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**Original Research**

# Self-reported and actual involvement of community pharmacists in patient counseling: a cross-sectional and simulated patient study in Gondar, Ethiopia

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## Abstract

**Background**: Community pharmacists play a crucial role in reducing medication related health problems and improving the patient's overall wellbeing. Evidence suggests that community pharmacist led counseling services result in a better clinical and self-reported outcome, including a higher level of satisfaction and quality of life.

**Objective**: This study aims to document self-reported and actual levels of community pharmacists' involvement in the provision of patient counseling and barriers that limit their involvement in such services.

**Methods**: Simulated patient visits and a cross-sectional survey of community pharmacists were employed in Gondar town, Ethiopia between March 15 and May 15, 2016 to observe actual counseling practices and to assess their reported counseling practices respectively. Four different scenarios were developed for the simulated patient visit. A well designed questionnaire and an assessment form were used for the survey and simulated patient visit.

**Results**: In the cross-sectional survey, 84 pharmacists were approached and 78 agreed to participate (92.8 % response rate). Of the respondents, 96.1% agreed/strongly agreed that patient counseling is important and 69.3% strongly agreed that patient counseling should be a professional duty. The most frequent information provided to patients were dosing schedule of drugs, how to take medication, and drug-food interaction. Majority of community pharmacists either strongly agreed (42.1%) or agreed (51.3%) that patients are comfortable towards their counseling practice. A total of 48 simulated visits were conducted and a medicine was dispensed in all visits. In all four scenarios, dosage schedule (100%), how to take medication (97.6%) and drug-food interaction (69.1%) were the most common type of information provided while what to do when dose is missed (100%), contraindication (95.2%) and the importance of compliance or adherence (92.9%) were the most commonly ignored types of information.

**Conclusions**: The present study emphasizes the existing gap in self-reported and actual counseling practices by community pharmacist in Gondar town, Ethiopia. Hence, the ministry of health, local health policy makers and other stakeholders should collaborate to design interventions to improve community pharmacists' dispensing and counseling practice.

## Keywords

Patient Education as Topic; Community Pharmacy Services; Professional Practice; Pharmacies; Pharmacists; Patient Simulation; Surveys and Questionnaires; Ethiopia

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## INTRODUCTION

Community pharmacists play an important role in reducing medication related problems and improving patient's overall health status through providing different services including patient counseling.[1,2] Patient counseling can be defined as providing either oral or written information to the patient or his/her representative on the direction of use, potential side effects and precautions, storage conditions as well as counseling non-pharmacologic treatments including diet and lifestyle modification.[3] It is considered to be a major priority for community pharmacists in modern healthcare settings and is mandated by law and regulations in some countries.[4-6]

In order to reduce medication related problems, a greater emphasis must be placed on pharmacists' patient counseling.[5] According to a recent systematic review finding, community pharmacists led counseling services result in a better clinical and self-reported outcome, including a higher level of satisfaction, quality of life, and economic benefits.[7] However, the extended role of community pharmacists in developing countries is not satisfactory and their role is largely confined to dispensing of medications and seldom offers patient-oriented

services.[8-10] In Ethiopia, there are more than 650 community pharmacists, which are divided into pharmacy, drug store and rural drug vendors based on the type of medications they are supposed to dispense and the qualification of dispensers.[11] Pharmacies are run only by a pharmacist (with qualification of a university degree or above), drug shop run by druggist (with qualification of diploma in pharmacy) and rural drug vendor run by health assistant. Community pharmacists are involved not only in filling prescription but also in self-care. While they are expected to make clear distinction between a minor illness and a more serious condition in order to recommend the appropriate action which includes counseling on non-pharmacologic treatment, or advising to visit a health care practitioner, community pharmacists often fail to adequately assess patients or recommend inappropriate treatment. In Ethiopia, prescription-only medicines are frequently purchased without prescription from community pharmacies.[12] This implies that they are often the first and the only health care professionals available for patients before they start drug therapy, both for prescription-only medicines and oral over-the-counter (OTC) medications. Studies conducted elsewhere in the globe forwarded different reasons for dispensing mal-practice which include lack of time and interest, inadequate knowledge, and distance of the community pharmacy from hospital.[13] Provision of inadequate patient counseling by the pharmacist may predispose patients to increased risk of adverse drug reaction and fosters the development of drug resistance.[12,13] With much smaller numbers, compared to developed countries, community pharmacists in developing countries including Ethiopia tend to focus more on the traditional medication dispensing roles and seldom provide adequate patient counseling. Some studies identify shortage of qualified personnel, lack of preparedness of the pharmacist, and perception of the community towards the role of pharmacist as factors associated with low patient counseling rates.[3,14] To date, little information has been gathered in Ethiopia regarding community pharmacists' involvement in patient counseling and barriers to the provision of such services. Taking the global evidence into consideration and due to lack of data in Ethiopia, the present study was conducted with the aim of documenting self-reported and actual levels of community pharmacists' involvement in the provision of patient counseling and barriers that limit their involvement in such services using a cross sectional and simulated patient survey method. Simulated-patient method can be considered as robust methodological tool for pharmacy practice research especially if knowing being observed leads to behavioral change. Within the pharmacy context, a simulated patient is "an individual who is trained to visit a pharmacy to enact a scenario that tests a specific behavior of the pharmacist or pharmacy staff".[3]

## METHODS

### Study design and setting

A self-administered questionnaire based cross-sectional survey and simulated patient (SP) methods were employed to evaluate community pharmacists' self-reported and actual counseling practice respectively. The study was conducted in Gondar town, which is located about 750 Km Northwest of Addis Ababa. According to the 2007 population and housing census report, the town had an estimated population of 206,987. Gondar town has 19 community pharmacies and 33 drug stores. The study was conducted from March 15 to May 15, 2016. The study was approved by the Institutional Review committee of School of Pharmacy, University of Gondar. The data collected was kept anonymous and recorded in such a way that the involved pharmacist could not be identified.

### The cross-sectional survey

In the first phase of the study, a cross-sectional survey was used to assess self-reported practice of community pharmacists towards patient counseling. The questionnaire was created by modifying items in two previously used instruments regarding the counselling practice of community pharmacists[15,16], and items were thoroughly reviewed for relevance by all the authors. The survey instrument was further validated by pilot-testing on 5 voluntary community pharmacists working in community drug retail outlets (CDROs) of the designated study area. After collecting feedback from the participating community pharmacists, which were not considered for participation in the final study, slight modification was instituted in the final data collection tool. The final questionnaire used for this survey showed a satisfactory level of reliability, with a Cronbach's alpha value of 0.85. A minimum value of 0.7 is needed to ascertain the reliability of the research instrument.[4] This survey collected data in 3 major areas. In the first part of the questionnaire, socio-demographics, average working hours per day, the average number of patients per day, the average dispensing time for a single prescription and availability of internet access were included. The second section was about the knowledge, attitude and self-reported practice of community pharmacists towards patient counseling. We used Likert-type questions (1=strongly disagree to 5=strongly agree). We then documented their perceived barriers to providing such services in their practice settings in section three of the questionnaire.

### Scenarios and simulated patients

The actual counseling practice of community pharmacists was assessed using the simulated patient visit method, the result of which can be used to compare the self-reported counseling practice from the cross-sectional survey.

Four scenarios were developed. In scenario 1, The SP had rheumatoid arthritis and was prescribed aspirin 300 mg. However he also frequently experienced gastric pain for which he was taking antacid in the past. But he did not tell about it to the prescriber since the current condition of his stomach did not worsen. Subsequently, the pharmacist was expected to advise the SP to take the drug after food or if the severity of gastric pain is high the drug should not have been dispensed and the prescription returned to the prescriber as it was contraindicated.

In scenario 2, the SP asked for Omeprazole 20 mg po and ketoconazole 200mg po as he had peptic ulcer disease and fungal infection. But these two drugs are not to be taken together since ketoconazole needs acidic media to be

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absorbed well from gastro intestinal tract, whereas, omeprazole decreases the acidic content of the gastro intestinal tract. Therefore, the pharmacist was expected to tell the SP to take the drugs at different time such as omeprazole before meal and ketoconazole after meal.

In scenario 3, SP experienced severe headache and wanted to buy analgesic medication without prescription or before visiting a physician. He acted like a person who had the name of the drug on the tip of his tongue as he was informed by someone else. So he used methods such as calling names that may resemble to ibuprofen and color of the drug to remind the pharmacist which drug he wanted. Hence the SP went to pharmacy or drugstore for OTC medication (ibuprofen), the pharmacist was expected to inform the SP about the ibuprofen major side effects; when to take medication; and maximum daily dose. Since the patient came without seeing another health professional, important information should have been provided to the SP.

In scenario 4, The SP was prescribed amoxicillin 500mg for personal use but he was allergic to this drug and had developed rash on his skin and mouth after taking amoxicillin previously. After the pharmacist dispensed the medication the SP reminded the pharmacist that he experienced rash while taking that drug in the past. Therefore, the pharmacist was expected to return this prescription to the prescriber as it was allergenic and contraindicated to the SP.

Four male graduating pharmacy students acted as SPs, each one of them playing a specific scenario. The involvement of the students was voluntary. Following a detailed discussion of each scenario with all SPs, a day was given so that each SP got familiar with the specific scenario given. Eventually, each SP conducted a role play to perform in an intended manner. Each SP was given one scenario to play. The scenarios were translated into Amharic language so as to create consistency among the visits. The SPs were told not to give or ask further information unless asked by the dispenser so as to make sure that the information provided by the SPs is consistent. Immediately after each visit, the SPs filled the data gathered in a form containing a check list of items that were intended to assess the counseling process. Since SPs carried a recording device during their visits, the filled assessment forms were re-evaluated at the end of each day of simulated visits. The average dispensing time was recorded by calculating the time difference between getting in and out of the pharmacy premises. The assessment form (check list) includes the following information; name of the medication, the use of medicine, dosing schedule of the drug, how to take the medication, major side effects of the medication, drug-drug interaction, drug-food interaction, allergy checking, compliance importance, what to do if dose is missed, not discontinuing medication before informing health professionals, contraindication, availability of generic medication and storage condition.

**Sampling and sampling procedures**

The community drug retail outlets (CDROs) in Ethiopia are divided into pharmacy, drug store and rural drug vendor based on the kind of medications they are supposed to dispense and the qualification of service providers. Pharmacies run only by a pharmacist (with qualification of a university degree or above), drug shop run by druggist (with qualification of diploma in pharmacy) and rural drug vendor run by health assistants. To make representative simulated visits, pharmacies and drug stores in Gondar town were stratified into four major regions; Arada, Piassa, Azezo and Lideta sub-cities and given a random number through MS Excel random number generator (RAND). Of the total 19 pharmacies and 33 drug stores in Gondar town, 7 pharmacies and 5 drug stores were selected for simulated patient visits. To make a representative sample, we considered the number of pharmacies and drug stores in each fortified region. Accordingly, 4 pharmacy premises were selected from each Arada and Piassa sub-cities (these sub-cities are areas where a flow of patients are assumed to be high according to the number of prescription filled per day) and 2 pharmacy premises were selected from each Azezo and Lideta sub-cities through simple random sampling method. Each selected CDROs were visited once by each SPs. As a result, a total of 48 simulated visits were conducted between April 12 and April 27, 2016.

**Data analysis**

Data from the survey and SP visits were entered into and analyzed using SPSS version 20 for Macintosh. Categorical data are expressed as frequencies and percentages. Cronbach's alphas were also calculated to measure the internal consistency of the items used in the cross-sectional survey.

Table 1. Socio-demographic characteristics of respondents (N=84)

| Characteristics | Frequency (%) |
|---|---|
| Gender | |
| Male | 50 (64.1) |
| Female | 28 (35.9) |
| Age | |
| 20-30 years | 43 (60.6) |
| 31-40 years | 15 (21.1) |
| 41-50 years | 7 (9.9) |
| > 50 years | 6 (8.5) |
| Educational qualification | |
| Druggist | 35 (46.7) |
| Pharmacist | 37 (49.3) |
| Clinical pharmacist | 3 (4) |
| Work experience | |
| <1 year | 8 (10.3) |
| 1-5 years | 40 (51.3) |
| >5 years | 30 (38.4) |
| Monthly salary (birr) | |
| <1000 | 7 (9.1) |
| 1000-2000 | 14 (18.2) |
| 2000-3000 | 22 (28.6) |
| 3000-4000 | 9 (11.7) |
| Owner of the pharmacy (No salary) | 26 (33.3) |
| Working sector | |
| Private | 74 (96.1) |
| Nongovernmental organization (NGO) | 1 (1.3) |
| Governmental | 2 (2.6) |

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Table 2. Information community pharmacists claimed to provide to patients (N=84)

| Type of information | N | Not at all n (%) | A little n (%) | Moderately n (%) | Mostly n (%) | Always n (%) |
|---|---|---|---|---|---|---|
| Name of the medication | 75 | 13 (17.3) | 15 (20.0) | 9 (12.0) | 15 (20.0) | 23 (30.7) |
| The use of medicine(s) | 76 | 1 (1.3) | 7 (9.2) | 11 (14.5) | 25 (32.9) | 32 (42.1) |
| Dosing schedule of drug(s) | 75 | 1 (1.3) | 0 (0.0) | 8 (10.7) | 7 (9.3) | 59 (78.7) |
| How to take medication | 76 | 1 (1.3) | 0 (0.0) | 3 (3.9) | 11 (14.5) | 61 (80.3) |
| Major side effects of medicine(s) | 74 | 2 (2.7) | 9 (12.2) | 16 (21.6) | 24 (32.4) | 23 (31.1) |
| Drug-drug interaction | 76 | 2 (2.6) | 8 (10.5) | 25 (32.9) | 19 (25.0) | 22 (28.9) |
| Drug-food interaction | 74 | 3 (4.1) | 2 (2.7) | 9 (12.2) | 27 (36.5) | 33 (44.6) |
| Contraindication(s) | 75 | 4 (5.3) | 5 (6.7) | 13 (17.3) | 28 (37.3) | 25 (33.3) |
| Compliance to medication | 74 | 1 (1.4) | 2 (2.7) | 13 (17.6) | 37 (50.0) | 21 (28.4) |
| Storage conditions | 75 | 3 (3.8) | 1 (1.3) | 8 (10.7) | 20 (26.7) | 43 (57.3) |
| Checking whether the patient is allergic to medication(s) | 76 | 10 (13.2) | 12 (15.8) | 18 (23.7) | 17 (22.4) | 19 (25.0) |
| What to do when doses are missed | 75 | 7 (9.3) | 8 (10.7) | 21 (28.0) | 18 (24.0) | 21 (28.0) |
| Availability of generic medication | 76 | 10 (13.2) | 6 (7.9) | 13 (17.1) | 23 (30.3) | 24 (31.6) |
| Inform health professionals before deciding to discontinue medication | 75 | 5 (6.7) | 7 (9.3) | 13 (17.3) | 23 (30.7) | 27 (36.0) |
| Confirm that patients have understood my counseling | 76 | 3 (3.9) | 6 (7.9) | 11 (14.5) | 23 (30.3) | 33 (43.4) |

## RESULTS

### The cross-sectional survey of community pharmacists

Out of 84 community pharmacists invited to participate, 78 of them consented and returned a filled-out questionnaire, giving a response rate of 92.8%. Majority of the respondents were male (64.1%) and were between 20-30 years of age (60.6%). Only 4% of the respondents were clinical pharmacists and 51.3% of the respondents had a work experience of 1-5 years. Moreover, 89.6% of participants explained that they spent more than 6 hours in the pharmacy premise per day. The socio demographic characteristics of respondents are further depicted in Table 1.

This cross-sectional survey reveals a good attitude of community pharmacists towards patient counseling as 96.1% of the respondents either agree or strongly agree that patient counseling is important. In addition, 69.3% of the respondents strongly agree that patient counseling should be a professional duty. On the other hand, majority of community pharmacists either strongly agreed (42.1%) or agreed (51.3%) that patients are comfortable towards their counseling practice.

According to the survey, community pharmacists spent, on average, 7.68 minutes to dispense a single prescription. 76 respondents (97.4%) answered "yes" when asked whether they provide patient counseling, of which 56 (73.7%) provide patient counseling every time they dispense. The most common information provided to patients, according to the respondents, were dosing schedule of drugs, how to take medication, and drug-food interaction and storage conditions. Checking whether the patient is allergic to medication and availability of generic medication, on the other hand, were the less performed activities by the community pharmacists (Table 2). Moreover, majority of respondents (86.8%) stated they would refuse dispensing contra-indicated medication. Furthermore, around 92.1% of community pharmacists rated their counseling practice as either "good" or "very good". Respondents were also requested to answer how frequently they examine information on prescriptions. Almost half of the respondents (46.8%) strongly (mostly or always) checked the name of patients on a prescription (Table 3). More than half of the respondents (64.6%) claimed that they either mostly or always check the age of the patients. Similarly, 76.9% of the community pharmacists responded that they strongly check the dosage of the drug. On the contrary, less than half of the respondents (45%) either mostly or always checked for repeat prescriptions.

Patient factors such as illness condition and lack of willingness were the most common barriers to patient counseling as to the respondents' belief while being unhappy with the task and lack of good communication skill were given as the least common barriers identified by respondents (Table 4).

### The simulated patient study

Simulated visits were done in 7 pharmacies and 5 drug stores as intended. A total of 48 simulated visits were conducted and a medicine was dispensed in all visits. Across all visits, community pharmacists were available in the premises. In all four scenarios, dosage schedule (100%), how to take medication (97.6%) and drug-food interaction

Table 3. Information examined on the prescription

| | N | Not at all n (%) | A little n (%) | Moderately n (%) | Mostly n (%) | Always n (%) |
|---|---|---|---|---|---|---|
| Name of the patient | 77 | 13 (16.9) | 18 (23.4) | 10 (13) | 15 (19.5) | 21 (27.3) |
| Age of the patient | 77 | 3 (3.9) | 13 (16.9) | 11 (14.3) | 21 (27.3) | 29 (37.7) |
| Diagnosis | 78 | 14 (17.9) | 21 (26.9) | 12 (15.4) | 12 (15.4) | 19 (24.4) |
| Date | 77 | 7 (9.1) | 17 (22.1) | 12 (15.6) | 19 (24.7) | 22 (28.6) |
| Repeat prescription | 77 | 12 (15.6) | 16 (20.8) | 13 (16.9) | 22 (26.8) | 14 (18.2) |
| Dosage of the drug | 78 | 4 (5.1) | 9 (11.5) | 5 (6.4) | 17 (21.8) | 43 (55.1) |
| Dosage form of the drug | 78 | 2 (2.6) | 11 (14.1) | 5 (6.4) | 16 (20.5) | 44 (56.4) |
| Instructions | 74 | 6 (8.1) | 11 (14.9) | 6 (8.1) | 15 (20.3) | 36 (48.6) |
| Duration of the treatment | 76 | 5 (6.6) | 11 (14.5) | 5 (6.6) | 14 (18.4) | 41 (53.9) |

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Table 4: Information provided by community pharmacists as barriers to patient counseling (N=84)

| Type of information | N | Strongly disagree/disagree n (%) | Neutral n (%) | Strongly agree/Agree n (%) |
|---|---|---|---|---|
| Limited knowledge about drugs | 78 | 51 (65.4) | 5 (6.4) | 22 (28.2) |
| Lack of up-to-date drug information | 78 | 31 (39.7) | 6 (7.7) | 41 (52.6) |
| Being unhappy with the task | 77 | 51 (66.2) | 10 (13.0) | 16 (20.8) |
| Lack of good communication skill | 76 | 46 (60.5) | 14 (18.4) | 16 (21.1) |
| High patient load | 78 | 23 (29.5) | 11 (14.1) | 44 (56.4) |
| Shortage of time | 77 | 26 (33.8) | 9 (11.7) | 42 (54.5) |
| Patient factors like illness, rush to leave and lack of willingness | 78 | 10 (12.8) | 8 (10.3) | 60 (76.9) |

(69.05%) were the most common types of information provided while what to do when dose is missed (100%), contraindication (95.2%) and the importance of compliance or adherence (92.9%) were the most commonly ignored types of information. According to the SPs visits, the average time they spent on a single prescription was 7.5 minutes (Table 5).

## DISCUSSION

The present study documented the self-reported and actual practice of community pharmacists towards patient counseling and common barriers to the provision of such services. Simulated study is of paramount importance in such kind of health service studies where knowing being observed leads to behavioral and practice changes.[17] The result obtained from the simulated visit was compared to the result of the cross-sectional survey. In the survey, majority of community pharmacists claimed that they often provide information on dosing schedule, how to take medication, importance of compliance, contraindication issues, drug-food interaction and storage condition. Studies conducted elsewhere in the globe also reported similar findings.[18,19]

On the other hand, the actual dispensing practice revealed that the majority of the SPs were informed about dosing schedule, how to take medication and drug food interaction. However, pharmacists totally failed to provide information on storage condition, contraindication and importance of compliance. Moreover, the issue of drug-drug interaction, checking allergy, what to do when dose is missed, availability of generic medication and informing health professionals before discontinuing medication were less informed to the SP (10%) while this information was reported to be given by more than 45% each according to the cross-sectional survey. A study done in Turkish Republic of Northern Cyprus revealed that only 73.7% of pharmacists gave dosing instructions to the simulated patients and only 5.9% of the simulated patients were warned by the pharmacists about potential drug and food interactions.[15] Similar inconsistencies between self-reported practice of pharmacists and their actual dispensing practice measured using SPs were reported by another study done in Saudi Arabia.[16] This discrepancy might be due to pharmacists' provision of socially desirable responses in the questionnaire and perception of good dispensing practice.

In all the scenarios, it was evident that community pharmacists failed to correctly inform SPs on how to take medication to reduce the effects of drug-drug interaction, gave less attention to drug allergy, major side effects and contraindication. Moreover, more than half of pharmacists did not provide information to SPs about the major side effects of the drugs dispensed. To make things even worse, some pharmacists misinformed SPs on how to take the medications and a considerable number of pharmacists dispensed the medication either ignoring the allergic history of the SPs or unknowingly. A study done in Romania showed that 58.5% of pharmacists did not provide any counseling on OTC medicines.[20] A similar study conducted in Bahir Dar (Ethiopia) showed that about 40.8% of pharmacists counsel patients about the major side effects of OTC medication.[21] Similarly, a study done in Saudi Arabia showed that pharmacists didn't show any concern when it comes to use of concomitant drugs and history of drug allergy.[16]

The most common barriers in providing patient counseling, according to respondents, were patient factors, high patient load and shortage of time. In a study conducted in Saudi Arabia, being too busy was reported by over half of pharmacists (59.6%) as the barrier for patient counseling.[16] However, those factors could not hold priority when checked with the actual situation observed by SP. Instead,

Table 5. Prescription related information provided by CPs to the simulated patients (N=42)

| Types of information | Correctly informed (%) | Misinformed (%) | Uninformed (%) |
|---|---|---|---|
| Name of the medication | 45.24 | - | 54.76 |
| Use of medication | 30.95 | - | 69.05 |
| Dosage schedule | 100.00 | - | - |
| How to take medication | 97.62 | 2.38 | - |
| Major side effects | 28.57 | 2.38 | 69.05 |
| Drug-drug interaction | 2.38 | 16.67 | 80.95 |
| Drug-food interaction | 69.05 | - | 30.05 |
| Importance of compliance | 7.14 | - | 92.86 |
| Contraindication | - | 4.76 | 95.24 |
| Storage condition | - | - | 88.1 |
| Checking allergy | 4.76 | 7.14 | |
| What to do when dose Missed | - | - | 100.00 |
| Availability of generic Medications | 7.14 | - | 92.86 |
| Inform health professionals before Discontinuing medication | 2.38 | - | 97.62 |

lack of interest and updated information as well as limited knowledge could be the real factors behind their poor counseling practice.

Taking into consideration the above striking findings, the ministry of health, local health policy makers and other stakeholders should collaborate to design interventions to improve community pharmacists' dispensing and counseling practices. In addition, the barriers that affect patient counseling in community pharmacies and drug stores should be identified and resolved to improve the existing gap in patient counseling.

**Strengths and limitations**

This survey highlights an area of community pharmacy practice where there is lack of literature. All the SP visits were also audio-taped, which makes the manually collected data more reliable. Yet, the survey has some limitations that should be taken into account while interpreting the results. As the study was a descriptive survey conducted only in Gondar, caution should be exercised when generalizing to other cities and regions in Ethiopia. Moreover, our use of a self-administered questionnaire, which depends on honesty and faith in the respondents, could affect the responses as it may be subjected to respondent or recall bias. Furthermore, dispensing score was not performed as the number of SP visits didn't match to the number of questionnaires filled. Even with the above limitations, this survey has significant implications for improving the involvement of community pharmacies in patient counselling by serving as a general comparison of the characteristics of counseling services in different regions of the country.

## CONCLUSIONS

The present study emphasizes the existing gap in self-reported and actual counseling practices by community pharmacists in Gondar town, Ethiopia. In addition to the policy and government regulation, community pharmacists should also be supported by academic institutions with continuous educational trainings regarding good dispensing practice to endow them with the knowledge necessary for providing counseling services tailored to patients' needs. Further studies recruiting more samples from many diverse areas are recommended to determine the magnitude of patient counselling at a national level.

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## CONFLICT OF INTEREST

None.

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