



Physicians' Opinion about the Role of Pharmacist in the Health Care System of Pakistan

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Research Article

Please cite this paper as: Najia Rahim^{1*}, Shagufta Usmani². Physicians' Opinion about the Role of Pharmacist in the Health Care System of Pakistan. IJPTP, 2012,3(2),257-260.

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Abstract

Background: In under developed countries like Pakistan, professional relationships between the physicians and pharmacists need to be strong for the interest of profession and patient care. The present study is aimed at analyzing the physicians' opinion about the role of pharmacists in the health care system of Pakistan.

Method: A survey was conducted from July'2009 to June'2010 in different hospitals and clinics of Karachi including public and private sector. A 12-item questionnaire was supplied to the physicians. Descriptive statistics on the questionnaire items including means, standard deviation were determined. The influence of age, gender and experience of the respondents on their opinion about pharmacist's expanded role was determined by One way ANOVA.

Results: Most of the respondents were in favor of the extended role of pharmacist in the health care system. There is no significant influence of age, gender and experience on the positive opinion of physicians about pharmacist.

Conclusion: In the interest of the patients, the Government and professional bodies like Pakistan Pharmacy Council should work together in building the involvement and mutual respect for each professional to strengthen the objectives and functioning of the health care team. A nationwide survey including all health care centers would provide further evidence.

Keywords: Physicians, pharmacist, patient care, health care system, Pakistan.

Introduction

Health care team should constitute pharmacists as the drug experts. Now, pharmacists are to be considered as drug therapy managers instead of compounder and dispenser. The health of patient is improved by the active contribution of pharmacists to ensure the selection, procurement, storage, distribution, dispensing and administration of quality medicines. The drug oriented pharmacy practice has been shifted to patient oriented pharmacy. The responsibilities of pharmacists have been extended to patient counseling, providing drug information and therapeutic drug monitoring, etc. Today, their contribution to patient care is entering in era by improving medication safety as a part of clinical decision-making of physician's panel. Pharmacists have the expertise to advise both on the choice of medicines and their safe and effective use.

The health care team members need to do their responsibilities with coordination and collaboration. Pharmacists have to be actively participated in this team. The World medical associations including World health Organization (WHO) are trying to deliver cost-effective quality health care Worldwide¹. The involvement of pharmacist in health care team has been proved cost-effective rather than an extra cost added to the treatment cost, which is evident because of treatment success, avoidance of adverse drug events, optimization of complex regimens, designing of adherence programs, and recommendation for cost-effective therapies². Patient care can be improved by coordinated work between physicians and pharmacists³⁻⁵.

The role of the pharmacist has been expanded over past forty years taking different forms in various parts of the World including research and development, formulation, manufacturing, quality assurance, licensing, marketing, distribution, storage, supply, information management, dispensing, monitoring or education. In the developed countries, the role of pharmacist has been much focused to improve patient care. Under developed countries are still not following the WHO



guidelines for the placement of pharmacist in health care team. Some reasons are the physicians' feeling of insecurity, unawareness, weak communication between physician and pharmacist.

In Pakistan, like other under developed countries of the region, pharmacists have not been involved in the health care team. After the introduction of clinical pharmacy oriented Pharm.D programs, pharmacists can play a vital role in patient education, drug therapy monitoring, and reporting adverse drug reactions. It is important to analyze the physicians' opinion towards the pharmacist's roles and their expectations from the pharmacists. The present study is aimed at analyzing the physicians' opinion about the role of pharmacists in the health care system of Pakistan.

Methodology

Study Population and Survey Administration

The population of this study comprised of physicians working in different hospitals and clinics of Karachi including public and private sector having the professional experience of at least five years. Physicians were selected randomly as the study population for the present study. Participation in the study was voluntary and the identity of each respondent was anonymous. A survey was conducted from July'2009 to June'2010. The questionnaire was distributed among physicians and asked to respond to each of the 12-items questionnaire by using a five-point Likert scale ranging from 1 = "strongly disagree" to 5 = "strongly agree." Any score above 3.5 is considered as positive opinion, and below 3.5 is considered as negative opinion. As the questionnaire previously used in another research was adopted and modified⁶, Cronbach's alpha was calculated to measure internal reliability among items. Factor analysis was also conducted.

Statistical Analysis

The retrieved questionnaires were entered in Microsoft Excel(c) and then downloaded into Statistical Package for Social Sciences (SPSS 19.0, Chicago, IL) for analysis. Means and standard deviations for each of the 12 items of the survey were determined. The influence of age, gender and experience of the respondents on their opinion about pharmacists' expanded role was determined by One way ANOVA. A significance level of 0.05 was used.

Results and Discussion

The role of pharmacist has been established in developed countries. In Pakistan and other under developed countries, pharmaceutical care was not offered by pharmacist in most of the hospitals and clinics. The extended role of pharmacist in patient centered health care is only possible by developing communication and collaboration between physicians and pharmacists. The present study was designed to determine the physicians' opinion about the extended role of pharmacist in health care team.

A total of 116 surveys were retrieved out of 150 with the response rate of 77.33%. The characteristics of respondents are mentioned in Table 1. The questionnaire previously used in another research was adopted and modified in the context of Pakistan⁶.

Table 1: Characteristics of respondents (n=116)

Sr #	Characteristic	Frequency (%)
1	Age	
	25-35 yrs	54(46.6)
	36-45 yrs	24(21.6)
	Above 45 yrs	37(31.9)
2	Gender	
	Male	55(47.4)
	Female	61(52.6)
3	Experience	
	< 10 yrs	52(44.8)
	11-20 yrs	31(26.7)
	Above 20 yrs	33(28.4)

Out of 12-questions, three questions were asked to analyze the general point of view of physicians about the health care system in Pakistan, eight questions were asked to judge the physicians' opinion about the role of pharmacist in health care team and one question was to find out the misconception of physicians about the professional responsibilities of pharmacist. The physicians' responses to the items of questionnaire are summarized in Table 2. The internal reliability score for eight questions in reduced questionnaire was 0.701. In the reduced questionnaire, all eight items had factor loading of <0.4. The influence of age, gender and experience of respondents on their attitude was compared using one way ANOVA. There is no significant influence was observed.

86.2% of physicians was in favor of the need of pharmacist to meet present health care demand (mean score=4.2). 98.28% of physicians thought that only qualified pharmacists should run pharmacies and medical stores (4.68). As in most of the public sector hospitals, the concept of clinical pharmacy is not yet implemented, 93.1 % of physicians was in favor of the question that there is an urgent need of pharmacist in public/private sector hospitals. A researcher documented that 41-91% of all antibiotic prescriptions in teaching hospitals are considered to be incorrect including medication errors, unnecessary treatments, incorrect duration, and wrong drug selection⁷. Moreover, in hospitals, prescribing and infection control policy is successfully influenced by clinical pharmacists⁸.



Table-2: Physicians response to the questionnaire

Opinion	SA	A	U	D	SD	Mean ± SD
Health care system is developing day by day	16(13.6)	39(33.6)	20(17.2)	31(26.7)	10(8.6)	3.17±1.218
To meet present health care demand, pharmacist is must*	45(38.8)	55(47.4)	11(9.5)	4(3.4)	1(0.9)	4.2±0.815
Only qualified pharmacist should run pharmacies & medical stores*	81(69.8)	33(28.4)	2(1.7)	0(0)	0(0)	4.68±0.504
There is an urgent need of pharmacist in hospitals of public/private sector*	59(50.9)	49(42.2)	6(5.2)	1(0.9)	0(0)	4.44±0.638
There is a requirement of electronic medical record of the whole population to improve health status of our population	60(51.7)	43(37.1)	9(7.8)	2(1.7)	0(0)	4.41±0.714
Physician would prescribe generic name instead of brand name	39(33.6)	29(25.0)	26(22.4)	16(13.8)	5(4.3)	4.05±3.972
Medication error/ drug-drug interactions/ food-drug interactions can minimized if physician discuss prescription with pharmacist*	37(31.9)	57(49.1)	14(12.1)	8(6.9)	0(0)	4.06±0.847
Medication safety can be achieved if physician and pharmacist work together with collaboration & coordination*	39(33.6)	60(51.7)	1(0.9)	16(13.8)	0(0)	4.05±0.950
In Pakistan, pharmacist join pharmaceutical industry, only	8(6.9)	29(25.0)	14(12.1)	52(44.8)	12(10.3)	2.73±1.157
Pharmacist should do patient counseling this will reduce the workload of physicians*	17(14.7)	56(48.3)	12(10.3)	17(14.7)	13(11.2)	3.41±1.235
Pharmacist explain instruction for the use of medications to the patients*	30(25.9)	60(51.7)	8(6.9)	12(10.3)	6(5.2)	3.83±1.090
I would accept pharmacist as my professional partner*	29(25.0)	62(53.4)	13(11.2)	7(6.0)	5(4.3)	3.89±0.994

SA= 5 or strongly agree, A= 4 or agree, U= 3 or uncertain, D= 2 or disagree, SD= 1 or strongly disagree.

SD = Standard deviation, * - questions included in reduced questionnaire.

Costs of care of antibiotic therapy can be lowered by clinical pharmacist’s interventions⁹. Studies have reported that 32 percent of adverse events leading to hospital admission were attributed to medications¹⁰. In the present study, it was observed that physicians were agreed that medication safety can be achieved by coordination and collaboration between pharmacist and physicians (4.05). Adverse drug reactions and other medication errors can be reduced if pharmacists accompany physicians at the time of ward visits¹¹. Pharmacists can also educate or counsel patient for better treatment safety and success¹². Along with physicians, pharmacists are also supposed to be in medication review team for providing recommendations and corrective measures to solve out medication-based problems¹³.

Similar opinion was observed in the present study that pharmacist can do patient counseling (3.41) and can better explain instruction for medication use to patient and care givers (3.83). Ultimately this attempt will create a better collaborative working environment between physicians and pharmacists that will lead to minimize the workload of physicians. Another researcher also observed that the physicians expected pharmacists to identify medication errors and educate the patients about the safe and appropriate use of medications¹⁴. In response to a negatively worded question,

physicians (55.17%) were disagreed that pharmacist join pharmaceutical industry only. The concept of pharmacy profession has been changed. The right place of pharmacist is in hospital and community pharmacy especially after the introduction of clinically oriented Pharm.D program.

The professional relationship between the physicians and pharmacists will be strengthened only when practicing pharmacists contribute their professional knowledge for better patient care through patient education, monitoring the treatment outcomes with health screening services.⁶ Most of the physicians accept pharmacist as their professional partner (78.45%). In order to develop better collaborative working relationship between physicians and pharmacists, there should be role specification, trustworthiness, and relationship initiation, which may help pharmacists¹⁵. To come to the expectation, pharmacist will need to adapt their knowledge, skills and attitudes to the extended role, which integrates traditional pharmaceutical science with clinical aspects of patient care, clinical skills, management and communication skills, active collaboration with medical teams and solving of medicine-related problems.

Conclusion

World Health Organization (WHO) has clearly defined the roles and responsibilities of community



pharmacist. The responsibilities of pharmacists have been extended to patient counseling, providing drug information and therapeutic drug monitoring, etc. This can only be possible by creating a professional relationship among physicians and pharmacists. In the interest of the patients, the Government and professional bodies like Pakistan Pharmacy Council should work together in building the trust, confidence, involvement, and mutual respect for each professional to strengthen the objectives and functioning of the health care team. Government should also realize that there is an urgent need of pharmacists in hospitals especially in public sector hospitals to improve health status of our population.

Acknowledgement

The authors wish to acknowledge the following: Ms Munazza Khalid, Ms Mehwish Tanveer, Ms Daniya Anwer and Ms S. Nabiha Gohar for their help in conducting survey.

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AUTHORS' CONTRIBUTIONS

Authors contributed equally to all aspects of the study.

PEER REVIEW

Not commissioned; externally peer reviewed

CONFLICTS OF INTEREST

The authors declare that they have no competing interests