or students understandings about the importance of professional cooperation teamwork. On this factor, there are two questions, namely whether the profession I need to work with other professions, and whether the profession I have to depend on other professions. With the increase in value - average showed the students begin

to realize the need for cooperation between the profession and even in menyelesaikan health problems sometimes other professionals are needed or depending on other professions. This result is also the same as the factor 3 is the perception of resource sharing across the profession, which means the program IPE can also improve students' perceptions about the need to share the ability or competence of each profession, and every member of the profession should be willing to help each other, cooperate with each other each according to its competence. Factors that change is highest at four factors that understand the value and contribution of professional / Other professions. This is certainly very good, because the IPE program can improve the perception of the need to understand the roles and functions of each profession in teamwork, and most importantly, there is no understanding of the most important professions in the program interprofesional (Ponzer, 2004). These results are consistent with Thistlethwaite (2012) were the outcome of IPE is to increase awareness among healthcare professionals about the importance of teamwork and mutual respect among members of the health team. These results are also consistent with the concept of et.all LeWitt (2015) which describes the IPE program can improve cooperation across the profession so memudahkan solving health problems that are found.

Qualitative Analysis

In this study, the researchers also gave an open question about how the students perception of the IPE program. From the analysis of the results of each group FGD generally obtained as follows: *"Like to meet people and get new knowledge from a variety of professions."* *"Here we learn to work together, although only 4 weeks seemed four years that foster brotherhood"* *"A lot of people meet new and familiar fast like family, very pleasant, no problems, every day is always laughing, a lot of added*

knowledge from various other professions"
" Initially hesitant and somewhat lazy to leave the practice, because imagine not familiar with the other students, was less enthusiastic, but after gathering turned out to other student was cool, fun, to chatting and joking "
"Met a lot of amazing friends, learn to serve in the community, learning to be a housewife"

Based on the open perception of each of these groups as general gives an overview although initially the students feel uncomfortable about having to work or practice with other professions, but in the end the student feels comfortable as it gets a new friend incredible, can learn from other professions, and work together in teams across the profession turned out to be the happy like their own family.

CONCLUSION AND RECOMENDATON

Conclusion

IPE programs effective to improve students' perceptions of teamwork across professions.

Recomendation

IPE activities should be continued to improve the quality of implementation.

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