



## "PHARMACISTS AND NURSING ATTITUDES TOWARD NURSING, PHARMACISTS, COLLABORATION AT GOVERNMENT HOSPITALS AT AL-RIYADH"

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### ABSTRACT

The government hospitals in Al Riyadh provide comprehensive health care services to patients, including registration, admission and follow-up procedures for patients' health conditions, and providing appropriate treatment and medications for each disease condition, which often requires nurses and pharmacists to take immediate action. This study aimed to explore the pharmacists and nursing attitudes toward nursing, pharmacists, collaboration at government hospitals in Al Riyadh, the study was applied to (192) nurses and pharmacists in government hospitals at Al Riyadh, The results of the study showed that the average scores of nursing and pharmacists on the items of the study instrument were close, and there was no statistically significant difference in the level of their attitudes toward cooperation among themselves. The results showed that nursing and pharmacists had positive attitudes toward clinical discussions between nurses and pharmacists, which confirm that nursing is learned about the medications that the pharmacist provides to patients, but they emphasized the main role of the doctor in determining the appropriate medications for patients according to their medical condition. It can be said that there are positive trends among nurses and pharmacists in government hospitals in Riyadh towards working as a team among themselves.

**Keywords:** Attitudes, Nursing, Pharmacists, Nursing, Government Hospitals.

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## 1. Introduction and Background:

Pharmacists and nursing services are widely provided in government hospitals in Saudi Arabia, and have been developed to provide high quality health care to patients. However, the treating physician may hesitate to fully accept the clinical role of pharmacists or nurses, for several reasons such as lack of awareness of the role of the pharmacist and clinical nurse, which may lead to medication errors. However, the nurse or pharmacist often consults the treating physician before dispensing the medication to the patient. Pharmacists are responsible for guiding pharmacotherapy and ensuring medication safety along with other healthcare providers (Nada Alsuhebany, et al, 2019).

Pharmacists and Nursing in the hospitals play an important role in developing a collaborative relationship among them as a nursing the most communicating with the patients. so nursing can give valuable information to pharmacist regarding patient condition which would aid a pharmacist in optimizing therapeutic plan as per patient needs. For the provision of patient-centered, high-quality and responsive healthcare, inter professional team-based practice has been greatly encouraged, promoted and implemented (Abu-Gharbieh, et al, 2018). Inter professional team-based practice is a coordinated model involving different healthcare professionals working in a collaborative partnership with their own expertise, integrating their services with other professionals and sharing responsibility for the patients, in order to provide comprehensive and qualified healthcare according to the patient's individual needs (Abbasi, 2019).

The evolving role of pharmacists in providing pharmacists, nursing, health care, as par the healthcare team, challenges them to acquire up-to-date knowledge of medicines to make the best clinical decisions. The volume of medical literature is on the increase, and it is important to utilize these resources to optimize patients' therapeutic out comes. Evidence-based medicine (EBM) is defined as the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients (Davis, et al, 2016). It is considered an approach to integrate recent research evidence into clinicians' practice, taking into account their clinical experience, patient values and preferences (Khan, et al, 2016). It aims to improve the decision-making process, which optimizes the healthcare outcomes for patients.

Pharmacy is one of the healthcare professions that play a pivotal role in the healthcare system. Pharmacists are trained academically to become

experts in the proper use and indication of medications. As such, their role can evolve to include assessing, educating and counselling patients to maintain the rational use of medicine and to provide pharmaceutical care to patients. Thus, it is the ethical duty of a pharmacist to provide the best evidence-based information in the provision of pharmaceuticals to patients (Reeves, 2017).

Teamwork by the healthcare professionals has been demonstrated to provide an extensive and improved care to the patients, enhance patient safety, achieve better therapeutic outcomes, and reduce the workload of healthcare professionals. Recently, a great interest has been devoted to promoting collaborative professional interactions among nursing and pharmacists [6, 7]. Previously, the study focus was mainly on the contract relationship between nursing and pharmacists, or between physicians and nurses (Krueger, et al, 2017), which could be due to the traditional leading role of physicians within the inter professional team. However, as the professional statuses of nurses and pharmacists in inter professional team-based practice have been continually enhanced, the collaborative working relationship of nurses with pharmacists has increasingly captured considerable attention (Santschi, et al, 2017).

The clinical benefits associated with nurse-pharmacist collaboration have been evidenced by many studies, the nurse practitioner and pharmacist consultations in family practice resulted in large improvements in the appropriate use of medications (Setter, et al, 2009). In an Australian study, collaboration between community pharmacy staff and a nurse practitioner was effective in managing mental health patients with metabolic risks. In this novel service paradigm, the nurse practitioner took responsibility for the majority of patient documentation, management and referrals. No time restrictions on the nurse practitioner were imposed to complete consultations, which facilitated high-quality patient-centered care. While the pharmacist's professional functions in medication management complemented the role of nurse practitioner.

The communication of nursing and pharmacists on the basis of collaboration has been demonstrated to be efficient and cost-effective in allowing many medication discrepancies to be reconciled before causing harm, thus can prevent potential adverse drug events and improve medication safety, in addition, a collaborative, safety-focused nurse-pharmacist intervention to

collect a medication history had been found to produce a measurable reduction of medication errors and an improvement in the accuracy of admission medication list (Bilal, et al, 2016). A combined nurse/pharmacist-led clinic in primary care can improve the management of chronic pain, reduce the use of secondary care resources and achieve high rates of satisfaction (Ali Jasem, et al, 2016).

In a team-based inter professional intervention helpful for effective blood pressure control of hypertensive outpatients, nurses by providing lifestyle counseling and health education) and pharmacists (by supporting patients in medication intake) worked in collaboration with physicians. Based on the regular visits for patients, nurses and pharmacists provided recommendations on medication adherence, lifestyle, and changes in therapy to physicians, who further adjusted antihypertensive therapy. Besides, Al Harthi et al (2020) reported that the collaborative integration of nurses and pharmacists into antimicrobial stewardship programs was effective to improve patient outcomes and reduce antimicrobial resistance. The co-operative partnerships between pharmacists and nurses ensure that the nurses are aware of the medication plan and could facilitate the early administration of time-critical medications.

Accordingly, inter professional education (IPE) has been designed in nursing and pharmacy colleges/schools to improve the attitude and perception of students toward nurse-pharmacist collaboration, in order to prepare these future nurses and pharmacists for functioning in inter professional health care teams in their future careers (Aminaho, et al, 2019). It is well-accepted that IPE should be incorporated into health professional training programs to promote and sustain the principles of teamwork, which has been strongly encouraged by the World Health Organization, (Albekairy, et al, 2015) conducted the semi-structured interviews and focus groups with undergraduate pharmacy and nursing students, found the respondent students were tended to closely follow the traditional scripts i.e. pharmacists as knowledgeable dispensers of drugs; nurses as proximate, caring aids to physicians.

Such stereotypes on the each other's roles would adversely impact the future teamwork, between nursing and pharmacist thus reinforce the necessity and importance of IPE. It has been found that IPE interventions such as shared learning between nursing and pharmacy students could result in enhancing their professional

relationship, as the future pharmacy and nursing professionals, pharmacy and nursing students should have adequate awareness and receptive attitudes concerning nurse-pharmacist collaboration (Albekairy, et al, 2015). According to the theory of planned behavior (Alomi, et al, 2016). for students, positive attitudes are prerequisite to the acceptance and subsequent behavioral change, thus could increase the effectiveness of their future inter professional team-based clinical practice. However, no known study has investigated the students' attitudes toward nurse-pharmacist collaboration. The present study was carried out among pharmacy and nursing undergraduates at a Chinese university to assess their attitudes toward nurse-pharmacist collaboration. The results can provide a reference for educators to implement the related curricular reforms and develop educational guidelines (Azhar, et al, 2012).

## 2. Methods:

To achieve the objectives of the study, the researchers prepared a questionnaire to measure the attitudes of pharmacists and nurses towards cooperation in work between them, and it consisted of (20) items. The researchers conducted a comprehensive review of the literatures associated with nursing, pharmacists collaboration which were retrieved using keywords such as inter professional, nursing pharmacists, collaboration, and teamwork, the questioner consisted 16 items from the Scale of Attitudes toward nursing, Pharmacists Collaboration.

## 3. Data Analysis:

The instruments were coded, entered into Spss, and analyzed according to the previous studies (Al-arifi, et al, 2015). The internal consistency reliability of the instrument was evaluated by calculating the Cronbach's alpha coefficient, and the corrected item-total score correlations.

## 4. Results

The results of the study showed that the average scores of nursing and pharmacists on the items of the study instrument were close, and there was no statistically significant difference in the level of their attitudes toward cooperation among themselves. The results showed that nursing and pharmacists had positive attitudes toward clinical discussions between nurses and pharmacists, which confirm that nursing is learned about the medications that the pharmacist provides to patients, but they emphasized the main role of the

doctor in determining the appropriate medications for patients according to their medical condition. It can be said that there are positive trends among nurses and pharmacists in government hospitals in Riyadh towards working as a team among themselves. The majority of the pharmacists and nursing showed a positive attitude and willingness to use EBM in their clinical practice. This was also consistent with the perspectives of the chief pharmacists, nursing who reported thinking that hospital pharmacists, nursing particularly the new graduates, have the greatest willingness and energy to improve pharmacy practice by adopting EBM.

### 5. Discussion:

According to the researchers' knowledge, this is the first study that it evaluates the attitudes of nurses and pharmacists in government hospitals in Riyadh and pharmacy towards cooperation among themselves, as their attitudes towards cooperation between the nurse and the pharmacist were positive and in all areas of work, and this result is good to build upon in improving the health services provided by both the nurse and the pharmacist, and enhancing joint work between them and with physicians work as one team. This study may be one of the few studies that addressed trends towards cooperation between nurses and pharmacists in government hospitals in the city of Riyadh. The study showed that there are somewhat positive trends in cooperation between nurses and pharmacists, but there is still room to improve areas of cooperation in work between them in terms of providing health care to patients jointly and in cooperation with the doctors supervising the patients. However, one of the important issues that some hospitals face is effective cooperation between nurses, pharmacists and doctors, which reduces medication errors.

### References:

1. Abu-Gharbieh, E., Fahmy, S., Rasool, B. A., Abdulkarem, A., & Basheti, I. (2010). Attitudes and perceptions of healthcare providers and medical students towards clinical pharmacy services in United Arab Emirates. *Tropical Journal of Pharmaceutical Research*, 2018, 9(5), 421–430. doi:10.4314/tjpr.v9i5.61050
2. Albekairy, A. M., Khalidi, N., Alkatheri, A. M., Althiab, K., Alharbi, S., Aldekhail, S., ... Alknawy, B. (2015). Strategic initiatives to maintain pharmaceutical care and clinical pharmacists sufficiency in Saudi Arabia. *SAGE Open Medicine*, 3, 2050312115594816. doi:10.1177/2050312115594816
3. Al-arifi, M. N., Alghamdi, B., Idris, A. E., & Wajid, S. (2015). Attitudes and perceptions of healthcare providers towards clinical pharmacy services at a tertiary care hospital in Riyadh, Saudi Arabia. *Tropical Journal of Pharmaceutical Research* 14(5), 913–918.
4. Alomi, Y. A., & Pharm, C. A new guidelines on hospital pharmacy manpower in Saudi Arabia. *Journal of Pharmacy Practice and Community Medicine*, 2016, 2(2), 30–31.
5. Azhar S, Hassali MA, Mohamed Ibrahim MI, Salem F, Sow YL. A survey evaluating nurses' perception and expectations towards the role of pharmacist in Pakistan's healthcare system. *J Adv Nurs*. 2012;68(1):199–205.
6. Al Harthi, M., Al Thobaity, A., Al Ahmari, W., & Almalki, M. Challenges for nurses in disaster management: a scoping review. *Risk management and healthcare policy*, 2020, 13, 2627.
7. Aminaho and Maynard, E. Knowledge, Attitude, and Practice of Patient Teaching among Nurses in Primary Health Care Centers in Degema Local Government Area of Rivers State. *Research & Review: Journal of Geriatric Nursing and Health Sciences*, 2019, 1, 24-29.
8. Ali Jasem Buabbas, Fatemah Mohammad Alsaleh. The readiness of hospital pharmacists in Kuwait to practise evidence-based medicine. Buabbas et al. *BMC Medical Informatics and Decision Making*, 2018,18:4. DOI 10.1186/s12911-018-0585
9. Bilal, A. I., Tilahun, Z., Beedemariam, G., Ayalneh, B., Hailemeskel, B., & Engidawork, E. Attitude and satisfaction of health care providers towards clinical pharmacy services in Ethiopia: A post-deployment survey. *Journal of Pharmaceutical Policy and Practice*, 2016, 9(1), 7. doi:10.1186/s40545-016-0058-
10. Davis S, Berkson S, Gaines ME, Prajapati P, Schwab W, Pandhi N, Edgman-Levitan S. Implementation science workshop: engaging patients in team-based practice redesign critical reflections on program design. *J Gen Intern Med*. 2016, 31(6):688–95.
11. Khan AN, Khan MU, Shoaib MH, Yousuf RI, Mir SA. Practice nurses and pharmacists: a perspective on the expectation and experience

- of nurses for future collaboration. *Oman Med J.* 2014, 29,(4):271–5.
12. Reeves S, Pelone F, Harrison R, Goldman J, Zwarenstein M. Inter professional collaboration to improve professional practice and healthcare outcomes. *Cochrane Database Syst Rev.* 2017, 6:CD000072
13. Krueger L, Ernstmeier K, Kirking E. Impact of Inter professional simulation on nursing Students' attitudes toward teamwork and collaboration. *J Nurs Educ.* 2017, 56(6):321–327.
14. Nada Alsuhebany, Lama Alfehaid, Attitude and Perception of Physicians and Nurses Toward the Role of Clinical Pharmacists in Riyadh, *SAGE Open Nursing*, 2019, 5(8), 2-7.
15. Santschi V, Wuerzner G, Chiolero A, Burnand B, Schaller P, Cloutier L, Paradis G, Burnier M. Team-based care for improving hypertension management among outpatients (TBC-HTA): study protocol for a pragmatic randomized controlled trial. *BMC Cardiovasc Disor.* 2017;17(1):39.
16. Setter, M, Corbett CF, Neumiller JJ, Gates BJ, Sclar DA, Sonnett TE. Effectiveness of a pharmacist-nurse intervention on resolving medication discrepancies for patients transitioning from hospital to home health care. *Am J Health System Pharm.* 2009;66(22):2027–31.