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PHARMACY PRACTICE IN VIEW OF HEALTH PROFESSIONALS IN JIMMA UNIVERSITY SPECIALIZED HOSPITAL

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ABSTRACT

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Background: Pharmacists are drug therapy experts and primary health professionals who optimize medication management to produce positive health outcomes. Clearly there are still misconception and confusion among the public on the function of pharmacists. Sometimes even the pharmacy personnel themselves seemed to be unaware of the importance of their profession.

Objective: The study tried to assess the attitude of health professionals about the role of pharmacists as a professional.

Methodology: A cross sectional study was carried out in Jimma University Specialized hospital on the role of pharmacists within the health sector and in industrial works. A structured pretested questionnaire was distributed to 140 health professionals.

Result: 129 questionnaires were returned in a usable form, an overall response rate was 71.67%. Some health professionals (22.66%) still think that pharmacist's job is only dispensing. In addition, treating minor illness by pharmacists had getting agreement only from 27.91% of health professionals. Especially this practice have strong disagreement from physicians (77.4%). Almost half of the respondents (48.84%) do not have very good communication with pharmacists. On the other hand 28.68% health professionals prefer if all doctors, nurses and health assistants allowed dispensing medication. The reason for variable attitudes is also referred by 80.6% physicians and 63.8% nurse's that pharmacists in Ethiopia are not effectively practicing their professional work.

Conclusion: The roles of pharmacists in the health sector are not well known or misunderstood by other health professionals. Therefore, it is strongly recommended that pharmacists themselves have the responsibility to narrow the observed gaps by enrolling into the health system and establishing pharmacy and therapeutic committee.

INTRODUCTION: Pharmacy is the art and science of preparing and dispensing medications and provision of drug related information to the public. It involves interpretation of prescription orders, compounding, labeling and dispensing of drugs and medical devices; drug product selection and drug utilization reviews; patient medication monitoring and intervention and the provision of cognitive services related to use of medications and medical devices. Beside these, pharmacists are expected to work in industry, research and development, quality control etc ¹.

Pharmacists therefore are drug therapy experts and they are the primary health professionals who optimize medication management to produce positive health outcomes ². Pharmacists can play important roles in optimizing therapeutic outcomes and promoting safe, cost-effective medication use for patients in medical homes. They are well-trained health professionals, yet they are often underused ³.

The function of the pharmacist has now changed and they play a direct role in patient care. A better interaction between physicians and pharmacists has led to safer, more effective and less costly drug therapies. Several studies on pharmacist-physician collaborations have proven that direct patient care is still exclusively in the hands of physician ⁴.

In some of the non-European countries, the high regard of pharmacists is believed to be an outcome of pharmacy as an education degree, rather than the perceived function and role of pharmacists within their primary healthcare. Clearly there are still misconception and confusion among the public on the function of pharmacists ⁵.

It seemed that people considered going to a pharmacist as patronage rather than receiving primary healthcare; the patient-pharmacist relationship was based on a service receiver-provider perspective. This supported the point that some lay public saw pharmacists as business men. Such view was also found in qualitative interviews with pharmacy customers in Vietnam ⁵. The population in general and the medical doctors in particular did not seem to be fully aware of the pharmacists' capabilities or the service available, which is consistent with results from another study ⁶.

Many primary care clinicians are unaware of pharmacists' extensive education and training to prepare for direct patient care roles ³. On the other hand, perhaps the pharmacy personnel in Hanoi have not put enough effort into demonstrating their expertise to the general public. Sometimes even the pharmacy personnel themselves seemed to be unaware of the importance of their profession ⁶.

Accordingly, this study was conducted to determine health professional perceptions and expectations of their experience with pharmacists, involvement in direct patient care (in prevention and management of diseases which are the goals for primary health care), and their role in other areas of pharmacy practices. The study also helps to strengthen the relationships between the pharmacists and other health professionals by showing the gaps between them. It can also be taken as base line information for further studies. This study assess the attitude of all health professionals about the role of pharmacist's as professional

METHODS: A cross sectional study design was conducted to collect the data using a pretested structured questionnaire that include the factors associated with the problem. The data were collected from health professionals working in Jimma University specialized hospital. Attitudes were elicited to different subjects: specific role of pharmacists in the health system, beyond the health sector and relationships between the pharmacists and other health professionals.

Respondents were asked to rate their attitudes on three: "agree", "uncertain" and "disagree". The data were analyzed using SPSS package and some were done manually using scientific calculator. In 2006 there were about 179 health professionals working in the hospital. All health professional were taken for the study purpose.

The participants were contacted and given an explanation on the purpose of the study and they gave verbal consent to participate in the study. The questionnaires were hand delivered by a data collection team.

RESULTS: A total of 180 questionnaires were distributed by the data collectors, of which 129 were returned in a usable form, an overall response rate was 71.67%. The professional status of respondents showed that largest proportions were nurses (42%) and 24% were physicians. Distribution of respondents on their year of experience showed from six 6 month to 26 years.

The responses to the eight questions about specific role of pharmacy practice in the health system (**see table 1 and table 4**) showed a range from favorable attitude towards the pharmacist giving information about new drugs to unfavorable reaction towards treating minor illness.

TABLE 1: HEALTH PROFESSIONALS' RESPONSES TOWARDS SPECIFIC ROLE OF PHARMACY PRACTICE IN THE HEALTH SYSTEM

Statement (Role)	Agree N (%)	Uncertain N (%)	Disagree N (%)
Treating minor illness such as headache, injury, etc.	36 (27.91)	16 (12.4)	77 (59.69)
Give information about new drugs	117 (90.7)	4 (3.1)	8 (6.2)
Advice health professionals about drug and their properties/effects/	107 (82.95)	9 (6.98)	13 (10.08)
Advice prescribers about cost effective prescribing	103 (79.84)	9 (6.98)	17 (13.18)
Counseling for chronic illness patient	47 (36.43)	42 (32.56)	40 (31.01)
Screening for raised blood pressure	21 (16.28)	35 (27.13)	73 (56.59)
Report adverse drug reaction	93 (72.09)	16 (12.4)	20 (15.5)
Pharmacists are ideally placed to provide health education	63 (48.84)	27 (20.93)	39 (30.23)

TABLE 2: HEALTH PROFESSIONALS' PERCEPTION TOWARDS THE SPECIFIC ROLE OF PHARMACY PRACTICE IN THE COMMUNITY AND INTER-PROFESSIONAL RELATIONSHIP

Statement (Role)	Agree N (%)	Uncertain N (%)	Disagree N (%)
Pharmacists job is only dispensing	29 (22.6)	-	100 (77.52)
Pharmacists should stick to dispensing not participating in to other areas of health care system	23 (17.82)	18 (13.95)	88 (68.2)
Pharmacists are the first to have contact for many peoples to have medication	52 (40.31)	17 (13.18)	60 (46.51)
All doctors and nurses and health assistants should be allowed to dispense	37 (28.68)	32 (24.81)	60 (46.51)
Pharmacists in Ethiopia practicing effectively their job description	34 (26.36)	-	95 (73.64)
Communication between pharmacists and prescriber is very good	66 (51.16)	30 (23.26)	33 (25.58)

Health professionals' responses for the forwarded six questions about the pharmacists relationship with prescribers and their role in the community, (**see table 2 and table 3**) showed an agreement on the communication between pharmacists and prescriber.

But there was found a strong disagreement on pharmacists' job is only dispensing. Even though health professionals believe pharmacists are not only dispensers, there is unfavorable reaction towards pharmacists in Ethiopia practicing their job description effectively.

TABLE 3: PHYSICIANS AND NURSES PERCEPTION TOWARDS SPECIFIC ROLE OF PHARMACY PRACTICE IN THE COMMUNITY AND INTER-PROFESSIONAL RELATIONSHIP

Statement (Role)	Physician			Nurse		
	Agree N (%)	Uncertain N (%)	Disagree N (%)	Agree N (%)	Uncertain N (%)	Disagree N (%)
Pharmacists job is only dispensing	3 (9.7)	-	30 (90.3)	15(27.6)	-	39(72.4)
Pharmacists should stick to dispensing not participating in to other areas of health care system	2 (6.4)	3 (9.7)	28 (83.9)	12 (22.4)	8(15.5)	34(62.1)
Pharmacists are the first to have contact for many peoples to have medication	4 (13.0)	5 (16.0)	24 (71)	27 (50.0)	8(15.5)	19(34.5)
All doctors and nurses and health assistants should be allowed to dispense	6 (19.4)	8 (25.8)	19 (54.8)	18 (32.8)	13(24.1)	23(43.1)
Pharmacists in Ethiopia practicing effectively their job description	6 (19.4)	-	27 (80.6)	20 (36.2)	-	34(63.8)
Communication between pharmacists and prescriber is very good	17 (51.6)	7 (22.6)	9 (25.8)	25 (46.6)	9(17.2)	20(36.2)

TABLE 4: PHYSICIANS' AND NURSES RESPONSES TOWARDS SPECIFIC ROLE OF PHARMACY PRACTICE IN THE HEALTH SYSTEM

Statement (Role)	Physician			Nurse		
	Agree N (%)	Uncertain N (%)	Disagree N (%)	Agree N (%)	Uncertain N (%)	Disagree N (%)
Treating minor illness such as headache, injury, etc.	4(12.9)	3(9.7)	26(77.7)	6(29.3)	9 (17.2)	29 (53.5)
Give information about new drugs	31(93.6)	1(3.2)	1(3.2)	9(91.4)	1(1.7)	4(6.9)
Advice health professionals about drug and their properties/effects/	28(83.9)	1(3.2)	4(12.9)	4(82.8)	5(8.6)	5(8.6)
Advice prescribers about cost effective prescribing	29(87.1)	2(6.45)	2(6.45)	1(75.9)	4(6.9)	9(17.2)
Counseling for chronic illness patient	6(19.4)	16(48.4)	11(32.2)	23(43.1)	12(22.4)	19(34.5)
Screening for raised blood pressure	2(6.5)	9(25.8)	22(67.7)	8(15.5)	17(31.0)	29(53.5)
Report adverse drug reaction	19(58.1)	5(16.1)	9(25.8)	40(74.1)	6(11.1)	8(14.8)
Pharmacists are ideally placed to provide health education	7(22.6)	15(45.2)	11(32.2)	32(59.3)	6(11.1)	16(29.6)

Respondents also believe that there are a lot of things that pharmacists can do either within the health institution or away from health sector. Some of them are patient follow-up, evaluation and monitoring

irrational drug prescription, drug selection in pharmacy and therapeutic committee, research on traditional medicines etc (**table 5**).

TABLE 5: HEALTH PROFESSIONALS' RESPONSE TOWARDS PHARMACY PRACTICE BEYOND HEALTH SECTOR

Statement	Profession					
	Pharmacist N (%)	Physician N (%)	Nurse N (%)	Chemist N (%)	Management N (%)	Other N (%)
Development of new drug and dosage form	97(75.15)	3(17.58)	7(5.46)	-	-	2(1.82)
Quality control person in pharmaceutical industry	75(58.67)	-	-	52(40.0)	-	2(1.38)
Manager and administrative person in pharmaceutical industry	99(76.43)	6(5.0)	-	-	24(18.57)	0 (0)
Import and export pharmaceuticals	12(87.22)	10(7.52)	-	-	-	7(5.26)

According to the responses of the health professionals most observed problems regarding pharmacists in Ethiopia, for not working effectively, was first economic status of the country did not allow them to practice most of their duties. Example; there was no enough area of practicing like pharmaceutical industries and quality control areas etc. Second lack of proper communication between health professionals and pharmacist and training given may be theory based, poor health policy regarding the pharmacists, the numbers of pharmacists previously present were less and most of them were focusing on their business.

In order to improve or solve such problems, the health professionals suggest that facilities should be well established; increase the overall economical development of the country. Pharmacists should know their mandate and use their job description effectively. Pharmacy education must be training based and they

should be dedicated for the patients and finally suggested that the policy should have to be improved.

Discussion: Several published studies have reported the existence of a communication gap between pharmacists and doctors. Acceptance of pharmacists providing these services is dependent on physician's perception of pharmacist's competence ⁷.

Communication gap is one of the most important problems that bring poor service by the health professionals. In our survey, only 51.6 % of the respondents agreed on the presence of very good communication between pharmacists and prescribers. Nearly half of the respondents do not agree on the statement. The ACP-ASIM recommends that the responsible physician and pharmacists should be compensated for their time spent on collaborative services ⁸.

In developed countries like Australia 72% general practitioners (GPs) did not agree that pharmacists' advice conflicted with their own; 94% agreed they had a good working relationship with the pharmacists, and none believed that pharmacists contacted them unnecessarily⁹. The study in Pakistan also shows a comparable result with Britain which, 75.0 % pharmacists said they were sometimes called by doctors who need advice in deciding a medicine for their patients¹⁰. Expanded roles for pharmacists should not be solely based on cost savings. Where; the responsible pharmacist and other health professionals should be compensated for their time spent on collaborative services.

A pharmacist is the first person for patients to seek advice from on many common medical conditions that they have. Be it simple headache, common cold or cramps in the abdomen, a pharmacist is the first choice and it is economical too for patients. Instead of paying a hefty fee to a doctor, people generally seek the advice of a professional pharmacist. He should be trustworthy, compassionate, affordable and available to be called a medical messiah. He should be a good judge to determine as to when a patient having seemingly ordinary medical conditions should seek the doctor's advice. This is very vital to prevent the condition of the patient becoming complicated¹¹.

Every day many patients visit pharmacies for a particular medicine without a prescription from a prescriber. This would necessitate reclassifying these drugs from "prescription only" to "OTC" drugs and such an arrangement offers several advantages. The patient benefits through easier access to professional help; prescriber might spend less time dealing with minor complaints¹².

A study in England; 77.6% GPs agreed on peoples taking more responsibility for their health by visiting a pharmacist about minor illness before consulting their GPs. More than half of GPs recommend to patients that they seek advice from pharmacist about minor illness¹³. But In Pakistan only, 18.4% of doctors are comfortable with pharmacists treating minor illness⁷. Similarly, in our study pharmacist role in minor illness treatment didn't get acceptance from most health professionals (59.69%), especially this practice have strong disagreement from physicians (77.4%).

A study from the UK and United States found that general practitioners generally agreed that community pharmacists should be involved in instalment dispensing (a single prescription endorsed for monthly dispensing), assisting patient compliance with medicines, be a first point of contact for health education, formally report adverse drug reactions (93.0% US), aid a physician in selecting a medicine to be prescribed and advise on cost-effective prescribing (74.6% US). They did not agree overall with community pharmacists screening for chronic conditions (high blood pressure, high blood glucose), selecting medicines or dosages according to agreed protocols after a general practitioner diagnosis, or running anticoagulant or lithium clinics¹⁴.

In our study, provision of drug information has got 90.7% agreement from health professionals especially 93.6 % of GPs agreed on pharmacist provision of drug information. The other service which got an 87.1% agreement from GPs was Pharmacist's provision of advice for cost effective prescribing. As with the UK and USA studies, there was less support for screening for chronic conditions like blood pressure (16.28%) from our respondents.

In our survey only 48.8% of health professionals of which 22.6% of physicians have agreed on pharmacist providing health education to the public. These results are not showing the practice of pharmacists' in the health care system effectively. Because only 32.2% of physicians have negative attitude towards the health education given by pharmacists. The reason could be peoples do not consider pharmacists' as a member of health care team.

Access to essential drugs and up-to-date information related to drugs are critical for optimal provision of health care, particularly in developing countries. However, the situation of drug utilization in Ethiopia is less than optimum and the scarcity of drug information to physicians, other health professionals and the community worsens irrational use of drugs¹⁵. Rational drug use requires drug selection for effective therapy. This drug selection requires looking for the drug efficacy, safety, suitability, availability and cost. Ethiopia is one of the developing countries where most people cannot afford to buy brand drug.

Due to this, prescribers have to choose cost effective drugs with the desired efficacy, safety and suitability as much as possible¹⁶. To do so the advice of pharmacist is unquestionable. This could be the reason for a strong agreement from health professionals especially from physicians and nurses.

Pharmacists as a member of the health care team must be knowledgeable about drug and ADRs. They are the leader in educating the other member of the health team such as physicians, nurses and others. Pharmacists make them aware of the potential of drugs for ADRs in their patients particularly those patients who are at high risk. ADR reporting system plays a significant role in the health system but a small proportion of practicing physicians and relatively small number of pharmacists (varying from country to country) contributes data¹⁷.

In Netherland, one research showed that there were only slight differences between the queries patients put to the drug information line regarding possible adverse drug reactions and the reports on suspected ADRs pharmacists submitted to the pharmacovigilance centre i.e. 1168 and 1734 respectively¹⁸. In our survey, 72.9% health professionals agreed on ADR reporting by pharmacists. Similar research in UK shows an 81% agreement from general practitioners¹⁹. The potential of pharmacist for adverse drug reaction reporting still needs to be understood by the health professionals in the study area.

In Ethiopia, most drug retail outlets were not practicing such activity (counselling). One study has shown that only 50% of pharmacies, 20% drug shops and 35% RDVs were providing patient counselling. Therefore, peoples do not consider counselling of one responsibility of pharmacist (pharmacy practitioners)²⁰. Screening for raised blood pressure was not actually done by pharmacists in Ethiopia.

According to one study, only 17.3% drug shops and 16% of rural drug vendors gave the service of BP measurement¹⁹. This could be taken as a reason for 56.59% of respondents in our study disagree on pharmacists screening patients for high blood pressure. Most of physicians (67.7%) were not in favour of this activity by pharmacists. Same study in

UK, 65% physicians do not accept such role of pharmacist¹⁹.

In Korea, until recently, physicians and pharmacists were allowed to both prescribe and dispense drugs, and their behavior was driven by economic incentives, which resulted in the overuse of drugs and high pharmaceutical expenditure. Other Asian countries such as China and Japan had similar problems²¹. For example, drug expenditure as a share of total health expenditure is approximately 30% for Japan, South Korea and Taiwan, and as high as 52% for China, compared with an average of 10-14% among OECD countries where, in most cases, prescribing and dispensing are separate activities. Separately in South Korea, 59% of the patients receive antibiotic treatment, compared to the World Health Organization's (WHO) recommendation of 23%²².

In recent years, in an effort to control drug expenditure growth and improve appropriate drug prescription, separating the drug prescribing and dispensing functions of physicians has gained popularity in policy debate among Asian countries. In Ethiopia, drug prescribing and dispensing are a separate activities between physician and pharmacy professionals respectively. But currently, some other health professional have attitude to have a permission to dispense drugs. Our research also strengthen by a response of 28.68% health professionals agreement on all doctors and nurses and health assistants allowed to dispense. Among them 19.4% and 32.8% are physicians and nurses respectively.

Most jurisdiction say only pharmacists may supply scheduled pharmaceutical to the public. In order for a person to import and export pharmaceuticals, he/she should be licensed¹. About 13% of respondents prefer the involvement of physicians and merchants on import and export of pharmaceuticals.

Ninety five (73.64 %) health professionals, of which, 80.6% physicians and 63.8% nurse's opinion reflected that pharmacists in Ethiopia are not effectively practicing their profession. Unlike this result, a study done in Pakistan showed that almost nine-tenths of nurses regarded pharmacists as knowledgeable drug therapy experts, and almost two-thirds of the nurses emphasized on counselling of patient by the

pharmacist²³. This gap could be due to the fact that the Ethiopian health care system has not yet recognize the pharmacist's active role in the health care delivery system.

CONCLUSION: Most of the roles of pharmacists as a professional are not well known by health professionals. Especially the role of pharmacists in the health care system is no well understood by the health professionals. There are a number of reasons for such misunderstanding; communication gap between the pharmacist and other health care teams take the lead. The given data indicated that pharmacists' in the country are not well applying there professional responsibilities. These could mislead other health professionals to have perception on pharmacist's carer be dispensing only.

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