Research Article

Three-Party (Physician-Pharmacist-Director) Collaboration Model on Teamwork Effectiveness Improvement in Hospital

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Abstract. Background: Teamwork between physicians and pharmacists is essential in providing a treatment to patients. Whatever the form and place, collaboration includes an exchange of views or ideas that give perspective to all collaborators. In order to make collaborative relationship optimal, all members of the different professions should have a desire to cooperate. Pharmacists and physicians should plan and practice as a colleague, work interdependence within the limits of the scope of practice with a variety of values and knowledge. Method: The study is a quasi experimental design with a pre-test - post-test control group design, using paired t-test analysis. Result: The paired t-test results show that the variable of teamwork effectiveness in M.M Dunda Hospital increases significantly (p = 0.038), which means that the three-party collaboration model (Physician-Pharmacist-Director) may increase teamwork effectiveness.

Keywords: Teamwork; three-party collaboration model; teamwork effectiveness

1. Introduction

Cooperation among health professionals is necessary so that rational treatment can be achieved. The research on collaborative relation model between physicians and pharmacists as proposed by McDonough and Doucette (2001) states that the initial step for pharmacists to establish the collaboration is to build a strong working relationship with physicians. Approaching steps for developing collaborative working relationship between physicians and pharmacists:

Research by Zullies Ekawati, 2003, states that the relation between the two professions is still at the stage 0, meaning that physicians and pharmacists in the hospital barely know each other and know each other’s existence, the relation is still as it is only limited to when a pharmacist receives a prescription from a physician, then a medicine is formulated in accordance with the prescription and the pharmacist hands it to a patient. Collaborative working relationship model proposed by McDonough and Doucette (2001) has been taking place since a long time abroad in the order of equality in both professions while in Indonesia, both professions are still not considered equal.

Issues in Physician-Pharmacist Collaboration in Hospital Some of the issues that exist in M.M. Dunda hospital that make physician-pharmacist collaboration at stage 0:

1. The shortage of pharmacists in the hospital so that the pharmacists are only in the prescription service at the pharmacy in the pharmacy unit.

2. Pharmacists have not been active in fostering a closer relation with physicians in terms of treatment intervention in the hospital.
3. The lack of participation or policy of the director in terms of physician-pharmacist collaboration, so that pharmacists can not intervene physicians in treatment considerations. If there is consideration of the opinion, the pharmacist does not reach a better stage. Concrete examples are in considering the change into more effective medicine for patients and providing an alternative medicine for the patient’s specific condition.

Constraints faced by the pharmacy unit in the hospital as well as pharmacists related to the implementation of pharmaceutical care include (Emma, 2011):

1. The number of pharmacists in the pharmacy of the hospital is still very limited and the addition of new personnel encounters many problems.

2. The quality and competence of pharmacists are inadequate due to lack of continuous training and education with a curriculum that supports clinical pharmacy services.

3. Pharmacists’ communication skills with other health professions is still poor due to the limited opportunity for it.

4. The position of pharmacy unit as supporting institution in the hospital is still not visible and pharmacist has not been treated as professional partner equals to other health professions resulting in interaction with other professionals in improving patient care is poor.

2. Method

This study is quasi-experimental study with a pre-test - post-test control group design. This type of experiment is carried out on two groups: the control group (using the model of teamwork that has been
established in hospital) and treatment group (using "three-party collaboration model" teamwork development) with several interventions:

1. Physician-pharmacist-director meeting which generates collaboration in the hospital decree
2. Seminar and scientific discussion about the judicious use of antibiotics in the hospital
3. Joint visite of physician-pharmacist conducted in 3 times a week at internist section
4. Self visite at internist section conducted by pharmacists
5. Pharmacists meeting conducted every Saturday to discuss about treatments that have been intervened by the pharmacists to be recorded in monthly report to be submitted to the director, the medical committee and the committee of the pharmaceutical therapy of the hospital
6. Monthly meeting between pharmacists, physicians and director to discuss about various treatments have been undertaken and other medical problems.

The subjects of the study were physicians (n = 3) with a team of the internist unit, and pharmacists (n = 5) in Aloei Saboe hospital in Gorontalo city. The subjects of the study in M.M Dunda hospital in Gorontalo regency were physicians (n = 3), with a team of the internist unit, and pharmacists (n = 5). Both groups were observed using questionnaires and interviews. T-test analysis was used in data analysis.

### 3. Result

Table 1 shows that teamwork effectiveness in M.M Dunda Hospital has a significant increase (p=0.038). It means that teamwork effectiveness increases significantly after the intervention of three-party collaboration model.

### 4. Discussion

Three-party (physician-pharmacist-director) collaboration model can improve physician-pharmacist relationship in the hospital. Leadership has a positive and significant effect on employees’ organizational commitment. Director can be an inspiration in the work and determine the direction and goals of the organization. Research conducted by Idayanti (2012) reveals that leadership has a strong tie to organizational commitment. If the model of the hospital system as a health care provider is not proper, the problem in the hospital bureaucracy system will arise. Therefore, the three-party (physician-pharmacist-director) collaboration model can improve the quality of the relationship between the two professions, physician and pharmacist.

During teamwork development using the three-party (physician-pharmacist-director) collaboration model, several interventions were carried out to the treatment group.

Intervention 1: Meeting between physicians, pharmacists and director was conducted. Director’s participation can maximize the collaboration between the two professions. Indonesia has an influence of leadership which is still strongly perceived because the leader in an institution (in this case is the director of the hospital) as the policy maker is still greatly influence decisions that govern the activities within the institution. A leader is the one who ultimately decides all decisions in the fieldwork. The theory of collaboration model proposed by Mcdonough and Doucette (Randall and William, 2001) explains that in order to initiate collaboration, the initiative must be from the pharmacists to improve the frequency.

### Table 1: The Comparison of Teamwork Effectiveness before and after the interventions in Aloei Saboe hospital and M.M. Dunda hospital using paired T-test.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Pretest</th>
<th>Postest</th>
<th>Paired t-test (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aloei Saboe</td>
<td>$64.50 \pm 2.51$</td>
<td>$63.75 \pm 8.41$</td>
<td>0.803</td>
</tr>
<tr>
<td>M.M Dunda</td>
<td>$47.00 \pm 22.10$</td>
<td>$64.38 \pm 10.18$</td>
<td>0.038</td>
</tr>
</tbody>
</table>

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and quality of their relation with the physicians. This theory is not fully applicable in Indonesia due to differences in culture or organizational culture. Intervention 2: seminar or scientific discussion on the judicious or rational use of antibiotics in the hospital was conducted. It aims to once again give a view to the physicians, pharmacists and director of how to provide a rational treatment to patients with considerations of the effects in the future.

Intervention 3: joint visite was conducted in irina F room (internist section in M.M Dunda Hospital). During the joint visite, discussion on treatment to patients was conducted. Research conducted by Brian Issets (2003) in another country describes that the decision made by pharmacists to collaborate with physicians in the treatment therapy services will give clinically reliable results.

Intervention 4: a self-visite to patients in irina F room. It aims to discuss the similarities of opinion about treatment interventions when carried out, warning about the medication given by physicians based on scientific grounds.

Intervention 5: meeting conducted every Saturday by pharmacists at the pharmacy to discuss treatments that have been intervened by the pharmacists to be recorded in monthly report to be submitted to the director, the medical committee, and the pharmaceutical therapy committee of M.M Dunda Hospital.

Intervention 6: the report received by the director and the medical committee as well as by pharmaceutical therapy team of the hospital was investigated in order to identify to which extent the interventions that had been carried out by pharmacists. The pharmacists clarified the types of intervention that had been carried out in the form of presentation and discussion involving all the teams involved in the treatment performed or discussion on the problems that had been faced in the treatment that had been undertaken. This illustrates that teamwork began to work optimally.

These results can be seen in the improved teamwork commitment, interdependence or mutual dependence in the good cooperation and collaboration begins to be seen. Interventions performed illustrate that three-party (physician-pharmacist-director) collaboration model carried out has brought the teamwork to be more optimal than before the intervention.

In three-party (physician-pharmacist-director) collaboration model, each party has their own role in the hospital, which can maximize their performance to generate an effective team.

The role of the director in teamwork of three-party collaboration model:

1. Participating in teamwork through the issuance of a decree on pharmacists to conduct a visite with physicians regarding the rational treatment in M.M Dunda Hospital.

2. Policy, and so far there has been no written policy to be a necessity).

3. The use of hospital formulary and therapy diagnosis guideline issued by M.M Dunda Hospital (not included in written policy).

4. Meeting of the medical committee to report the results of treatment interventions carried out by pharmacists in terms of monthly report accountability for every treatment undertaken.

The role of physicians in teamwork of three-party collaboration model:

1. Conducting a joint visite

2. Conducting a discussion with pharmacists on treatments for the patients.

3. Meeting in the medical committee to report the results of treatment interventions carried out by pharmacists.

The role of pharmacists in teamwork of three-party collaboration model:

1. Conducting a joint visite.

2. Conducting self visite.

3. Conducting a discussion with physicians on treatments for patients.
4. Writing reports on the interventions to be included in the medical committee, the committee of pharmaceutical therapy, and director.

5. Meeting in the medical committee to report the results of treatment interventions carried out by pharmacists.

Effective teamwork is strongly influenced by clear principles, goals, and objectives so that the members of the team are consciously united by the same mission and building collective commitment. All team members understand and approve the goals and targets of the team. Team effectiveness is greatly influenced by openness and mutual trust among team members. All team members should receive the same information and be able to communicate fluently and clearly. Team members are free to share their ideas. Experiment and creativity are always encouraged. Team members should support other members if the idea proposed is logic and useful. Team effectiveness is greatly influenced by the good support and trust among team members. Team effectiveness is greatly influenced by collaboration, communication, and conflict. Teamwork effectiveness measured before and after the interventions includes participation, cooperation, commitment and communication among team members that have been formed.

Communication is a circle among fellow team members so that its existence is very essential. The ability to manage effective communication by utilizing the existing means of communication should be able to resolve conflict so that it would not work against the integrity of the team. Conflict arised can be resolved through consensus (agreement), something constructive, and win-win approach. Teamwork effectiveness should be in the atmosphere that tends to be informal, comfortable, and relaxing with many discussions and all members are participating. Objectives and tasks in teamwork are well understood and accepted by the members. Members listen intently to each other. Should there is any disagreement; it will not affect the team’s harmony. Most of the decisions are made through consensus (agreement), are open, and each team member is allowed to express their feelings and ideas related to the problem at hand. Teamwork operational itself requires a clear division of tasks. Team leader does not dominate discussion. The team leader has a participative leadership style. Team members should evaluate how well each performs in established team. All team members continuously learn and improve themselves. This helps improve the team’s ability to solve problems. A team is often able to complete tasks more effectively compared to an individual. One’s success in today’s global era is not determined by the intellect alone, but also by how to employ other people in meeting his needs. Humans, as individual as well as social being, certainly need to interact with each other. It is a human nature which is a power and a potential to be developed. Cooperation of health professionals in the hospital in a team is necessary to guarantee a maximum treatment. An effective team is a working group whose members collaborate to achieve a common goal and have mutual support in teamwork. Cooperation in an activity can facilitate good collaboration.

Cooperation reflects the process of work coordination so that the goals defined can be achieved. Collaboration in question is the working relationship among health workers in providing services for patients. The cooperation is implemented by conducting a discussion on diagnosis and consultation in which each is responsible for his work. Interdisciplinary health care team is a group of professionals who have clear rules, clear goals, and different expertise. The team will work well if there are contributions from team members in providing services which are effective, responsible, and respect fellow team members. The essence of a collaborative relationship is a sense of interdependence to cooperate and cooperation. Cooperation reflects the process of work coordination so that the goals or targets of treatment for patient can be achieved. Skills of various team members should be utilized and collaborated so that the end result of health care can be optimized. A research by Zullies Ikawati (2003) reveals that the concept of collaboration with other health professionals is relatively new to pharmacists compared to nurses. Nurses have long been familiar with the concept and it is easily found in the nursing literature. The main factors that can support the achievement of the above concept are the competency of pharmacists and the openness of physicians in accepting the role of pharmacists. It should be emphasized that a pharmacist is a partner that will assist a physician in accordance with his authority in order to achieve optimal treatment for patient. Therefore, based on the results of this study, it is illustrated that there are other factors. Another factor beyond pharmacists’ capability that is crucial to the success of a pharmacist’s role in patient care is the policy of the director of the hospital. This cooperation is also supported by the issuance of a decree on clinical pharmacy team who will conduct a joint visite with physicians. Based on the results of this study, it can be concluded that cooperation will be established if there is participation of the director of
the hospital. Efforts to improve and maintain the cooperation established in the team require cooperation that is synergy where all team members benefit from each others’ differences and complementarity in the work, instead of working on their own. Synergy in this case is to utilize the differences, complement each other in work, be open-minded, and find new better ways. Difference is an opportunity as well as strength to complement each other’s advantages and disadvantages. This synergistic activity is mutual relationships between the parties interact.

Committed to a team indicates a power of a person to identify his involvement in a team or organization. Therefore, committed to a team or organization will lead to a sense of belonging to the organization for its members. Commitment is the desire to maintain membership in the team and is willing to strive hard to achieve common goals in a team. Commitment can be built together when the team members have the feeling of being involved in a work or a feeling that the work is something fun. Team members have an understanding of the purpose of the team establishment. Team members have the feeling that the team established is a fun place to work. Team is not only a group that works together. A team relies on the synergy of its members who collectively produce an end result that is not just a simple merging of the parts of individual work. Therefore, the team has a commitment to achieve a specific objective which depends on the collective efforts of the team members to achieve success. It is possible only if the team members can learn to trust each other. Collaborating is the indicator of commitment among team members. Collaboration in teamwork health care will give a commitment of a rational treatment for patients. Harman (2009) concludes that the higher the level of organizational commitment, the higher the employees’ willingness to complete tasks not included in their job description. Thus, it can be illustrated that if cooperation has been established, teamwork will be committed to each other in which the implementation takes place in visit. During the visit, an agreement on the provision of treatment to patients is reached. Efforts to improve commitment in the team need a similar view of the goals of the team establishment, mutual respect, and mutual respect for each other’s scholarship as partners instead of subordinates or superiors.

Participation can mean participating in determining the implementation of activities of teamwork established. Teamwork’s participation in activities will raise awareness on the duties and responsibilities assigned to each member. Participation makes the team members know very well what to do in accordance with the achievement of the goals of the teamwork establishment. Teamwork effectiveness is an important issue and without the participation of the members, the team may not achieve the desired goals. Increasing participation of the team members has a positive implication for the teamwork itself. Participation in the teamwork established is an engagement which includes sharing opinions, considerations, and suggestions in achieving teamwork’s goals. Participation will increase the sense of togetherness in the team, which will consequently increase the collaboration of team members in goal setting. Participation can reduce the
sense of distress and inequality in the teamwork. Participation leads to information exchange mechanism and enables a better understanding of the assignments to carry out.

Availability of information related to health services will improve planning for achieving goals of the teamwork established. Individual who has information related to the assignment will cause the individual to strive harder and to be far more excited in completing assignments than individual who does not have relevant information, such as information on the selection of medicine based on the patient’s condition, as well as information up to date regarding medicine and other things related to health care. Participation improves because teamwork can mutually benefit from collaboration performed. This is due to the discussions on giving input regarding alternative treatment for patients. Efforts to improve participation in a team require each team member to improve his skills or competence so as to produce a balanced sharing.

Communication skill is the key factor in the success of each individual as well as the teamwork established. One’s communication skill is required in any condition such as at the time of expressing ideas in a meeting, at the time of joint visit, and when building a teamwork and in all group activities. Considering the importance of communication within the team, the effectiveness of communication will determine the success of teamwork. Communication is necessary to avoid expectations which are conflicting or different from the purpose of communication. Important thing to be done in developing effective communication in teamwork is collecting feedbacks to see the success of information delivery to the information receivers. M.M Dunda Hospital is considered poor compared to Aloei Saboe Hospital which is considered good in terms of communication prior to the interventions. After the interventions, teamwork effectiveness of communication in M.M Dunda Hospital improves. This is because before the interventions, communication occurred only when there was something unclear such as physicians asked pharmacists whether the medicine prescribed were available in the pharmacy or not. After the intervention, the discussions during joint visit will develop into a more intensive communication such as physicians would always ask and discuss about the medicine to be given regarding the condition of the patient. Consideration in medicine selection is already something to talk about by the teamwork. According to Seiler in Muhammad (2005), communication is a system that consists of several components that are interconnected in which if one component is not working properly, it will affect the communication process. Communication effectiveness will greatly determine the success of the organization both in the short and long term.

5. Conclusion

Teamwork effectiveness can be achieved using three-party (physician-pharmacist-director) collaboration model. The development of three-party (physician-pharmacist-director) collaboration model can generate teamwork effectiveness in the hospital.

References


