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Perception towards Self-Medication Practice among Community Care Setting

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Abstract:-

Objective: To identify the perception towards self-medication practice among community pharmacists. To study the attitude of community pharmacists towards dispensing errors. To study the various factors that influencing dispensing errors among community pharmacists. To determine the various ways to minimize the dispensing errors.

Methods: The cross sectional study was carried out in Chengalpattu district over 75 pharmacies were included as samples. The study was conducted for 4 months. The sample was collected from the Medical shops / Community pharmacies in urban and rural care setting in Chengalpattu district, Chennai.

Results: Among that 72% of the pharmacists were males and 28% were females in this study. The overall mean age of the respondents was 29.85±8.7 years and most respondents (32%) were between 20-30 years of age. Over 35.7% respondents were D.Pharm graduates followed by B.Pharm graduates (25%) were working as a pharmacists in most of the community pharmacists. Over 25% of the pharmacists were with the experience of below 1 year followed by 20% were with the experience of 2-4 years. The average working hours of the pharmacists was 60 to 70 hours with 36% followed by 51-60 hours with 29%.

Conclusion: There is a need to improve the education of community pharmacists and their teams to ensure safe dispensing practice and to investigate potential interventions, such as electronic systems, to decrease the number of errors and reduce the risk of patient. Wrong dosage form, wrong quantity, wrong strength, and wrong drug were reported as the most common types of dispensing errors in this study.

Keywords:- *Dispensing Errors, Professional Practice, Self-Medication, OTC medicines.*

I. INTRODUCTION

Medication errors, particularly those related to dispensing, are more frequent in underdeveloped nations. One of the most frequent sorts of medical mistakes is certainly a medication error, which can also involve prescribing, transcribing, prescription, dispensing, and administration errors 1. The improper medicine, dosage, and patient guidance were the three most common forms of dispensing errors in developing nations. Contrary to medication interactions, adverse effects, contraindications, precautions, and storage conditions, patients are often informed about a drug's name, indications, dose form, and instructions for usage. 2 Various studies showed dispensing error rates between 0 and 45%. Most patients who obtained medications from neighbourhood pharmacies need adequate counselling. It is impossible to exaggerate the value of counselling in enhancing patient medication adherence. Community pharmacies offer patient counselling to educate patients on how to take their medications as prescribed and lower the likelihood of adverse drug reactions, food-drug combinations, drug allergies, etc. 3, 4 Most people who develop mild covid 19 symptoms, such as a fever, cold, cough, diarrhoea, indigestion, or wound infection, may ask family members, friends, or some Indian healthcare professionals for professional advice about treatments, particularly the usage of antibiotics. However, the illness may be made worse by a number of comorbidities, which raises the death and morbidity rates. 7 Self-medication is a bad habit that contributes to the global public health issue of overdose, adverse responses, disguising disease symptoms and indicators, and other health issues. Self-medication behaviours began to rise as a result of the epidemic, but now they are more pronounced due to the healthcare crisis and the fear of serious repercussions. 8, 9 additionally, there is a larger chance of adverse drug responses and drug-drug interactions, as well as a higher rate of prescription errors and medical costs. 10 In India, customers can purchase medications from a variety of retailers, including neighbourhood drugstores, national chains, and both public and private hospitals.

➢ *Objectives*

- To analyze the community pharmacists' perspectives on prescription-dispensing mistakes.
- To observe and document the factors that affect community pharmacists' dispensing errors.
- To identify the various strategies for reducing dispensing errors.

II. METHODOLOGY

The study was carried out in various community pharmacies in Chengalpattu District, Chennai, Tamilnadu. This survey is cross-sectional in nature. Four months were spent doing the study. The sample was gathered from local pharmacies and medical stores in Chengalpattu district, Chennai, both in urban and rural settings.

➢ *Inclusion criteria*

✓ Pharmacists in Community pharmacies.
✓ Chain pharmacies.

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➢ *Exclusion criteria*
✓ Hospital attached pharmacies.
✓ Pharmacists who are not willing to cooperate.

➢ *Sample size*

Rao soft online sample size calculator was used in the calculation of sample size to accomplish the study objectives with target sample size of **75 community pharmacists** with confidence level of 95%.

➢ *Survey methods*

A cross-sectional survey conducted among a convenient sample of community pharmacists in different pharmacies in Chengalpattu district that existed in a central location where patients have numerous choices for pharmacy services. Using a regional map to locate pharmacies in each of the municipalities, pharmacies were selected both for convenience and for the quota needed to represent each of the pharmacy types (retail pharmacies, chain pharmacies). Participants were asked to fill out the questionnaire scale and then provide feedback about the questions' readability and applicability to practise in an open-ended format.

We sought 125 community pharmacies in order to collect the desired sample; 35 of those pharmacies declined to participate, and 15 were left out. To participate in the survey, a stratified sample of 75 licenced community pharmacists from within the Chengalpattu district were chosen at random. Using a questionnaire, this investigation was carried out over the course of more than two months. Tamil and English translations of the questionnaire were provided.

Design of data collection form
↓
Collect information
↓
Analysis the information
↓
Discussion
↓
Conclusion

Table.1. Demographic details of the community pharmacists

S.no.	Characteristics	No's (%)
	Gender	
1.	Males	54 (72)
2.	Females	21 (28)
	Age wise	
1.	20-30	24 (32)
2.	31-40	21 (28)
3.	41-50	17 (23)
4.	51-60	13 (17)
	Qualification wise	
1.	SSLC with minimum 5 years' experience	7(9)
2.	HSC with minimum experience	8(11)
3.	Any degree	6(8)
4.	D.Pharm	26(35)
5.	B.Pharm	19(25)
6.	M.Pharm	09(12)
	Experience wise	
1.	Below 1 year	17(22)
2.	1-2 years	14(19)
3.	2-4 years	15(20)
4.	5 years	11(15)
5.	6-8 years	10(13)
6.	10 years	8(11)
	Working hours wise	
1.	18 hours	3(4)
2.	24-30 hours	5(7)
3.	32-40 hours	7(9)
4.	41-50 hours	11(15)
5.	51-60 hours	22(29)
6.	61-70 hours	27(36)

Table.2. Perceived factors contributing to the dispensing errors

S.no.	Factors contributing to Dispensing errors	Never		Rare		Often	
		No's	%	No's	%	No's	%
1.	Poor prescription/hand writing	15	20	24	32	36	48
2.	Similar/confusing names	37	49	13	17	25	33
3.	Heavy workload	19	24	21	30	35	46
4.	Lack of time to talk with patients	25	34	24	32	26	34
5.	Packaging & labelling	18	24	29	39	28	37
6.	Interruption	35	47	25	33	15	20
7.	Noise	29	39	31	41	15	20
8.	Lack of privacy	17	23	23	30	35	47
9.	Look alike/ sound alike drugs confusion	15	20	19	25	41	55
10.	Lack of staffs in pharmacy	06	8	29	39	39	52
11.	Out of stock replaced with another drug	16	21	22	29	37	50

Table.3. Dispensing errors across the shift timings

S.no.	Dispensing errors N (%)	Start of the day	Peak hours	Ending hours
1.	Incomplete direction of use (n=19)	03(4%)	12(63%)	4(21%)
2.	Omission of additional warning (n=22)	1(5%)	14(63%)	7(32%)
3.	Wrong dosage (n=09)	1(11%)	5(55%)	3(34%)
4.	Wrong dose (n=15)	5(34%)	7(46%)	3(20%)
5.	Wrong drug (n=10)	2(20%)	5(50%)	3(30%)
	Total (n= 75)	12(16%)	43(58%)	20(26%)

III. RESULTS

This survey involved 75 pharmacies in all around Chengalpattu, the pharmacies were scattered in various places. In this poll, there were 72% male pharmacists and 28% female pharmacists. The average age of the respondents was 29.85 8.7 years, with 32% of them being between 20 and 30. Over 35.7% of the respondents were D.Pharm graduates, followed by B.Pharm graduates (25%) who worked as pharmacists in the majority of neighbourhood pharmacies. More than 25% of pharmacists had one year or less of experience, followed by 20% of those with one to four years of experience. The majority of pharmacists (36% of them) worked between 51 and 60 hours per week, while 29% worked between 60 and 70 hours per week.

IV. DISCUSSION

Their reporting attitudes and behaviours were unaffected by their age. This demonstrates how a practitioner's understanding of reporting pharmaceutical errors changes as they become older, learn more, and gain more knowledge and experience. Healthcare practitioners' KAPs for reporting pharmaceutical errors do not appear to be correlated with their gender. This shows that neither a person's choice for reporting nor their gender are important predictors of KAPs. Years of professional experience had no impact on the KAPs of healthcare workers regarding reporting pharmaceutical errors. There was little link between perceived error percentages and years of professional experience, according to a study by Mayo et al. 11, 12 This suggests that the length of professional practise has no impact on the KAPs for reporting drug mistakes.

- *Major factors leading to dispensing errors*

In the survey, about half of the pharmacists expressed concern about possible dispensing errors due to sloppy handwriting on prescriptions. Nearly half of the pharmacists said that similar or confusing medicine names were not a factor in dispensing problems. The explanation for dispensing errors in the pharmacies visited was attributed to the workload of the pharmacists. 13. Comparatively, it was reported that medication packaging and labelling were rarely to blame for dispensing errors. Any stoppage that was asked about was often reported as never being a cause of a dispensing mishap. It was noted that noise in and around the pharmacy hardly ever constituted a cause for a dispensing error. 14 The absence of privacy was frequently cited as the cause of dispensing mistakes.

- *Attitude towards dispensing errors*

According to the study's findings, the majority of pharmacists do spend adequate time explaining how to utilise patients' drugs. They also discussed the use of antibiotics to patients who needed them. The other half of the pharmacists claimed not to have explained any drug-to-drug interactions. The majority of pharmacists double-checked the prescription items before giving them to patients 15. Nearly all of them admitted to only prescribing Schedule H medications with a prescription. A little more than half of the pharmacists said they never gave patients any substitutions or alternative medications without first consulting a doctor. 16 The majority of pharmacists said that distractions or interruptions in the pharmacy did not cause any dispensing errors. The function of medications is explained by all of the pharmacists nearby. 17, 18, 19 More than half of the pharmacists said they didn't offer any affordable medications to patients who couldn't afford pricey name-brand medications. Nearly all of the pharmacists acknowledged mentioning any potential negative effects of the prescribed drugs. More than half of the pharmacists offered their patients advice on quitting drinking or smoking. The majority of them admitted to prescribing drugs based on patients' complaints. Only nearly half of the pharmacists would opt to advice patients who were taking four or more medications. More than half of them also provided dietary counselling. Just over half of them would choose to educate diabetic patients on correct foot care. The pharmacist acknowledged having participated in a number of health-related awareness activities. The majority of them instructed diabetic patients on how to self-monitor blood glucose levels. They almost all do not provide contraceptive medications without a prescription. The majority of them claimed to not have advised patients to adjust their medication dosages without a doctor's consent. Before giving the medications, they all acknowledged asking the patient's category (geriatric, pregnant, or breastfeeding). The other half did not have a facility to check their blood pressure, weight, or pulse rate, while the other half did. The majority of pharmacists did provide medications in response to phone orders.

V. CONCLUSION

Community pharmacies distribute medications incorrectly, and most of these errors are minor. Community pharmacists and their teams need to be properly educated in order to maintain safe dispensing practises and to look into novel treatments, such electronic systems, to lower the amount of errors and lower patient risk. According to this study, the wrong dose form, wrong quantity, wrong strength,

and erroneous medication were the most common types of dispensing errors. The doctors' poor handwriting, identical medication packaging, having several patients at once, and similar medication names were cited as contributing factors.

Most community pharmacists double-check prescriptions before providing them to patients to help prevent dispensing problems. In order to help fight antibiotic resistance, community pharmacists explain how to use antibiotics and advise patients to take them for at least five to seven days. Finally, we come to the conclusion that community pharmacists' attitudes and behaviours considerably benefit society by providing greater assistance, health advice, and a clear grasp of how to utilise pharmaceuticals. The existence of non-pharmacists, however, is the main issue because it diverts attention from the community pharmacy profession.

REFERENCES

[1]. Asmelashe Gelayee D, Binega Mekonnen G. Perception of Community Pharmacists towards Dispensing Errors in Community Pharmacy Setting in Gondar Town, Northwest Ethiopia. Biomed Res Int.., 2017; 2137981. doi: 10.1155/2017/2137981.
[2]. Kassem AB, Saeed H, El Bassiouny NA, Kamal M. Assessment and analysis of outpatient medication errors related to paediatric prescriptions. Saudi Pharm J., 2021; 29(10):1090-1095. doi: 10.1016/j.jsps.2021.08.009.
[3]. Yaser Mohammed Al-Worafi1, Wafa Mohammed Alseragi , Lee Kah Seng , Yaman Walid Kassab, Siang Fei Yeoh , Long Chiau Ming , Md. Moklesur RahmanSarker, Khairulanwar Husain, Dispensing Errors in Community Pharmacies: A Prospective Study in Sana'a, Yemen, Archives of Pharmacy Practice., 2018; **9**(4):191-195.
[4]. Alfadl AA, Alrasheedy AA, Alhassun MS. Evaluation of medication counseling practice at community pharmacies in Qassim region. Saudi Arabia. Saudi Pharm J., 2018; 26(2):258-262. doi: 10.1016/j.jsps.2017.12.002.
[5]. Ahmad A, Patel I, Mohanta G, Balkrishnan R. Evaluation of self-medication practices in rural area of town sahaswan at northern India. Ann Med Health Sci Res., 2014; 4(Suppl 2):S73-8. doi: 10.4103/2141-9248.138012.
[6]. Almohammed O, A, Alsanea S. Public Perception and Attitude toward Community Pharmacists in Saudi Arabia. Saudi J Health Syst Res., 2021; 1:67-74.
[7]. Maharaj S, Brahim A, Brown H, Budraj D, Caesar V, Calder A, Carr D, Castillo D, Cedeno K, Janodia MD. Identifying dispensing errors in pharmacies in a medical science school in Trinidad and Tobago. J Pharm Policy Pract., 2020; Oct 8; 13:67. doi: 10.1186/s40545-020-00263-x.
[8]. Ibrahim OM, Ibrahim RM, Meslamani AZA, Mazrouei NA. Dispensing errors in community pharmacies in the United Arab Emirates: investigating incidence, types, severity, and causes. Pharm Pract., 2020; 8(4):2111.
[9]. Vasquez-Elera LE, Failoc-Rojas VE, Martinez-Rivera RN, Morocho-Alburqueque N, Temoche-Rivas MS, Valladares-Garrido MJ. Self-medication in hospitalized patients with COVID-19: A cross-sectional study in northern Peru. Germs., 2022; 31; 12(1):46-53. doi: 10.18683/germs.2022.1305.
[10]. Shakeel Ahmad Mir, Danish Shakeel, Zulfkar Latief Qadri. Self-Medication Practices during Covid-19 Pandemic: A Cross-Sectional Survey. Asian J Pharm Clin Res., 2021; 14 (10): 80-82
[11]. Aldhwaihi K, Schifano F, Pezzolesi C, Umaru N. A systematic review of the nature of dispensing errors in hospital pharmacies. Integr Pharm Res Pract., 2016; 12; 5:1-10. doi: 10.2147/IPRP.S95733.
[12]. Abdel-Qader DH, Al Meslamani AZ, Lewis PJ, Hamadi S. Incidence, nature, severity, and causes of dispensing errors in community pharmacies in Jordan. Int J Clin Pharm., 2021; 43(1):165-173. doi: 10.1007/s11096-020-01126-w.
[13]. Cina JL, Gandhi TK, Churchill W, Fanikos J, McCrea M, Mitton P, Rothschild JM, Featherstone E, Keohane C, Bates DW, Poon EG. How many hospital pharmacy medication dispensing errors go undetected? Jt Comm J Qual Patient Saf., 2006; 32(2):73-80.
[14]. Pervanas HC, Revell N, Alotaibi AF. Evaluation of Medication Errors in Community Pharmacy Settings: A Retrospective Report. J Pharm Technol., 2016; 32(2):71-74.
[15]. De Las Mercedes Martínez Sánchez A. Medication errors in a Spanish community pharmacy: nature, frequency and potential causes. Int J Clin Pharm., 2013; 35(2):185-9.
[16]. Darbishire PL, Zhao JC, Sodhi A, Anderson CM. Student observations of medication error reporting practices in community pharmacy settings. Res Social Adm Pharm., 2019; 15(7):902-906.
[17]. Ashcroft DM, Quinlan P, Blenkinsopp A. Prospective study of the incidence, nature and causes of dispensing errors in community pharmacies. Pharmacoepidemiol Drug Saf., 2005; 14(5):327-32.
[18]. Asmelashe Gelayee D, Binega Mekonnen G. Perception of Community Pharmacists towards Dispensing Errors in Community Pharmacy Setting in Gondar Town, Northwest Ethiopia. Biomed Res Int., 2017; 2017:2137981.
[19]. Luis E. Vasquez-Elera, Virgilio E. Failoc-Rojas, Raisa N. Martinez-Rivera, Noelia Morocho-Alburqueque, Mario S. Temoche-Rivas5, Mario J. Valladares-Garrido. Self-medication in hospitalized patients with COVID-19: A cross-sectional study in northern Peru. GERMS., 2022; 12(1):46-51.