Perception of healthcare personnel in interprofessional collaborations: A study in two “type c” hospitals in East Java

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Introduction
Collaboration practices have not been optimally carried out due to various constraints in their implementation. These constraints are influenced by authority imbalances, limited understanding of the role of each profession in a team, responsibility, and friction between professions when providing care to patients (Setiadi et al., 2017). In addition, there is a presumption that doctors are leaders and decision-makers while other medical personnel are only executors, thereby making the implementation of Interprofessional Collaboration (IPC) difficult (Fatalina et al., 2015).

One of the obstacles to implementing IPC is that doctors underplay the competence of other health workers in efficiently providing patient care. Such perceptions indirectly further restrict communication between professionals and hinder the practice of such collaboration (Thi et al., 2017).

Research in South Africa in 2019, focused on health workers’ perceptions, attitudes, and understanding, stated the poor definition of IPC Practice among health workers and administrative staff. This causes health workers to be unable to apply it practically (Kock et al., 2021).

A study in Indonesia conducted in 2017, showed that there were no significant differences related to the perception of IPC with a professional background, but there were significant differences in the domain of the barrier component with the professional group of doctors and nurses (p = 0.008) (Yusra et al., 2019). The existence of hierarchy and socio-cultural factors causes nurses to feel very different perceptions in terms of barriers when collaborating with doctors (Yusra et al., 2019).
Communication is one of the competencies in carrying out IPC practices, where health workers are required to be able to communicate with patients, patient families, communities and other health professionals responsibly and responsibly (Yusra et al., 2019). Effective communication is very influential in IPC because it can provide a positive side such as increasing patient satisfaction, minimising the occurrence of medication errors, reducing mortality and complications, to reduce the cost of treatment.

In addition, with the existence of IPC, the services carried out become more efficient, and the work environment feels more comfortable. This is one of the most effective efforts and strategies to improve the quality of health services (Rokhman et al., 2015). Based on the facts described above, this study aimed to look at the relationship between professions, gender, length of employment and age with IPC.

**Methods**

**Design**

This research was a cross-sectional study conducted at two hospitals in East Java (Surabaya and Sidoarjo). The measurement was carried out using the Collaborative Practice Assessment Tool (CPAT) questionnaire instrument (Schroder et al., 2011). The CPAT used was the Indonesian version (Yusra et al., 2019). Distributed face-to-face and online to 119 health workers in two hospitals. Health workers, including general/specialist practitioners, pharmacists, nurses, and nutritionists.

**Assessment**

The questionnaire used a Likert-5-point scale as follows: strongly disagree=1, disagree=2, not sure=3, agree=4 and strongly agree = 5. In the domain with negative statements, the scale was strongly disagree = 5, disagree= 4, not sure = 3, agree = 2 and strongly agree = 1. The CPAT questionnaire has been tested for validity and reliability (Yusra et al., 2019).

The CPAT questionnaire instrument consisted of eight domains with 53 statement items, namely relationships among members (nine statements); team barriers in collaboration (five statements); team relationships with the community (four statements); coordination and role sharing (fourteen statements); decision making and conflict management (two statements); leadership (five statements); missions, goals, and objectives (nine statements); and patient involvement (five statements) (Yusra et al., 2019).

Data analysis used univariate analysis to determine the demographic characteristics of respondents, while bivariate analysis to compare the value obtained with the respondent group, namely gender (Mann-Whitney test), age, type of profession and length of service (Kruskal-Wallis test). This research has been approved (Number 560/RSAM/V/2022) and declared ethical by Anwar Medika Hospital (Number 1243/RSAM/VI/2022). A informed consent was given to all study participants.

**Results**

The majority of respondents’ characteristics were in the age range of 21-28 years (60.50%), female respondents (82.35%), respondents professing as nurses (78.15%), and respondents with one to eight years of service (83.19%), as well as undergraduate/professional education (55.46%). This is showed in Table I.

**Table I: Demographic distribution of respondents (n = 119)**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Variable</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-28</td>
<td></td>
<td>72 (60.50)</td>
</tr>
<tr>
<td>29-36</td>
<td></td>
<td>36 (30.25)</td>
</tr>
<tr>
<td>37-44</td>
<td></td>
<td>11 (9.24)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>21 (17.65)</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>98 (82.35)</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctors</td>
<td></td>
<td>5 (4.20)</td>
</tr>
<tr>
<td>Pharmacists</td>
<td></td>
<td>15 (12.61)</td>
</tr>
<tr>
<td>Nurses</td>
<td></td>
<td>93 (78.15)</td>
</tr>
<tr>
<td>Nutritionists</td>
<td></td>
<td>6 (5.04)</td>
</tr>
<tr>
<td>Years of experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-8</td>
<td></td>
<td>99 (83.19)</td>
</tr>
<tr>
<td>9-16</td>
<td></td>
<td>17 (14.29)</td>
</tr>
<tr>
<td>17-24</td>
<td></td>
<td>3 (2.52)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma/vocation</td>
<td></td>
<td>49 (41.18)</td>
</tr>
<tr>
<td>Undergraduate/profession</td>
<td></td>
<td>66 (55.46)</td>
</tr>
<tr>
<td>Master’s degree/specialist</td>
<td></td>
<td>4 (3.36)</td>
</tr>
</tbody>
</table>

The lowest average perception of the domain "Relationships among Members", "Coordination and Role Sharing", and "Mission, Goals, and Objectives" is in the profession of a doctor while "Team Barriers in Collaboration", "Team Relationships with the Community", "Leadership" and "Patient Involvement" are in the profession of a pharmacist, but in the domain "Decision Making and Conflict Management" there are nutritionists (Table II).
In this study, there were no significant results related to the perception of the profession of health workers, age group, gender, and length of employment with eight IPC domains, while in the education group, there were significant differences with the domain "Team Relationships with the Community" (Table II).

Discussion

Research related to IPC in Indonesia is very limited. The perception and acceptance of health workers towards IPC will affect the attitudes among health professionals, so good perceptions and acceptance will support the successful implementation of collaboration among professionals (Fatalina et al., 2015).

One research done in a type A hospital in Jakarta, Indonesia, related to IPC in 2017 stated that IPC practice is similar to the hierarchical or traditional model, where the final decision regarding patient care is with the doctor (Yusra et al., 2019). Consequently, in Indonesia is characterised by a hierarchical culture, where the position of doctors is at the top and other professional workers are only supporting staff, which leads to the non-execution of the freedom of health workers in contributing knowledge and skills (Setiadi et al., 2017).

One of the contributing factors related to collaboration is interactional factors such as effective communication, respect, and the desire to work together (Bardet et al., 2015). This factor is part of the domain "Relationships among Members" as well as the domain "Coordination and Role Sharing" where the
results in these domainsshowed that doctors’ perceptions are lower compared to other health workers.

Previous research done in Primary Healthcare Centre in East Java, Indonesia, highlighted the contribution factors in implementing IPC in 2016, one of which is that understanding the identity and role of professionals among healthcare teams is an important pre-requisite in carrying out interprofessional interactions. Also, a lack of understanding between doctors, nurses, pharmacists and nutritionists causes inequality in implementing IPC (Setiadi et al., 2017).

Research in North Carolina in 2014 showed that doctors who collaborate with pharmacists could improve the quality of services, but nearly half of the respondents did not agree (Pezzino et al., 2017). This is due to a lack of understanding of the roles of the profession in collaboration. The sense of togetherness in the team also supports IPC practices, interpersonal approaches play an important role in fostering cooperation between health workers. The same mission and goal, which is patient-centred, also strengthen interprofessional cooperation, but sometimes because of the hierarchical relationship, the doctors feel that all responsibilities are on them (Soemantri et al., 2019).

The perception of the domains "Team Relationships with the Community", "Leadership" and "Patient Involvement" is lowest in the pharmacist profession, the obstacles in implementing IPC are also more felt by the pharmacists. Establishing a relationship with the community can introduce the pharmacist profession to the community so that the function of the pharmacist can be perceived.

Pharmacists in hospitals play more roles in managing the supply system of pharmaceutical preparations to maintain the availability and reach of drugs (Setiadi et al., 2017). Although pharmacists counsel drugs in pharmaceutical service, patients are more familiar with other professions, such as doctors and nurses. Time limitations are also a cause of low relationships with the community.

Pharmacists also have low perceptions related to the "Leadership" domain, a hierarchical culture that causes pharmacists to assume that doctors cannot be approached (challenging to work with) (Setiadi et al., 2017). The importance of effective communication, information sharing, and clarity can help the implementation of IPC. Historically, doctors provide clinical leadership, but it should not reduce the shared responsibility of all professions in the healthcare team because all health professions have an important contribution to the patient’s therapeutic outcome, including leadership and decision-making roles (Setiadi et al., 2017).

In the domain related to "Patient Involvement", pharmacists have the lowest perception among doctors, nurses, and nutritionists. Pharmacists need to entail patients more in the future while planning health services. The care provided to the patient and the willingness of the patient to participate are key factors for success. Interprofessional work requires changing paradigms because IPC has unique characteristics in terms of values, codes of conduct, and ways of working (D’Amour & Oandasan, 2005).

Nutritionists have the lowest perception in the domain of "Decision Making and Conflict Management". This is because nutritionists feel that they must follow all instructions by the doctors. In collaboration practices, doctors appear to make more decisions related to patient care.. Doctors also tend to recognize the importance of knowledge and expertise from health professionals in collaborating (Lancaster et al., 2015).

Trust is important in decision-making because one of the factors contributing to the successful implementation of IPC practices is professional support (e.g. common interests, willpower, trust), policy support, interprofessional training, and long-term funding (World Health Organisation, 2010).

This study also showed a significant difference between education and the "Team Relationships with the Community" domain. Health workers lower education tend to have awkward feelings when they have to deal with the community, which is caused by the lack of confidence related to the knowledge possessed. Therefore, training in the health profession is needed to increase their knowledge, improving nurse training and organisational support will lead to more effective collaboration between nurses and doctors (Erickson & Clifford, 2008).

Conclusion

Health professions, namely doctors, pharmacists, nurses, and nutritionists, have different levels of IPC perception in the eight domains, but there are no significant differences between the professions in these eight domains.

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References


