Perceptions of medical students toward assessors in interprofessional education

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\textbf{Purpose:} This study aims to establish if medical students think it is fair to be assessed by nursing professors in interprofessional education (IPE) and why.

\textbf{Methods:} Eighty-seven third-year medical students who participated in the IPE in 2022 submitted self-reflection essays. They were asked how they perceived the assessors, and 86 medical students responded to content analyses.

\textbf{Results:} Sixty-seven students (77.9\%) agreed to be assessed by nursing professors. They believed that interprofessional assessment is possible because it is an IPE. They also believed that this was an opportunity to be assessed from various perspectives. Nineteen students (22.1\%) objected because the assessment criteria may be different and nursing professors would not understand the learning experiences of medical students.

\textbf{Conclusion:} Regarding the reasons medical students oppose it, IPE developers should supplement the development of assessment criteria and understand learners’ experiences during planning assessment.

\textbf{Key Words:} Assessment, Interprofessional education, Medical students, Nursing professor

\section*{Introduction}

Interprofessional education (IPE) is a program for healthcare students to learn about, from, and with each other to recognize the importance of effective cooperation, communication, and medical teams from the perspective of patient safety [1]. As patient safety became important, the importance of collaboration among professionals was highlighted, which was extended to IPE in basic medical education. Many IPE studies have introduced educational contexts and the competencies and attitudes of students before and after IPE. Few studies on tools, assessors, and how assessors with different majors assess students with different majors have been conducted [2]. In a study investigating the status of IPE in Korea, 10 medical colleges operated IPE programs, and only five assessed students. Medical students were assessed only by medical professors in four medical colleges, and they were simultaneously assessed by professors of medicine and other majors in one medical college [3]. It appears that a burden of assessment existed.

In IPE, formative assessment may not be reflected in grades; therefore, the burden is minimal. Summative
assessment is linked to grades: therefore, it places a great deal of burden on students and professors. In IPE, students from different majors work in teams; therefore, there are considerations to be made. Controversies such as whether to assess as a team/individual, the type of assessment tools or rubrics to use, and whether professors from the same or different majors will be the assessors, may arise in the assessment. Each option for assessment will have pros and cons. In particular, if the assessor is a professor from the same major, they will better understand the students' learning experiences. On the other hand, if the assessor is a professor from a different major, this will enable multi–faceted assessment, meaning that the students will give and receive feedback from various professionals like in the clinical environment.

Rogers et al. [2] reported a tension triangle among training schools, patient expectations, and faculty members in their assessment of interprofessionalism. However, the learners assessed in that study were excluded [2]. It is important for the learner to accept the process and results of the assessment. It is also important for assessors and students to accept sound assessment methods [4]. Therefore, this study aimed to determine what medical students think about being assessed by professors of other majors in IPE. The results serve as a basis for students’ perceptions of the assessor and they will be helpful when planning an assessment in the IPE program.

### Methods

#### 1. IPE program

Third-year medical students and fourth-year nursing students at Yonsei University College of Medicine have participated annually since 2020 [5]. IPE class is part of the patient safety course for medical students and of practice of communication skill for nursing students. For medical students, each group was divided into four subgroups and participated in IPE once. For nursing students, each group was divided into two subgroups and participated in IPE twice. For each group, the facilitator could be a nursing or medical professor in the IPE (Table 1). Eighty–seven medical students participated in IPE class, with 51 of them meeting a nursing professor as facilitator. Individual nursing students were assessed for leadership and collaboration competencies through a checklist developed by nursing professors. A team facilitator directly observed the performance of nursing students throughout the class and assessed them using a rubric. However, medical students were not assessed; they wrote a self–reflection and submitted it to a medical professor (patient safety course director) immediately after class.

#### 2. Data collection

Eighty–seven medical students participated in the IPE in 2022 and wrote self–reflections. They were asked how they perceived the assessors, as follows:

In the IPE, nursing students were assessed for leadership and team communication, and scores are included in their grades. Some nursing students were graded by medical professors. The medical students were not assessed by professors. What would you think of the following if you were to be assessed? (1) If a medical student met a nursing professor as facilitator in IPE, the nursing professor can

<table>
<thead>
<tr>
<th>Group</th>
<th>Professor</th>
<th>Medical students</th>
<th>Nursing students</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Nursing</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>B</td>
<td>Nursing</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>C</td>
<td>Medicine</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>D</td>
<td>Medicine</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>E</td>
<td>Nursing</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>87</td>
<td>46</td>
</tr>
</tbody>
</table>
assess their performance. (2) Medical students should only be assessed by a medical professor.

3. Data analysis

After completing the patient safety course, the students’ self-reflections collected at the IPE were retrospectively analyzed. Review exemption for this study was approved by the Institutional Review Board of Yonsei University Wonju Severance Christian Hospital (approval no., CR 322354), and the requirement for informed consent was waived. The students’ responses were transcribed into Microsoft Excel ver. 2018 (Microsoft Corp., Redmond, USA) and a conventional content analysis was conducted. By analyzing the responses, sentences with similar meanings were collected to derive themes.

Results

Eighty-six responses were analyzed after excluding students who did not respond to the questions. Among them, 67 students (77.9%) agreed to be assessed by nursing professors. This is because they can be assessed by other professionals because they practiced interprofessional communication, which could be an opportunity to be assessed from various perspectives. In addition, because nursing professors observe them directly, it is reasonable to assess them. However, they thought that the standardization of assessors and assessment tools was necessary. Nineteen students (22.1%) objected to the assessment by nursing professors. They thought that the assessment criteria could differ because of the different majors. They felt that the nursing professors had different focuses when they received feedback in IPE. In addition, they believed that nursing professors did not have a deep understanding of the learning experiences of medical students (Table 2).

Discussion

Medical students thought positively that nursing professors assessed them in IPE class. However, there were also cases in which their views tended to be negative because nursing professors might not understand medical professors.

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**Table 2. Themes and Quotations of the Medical Students**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree to be assessed by a nursing professor (n=67)</td>
<td>- Because it is an IPE, interprofessional assessment is possible (n=26)</td>
</tr>
<tr>
<td>Because it is an IPE, interprofessional assessment is possible (n=26)</td>
<td>- Because it is interprofessional communication, interprofessional assessment is appropriate.</td>
</tr>
<tr>
<td></td>
<td>- It is an opportunity to be assessed from different perspectives.</td>
</tr>
<tr>
<td></td>
<td>- Doctors should have the ability to collaborate with different professions; thus, they can be assessed from the perspectives of other professions.</td>
</tr>
<tr>
<td>Because the nursing professors directly observed medical students (n=25)</td>
<td>- The professor who facilitated the class is qualified to assess whether it is a medical or nursing professor.</td>
</tr>
<tr>
<td></td>
<td>- If I should be assessed, it is right to be assessed by the professor who facilitated the IPE.</td>
</tr>
<tr>
<td>It is possible when assessors and assessment tools are standardized (n=6)</td>
<td>- It is necessary for medical and nursing professors to present clear assessment criteria to students through sufficient discussion in advance.</td>
</tr>
<tr>
<td>Not agree to be assessed by a nursing professor (n=19)</td>
<td>- Professors in other major may have different assessment standards (n=9)</td>
</tr>
<tr>
<td>Professors in other major may have different assessment standards (n=9)</td>
<td>- It seems that the feedback focus of the nursing professor is slightly different from that of the medical professor.</td>
</tr>
<tr>
<td></td>
<td>- Medical professors know more about how much practical experience and knowledge medical students have.</td>
</tr>
</tbody>
</table>

IPE: Interprofessional education.
students’ learning experiences and differences during focus in assessment.

Students accepted the nursing professor’s assessment mainly because interprofessional assessment was possible because it was an IPE. This is equivalent to the values/ethics for interprofessional practice among the IPE Collaborative’s four core competencies [6]. This means that medical students learned interprofessionalism with nursing professors while participating in IPE class. Students’ acceptance of assessments is strongly influenced by their perception of fairness [7]. In this study, regardless of the major, students thought that the assessment would be fair if there was a professor who directly observed them and a clear assessment standard.

Medical students who did not agree cited a lack of understanding about other majors and a different assessment focus. In fact, there may be separate competencies that can only be assessed by the same major profession, and differences in the educational culture between professions may interfere with the assessment of interprofessional learning outcomes and competencies [8]. In the study by Root and Waterfield [9], academic staff from different disciplines found it difficult to mark reflective work because of their different academic perspectives. Therefore, educators and assessors need to be trained in IPE assessment [2]. Alternatively, in the study by Sabus et al. [10], professors of two majors independently scored IPE team assignments, and if the score gap was large, the scores were finalized through a discussion.

This study had a few limitations. First, only the perception of medical students toward nursing professors as assessors was investigated; however, that of nursing students toward medical professors as assessors was not investigated. In addition, in the assessment of other IPE contexts and contents, additional research on the perception of assessors by healthcare students rather than medical students is needed.

In conclusion, most medical students accepted nursing professors as assessors. For all students to accept assessors from other majors, professors of all majors should develop an IPE curriculum together and create and understand assessment criteria. In addition, professors in IPE should understand the learners’ experiences when developing and conducting the assessment.

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