



Physicians' expectations of clinical pharmacists' roles in Jimma University Specialized Hospital, South west Ethiopia

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Research Article

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Abstract

Physicians' acceptance of clinical pharmacists' services depends on the physicians' perception of the pharmacist's competence. Clinical pharmacists should understand what physicians expect of them and how receptive physicians are to the contributions that pharmacists seek to make to patients' pharmaceutical care. The objective of this study was thus, to assess physicians' expectations of clinical pharmacists' roles in Jimma University Specialized Hospital, Ethiopia. A cross-sectional study design was conducted using self administered questionnaire. Questionnaires were distributed to 169 random sample of physicians. A set of statements of physicians' expectations of clinical pharmacists' roles for which respondents were asked to indicate their level of agreement using a 3 point level Likert scale as agree, neutral and disagree. Data were entered to SPSS version 16. The results for each item on the questionnaire were reported as percentage and 95% confidence interval. Statistical significance was accepted at P value of < 0.05. Of the total 169 physicians, 147 responded giving a response rate of 87%. The majority of physicians 132(89.8%) were in the age range of 20-30 years. Of all the 147 respondents, 127 (86.4%) were males. With regard to physician's year of practice, majority of the respondents 145(98.6%) had 1-10 years of experience. A total of 99(67.3%) respondents were medical interns. For all items measuring physicians' expectation, the mean response is between 1 and 2. The majority of physicians 129(87.8%) expected clinical pharmacists to be knowledgeable drug therapy experts with a mean \pm SD (1.17 \pm 0.49) and 125(85%) to educate patients about the safe and appropriate use of medications with a mean \pm SD (1.18 \pm 0.47). It was found that

majority of physicians were receptive to clinical pharmacists undertaking many of the activities suggested to them. We can recommend that implementation of clinical pharmacy practice is feasible in such resource constrained setups.

Keywords: *physicians, expectations, clinical pharmacists, services, Ethiopia*

Introduction

In recent years, the trend in pharmacy education and practice has been not only the provision of safe, high quality medicines but also the inclusion of the pharmacist as an active member of the patient centred health team [1]. The School of Pharmacy of Jimma University, Ethiopia, launched the country's first graduate programme in clinical pharmacy in 2009. The initiative was led by the School of Pharmacy in collaboration with partners from the Ethiopian Pharmaceutical Association (EPA), Management Sciences for Health (MSH), the University of Washington and Howard University. Before coming into practice, sensitization for the health care professionals regarding the unique feature of the program that would likely to add in the health care system was advocated standing on the experience of Westerns. It was developed with the aim of undergoing the current trend shift in undergraduate pharmacy curriculum from product focused service to patient centred approach. Introduction of pharmaceutical care into the new curriculum across the nation necessitates implementation of clinical pharmacy. However, proper implementation of clinical pharmacy service needs collaboration and communication between the patient, the pharmacist, and the physician. Physicians' acceptance of clinical pharmacists' services depends on the value physicians attached to the service and the physicians' perception of the pharmacist's competence [2]. Physicians are generally receptive to specific clinical service provided by clinical pharmacists, such as therapeutic drug monitoring, patient counselling, and drug therapy recommendations [2, 3]. It is important, therefore, that clinical pharmacists understand what physicians expect of them and how receptive



physicians are to the contributions that pharmacists seek to make to patients' pharmaceutical care [2]. Thus, the aim of this study was to assess physicians' expectations of clinical pharmacists' roles and services in Jimma University Specialized Hospital, Ethiopia.

Material and Method

The study was done at the internal medicine ward of Jimma University Specialized Hospital over a month period from March 1-30, 2011. A cross-sectional study design was conducted using self administered questionnaire. All physicians who provided informed consent were included in the study. A sample size of 169 was required by calculating proportion of physicians with good expectation of clinical pharmacists' roles 50.0% and 95% CI with a design effect of 5 and 10% allowable error for absenteeism and refusal to participate in the study. A questionnaire consisting of physicians' expectations of clinical pharmacists' roles was adapted from the questionnaire used and validated for content in California [4]. A set of statements of Jimma University physicians' expectations of clinical pharmacists' roles for which respondents were asked to indicate their level of agreement using a 3 point level Likert scale as agree, neutral and disagree. The questionnaire consisted of two sections: questions on personal information and physicians' expectation of pharmacists' roles. Questionnaires were distributed to random sample of physicians working in Jimma University Specialized Hospital in the study period. Data were checked for its completeness every day. It was edited, cleaned and the collected data were entered into a computer using SPSS version-16. The data were summarized and described using tables. The results for each item on the questionnaire were reported as percentage and 95% confidence interval. Statistical significance was accepted at P value of < 0.05.

Results

Of the total 169 physicians, 147 responded giving a response rate of 87%. The majority of physicians 132(89.8%) were in the age range of 20-30 years. Of all the 147 respondents, 127 (86.4%) were males. With regard to physician's year of practice, majority of the respondents 145(98.6%) had 1-10 years of experience. A total of 99(67.3%) respondents were medical interns (Table 1).

For all items measuring physicians' expectation, the mean response is between 1 and 2. The majority of physicians 129(87.8%) expected clinical pharmacists to be knowledgeable drug therapy experts with a mean ± SD (1.17±0.49) and 125(85%) to educate patients about the safe and appropriate use of medications with a mean ± SD (1.18±0.47). The descriptive statistics for physicians' expectations of clinical pharmacists' roles and duties are presented in Table 2. There were no associations between physician variables such as age, sex, year of practice, current position and their expectation of clinical pharmacists' roles.

Table 1: Personal information of physicians, JUSH, Ethiopia, March, 2011.

Variables	Frequency (%)
Age	
20-30	132(89.8)
31-40	14(9.5)
41-50	1(0.7)
Sex	
Male	127(86.4)
Female	20(13.6)
Year of Practice	
1-10†	145(98.6)
11-20	2(1.4)
Current position	
Specialist	6(4.1)
Resident	34(23.1)
GP*	8(5.4)
Intern	99(67.3)

†Interns at the time of data collection had practiced more than 6 months

*GP - General practitioner

Discussion

The current trend shift in the undergraduate pharmacy curricula necessities the practice of patient oriented pharmaceutical care. This area of practice is at the infant stage in Ethiopia. The Ethiopian health authorities have sought to implement clinical pharmacy services within the nation's health care system in order to improve patients' quality of life and drug use. Successful implementation of clinical pharmacy practice requires cooperation between physicians and pharmacists. Though direct patient care is still exclusively in the hands of physicians in Ethiopia, pharmacists' input in managing drug therapy ultimately depends on physicians' willingness to accept this role. Clinical pharmacy practice implementation is a multistage process and involves a collaboration work among different stakeholders [5], one of which is physicians. It is therefore important, what physicians' expect of clinical pharmacists' roles would be a prerequisite to aid the effective introduction of ward based clinical pharmacy services.

Physicians in this study were asked about their expectation of clinical pharmacists roles. These roles included simple established roles to more extended ones. All the mean response values were between 1 and 2, suggesting that physicians have strong expectations that clinical pharmacists will provide any of the services and duties described (Table 2). This is in line with studies reported in other countries: Sudan, Pakistan, Kuwait [2, 6, 7]. Though it was a decade years ago, physicians in California



were not sure of what they expect of pharmacists [3].

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setting and participant difference. Najia et al reported that physicians expected pharmacists to do patient counselling for the better use of medications to the patient [9]. And this hastens a better collaboration between physicians and pharmacists that can minimize the workload of physicians too.

Table 2: Physicians' expectations of clinical pharmacists' roles, JUSH, Ethiopia, March, 2011.

Physicians' expectations	Response			
	Agree n (%)	Neutral n (%)	Disagree n (%)	Mean± SD†
I expect clinical pharmacists to take personal responsibility for resolving any drug-related problems they discover involving patients	111(75.5)	21(14.3)	15(10.2)	1.35±0.66
I expect clinical pharmacists to be knowledgeable drug therapy experts	129(87.8)	11(7.5)	7(4.8)	1.17±0.49
I expect clinical pharmacists to assist me in designing drug therapy treatment plans for my patients	99(67.3)	29(19.7)	19(12.9)	1.46±0.71
I expect clinical pharmacists to advise me about more cost effective alternatives to the drugs I prescribe	106(72.1)	31(21.1)	10(6.8)	1.35±0.60
I expect clinical pharmacists to educate my patients about the safe and appropriate use of their medication	125(85)	17(11.6)	5(3.4)	1.18±0.47
I expect clinical pharmacists to maintain a complete medication profile on my patients	85(57.8)	54(36.7)	8(5.4)	1.48±0.60
I expect clinical pharmacists to monitor my patients' response to drug therapy and let me know if a patient encounters any drug-related problem	101(68.7)	32(21.8)	14(9.5)	1.41±0.66
I expect clinical pharmacists to know the specific indication of each drug I prescribe, even when drugs have more than one approved or recognized indication	89(60.5)	44(29.9)	14(9.5)	1.49±0.67
I expect clinical pharmacists to be available to me for consultation when I see patients (e.g. during rounds)	89(60.5)	38(25.9)	20(13.6)	1.53±0.72
I expect clinical pharmacists to assist my patients in selecting appropriate non-prescription medications	71(48.3)	47(32)	29(19.7)	1.71±0.78

†Responses were made on a 3-point Likert scale where 1= Agree, 2= Neutral, 3=Disagree.

were positive for most domains, were more likely to 'agree'. Physicians in this study appeared to have high expectations of pharmacists as knowledgeable drug therapy experts and expect them to educate patients about the safe and appropriate use of medications. This is consistent with the results of the study reported in Sudan and Kuwait [2, 7]. In the contrary, Pakistan study reported as physicians expect of pharmacists to monitor their patients response to drug therapy more than expectation as educators about the safe and appropriate use of medications [6]. A study in Malaysia reported general medical practitioners agreed that pharmacists are the best health care professionals to educate patients about the safe and appropriate use of medications [8]. But their expectation was low. It might be due to study

However, there was less agreement for the statement "I expect pharmacists to assist my patients in selecting appropriate non-prescription medications" where respondents were neither strongly agreed nor disagreed. Again, this seems to highlight a less positive attitude about pharmacists interacting directly with patients concerning appropriate choice of medicines and accords with the higher prevalence of discomfort found in these domains. This finding is in line with observations elsewhere [2, 7]. However, the pharmacy curricula change and government's concern enforces Ethiopian pharmacists to work more closely with physicians, thereby providing the physician with an opportunity to observe pharmacists performing clinical responsibility leading to an input to the physicians' awareness and building confidence for the pharmacists.



Conclusion

It was found that the majority of physicians were receptive to clinical pharmacists undertaking many of the activities suggested to them. Clinical pharmacists were seen as knowledgeable drug therapy experts. However, physicians were less receptive to any kind of recommendations regarding prescribing medications to patients. A key to extend the role of a pharmacist should involve making pharmacists more accessible to patients and physicians. We can recommend that implementation of clinical pharmacy practice is feasible in such resource constrained setups.

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AUTHORS' CONTRIBUTIONS

Authors contributed equally to all aspects of the study.

PEER REVIEW

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CONFLICTS OF INTEREST

The authors declare that they have no competing interests.