



Unveiling Patient-Centeredcounselling Across Diverse Pharmacy Outlets From Patient Perspective

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Abstract:

The objective of the study is to evaluate patient's understanding and experiences of patient-centered counseling practices at various pharmacy outlets from their own perspectives. Method: Across-sectional study was undertaken in Anand and the surrounding area, Gujarat, India, involving the distribution of questionnaires to several hospital and community pharmacy stores further conducting a survey to assess whether patient counseling in both hospital and community pharmacies is being performed adequately or not. This survey aims to evaluate patient's guidance in hospital and community pharmacies. Data was collected from 200 patients in each setting and then it was analyzed by chi-square analysis. Result: The survey revealed that 53% of hospital and 45% of community patients lack awareness of medication precautions. Regarding advice on missing medication doses, hospitals guides approximately 67% of cases, while community pharmacies do so in around 54% of cases. Over-the-counter medication is discussed in 72% of hospital cases and 65% of community cases. Additionally, 44% of hospital and 57% of community patient's report not receiving any extra resources. Discussions about possible side effects are reported by 39% of hospital patients and 33% of community patients. The study found that the null hypothesis was accepted for warning, additional resources, over-the-counter medication, and side effects, indicating no significant effect. However, it was rejected for missed doses, suggesting a significant effect. Key aspects explored includes the frequency and depth of counseling interactions, patients' comfort levels with pharmacists, perceived impact on medication understanding and adherence ,and overall satisfaction with the counseling experience.

Keywords:-Hospital pharmacy, Community pharmacy, Patient satisfaction, Medication error, Patient counseling.

1. INTRODUCTION:-

- As per WHO, Patient counseling is defined as providing medication information orally or in written form to the patients or their representative on directions of use, advice on side effects/ precautions, and storage.
- When we are called to the counseling area, we get access to a new situation at hand which should be properly studied to provide effective information. As we approach the counter, we must observe the patient's nonverbal cues for any barriers that need to be overcome while communicating with the patient.(1)
- Healthcare in India is delivered across primary, secondary, and tertiary levels, with medication typically included as part of the treatment for most patients at each level.
- Because of the large number of patients, most prescribers have limited time to explain how to use these medications to their patients
- Pharmacists working in the community, as well as in hospitals and pharmaceutical settings, often lack Training for their roles beyond simply dispensing prescriptions.
- Many patients lack sufficient information about their medication, such as instructions on how and when to take it, the duration of the treatment, and actions to take if side effects arise or a dose is missed.
- Insufficient information could lead to patients not using medication as directed, potentially causing treatment failure, side effects, extra costs for tests and treatments, or even hospitalization.
- The misuse of antibiotics by patients can lead to increased antibiotic resistance in the community.
- Educating patients can help tackle numerous issues related to drug use and their outcomes.
- Providing patient counseling is a crucial aspect of clinical pharmacy practice in both hospital and community pharmacy environments.
- Counseling improves patients' comprehension of their condition and its treatment, potentially boosting adherence and therapeutic results.
- It enables pharmacists to obtain direct insight into how patients are using their medications.(2)

2. AIM

- To conduct a comparative analysis of patient counseling across different pharmacy outlets to evaluate its effectiveness and resultant outcomes.(3)

3. OBJECTIVES

- To identify the patient counseling practices from the patient's perspective in community pharmacy and hospital pharmacy.(4)
- To evaluate the impact of counseling.
- To compare and identify the gap in patient's counselling in different pharmacies.(5)

4. MATERIAL AND METHODS

4.1 SUBJECT SELECTION:-

- This study utilized a prospective cross-sectional observational approach, employing a questionnaire. It was conducted at multiple pharmacies for one month's period with approval from the institution.
- Objectives and procedure of the study were explained to the participants and those who were willing to fill the informed consent form were enrolled for the study. Participants were given a validated questionnaire was

collected from several pharmacies. Analysis of all gathered data was performed using Microsoft Excel 2007(6)

4.2 METHOD:-

- Two types of questionnaires are prepared Online/ Offline

ONLINE FORM:-

A Google link was generated for an online form and then shared with patients in hospitals and retail stores through a QR code. Then the data was collected and mainly responses are yes/no type. Around 200 online responses were collected.(7)

<https://forms.gle/iFXvwNWxbbnwEr9s5>

OFFLINE FORM:-

- In offline form two languages were used i.e., English and vernacular language so that patients can fill the form easily. The drug stores in the surrounding area were visited.
- Questions were asked to the visiting patient about patient counseling. Responses were collected from different pharmacy outlets and directly from the patient around areas of Anand.
- Collected around 200 responses from offline mode.(8)

5. ANALYZING DATA

5.1 GRAPHS:

- The data obtained from online and offline surveys are shown below in different graphs.
- Graphical representation of responses received is presented below. (Fig 1)
- Data analytical methods: Chi-square method.(9)

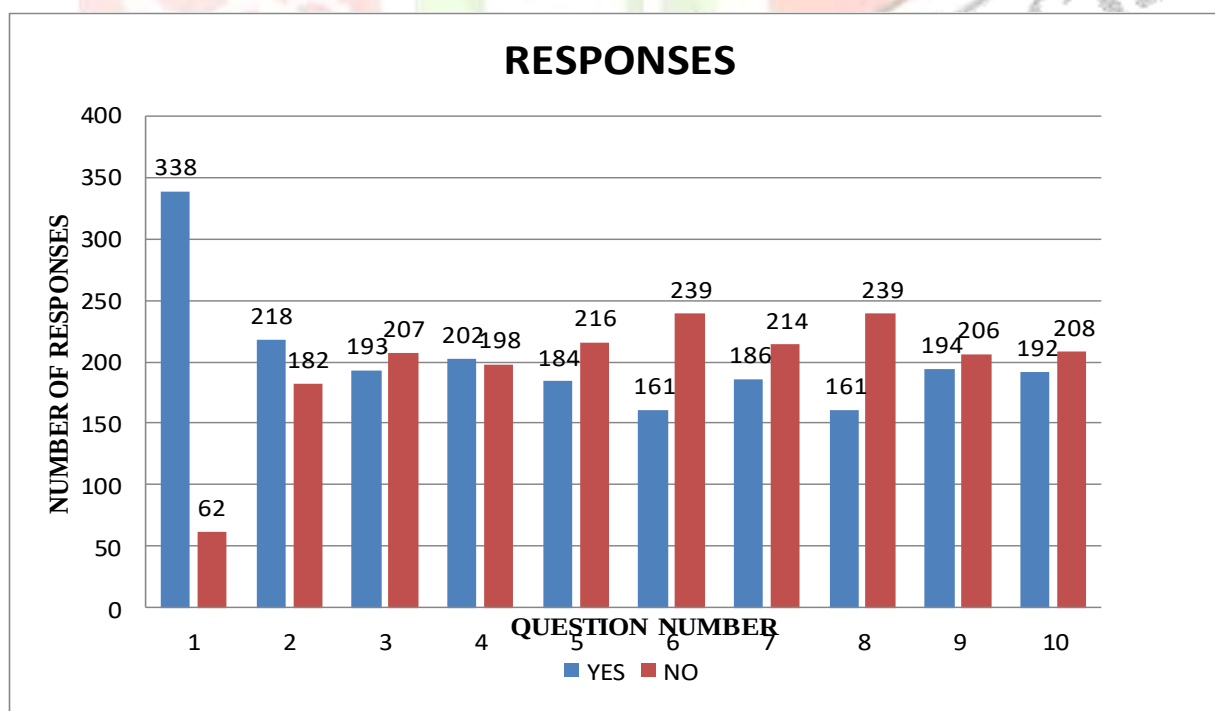


Figure 1: Responses (Yes/No) given by patients from the questionnaire mentioned in the form

5.2 PROCEDURE:

➤ Participants were explained about the survey and its purpose. After their willingness to participate, they were handed questionnaires and were asked to select the answer that best reflected their opinion as to the information they receive from their pharmacist about patient counseling including adverse effects of medications, Labeling instructions like storage condition, expiry date, and any warning or direction, satisfied with a pharmacy or not, do they follow medications advice.(10)

5.3 Statistical analysis:

- All data from this pilot study were analyzed using Microsoft Excel2007.The responses regarding dosage form were reviewed and categorized.
- The analysis involved using chi-square tests on categorized data.
- The analysis included assessing the level of significance.(11)
- The survey involved the participation of a total of 400 patients.
- Out of these, 200 are online and 200 are offline.
- From these we found the following criteria as shown in the table.
- The table includes questions that are included in the survey form and are categorized into yes and no results based on patient feedback.

Table 1 Chi-Square test tabular form for the survey conducted

Sr.No	Questions	Pharmacy	Yes	No	Chi-square	p-value	Significance
1	Did pharmacist dispense your medication as per prescription	Hospital pharmacy	168	32	0.0764	0.7823	Non significant
		Community pharmacy	170	30			
2	Did pharmacist explain the purpose of medication to you?	Hospital pharmacy	113	87	0.6452	0.4218	Non significant
		Community pharmacy	105	95			
3	Did pharmacist discuss	Hospital pharmacy	101	99	0.811	0.3678	Non significant

	an Community pharmacy precaution o r warning associated with medication?	92	108				
4	Did pharmacist discuss about t patient's medical history to identify any pre-existing condition?	Hospital pharmacy	105	95	0.6401	0.4236	Non significant
		Community pharmacy	97	103			
5	Did pharmacist give an y additional resources or material to help you to better understand and manage your medication?	Hospital pharmacy	98	102	1.4493	0.2286	Non significant
		Community pharmacy	86	114			
6	Did pharmacist explain abo	Hospital pharmacy	86	114	0.6614	0.4160	Non significant
		Hospital pharmacy	75	125			

	ut possible side effect?						
7	Did pharmacist give advice, if you miss a dose of your medication?	Hospital pharmacy	108	92	9.0443	0.0026	Significant
		Community pharmacy	78	122			
8	Did pharmacist discuss any lifestyle modification that may be necessary while taking medication?	Hospital pharmacy	87	113	1.7568	0.1850	Non significant
		Community pharmacy	74	126			
9	Did pharmacist discuss any OTC medication that should be avoided or use with caution?	Hospital pharmacy	97	103	0.0902	0.7163	Non significant
		Community pharmacy	97	103			
10	Need anymore follow up?	Hospital pharmacy	87	113	3.2452	0.07163	Non significant
		Community pharmacy	105	95			

5.4 Result of survey:

- This survey aims to evaluate patient counseling provided in both hospital pharmacies and community pharmacies.
- We gathered information from 200 patients at the hospital and another 200 from the community within our local vicinity.
- The survey yielded statistical data, which was visualized through pie charts and bar graphs
- The survey indicates that there's a similar lack of awareness regarding medication precautions or warnings among patients in hospital (53%) and community (45%) settings. This highlights the importance of enhancing communication and education about medications in both environments
- While Advice on missing medication doses is provided by hospital pharmacies in approximately 67% of cases, whereas in community pharmacies, it's around 54%. This suggests a not able disparity between the two settings in terms of offering this guidance.
- Moreover Our survey findings indicate that there's no significant difference in the discussion of over-the-counter (OTC) medication during patient counseling. In hospital pharmacies, this discussion occurs in 72% of cases, compared to 65% in community pharmacies.
- Additionally, According to the survey findings, there isn't a notable contrast in the allocation of extra resources between hospital and community pharmacies. The data indicates that a sizable percentage of respondents, 44% within hospital settings and 57% within community settings, reported not benefiting from any additional resources.
- Now discussing about possible side effect in hospital pharmacies is about 39% while in community pharmacies it is 33% only.

P-value>α	Fail to reject H0
P-value<α	RejectH0

- Null Hypothesis: The Null Hypothesis is a general statement that states that there is no relationship between the two variables under consideration.
- Alternative Hypothesis : An Alternative Hypothesis is a statement that describes that there is a relationship between two selected variables in a study.

H₀= There is no significance association between Hospital and community pharmacy

H₁=there is significance associated between Hospital and Community pharmacy

According to the study, the null hypothesis was accepted for the variable of warning, additional resources, OTC medication, and side effects indicating a non-significant effect, while it was rejected for missed doses, suggesting significant effect.

6. CONCLUSION

- Based on survey data, it can be concluded that hospital pharmacy offers advantages over community pharmacy in terms of accessibility, quality of care, medication availability, etc.
- Hospital pharmacy plays crucial role in ensuring optimal patient care within healthcare system.
- Improving community pharmacy services is crucial for meeting evolving healthcare needs of communities.
- Some areas for improvement in community pharmacy for the future include:
 1. Expand clinical services
 2. Technology
 3. Environmental sustainability
- By addressing these areas for improvement, community pharmacies can play a more significant role in promoting health and wellness and contributing to the overall healthcare system.

7. Summary of project work:

- Patient counseling has the potential to enhance the patient's grasp of medication adherence and methods to avoid medication mistakes.
- But without receiving counseling, most patients wouldn't be expected to have accurate knowledge about medication.
- Over the past decade, there has been increasing recognition worldwide regarding the importance of patient counseling at both medical stores and hospital pharmacies.(13)

7.1 LIMITATION:

- Patients may provide socially desirable responses rather than honest feedback.
- Limited number of participants may not represent the diverse patient population.
- Patients may not accurately recall their counseling experiences.
- Patients who are not fluent in the survey language may be excluded.
- Counseling effectiveness may vary based on cultural backgrounds, which may not be adequately captured in the survey.
- Patients who choose to participate may have different experiences compared to others.
- The survey may not capture long-term effects or changes in patient outcomes.
- Other factors such as co-morbidity or socioeconomic status may influence patient perceptions.
- Poorly designed questions or response options may lead to inaccurate data collection.

(14)

7.2 FUTURE ENHACEMENT :

- Utilize technology such as mobile apps or online platforms to facilitate access to counseling resources.
- Regularly review and update methods of patient counseling approaches based on feedback and emerging best practices.
- Offer resources for patients to connect with others facing similar health challenges, providing peer support and encouragement.
- Include educational materials and resources to improve patients' understanding of medical terms and treatment options.
- By integrating remote monitoring technology, it becomes possible to track patient progress and offer real-time feedback to both patients and healthcare providers.
- Connect patients with local community resources and support groups to complement counseling efforts and foster a sense of belonging.
- Include options for in-person, phone, or digital counseling to accommodate diverse patient preferences.

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