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#### TRAINING NEED ASSESSMENT OF DISPENSING PHARMACISTS IN MAHARASHTRA

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#### **Keywords:**

Training need assessment, Pharmaceutical care, KAP-T, Focused Group discussion, Community Pharmacist, Continuing Education

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ABSTRACT: Background: A crucial part of Continuing Education is Training needs assessment (TNA). TNA assists in design and development of relevant educational courses and training modules, which are valuable for health care professionals to improve their knowledge and skills in accordance to latest developments in the field of clinical practices. Methods: A qualitative study was designed constituting Focused group discussion (FGD) which included office bearers and a Questionnaire survey (Knowledge, Attitude and Practices-Training: KAP-T) that included dispensing pharmacists. FGD was basically to understand the training policy of organization and Questionnaire survey was to understand Practicing pharmacists Knowledge, Attitude and current Practices related to their tasks and assess their training and development requirements. Results: Out of total 229 participants enrolled, 25 office bearers participated in FGD; remaining 204 pharmacists participated in Questionnaire survey. FGD result revealed no organizational training plan existed and officials were not having any insight about training needs of Pharmacists. Questionnaire survey showed low response in terms of knowledge (3 - 9.3%) and low practice level (2.4 -33.8%) in terms of patient oriented services, whereas attitude to provide patient care services was high (80 - 100%). Pharmacist's responses regarding KAP-T had no significant difference on comparison (p>0.05). More than 80% pharmacists felt that regular trainings are very much required for updating knowledge and enhancing their skills to provide effective patient care. **Conclusion:** Despite community pharmacists' highly positive attitude, their knowledge and practice of patient care was found to be at a low level.

INTRODUCTION: The focus of Pharmacy-Practice has shifted from just being drug oriented to patient-care. This new approach namely 'Pharmaceutical - care', has become mandatory in most countries including India. However, promulgation of 'Pharmacy - Practice Regulation 2015' by Government of India has not had much effect, it's not being practiced widely.



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Also the dispensing pharmacists are not familiar with this concept. Whereas people have become aware of their health care rights and are expecting better quality services. This gap in public expectations and pharmaceutical - care provision is causing strife. One explanation for the rise of such a situation is deficiency in knowledge <sup>1</sup>.

Bridging such knowledge gaps is an important step towards improving the confidence of practicing pharmacists <sup>2</sup>. About 55% of total pharmacists in India are Community Pharmacists. Giving sufficient exposure in pharmaceutical - care *via* continuous pharmaceutical education and training will certainly help in achieving the goal of 'Health

for All by 2020'. Here we must bear in mind that pharmacists are an important yet underutilized part of the health care services. Well training alone can improve pharmacist's social and professional prestige, as presently they are regarded as mere salesmen or dispensers <sup>1</sup>.

World-over, pharmacy education is more clinically oriented, yet in India it has an industrial orientation <sup>1</sup>. Also, there are no structured post-qualification/post-employment training programs for pharmacists in India <sup>2</sup>. Universities provide knowledge and skills necessary for registration to practice as pharmacists. However, with the incidence of new diseases and new medicines, pharmacists encounter new drug related problems. Hence, it is necessary to continually update their knowledge and professional skills.

Numerous studies have shown that there is a need of a studied flexible way to update knowledge and Continuing professional skills. **Professional** Development (CPD) programs are well-designed and flexible method of achieving post-qualification / post-employment Pharmacy - Education <sup>3</sup>. Past research found that: negligible training was being provided to the practicing - pharmacists in developing countries. Also the quality of whatever little training was dismal. Despite this knowledge, both in developed and developing countries, Continuing Education (CE) is often provided without much planning. One crucial part of Continuing Education is needs assessment with regards to stakeholders especially the target group of pharmacists. This crucial step is called Training Needs Analysis (TNA)<sup>4</sup>.

Training Needs Analysis (TNA) is the first step in a cyclic process that significantly contributes to training and education strategy followed by in an organization or professional group (Barbette, 2006) <sup>5</sup>. With findings of TNA in mind; following aspects of training are undertaken: scope is determined, delivered, training is: designed, supported, evaluated, validated and feedback is given to close the loop. TNA is very important in designing relevant and valuable educational courses for health care professionals to improve their skills in accordance to latest developments in the field of clinical practice (Hicks and Hennessy, 1997) <sup>6</sup>. A literature review and reappraisal of needs analysis

for training of nurses showed that training need initiatives within an organization were more likely to have a positive effect on the rest of the training cycle and on service delivery and quality of patient care (Gould, Kelly, White and Chidgey, 2004) <sup>7</sup>.

Therefore, as indicated by numerous studies, before implementing any educational program or training; It is of utmost importance to carry-out needs assessment or TNA. Such an assessment is necessary to guide the policy of developing training programs for all levels of health care personnel. The Expected Outcome of TNA can give a clear insight to policy makers, higher authorities and health care organizations to be able to:

- **a)** Understand progressive and repetitive training needs of frontline pharmacists.
- **b)** Evaluate consistency of training courses designed by experts with TNA.
- c) Monitor consistency of trainings with TNA.
- **d**) Plan/Allocate Funds and time to train pharmacists.
- e) Cause significant improvement in training and professional services of pharmacists.

In India Pharmacy practice is at infancy stage and there is no literature or research guiding the Pharmacists and their authorities to carry out type of trainings and assess the training needs. Therefore this preliminary study, the first of its kind in Indian setting, sets out to identify training needs of pharmacists in India in various settings.

#### **MATERIALS AND METHODS:**

**Study Design:** This Training Needs Analysis (TNA) was designed as a Focussed Group Discussion (FGD) and Questionnaire Survey (including questions on Knowledge, Attitude, Practices and Training: KAP-T) to investigate the demographics and training needs for improving the performance of the Pharmacists.

The study population included office bearers and pharmacists from Government (Govt.) and Non-Government (Non-Govt.) setup. The Government setup participants were from Primary Healthcare Centres (PHC) and District Hospital, whereas the non-Government sector participants constituted community pharmacist and super speciality private hospital pharmacists of Western India region.

The criteria for enrolment of participants in survey was that they had dispensing experience, were registered pharmacists with Pharmacy Council of their state and volunteered to participate in the survey.

Focussed Group Discussions (FGDs) with Office-Bearers were organised to study their training and development policy and plans for pharmacists, and Questionnaire survey was designed to study Practicing pharmacists' knowledge, attitude, current practices related to their tasks and general opinion with regards to their training and development requirements.

Questionnaires Design: KAP-T questions were developed keeping in mind the study objectives. Self-administered, pretested, structured and mostly close ended questions were used in the KAP-T Questionnaire. KAP-T questionnaires were validated by Training-Experts using a pilot test conducted on 35 pharmacists to determine the applicability and validity of the questionnaires. Descriptive statistics was used to summarise and organize data into section-wise (KAP-T) groups of the questions.

Permissions and Approvals: Permission to conduct the Training Needs Analysis (TNA) study was granted by the Director of Primary Health Care Centre, Civil Surgeon of District Hospital, Regional head of Chemist and Druggist Association and Managing Authority of Super Specialty Private Hospital. No ethical approval was needed, since no susceptible personal data was collected. Participants were informed that the gathered data would be used only to ensure that Pharmacists are offered the required and right kind of training in order to enhance the delivery of professional care to patients. Participants who voluntarily participated and returned the filled questionnaire were included and were considered to have given their consent.

#### **Procedure:**

**I. Focussed Group Discussion (FGD):** FGDs were conducted with four groups of office bearers. FGDs were conducted at their respective premises at time proposed by the office-bearers. First group constituted of District Health Officer, Chief pharmacist and five representatives of PHC

pharmacists. Second group constituted of Civil Surgeon, Chief Pharmacists and three Pharmacists association members of District Hospital. Third group constituted of Pharmacists Association's Regional Head and four key members of Association. The fourth group constituted of the Human Resource manager, training head and two pharmacists representatives of a Super Speciality Hospital Table 1. The Principal Investigator moderated FGDs. The topics of FGDs were current good pharmacy practises, training / development policies of organisation for pharmacists, updates on trainings held in past, a future training plans and barriers to trainings. The responses were collected in the form of notes and organised sequentially. Time utilised for discussion was 45 min to one hour.

**II. Questionnaire Survey:** In this survey only Practicing Pharmacists were enrolled from four setup namely: PHC, Government District Hospital, Community Pharmacists and Super specialty Private Hospital. Participants were invited by their respective organisations. Questionnaires were distributed and explained at their respective premises. Self-designed and mutually validated: Knowledge, Attitude, Practices and Training (KAP-T) Questionnaires were used for survey 4. Table Another FGD with participant pharmacists was conducted to add to the data.

The questionnaire comprised of 20 questions divided into four groups of five questions each, designed to collect the KAP to assess pharmacists on tasks that were central to their professional role and current good pharmacy practices were put. The last five questions were set to asses details of Pharmacist's trainings. The questions required answer in simple Yes / No or choosing from multiple choices **Table 4**.

In order to preclude any potential bias, the disclosure of respondents' name was made voluntary. All participants were ab-initio explained the Training Need Analysis objectives and questionnaire. Briefing included: purpose, various aspects of survey, future training plans based on the outcome. The participants were asked to submit the filled questionnaires which were collected by the study team for analysis.

#### **Evaluation:**

Descriptive Evaluation of the FGDs Included: Studying responses collected as notes. Responses to the issues raised, mutual agreements / disagreements and recommendations regarding the topics of FGDs were sifted and organised. In case of questionnaire survey each correct answer for knowledge, practices and attitude was awarded a score of one mark. The total scores were evaluated in percentage form and assessed for maximum and minimum responses. Data were analyzed descriptively using simple percentages and for comparison of responses between two groups i.e. Government vs. Non-Government setup 'unpaired T test" was used. The level of significance for all tests was set at P<0.05. The training details were collected as responses towards various aspects of training. These too were analysed descriptively.

**RESULT:** A total of 229 participants were enrolled in this study. Of these, 25 were office

bearers who participated in FGDs. Remaining 204 participants were pharmacists who were included in KAP-T survey **Fig. 1**.

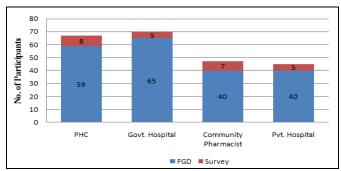


FIG. 1: NUMBER OF TOTAL PARTICIPANTS

**I. Focussed Group Discussion (FGD):** Four groups had Focussed Group Discussions. Respective highest authority controlled each setup and was decision maker. The other members in FGDs were officials representing their respective setup **Table 1**.

TABLE 1: FOCUSED GROUP DISCUSSION (FGD) PARTICIPANTS

Groups	Medical	Pharmacy	Other	Total no. of members	
	Professional	Professional	(HR)	Participated in each set up	
PHC officials	2	6	-	8	
Government Hospital officials	2	3	-	5	
Pharmacist Association officials	Nil	7	-	7	
Private Hospital officials	Nil	4	1	5	

The common responses received were as follows:

Current Practices: The officials conveyed that the pharmacists were mainly involved in dispensing practices, inventory management, drug supply, purchases, records and report maintenance. The government pharmacists had additional load of making the case papers of the patients and taking care of payments and bills as well. There were NO patient related care services carried out by pharmacists in terms of prescription audit, drug information or patient counselling.

**Training Policies:** There were miniscule training and development plans for PHC pharmacists, but other group representatives did not have any training and development plans for their pharmacists. There were no mandates or credentials associated, in case a Pharmacist received any training. The Pharmacists did NOT get any preference in promotions for having attended, qualified or excelled in Pharmacy - Practice or Pharmaceutical care Training. PHC trainings did

not have clinical, medicine or care related component.

Updates on Trainings Held: There were no perceivable trainings in terms of technical or clinical aspects, conducted for the pharmacists in any of the setup till date. Minimal training for fresher's to conduct regular tasks in stores were informally conducted by the senior pharmacists, but no patient care or updated therapeutics trainings' were given. The kind of trainings till date received by government setup pharmacists were: ambulance training, inventory management, store management and some national programs.

**Future Training Needs:** The officials did not have much insight about training aspects of pharmacists and were not having any updates on regulatory requirements on developmental needs of pharmacists. They were not aware about the kind of trainings the pharmacists should be receiving and need for delivery of patient care services. They never assessed training needs for their pharmacists.

Barrier Towards Trainings: The various barriers quoted by the officials were that there was lack of manpower at the pharmacy outlets, too much of dispensing workload to be handled by pharmacists leading to pharmacists having little or NO time to give patient care services. They also notified that patients themselves were not interested to seek such services like more details on drug information or counselling.

Specific Comments: The higher authorities of both Government and Non- Government setup agreed that pharmacists needed to upgrade their knowledge and attend trainings. They had no clinical knowledge to provide Pharmaceutical - Care services. Since most pharmacists were having qualification of Diploma only, they were not competent enough to provide professional or clinical services to patient due to lack of in depth knowledge. The Pharmacist association members conveyed that already there were patient counselling training courses available from State Pharmacy Council, but most pharmacists were reluctant to participate since they felt that while

attending the course there will be losses on their sales during training. They found it inconvenient and no positive responses were received for training registration.

The Pharmacists members of the Government setup recommended that if the trainings could be conducted on regular basis during their scheduled monthly or bimonthly meetings, then it could be possible for them to participate and gain from the trainings. The lack of man power and excessive patient load on regular basis was the biggest problem conveyed by all the officials.

#### II. Questionnaire Survey:

**Demographics:** There were a total of 204 participants. 68.6% were Male and 31.4% were Female. Age group wise 17% were between 20 - 30 yrs, 58% were between 30 - 40 yr. Mean Age was  $36.31 \pm 7.8$  yrs implying  $22 \pm 7$  yr of residual services. Qualification wise 81% were Diploma holders implying dire need of trainings. Experience wise all had more than 5 yr experience, but belowpar knowledge. For more details see **Table 2**.

TABLE 2: DEMOGRAPHIC DETAILS OF QUESTIONNAIRE SURVEY PARTICIPANTS

<b>Parameters</b>	Set up	PHC	Government	Community	Pvt. Hospitals	Total	Percentages
<b>\</b>		<b>Pharmacists</b>	Hospital	<b>Pharmacists</b>	<b>Pharmacists</b>		%
·			Pharmacists				
Gender	Male	39	41	37	22	139	68%
	Female	20	24	3	18	65	32%
Total		59	65	40	40	N = 204	
Participants							
Age Groups	20-30	nil	12	13	10	35	17%
In Years	30-40	38	30	24	26	118	58%
	40-50	13	21	3	2	39	19%
	50-58	8	2	Nil	2	12	6%
	Mean $\pm$ SD	$37.31 \pm 10.12$	$37.63 \pm 9.18$	$33.98 \pm 7.04$	$31.97 \pm 5.6$	$36.31 \pm 7.8$	
Qualifications	D. Pharm	44	47	36	38	165	81%
	B. Pharm	13	16	4	2	35	17%
	M. Pharm	2	2	Nil	Nil	4	2%
Experience	Less than 5yr	0	0	0	0	0	
In Years	5yr-10 yr	27	22	17	28	94	46%
	10-20yr	20	25	20	8	73	36%
	20-30 yr	8	12	3	4	27	13%
	30 and above	4	6	Nil	Nil	10	5%
	Mean $\pm$ SD	$13.81 \pm 10.57$	$13.24 \pm 9.21$	$8.76 \pm 6.44$	$8.13 \pm 5.06$	$13.84 \pm 1.49$	

**Questionnaire Survey Responses:** All 204 pharmacists responded KAP-T to the questionnaires. Pharmacists' Knowledge (K) regarding current good pharmacy practices was evaluated using five questions. Knowledge on good pharmacy practices (Q2) had some correct responses (9.3%) and Pharmacy practice regulation (Q3) had least correct response rate (3%).

Mean correct response rate was mere 11.2 (5.5%) Knowledge section **Table 3**. Pharmacists' Attitude (A) towards knowledge up gradation and providing professional services was evaluated by using next five questions. Mean Positive response rates of all the groups stood at 90%. The attitude was strong positive to questions on providing patient-care services and knowledge up gradation.

In Practices (P) section, had Low scores in patient counselling and solving drug related problems compared to other services. Mean score on good practices was 37.6 (18.4%) of correct responses **Table 3**. On comparison between Government and Non- Government setup pharmacist's responses regarding knowledge, attitude and practices: there was no significant difference with respect to all

sections of questions (p>0.05). In Training (T) related questions, only 5.3% pharmacists from Government setup could attend minimal trainings like bridge course, refreshers training on inventory, store management and national programs. An average 88.3% participants felt that trainings are very much required for their professional development **Table 3**.

TABLE 3: QUESTIONNAIRE SURVEY EVALUATION

KAP-T	PHC Government		Community	Pvt. Hospitals	Total (%)	Group
Questions	<b>Pharmacists</b>	Hospital	<b>Pharmacists</b>	<b>Pharmacists</b>		Mean (%)
	(N=48)	Pharmacists (N=65)	(N=40)	(N=40)		
Knowledge (K)						
Q.1	2 (4.1)	6 (9.2)	2 (5)	3 (7.5)	13 (6.3)	
Q.2	8 (16.6)	7 (10.7)	0	4 (10)	19 (9.3)	
Q.3	0	0	0	3 (7.5)	3 (1.4)	11.2 (5.5)
Q.4	2 (4.1)	2 (3.0)	0	3 (7.5)	7 (3.4)	
Q.5	3 (6.2)	4 (6.1)	3 (7.5)	4 (10)	14 (6.8)	
Attitude (A)						
Q.1	48 (100)	65 (100)	40 (100)	40 (100)	204 (100)	
Q.2	44 (91.6)	63 (96.9)	40 (100)	40 (100)	187 (91.6)	
Q.3	38 (79.1)	58 (89.25)	36 (90)	35 (87.5)	167 (81.8)	184.8 (90)
Q.4	46 (95.8)	62 (91.11)	38 (95)	32 (80)	178 (87.2)	
Q.5	45 (93.7)	65 (100)	40 (100)	38 (95)	188 (92.1)	
Practice (P)						
Q.1	20 (41.6)	22 (33.8)	12 (30)	15 (37.5)	69 (33.8)	
Q.2	11 (22.9)	23(35.3)	10 (25)	16 (40)	60 (29.4)	
Q.3	12 (25)	0	0	0	12 (5.8)	37.6 (18.4)
Q.4	2 (4.1)	14 (21.5)	9 (22.5)	10 (25)	42 (20.5)	
Q.5	1 (2.0)	2(3)	0	2 (5)	5 (2.4)	
Training (T)						
Q.1	8 (16.6)	2(3)	0	1 (2.5)	11 (5.3)	
Q.2	2 (4.1)	2(3)	0	11 (27.5)	15 (7.3)	
Q.3	45 (93.7)	62 (91.11)	36 (90)	37 (92.5)	180 (88.23)	95.4 (46.8)
Q.4	30 (62.5)	44 (67.6)	27 (87.5)	36 (90)	131 (64.21)	
Q.5	32 (66.6)	44 (67.6)	28 (70)	36 (90)	140 (68.6)	

## **Common Responses Related to Pharmacists Training:**

- 1. More than 80% pharmacists expressed that Knowledge of pharmaceutical care is vital and needed to be boosted through trainings. They were unaware of current developments in new medicines, profiles of new medicines and related pharmaceutical-care.
- **2.** More than 70% pharmacists wanted updates *via* trainings on topics including: Current rules and regulations, therapeutics and clinical knowledge especially on diabetes, hypertension, antibiotics, adverse drug reactions, drug interactions, patient counselling, drug information, rational drug use, pharmaceutical care and pharmacology of all drugs.
- **3.** Almost all pharmacists had similar barriers in imparting patient services at their setup: heavy patient load, less man power, no facility / proper infrastructure, no motivation or recognition in terms of promotions or incentives, no previous in depth clinical knowledge hence low confidence / delivery in pharmaceutical care services and clinical expertise.
- **4.** More than 90% pharmacists wanted regular trainings at least once in three to six months, especially during off-seasons with minimum workload. At least 4 h training workshops were suggested. Divisional experts available within about 50 km were expected to impart trainings at convenient place. Pharmacists also expressed that continuous updating of knowledge and skills would

make them confident on pharmaceutical care leading to professionally better performance.

TABLE 4: KAPT- QUESTIONNAIRE COMPONENT

S. no.	Knowledge-K		
1	What is Pharmaceutical care?		
2	Good Pharmacy Practice components are		
3	Pharmacy practice regulation 2015 is about?		
4	Drug -drug interaction example		
5	Adverse drug reaction of warfarin?		
	Attitude-A		
1	Would you like to upgrade your Knowledge?		
2	Does Pharmacist needs to Enhance skills?		
3	Should pharmacist provide pharmaceutical care?		
4	Do you need to improve your professional		
	image?		
5	Would you like to help the patients?		
	Practices-P		
1	Do you Counsel patients on medications in		
	detail?		
2	Do you Solve drug related problems of patients?		
3	Are you Checking B.P/Sugar/BMI of patients?		
4	Do you perform prescription audits?		
5	Conduct research and do self study?		
	Training Details-T		
1	Number of trainings attended before?		
2	Type of trainings attended in past?		
3	Do you need trainings on regular basis?		
4	How many times would you like to have		
	trainings?		
5	What type of trainings you wish to have?		

**DISCUSSION:** The focussed group discussions showed that: office bearers did not have perceivable insight or seriousness in development and training of pharmacists. There was a huge gap in the knowledge of unmotivated pharmacists who lacked confidence in giving professional services apart from dispensing drugs. Pharmacists' role was not clear to the officials. Officials were not in a position to understand that up gradation / modernization of training programmes will help in improving the quality of pharmaceutical and healthcare services to the ever increasing population in the country <sup>8</sup>.

In case of demographics of this study, these were quite similar to the study reported by Ramesh A *et al*, which stated that majority participants were male, the mean age of the pharmacists was  $36.41 \pm 7.17$  yr and mean duration of practice was  $11.5 \pm 6.25$  yr. Also 81% pharmacists were Diploma in Pharmacy, an entry level qualification to practice as pharmacist. Only four (2%) pharmacists were Masters in pharmacy <sup>3</sup>. The most important findings in the present study were: pharmacists'

low knowledge and low practice level in current good pharmacy practices and patient oriented services, while their attitude towards this subject was at a high level. Pharmacists' knowledge in providing a range of high standard pharmacy services to the patients, practice regulations and drug related problems gave a mean of 18.5% only.

The second question on Good Pharmacy Practice had more correct responses among all knowledge questions. The level of knowledge in patient care was quite low. Besides the inadequate training before becoming practicing pharmacists, 81% were merely diploma holders. The concept 'Pharmaceutical Care' has never been a part of their curriculum. In a similar study by MA'AJI Hadiza Usman, the respondents had a knowledge deficit of pharmaceutical care concept, 97.5% of the respondents defined pharmaceutical-care as pharmacists offering advice and counselling during drug dispensing, (but at the same time) 80% defined it as dispensing of medication only <sup>9</sup>.

Pharmacists' attitude towards good pharmacy practice was evaluated by using five questions on different aspects of current situation of pharmacy practice in India. Contrary to low level of knowledge, their attitude towards this subject was very positive and comparable to a study by Oparah, et al., 75% of a sample of 1500 Nigerian positive pharmacists had attitude towards pharmaceutical care. They were enthusiastic to put pharmaceutical care into practice, but expressed deep concerns about their lack of requisite knowledge and professional skills. Lack of professional development had lead to their low confidence 10.

Our pharmacists' current low intent to apply the good pharmacy practice in community pharmacies can be attributed to inadequacy in knowledge, lack of professional development programs and greater inclination towards trade rather than responsibility. A lack of clinical education and training of pharmacists, lower status in society and poor salary structure compared to pharmaceutical industry and other government jobs, and acute shortage of resources appear to be important reasons for the present status of pharmacy practice. Excessive workload and patients' attitude (e.g. lack of interest in counselling) is jeopardising patient safety.

In a study by M. Deeplakshmi, similar findings were observed that only a negligible percentage of pharmacists said that they always provided pharmaceutical care and the subset analysis of the data revealed that these pharmacists work in chain pharmacies wherein the top management mandates such patient care services <sup>11</sup>.

In our study during face to face discussion most of the pharmacists expressed various barriers in implementing pharmaceutical care services. These barriers were similar to the findings of a prospective longitudinal study in UK conducted by Raisa *et al.*, in which the participants of study expressed that the three main barriers for engaging in Continuing Professional Development (CPD) were lack of information about CPD, lack of motivation and lack of time <sup>12</sup>.

In short, despite our community pharmacists' highly positive attitude, their knowledge and practice of patient care was found to be at a low level. It provides important clues for organizations pharmaceutical to organize educational programs for the community pharmacists to equip them for their main role in community practice and patient care. The present study has shown that: pharmacists' knowledge and practice of professional responsibilities needs considerable improvement.

**Recommendations:** Based on this Training Needs Analysis (TNA), it is recommended that:

- **a)** Officers must undergo periodic annual trainings to meet expected outcome of TNA.
- **b)** Officers must significantly contribute to annual Training Needs Analysis at the end of training.
- c) Pharmacists must undergo a quarterly Pharmacy-Practice and Pharmaceutical Care training Trainings must be Progressive and Repetitive.
- **d)** Appropriate funds, time and places be allotted for this purpose.
- e) Performance on training capsules be mandatorily be linked to promotions and increments.
- **f**) Files, folders and presentations on these subjects be inspected / audited and appraisals of officers and pharmacists must reflect.
- **g**) Services of top pharmacy expertise of respective districts be availed for this purpose.

**Limitations:** Since no other Indian studies are reported in terms of Training Need Assessment (TNA) for Pharmacists, data could not be compared with other Indian studies. This was the first kind of TNA study carried-out for Indian pharmacists. We have taken the reference to design the study from a simple method of Systems Approach to Training (SAT), since other study designs were more complex and difficult to apply at a very basic level in Indian scenario, where Pharmacists, patients and authorities are not aware of training requirements, need assessments and patient care knowledge <sup>13</sup>.

CONCLUSION: Although, Pharmaceutical Care has a great impact on public health and improving patient's quality of life, Good Pharmacy Practices haven't yet caught-up in India in any setup due to lack of knowledge. The current practice of all pharmacists in India needs much improvement. The study concludes that: in practice, pharmaceutical care be given due importance via updates to knowledge and skills development. Our study that regular motivation results imply implementation of customized well designed and continuous trainings will help community pharmacists in practicing well as professionals.

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#### **CONFLICT OF INTEREST: Nil**

#### **REFERENCES:**

- 1. Tumkur A: Pharmaceutical Care: Need of the hour in India. Journal of Young Pharmacists 2012; 4(4): 282-286.
- DU Adje: Training needs analysis for pharmacists in Nigeria – A case study of Warri, Delta State. Journal of Pharmaceutical and Allied Sciences 2013; 10(1): 1713-1721
- 3. Adepu R and Shariff A: Development, Validation and Implementation of Continuous Professional Development Programmes for Community Pharmacists. Indian Journal of Pharmaceutical Sciences 2010; 72(5): 557-563.
- Gaspard and Ming C and Gaspard Y: Training needs assessment of health care professionals in a developing country: the example of Saint Lucia Janice BMC Medical Education 2016; 16: 112.
- Barbazette J: Training Needs Assessment: Methods, Tools and Techniques. Volume 1. USA: Pfeiffer 2006; 3-11.
- 6. Hicks C and Hennessy D: Identifying training objectives: the role of negotiation. Journal of Nursing Management 1997; 5: 263-265.

- Gould D: Training needs analysis. A literature review and reappraisal. International Journal of Nursing Studies 2004; 41(5): 471-486.
- Venkata M, Reddy SP: Challenges and Opportunities for Pharmacists in Health Care in India. 2007; doi: 10.13140/2.1.4623.8400.
- Usman MH: Assessment of Knowledge, Attitude and Practice of Community Pharmacists towards Pharmaceutical Care in Kaduna State, Nigeria. IJP 2014; 5(2): 972-97.
- Oparah AC and Eferakeya AE: Attitudes of Nigerian pharmacists towards pharmaceutical care. Pharm World Sci. 2005; 27(3): 208-14.
- Deepalakshmi M: Knowledge, Attitude and Practice of Community Pharmacists towards Cognitive Pharmaceutical Care Services in Tamil Nadu, India. Indian J Pharm Sci 2016; 78(6): 844-849.

- Raisa L: Overcoming barriers to engagement in continuing professional development in community pharmacy: A longitudinal study. Pharm J. 2009; 282: 44-8.
- Armstrong M: A Handbook of Personnel Management Practice, reproduced in Personnel in Practice, Currie, 13<sup>th</sup> Edition. Donald: Blackwell Business (Oxford, UK) 1997; 283-86.

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