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ORIGINAL ARTICLE

Healthcare Professionals' Experiences on Interdisciplinary Collaboration in a Medical Department of a Malaysian General Hospital

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ABSTRAK

Anggota profesional kesihatan (HCP) di semua fasiliti kesihatan termasuk hospital-hospital awam di Malaysia perlu bekerjasama untuk memenuhi pelbagai keperluan penjagaan kesihatan. Setakat ini, masih belum ada kajian terperinci berkaitan kolaborasi sebegini di Malaysia. Tujuan kajian ini adalah untuk meneroka kolaborasi antara disiplin di Jabatan Perubatan (wad dan klinik) di sebuah hospital negeri. Empat perbincangan kumpulan berfokus (FGD) telah diadakan. Seorang pakar perubatan, pegawai perubatan, penyelia/ketua jururawat, jururawat terlatih, pegawai farmasi klinikal kanan dan pegawai farmasi muda telah menghadiri setiap FGD. Persampelan bertujuan digunakan untuk merekrut peserta (pencalonan oleh ketua jabatan). FGD dilaksanakan dalam Bahasa Inggeris, tetapi maklum balas dalam Bahasa Melayu masih diterima dan diterjemahkan ke dalam Bahasa Inggeris. Semua audio FGD dirakam, ditranskrip dan dianalisis secara tematik. Dalam tema kejelasan peranan, kebanyakan peserta berpendapat bahawa doktor mengetuai pengurusan pesakit, sementara jururawat bertugas memantau dan membantu pergerakan pesakit serta pemberian ubat-ubatan. Namun, sebilangan peserta kurang maklum tentang peranan pegawai farmasi. Majoriti percaya bahawa kolaborasi yang berkesan wujud, tetapi tidak mencukupi. Kemahiran komunikasi yang lemah, kekangan berkomunikasi, kekurangan kakitangan dan masa adalah penghalang untuk kolaborasi berkesan. Perbincangan yang lebih kerap antara disiplin dapat memupuk kolaborasi. Meskipun doktor menyedari terdapatnya perkhidmatan klinik kepatuhan terapi ubat-ubatan (MTAC) oleh pegawai farmasi, perkhidmatan kaunseling human immunodeficiency virus (HIV) dan pendidikan diabetes oleh jururawat, sebilangan jururawat dan pegawai farmasi tidak mengambil maklum perkhidmatan ditawarkan masing-masing. Untuk mengelakkan pertindihan tugas dan pembaziran sumber manusia, promosi perkhidmatan oleh setiap disiplin perlu

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dipertingkatkan di kalangan HCP.

Kata kunci: anggota kesihatan, kumpulan berfokus, kerjasama antara sektor, penyelidikan kualitatif

ABSTRACT

Healthcare professionals (HCPs) in all healthcare facilities including public hospitals in Malaysia need to cooperate to meet the diverse healthcare demands. To date, there has yet detailed research on this collaboration in Malaysia. This study aimed to explore interdisciplinary collaboration in the Medical Department (wards and clinics) of a state hospital. Four focus group discussions (FGDs) were held. A medical specialist, medical officer, nurse manager/charge nurse, staff nurse, senior and junior clinical pharmacists were all present at each FGD. Purposive sampling was used to recruit participants (nomination by heads of department). FGDs were performed in English, but responses in Malay were accepted and translated into English. All FGDs were audio-recorded, transcribed, and analysed thematically. In the theme of role clarity, most participants opined that the doctors led in patient management, while the nurses were in charge of monitoring, ambulating and drug administration. However, some participants were unfamiliar with the role of pharmacists. The majority believed that effective collaboration did exist, but insufficient. Weak communication skills, lack of communication, personnel and time were obstacles to effective collaboration. Regular discussions between different disciplines can encourage interprofessional collaboration. Despite doctors acknowledging pharmacists' Medication Therapy Adherence Clinic (MTAC) services, and nurses' human immunodeficiency virus (HIV) counselling and diabetic education services, some nurses and pharmacists were unaware of each other's services. To avoid conflicting tasks and human resource wastage, each HCP's services should be actively promoted among other HCPs.

Keywords: focus groups, health personnel, intersectoral collaboration, qualitative research

INTRODUCTION

The number of patients with multiple and chronic medical conditions is increasing globally. These diseases cause functional and emotional impairment, hence increasing in healthcare demands. To cater for the complex demands, different health care professionals (HCPs) need to have good interdisciplinary collaboration (IDC) (Bodenheimer & Handley 2009). In Malaysian public hospital settings, doctors, pharmacists and nurses are the three main HCPs who collaborate to provide optimal patient care. These

three HCPs routinely participate in ward rounds in medical wards. For outpatient clinics, pharmacists complement doctors' routine follow-up clinics by providing Medication Therapy Adherence Clinic (MTAC) services on chronic diseases such as diabetes and retroviral disease (RVD). Meanwhile, nurses serve as diabetic educators and HIV counsellors.

Improved IDC has been identified as the main strategy for reforming the healthcare system in any countries (McCulloch 2016), including Malaysia. Collaboration in healthcare has been shown to enhance patient outcomes, including reducing preventable adverse drug effects, lowering morbidity and mortality rates, as well as adjusting medication dosages, especially medical-based department in a hospital (Martinez et al. 2013). Besides improving patient care, healthcare providers have also been shown to benefit from teamwork, which includes reduced overlapping task, reduced burnout, and increased job satisfaction (Zhang et al. 2016).

Internationally, previous studies explored multidisciplinary teams in anaesthesiology, emergency and intensive care settings (Muller-Juge et al. 2013), other than in the medical wards and clinics. There is no published study regarding IDC among these HCPs in Malaysia. Hence, a study is much needed to give insight into Malaysian hospitals. The study aimed to explore the experience of IDC among HCPs in terms of perceptions, expectations and any challenges faced regarding IDC. It also aimed to assess opinions regarding pharmacist-led MTAC services and nurse-led services.

MATERIALS AND METHODS

Focus group discussions (FGDs) were conducted in May 2018 to explore interactions of participants' knowledge and experience of IDC. The study was conducted and reported following consolidated criteria for reporting qualitative studies (COREQ) guideline (Tong et al. 2007). The participants include doctors, pharmacists and nurses attached in the internal medicine wards and clinics of the state hospital in Perlis, Malaysia. Potential participants were recruited by purposive sampling through suggestion by heads of department who might be interested in the study. Potential candidates who were suggested were emailed participant information sheet (PIS) on the study and were contacted by telephone to brief on the study and implied consent was obtained. Only those who have given the implied consent were asked for a list of available dates and time to be arranged for a FGD. A total of six healthcare providers participated in each session which included one medical specialist, one medical officer, one senior clinical pharmacist (Malaysian public service scheme of UF48 and above: more than seven years of services), one junior clinical pharmacist, one nurse manager/charge nurse and one nurse.

The moderator for the FGDs was the principal investigator, a research officer working in the clinical research centre of the hospital. The note-taker was the co-investigator. Conducted in a quiet meeting room, English

language was used in FGDs although Malay language responses were also accepted. Participants were briefed on audio recording and informed consent were obtained before the FGDs.

The audio recordings were transcribed. Transcripts were returned to participants for comment and/or correction. Responses in the Malay language were back-translated into English by two different researchers. Transcripts were subjected to thematic analysis by all researchers independently. Each transcript was repeatedly compared across and within the participants. The coding process was then practised to identify emerging themes. Discussions were held until a consensus on common themes was reached and no new emerging themes arose. Findings were sent to participants to provide feedback. This study was approved by the Medical Research Ethics Committee (MREC) Malaysia (NMRR-17-628-34168).

RESULTS

Data saturation was reached at the fourth FGD. Each session lasted for approximately an hour. A total of eight doctors (D1-D8), eight pharmacists (P1-P8) and eight nurses (N1-N8) agreed to participate (Table 1).

Theme 1: Role Clarity

Most of the participants agreed that the doctors are the team leaders for patient management. Doctor ensures all HCPs get together for all orders to be carried out.

"The role of a doctor in providing patient care, usually as a team leader in a team of healthcare." (D4)

"Agree with nurse A, the doctor managed." (N2)

"Doctor will be doing all orders." (D8)

Most agreed that nurses are responsible for nursing (medical and physical) care.

"Help them (patients) to ambulate and go to the toilet." (N2)

"The nurses will be responsible to carry out orders and give medications." (D4)

Most participants stated that pharmacists are involved in pharmaceutical care. However, non-pharmacist participants did not elaborate further on the role of pharmacists.

"Their responsibility is to check out our medications doses." (D8)

"*Cooperate with other healthcare (professionals) like pharmacists regarding medication*." (D2)

There is also a request for pharmacists to serve medication.

"Why not pharmacists serve the medication? This will reduce medication error." (N7)

"One of it (suggested policy change) is medication served by the pharmacist." (N7)

Theme 2: Adequacy of IDC

Most participants claimed the effective IDC does exist but still had room for improvement.

"They (collaborations) exist but not as effective as it should be." (D1)

"We have collaborations, but they (collaborations) still need improvement." (D3)

One participant stated that she

Table 1: Demographic data and length of services (year/month) of the participants in the FGDs

Participant	Age	Gender	Qualification	Length of service in the MOH	Length of service in the medical department
D1	31	M	Master	5y 8m	3y 8m
D2	32	F	Degree	6y	2y
D3	34	M	Master	9y 10m	1y
D4	31	F	Master	5y	3y
D5	33	M	Master	8y	6y
D6	32	F	Degree	6y 11m	11m
D7	31	M	Master	7y	5y
D8	30	M	Degree	5y 6m	3y
P1	40	M	Master	12y	11y
P2	32	F	Degree	7y 1m	3y
P3	30	F	Degree	6y 8m	1y 5m
P4	26	M	Degree	2y	1y
P5	31	F	Degree	7y 7m	4y 9m
P6	27	M	Degree	4y 5m	4m
P7	31	F	Degree	7y	7y
P8	30	F	Degree	3y 6m	2y
N1	54	F	Degree	31y	30y
N2	32	F	Diploma	7y 3m	7y 3m
N3	46	F	Degree	20y 3m	10y
N4	30	F	Diploma	5y 5m	5y 4m
N5	48	F	Diploma	25y	2y
N6	40	F	Diploma	15y	15y
N7	37	F	Degree	14y 1m	1y 3m
N8	31	M	Diploma	8y	8y

tried her best to practise effective collaboration but was not able to fully practise it.

"We hope to give a hundred percent commitment to practise effective collaboration but sometimes we can't. Because sometimes, we have MTAC, other stuff to do as well." (P3)

Theme 3: Barriers in Providing Effective IDC

The main barrier that most mentioned was a lack of communication.

"It just one-way communication from doctor to nurse; nurse to doctor only happen when there is problem occur." (D1)

"Make sure there are two-way communications; at least we get to know the patient progression while we finish the ward round." (D2)

Some participants mentioned that poor communication skills may also

affect adversely on IDC.
"What happen is it just a one-way communication from doctor to nurse. nurse to doctor only happens when there is problem occur." (D1)
"Certain people giving an order in rush manner, then the other party will take it personally." (P2)

There is a lack of understanding of the rationale of policies of other departments, especially on pharmacy.
"Nurses also having problems: if they can't get the countersign, drugs not get." (D5)
"If you want to start the antibiotic, there is a form you know, then if there is a second episode, have to look for a doctor; it is too much burden for medication (continuation)." (N5)

Lack of staff and time is another barrier to effective IDC.
"*Sometimes the nurse not around (in ward rounds) because they must entertain the patient, (or) they need to settle the patient. Maybe lack of manpower is the main factor.*" (D3)
"Sometimes because of time even though they (pharmacists and nurses) follow rounds but there is no real communication happened because no one has plenty of time to discuss further detail about each patient." (D1)

Theme 4: Factors Facilitating Effective IDC

The HCPs thought that IDC might be facilitated if they would meet regularly and have a discussion on policy and procedure.
"Maybe can have a discussion among doctor, nurses and pharmacist so that each other know the role better." (P3)
"Give feedback to the respective nurses or sister-in-charge, pharmacist's supervisor-in-charge, so that they can know about it." (D5)
"Maybe held conference or gathering once a month to address any problem encounter in wards and find solution to solve the problem." (D8)

Other suggestion was all HCPs must improve communication skills to promote an open and conducive working culture.
"I have to add communication skills among all the staff as the factor to facilitate collaboration." (D2)
"A good and healthy working environment which all team members are approachable and friendly, and ready to accept others' opinion." (D7)

Theme 5: Awareness of Ambulatory Services by Pharmacists and Nurses

The doctors and nurses agreed that the MTAC services are beneficial but did not elaborate in detail.
"They have lessened our job by at least fifty percent by how we should adjust the medications." (D4)
"The patients will understand more as pharmacists will be together with the patients so the patients will have a better understanding of the type of medication it takes, how to take it." (N6)

Similarly, nursing ambulatory services were not elaborated in detail.
"I think the HIV counsellor we have in our MOPD (medical outpatient department) been doing a great job. I think patients can tell out their problems to the nurses and the nurses deliver the information to us." (D5)

"I know about diabetic educator, but I never present to listen to what they counsel." (P8)

Although the doctors acknowledged the MTAC services by pharmacists, HIV counselling and diabetic educating services by nurses, some of the nurses and pharmacists were unaware or unsure of each other's services.

"I can't differentiate the role between DMTAC (diabetes MTAC) and the diabetic educator. Is it overlap?" (P1)

"This is the first time I heard about MTAC services." (N3)

There was also a suggestion to integrate diabetic MTAC by pharmacists and diabetic educator services by nurses.

"I think diabetic educator and diabetic MTAC should collaborate to expand the capacity to reach more patients. Because sometimes the patient that comes to the MTAC also taken by a diabetic educator. So, if only one patient sees both, we missed one more patient who could be seen by a diabetic educator or an MTAC pharmacist. So, we should define which part that diabetic educator should focus on more and what pharmacist MTAC should focus on." (P5)

DISCUSSION

Role definition and relationship between the three HCPs should be clearly defined and understood. Doctors are uniquely placed as leaders while IDC can improve the quality of patient care, enhance patient safety and reduce workload issues (Mahdizadeh et al. 2015).

When roles are unclear, misunderstood or unappreciated, challenges arise as they need to know what can be expected from each other (Joint Commission International 2005), and to prevent any HCP from feeling as the sole positive contributor or non-contributor to patient care. Without role clarity, task repetition and resource wastage may occur (Mahdizadeh et al. 2015). Tuckman's theory (Tuckman 1965) described the four stages of team development i.e. forming-storming-norming-performing. The initial phase is forming where each of the team members is uncertain about their roles, subsequently becoming more competitive and defensive in the storming phase. We would like to achieve the norming stages of team development, where roles and working system are agreed upon. The final stage after norming is performing, where the teams work effectively together to achieve their goals. Another model that supports role clarity is the collaborative working relationship (CWR) model (McDonough & Doucette 2001); however, it only examines pharmacist–physician collaboration. CWR proposes five progressive stages: professional awareness, professional recognition, exploration and trial, professional relationship expansion, and commitment.

There is no published study that describes awareness and adequacy between doctors, pharmacists and nurses. Clinical functions of pharmacists were perceived in low frequency in a study using a self-administered questionnaire among physicians and nurses in Cuban hospitals (Varela et al. 2011).

In this study, lack of communication and communication skills are key barriers to effective IDC. Lack of communication may cause several consequences such as the plans ordered by doctors were not being carried out, thus affecting the patients' condition. Poor communication skills was cited as the leading root cause of several adverse events (Joint Commission International 2005).

Lack of staff and time also hinders IDC. Most of the HCPs met only during ward rounds, where interactions are restricted to problem-solving (Coiera 2006). Through an ethnographic and interview-based study, time constraints resulting from tight schedules hamper meaningful communication. The most common form of communication between team members is informal, unstructured and unplanned (Coiera 2006), which could lead to misunderstanding and hence ineffective IDC.

This study found that HCPs must improve communication skills and practise two-way communications to facilitate IDC. HCPs' ability to effectively collaborate is essential to deliver high-quality healthcare services (Mosadeghrad 2014). Open and healthy environment with supportive leaders make HCPs approachable and ready to accept others' opinion (Fewster-Thuente & Velsor-Friedrich, 2008).

There is no published study on the perception of other HCPs on the pharmacist-led MTAC and nursing ambulatory services in Malaysia yet. In a semi-structured interview study on MTAC in a public hospital in the northern region of Malaysia, patients expressed positively that pharmacists have more time in monitoring aside from being more specialised in medication use (Sulaiman et al. 2012). Integration of pharmacy and nursing services is proposed to prevent tasks repetition and patients receiving conflicting advice.

One choice to integrate services and further improve IDC is to use a prescriptive, top-down guideline approach to enforce such transition. By providing central management of efforts and clear accountabilities to deliver the desired improvement, this approach avoids duplication of efforts. However, inadequate participation and lack of local ownership on the frontlines are major barriers (Allcock et al. 2015). The alternative is to promote using a bottom-up approach by being less directive and more enabling in their settings. However, reforms such as promoting IDC can be gradual, resulting in unfavourable variations across the system (Appleby et al. 2011). Large-scale change is increasingly recognised as requiring a combination of top-down approach and bottom-up participation (Ogunlayi & Britton 2017). Currently, in the Malaysian Ministry of Health, service guidelines are developed by thw respective professional divisions centrally. To improve this IDC, service guidelines could be developed as a joint committee centrally. IDC in the hospital levels could be improved when implementing any services collectively with clear role clarity.

There are several limitations to this study. Participants might feel insecure

in expressing their opinion publicly. Thus, one-to-one interviews should be conducted (after FGD) to further explore their opinions. The study findings could be used to develop a questionnaire to quantitatively assess the perception of IDC and to overcome the barriers. It is also suggested to recruit participants from various departments.

CONCLUSION

Role clarity is the most important aspect for an effective IDC to be recognised by oneself and others, especially the role of pharmacists and nurses. Most participants claimed the effective collaboration did exist but was inadequate. Communication problems were the most agreed barriers found in this study. It is recommended that our healthcare facility hold periodic discussions among HCPs to keep them updated on the latest policies. More promotion regarding nursing and pharmacy services among HCP themselves is needed for better patient care.

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