

Original Research

Over-the-counter counseling in community pharmacies and job satisfaction among pharmacy professionals: A reflection of current scenario and possible solutions

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Abstract

Objectives: This study assessed community pharmacist counseling and dispensing practices to determine their relationship with job satisfaction among pharmacists. **Methods:** A cross-sectional study was conducted between January 2021 and September 2021 on a random sample of community pharmacists. The inclusion criteria were licensed community pharmacists with at least 3 months of professional experience. The researchers conducted face-to-face interviews using a developed structured questionnaire. The research instrument was comprised of two sections: demographic information and dispensing practices. Data were analyzed using SPSS Version 24. Results: a total of 543 pharmacists participated in this study. The average age of respondents was 31 ± 7 SD. The average dispensing practice score was 75% with a 95% confidence interval (CI) of [73.3%, 76.7%]. Better dispensing practices were common among older participants (odds ratio (OR) 1.010; 95% CI 1.001–1.020), postgraduates (OR 1.191; 95% CI 1.055–1.344), pharmacists from pharmacy chains (OR 1.452; 95% CI 1.285–1.640), participants with more than 10 years of experience (OR 1.286; 95% CI 1.089–1.520), pharmacists who graduated from regional universities (OR 1.200; 95% CI 1.129–1.497), and pharmacists who graduated from international universities (OR 1.413; 95% CI 1.212–1.648). However, poor dispensing practices were common among participants who were not satisfied with their current community pharmacist job (OR 0.487; 95% CI 0.410–0.577). **Conclusion:** Patient-centered management strategies oriented toward creating a counseling-friendly environment would open more space to achieve professional self-realization through cognitive services. This could benefit patients via consistent counseling services and increase pharmacists' satisfaction with their job and profession.

Keywords: Community pharmacist; Dispensing practices; OTC; Job satisfaction; Counselling

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INTRODUCTION

According to the World Health Organization (WHO), rational drug use is "patients receiving medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period, and at the lowest cost to them and the community".¹ Rational drug usage also entails prescribing and taking pharmaceuticals that are both safe and effective, administered at the right dose, and for the right amount of time.² Pharmacist assistance through over-the-counter (OTC) counseling enhances clinical outcomes; pharmacists are viewed as crucial participants in the advancement of logical and prudent self-medication.³⁻⁷ When advising patients on OTC pharmaceuticals, pharmacists should obtain and interpret information about the health condition of the patient and their history of drug use. Where self-medication is not deemed appropriate, s/he should advise the patient to seek medical advice. The pharmacist should offer impartial and evidence-based medical information and guidance, inform



patients of risks associated with imprudent and irrational self-medication, encourage patients to use medicines carefully, and ensure that patients do not purchase excessive amounts of medications.^{3,8-10}

According to several surveys, most dispensers lack pharmacological training.^{11,12} Consequently, community pharmacies employ few pharmacists and dispensing is handled by unskilled workers.¹³ Allowing unskilled dispensers to regulate medicines leads to inappropriate dispensing and a general inability to facilitate patient adherence to therapy.^{14,15} Drug resistance, death, toxicity, unexpected adverse drug effects and interactions, and treatment failure result from patients' failure to adhere to medication regimens due to not being provided with sufficient or accurate information. The most significant ramification of this is the rise in the cost of treatment. Community pharmacists in the United Arab Emirates (UAE) regularly supply a wide array of prescription-only drugs without the need for a physician's order, as in other developing nations.¹⁶ Additionally, the dispensing procedure is not computerized; as such, there is a lack of patient medication records.¹⁷ As a result, a high incidence and variety of medicine dispensing errors (MDEs) are expected in UAE community pharmacies.

As a member of a healthcare organization, a community pharmacist is not only responsible for fulfilling their professional responsibilities but is also influenced by a variety of personal and organizational factors, such as job satisfaction, which is defined as "the match between an individual's expectations and the perceived reality of the job as a whole".¹⁸ Each worker has certain employer expectations and, if these expectations are not satisfied, work satisfaction may suffer. Happy employees are more dedicated to their company¹⁹ and, as such, are less likely to leave for a job elsewhere.²⁰ Aside from personal and professional differences,²¹⁻²³ routine dispensing methods, heavy workloads, role conflict, a lack of demand, and unfavorable contacts have all been identified as factors that reduce pharmacists' job satisfaction.^{24,25} Clinical engagement, interaction with patients, cooperation with physicians, participation in health promotion, and opportunities to use professional skills (including OTC counseling) have been shown to increase pharmacists' career satisfaction.²⁶⁻²⁹ According to a recent study that was conducted in the United Arab Emirates(UAE), research is needed that explores the systemic causes of medication error. Interactive systems must be designed that place safety and the minimization of error risk at the center of community pharmacy practice to guide policies that can enhance awareness of these critical tasks.²³ It has been observed that the usage of OTC medications is rather widespread in the UAE, leading to a high risk of self-medication-related issues.³⁰ Therefore, pharmacist OTC counseling is essential. However, OTC counseling studies in UAE community pharmacies are limited. Thus, this study aims to assess community pharmacist counseling and dispensing practices and their relation to job satisfaction among pharmacists. The results obtained are expected to improve pharmacist dispensing practices and ensure that appropriate OTC medicines are used by the general population.

METHODS

Study design and setting

The current study examined UAE community pharmacists' dispensing practices by conducting a cross-sectional study between January 2021 and September 2021. Four trained pharmacy students in their final year went to community pharmacies located in Dubai, Abu Dhabi, and the Northern Emirates. A pilot survey was conducted to properly train the surveyors in the use of the questionnaire and the study's scientific terminology. This training program improved the surveyors' skills and minimized errors related to the survey.

Target population

The following inclusion and exclusion criteria were used to select the subjects under study. The inclusion criteria were community pharmacists with at least 3 months of professional experience registered with a regulatory body (i.e., Ministry of Health, Dubai Health Authority, Health Authority Abu Dhabi (HAAD)). The exclusion criteria were unregistered pharmacists or those who had not accumulated a minimum of 3 months of experience (e.g., those who had recently started or were still in their probationary period).

Pilot testing

The aforementioned pilot study was used to evaluate the survey instrument's validity. Fifty community pharmacists participated in the pilot, which ran from January 7, 2021 to January 20, 2021 and their data were not included in the final analysis. In the pilot study, 22 respondents satisfactorily completed the questionnaire without any difficulty. Based on the findings from the pilot study, the researchers estimated the necessary sample size for the main survey and assessed the questionnaire's reliability.

Sample size calculation

As highlighted above, the pilot study was used to estimate the appropriate sample size for the final survey. Of the 50 community pharmacists who participated in the pilot, 22 returned a completed questionnaire, giving a 44% response rate. The following question was used to perform the sample size calculation: "Are you satisfied with the dispensing practices followed by community pharmacists?" Approximately 45% of the participants in the pilot study responded affirmatively to this question. With an alpha level of 5%, i.e., a 95% confidence interval (CI) and a precision (D) of 5%, the 95% CI needed a 10% maximum width. Hence, 545 was calculated to be an appropriate sample size, assuming a 30% non-response rate.

Sampling technique

Random sampling was employed to ensure adequate representativeness in the sample. Data recorded in 2010 show that an estimated 2,000 community pharmacies are active in the UAE.³¹ The locations and contact information for the community pharmacies in the selected sample areas were extracted from the Yellow Pages and local business directories. The stratification implemented here encompassed dividing the community pharmacies in the UAE into strata (groups)



according to their location. This revealed three strata, namely, community pharmacies in Dubai, Abu Dhabi, and the Northern Emirates. The relevant data of the community pharmacies were recorded in an Excel spreadsheet. This information was intended for use as a sampling frame and included the main details of each community pharmacy, including name, location, type, phone number, and email address. Subsequently, a unique ID number was assigned to each pharmacy. Simple random sampling was used to select sample pharmacies from the list which were then categorized by location and type.

Data collection

From January 25, 2021 to September 28, 2021, the researchers conducted visits to the community pharmacies that were selected during the sampling in Dubai, Abu Dhabi, and the Northern Emirates. The research purpose was clarified to the pharmacists and their email addresses were recorded. The researchers then conducted face-to-face interviews using the developed structured questionnaire.

Research instrument development

Following a review of previous studies exploring the dispensing practices of community pharmacists,³²⁻³⁴ the researchers developed a self-administered structured questionnaire. This instrument was modified based on others found in the literature search to ensure that it fit the local UAE context and that all main points were covered. Experts on community pharmacists and dispensing practices were asked to review the final version of the questionnaire to ensure that its content was relevant and that it had been satisfactorily designed. Additionally, four members of the Faculty of Medicine and Clinical Pharmacy at Ajman University were consulted on the appropriateness and relevance of the questionnaire and its content. Some slight modifications were undertaken based on their advice.

Lawshe's content validity³⁵ was also used to assess the content validity of the questionnaire. All items had a content validity ratio (CVR) of 0.78 which, according to Lawshe's method,³⁵ meets the CVR threshold of ≥ 0.78 for acceptability. Any items that did not meet this threshold were eliminated from the questionnaire. The means of all the items included in the final questionnaire, i.e., those with an acceptable CVR value, were then used to calculate the content validity index (CVI) of the instrument. The final version of the questionnaire had a CVI of 0.879, which was acceptable.³⁶ A pilot study involving 50 community pharmacists was subsequently performed to assess the instrument's validity; their data were not incorporated into the final analysis. The questionnaire's reliability was assessed using Cronbach's α , whereby the calculated coefficient of 0.79 demonstrated acceptable internal consistency.

Research instrument sections

The research instrument comprised two separate parts which were as follows:

Eight items covered participants' demographic information, including age, gender, position in the pharmacy, experience (number of years), the university from which they graduated, and job satisfaction.

Thirteen items assessed the community pharmacists' dispensing practices; these were closed-ended questions ("yes" or "no" answers).

Questionnaire scoring

The responses to the questions assessing community pharmacists' dispensing practices scored either "1" (correct answers) or "0" (incorrect answers). Scores concerning dispensing practices were summed to achieve a value between 0 and 13. Based on this, the percentages were calculated ranging from 0% to 100% to reflect general dispensing practices among UAE community pharmacists. The median score was calculated to indicate the level of dispensing practices among the surveyed community pharmacists whereby they were categorized as a "Good dispensing practice" or a "Poor dispensing practice." A median score of 10 was obtained. Thus, respondents scoring at least 10 marks were assessed as having good dispensing practices, while those with fewer than 10 marks were assessed as having poor dispensing practices. These dichotomous outcome variables were subsequently analyzed using logistic regression analysis models.

Ethical considerations

This study received approval from the Institutional Ethics Review Committee of Ajman University. All participants were informed of the study purpose before data collection. They were also told that their consent was required for the questionnaire to be administered; all participants gave their written informed consent. The participants' identities were not recorded and they were assured of complete confidentiality.

Statistical analysis

The study's data were analyzed using SPSS Version 24. The qualitative variables were summarized using frequencies (as percentages). The quantitative variables were summarized using \pm standard deviation (\pm SD). Furthermore, for the quantitative variables, the cross-group differences were measured using unpaired Student t-tests, non-parametric versions, and one-way ANOVAs. The factors affecting community pharmacists' dispensing practices were identified using logistic regression models. Variable selection and model building were achieved using the stepwise method. The threshold for statistical significance was a p-value of <0.05 .

RESULT

Demographic characteristics

Table 1 shows the demographic information of the study participants. The average age of the respondents was 31 ± 7 SD. Of the total, 202 participants (37.2%) were male and 341 (62.8%) were female. Among all participants, 59.9% (n=325) held bachelor's degrees only and 40.1% (n=218) held postgraduate degrees. Pharmacists from independent pharmacies constituted 55.8% of the sample and 44.2% were from pharmacy chains. The pharmacist positions among the study participants were as follows: 372 (68.5%) pharmacists in charge, 100 (18.4%) chief pharmacists, and 71 (13.1%) assistant pharmacists. Approximately half of the study



Table 1. Numbers and percentages of the questions on demographic characteristics (N = 543)

| Baseline characteristics | Responses | Frequency | % |
|---|----------------------|-----------|-------|
| Age (mean ± S.D) | 31.2 ± 6.7 | | |
| Gender | Male | 202 | 37.2% |
| | Female | 341 | 62.8% |
| Education Level | Bachelor | 325 | 59.9% |
| | Postgraduate | 218 | 40.1% |
| Pharmacy type | Independent Pharmacy | 303 | 55.8% |
| | Pharmacy Chain | 240 | 44.2% |
| Position | Pharmacist in charge | 372 | 68.5% |
| | Chief pharmacist | 100 | 18.4% |
| | Assistant pharmacist | 71 | 13.1% |
| Years of experience | Less than 1 year | 82 | 15.1% |
| | 1-5 years | 111 | 20.4% |
| | 6-10 years | 74 | 13.6% |
| | More than 10 years | 276 | 50.8% |
| University of graduation | Local | 243 | 44.8% |
| | Regional | 143 | 26.3% |
| | International | 157 | 28.9% |
| I feel fairly satisfied with my current job | Yes | 476 | 87.7% |
| | No | 67 | 12.3% |

Table 2. Dispensing practices according to demographic variables

| Demographics | Groups | Dispensing practice score | | | p-value |
|---|----------------------|---------------------------|--------|-------|----------|
| | | Mean ± SD | Median | | |
| Gender | Male | 73.88 | 1.43 | 76.31 | 0.322 |
| | Female | 75.66 | 1.09 | 76.92 | |
| Education level | Bachelor | 73.02 | 1.12 | 77.1 | 0.005* |
| | Postgraduate | 77.95 | 1.36 | 84.6 | |
| Pharmacy type | Independent pharmacy | 71.29 | 1.14 | 76.83 | < 0.001* |
| | Pharmacy chain | 79.68 | 1.28 | 85 | |
| Position | Pharmacist in charge | 77.63 | 1.03 | 86.4 | 0.001* |
| | Chief pharmacist | 68.38 | 1.99 | 73.3 | |
| | Assistant pharmacist | 70.53 | 2.36 | 69.2 | |
| Years of experience | Less than 1 year | 70.26 | 2.22 | 75.5 | 0.003* |
| | 1-5 years | 71.73 | 1.90 | 77.4 | |
| | 6-10 years | 73.70 | 2.33 | 77.9 | |
| | More than 10 years | 78.07 | 1.21 | 84.6 | |
| University of graduation | Local | 72.14 | 1.29 | 74.5 | 0.001* |
| | Regional | 76.65 | 1.68 | 84.7 | |
| | International | 77.90 | 1.61 | 85.5 | |
| I feel fairly satisfied with my present job | Yes | 76.60 | 0.91 | 77 | < 0.001* |
| | No | 63.61 | 2.42 | 69.2 | |

Notes: p-values less than 0.05 were considered statistically significant; p-values were obtained from Kruskal Wallis and Mann Whitney U tests.



participants (50.8%) had more than 10 years of experience. Of all participants, 243 (44.8%) graduated from local universities, 143 (26.3%) graduated from regional universities, and 157 (28.9%) graduated from international universities. Among the participants, 476 (87.7%) were satisfied with their current job.

Evaluation of dispensing practices among community pharmacists

The average dispensing practice score was 75% with a 95% CI of [73.3%, 76.7%]. The dispensing practices among the community pharmacists were evaluated by asking the participants 13 questions.

Table 2 shows the dispensing practice scores according to demographics. Among the variables, educational level ($p = 0.005$), pharmacy type ($p < 0.001$), pharmacist position ($p = 0.001$), years of experience ($p = 0.003$), university of graduation ($p = 0.001$), and satisfaction with current community pharmacy job ($p < 0.001$) were associated with the dispensing practices of community pharmacists. Table 3 shows the results of each question regarding dispensing practices among community pharmacists.

Factors associated with the dispensing practices of community pharmacists

Table 4 displays the univariate and multivariate regression

models applied to demographic factors. To select the factors that jointly influence the dispensing practices of community pharmacists, we used the stepwise procedure applied to the multivariate logistic regression model. The results of this procedure showed that better dispensing practices were common among older participants (odds ratio (OR) 1.010; 95% CI 1.001–1.020), postgraduates (OR 1.191; 95% CI 1.055–1.344), pharmacists from pharmacy chains (OR 1.452; 95% CI 1.285–1.640), participants with more than 10 years of experience (OR 1.286; 95% CI 1.089–1.520), pharmacists who had graduated from regional universities (OR 1.200; 95% CI 1.129–1.497), and pharmacists who had graduated from international universities (OR 1.413; 95% CI 1.212–1.648). Poor dispensing practices were common among the participants who were not satisfied with their current community pharmacist job (OR 0.487; 95% CI 0.410–0.577).

DISCUSSION

Pharmacists are typically the final healthcare providers a patient has contact with prior to using a drug. Additionally, community pharmacists are regularly available to patients between routine physician visits. Thus, in the course of consultation with patients, the pharmacist is obliged to offer adequate information on drug administration to ensure

Table 3. Numbers and percentages of the questions on dispensing practices

| Dispensing practices items | Yes | | No | |
|---|-----------|------|-----------|------|
| | Frequency | % | Frequency | % |
| Enquire about the patient's health/condition | 429 | 79.0 | 114 | 21.0 |
| Enquire about how long the condition has persisted | 482 | 88.8 | 61 | 11.2 |
| Enquire about what medicines the patient has taken recently | 459 | 84.5 | 84 | 15.5 |
| Recommend visiting a doctor to discuss symptoms | 475 | 87.5 | 68 | 12.5 |
| Discourage the long-term use of medicines | 517 | 95.2 | 26 | 4.8 |
| Warn about incorrect self-diagnosis | 390 | 71.8 | 153 | 28.2 |
| Warn about incorrect choice of treatment | 299 | 55.1 | 244 | 44.9 |
| Warn about delays in seeking medical advice from a doctor | 359 | 66.1 | 184 | 33.9 |
| Provide health promotion advice | 364 | 67.0 | 179 | 33.0 |
| Enquire whether the patient has any allergies | 350 | 64.5 | 193 | 35.5 |
| Enquire whether the patient has any addictions | 442 | 81.4 | 101 | 18.6 |
| Inform about possible interactions between the drug being dispensed and other medicines and/or food | 389 | 71.6 | 154 | 28.4 |
| Recommend non-drug alternatives | 339 | 62.4 | 204 | 37.6 |



Table 4. Univariate and multivariate analyses of factors associated with the dispensing practices of community pharmacists

| Factors | Dispensing practice scores (≥ 10) | | | | | | | |
|--|--|--------|-------|----------|--------------|--------|-------|----------|
| | Univariate | | | | Multivariate | | | |
| | OR | 95% CI | | p-value | OR | 95% CI | | p-value |
| Gender (Ref. Female) | | | | | | | | |
| Male | 0.910 | 0.814 | 1.016 | 0.095 | ----- | ----- | ----- | ----- |
| Age | 1.020 | 1.012 | 1.029 | < 0.001* | 1.010 | 1.001 | 1.020 | 0.030* |
| Education (Ref. Bachelor) | | | | | | | | |
| Postgraduate | 1.306 | 1.168 | 1.461 | < 0.001* | 1.191 | 1.055 | 1.344 | 0.005* |
| Pharmacy type (Ref. Independent pharmacy) | | | | | | | | |
| Chain Pharmacy | 1.579 | 1.413 | 1.765 | 0.001* | 1.452 | 1.285 | 1.640 | 0.021 * |
| Position (Ref. Assistant pharmacist) | | | | | | | | |
| Pharmacist in charge | 1.450 | 1.239 | 1.696 | 0.014* | ----- | ----- | ----- | ----- |
| Chief pharmacist | 0.904 | 0.752 | 1.086 | 0.280 | ----- | ----- | ----- | ----- |
| Years of experience (Ref. Less than 1 year) | | | | | | | | |
| 1-5 Years | 1.074 | 0.902 | 1.278 | 0.424 | ----- | ----- | ----- | ----- |
| 6-10 Years | 1.186 | 0.976 | 1.441 | 0.086 | ----- | ----- | ----- | ----- |
| More than 10 years | 1.506 | 1.292 | 1.756 | < 0.001 | 1.286 | 1.089 | 1.520 | 0.003* |
| University of graduation (Ref. Local) | | | | | | | | |
| Regional | 1.268 | 1.110 | 1.448 | < 0.01* | 1.200 | 1.129 | 1.497 | 0.032* |
| International | 1.361 | 1.195 | 1.551 | < 0.001* | 1.413 | 1.212 | 1.648 | 0.001* |
| Satisfied with my present job (Ref. Yes) | | | | | | | | |
| No | 0.534 | 0.459 | 0.620 | < 0.001* | 0.487 | 0.410 | 0.577 | < 0.001* |

Notes: p-values less than 0.05 were considered statistically significant, "----"not included in the multivariate logistic regression model.

the safe and appropriate use of medication. Community pharmacies have an increasing role in self-medication and community health is dependent on the quality of counseling services provided to patients. However, this subject has always been researched from the perspective of pharmacy client/patient satisfaction. For instance, the professional and human approach of pharmacists has been identified as a key factor of patient satisfaction.³⁷

The relationship between OTC counseling in community pharmacies and pharmacists' job satisfaction must be evaluated. This is imperative as an earlier study³⁸ reported that community pharmacists in Dubai are more business- than patient-oriented, dispensing all categories of medicine OTC without the need for prescriptions. They affirmed that community pharmacists occasionally initiate drug therapy in the pharmacy instead of adhering to prescriptions by physicians.

The analysis of the demographic characteristics of UAE community pharmacists in this study showed that the majority

of the respondents were females, those with bachelor degrees from local universities, pharmacists in charge working in independent pharmacies, and those who were satisfied with their jobs. The demographic characteristics are similar compared to other studies on community pharmacists. For instance, Mohamed et al. (2014) reported that the majority of community pharmacists in Khartoum, Sudan were females and bachelor degree holders who had completed 1-10 years of service.³⁹ However, this differs from other reports, such as those by Rayes et al. (2015)³⁸ and Osemene et al. (2020),⁴⁰ that have documented more male community pharmacists compared to female pharmacists.

In this study, the association between demographic characteristics and dispensing practices among community pharmacists was evaluated. Based on the data obtained from the questionnaire, dispensing practices were found to be significantly associated with educational level, pharmacy type, pharmacist position, years of experience, university



of graduation, and satisfaction with the current community pharmacy job. These results imply that dispensing practices among community pharmacists depend on the aforementioned factors. This is consistent with some past studies. For instance, Veiga et al. (2021)⁴¹ reported that client satisfaction appears to be determined by consultation quality (evaluation score), suggesting the advancement of the pharmacists' clinical role. Urbonas and Kubilienė (2016) noted that job satisfaction and quality of OTC counseling in Lithuania were dependent on pharmacists' age.³⁴ Mináriková et al. (2016) reported that the most frequently reported reason for attending a community pharmacy in Slovakia was to obtain prescription and OTC medications, while patients' preference of a particular pharmacy was influenced by location.⁴² These demographic variables may have expanded the understanding of community pharmacists in the practice of dispensing OTC medications. However, the finding in the current study is inconsistent with a similar study performed in Qatar where no significant association was found between the demographic characteristics of community pharmacists and the level of patient counseling provided.⁴³ The difference may be attributable to variations in the study settings and environment.

The dispensing environment within pharmacies can both cause and prevent dispensing errors.⁴⁴ Hence, this study also assessed the factors associated with dispensing practices among community pharmacists in the study area. Better dispensing practices were common among older participants with postgraduate degrees, pharmacists from pharmacy chains, participants with over 10 years of experience, and pharmacists who had graduated from regional or international universities. This outcome is consistent with a previous study that reported that the average dispensing score of community pharmacists in Turkey was significantly higher among pharmacists with 5 years of experience, indicating that dispensing practices are closely associated with experience; however, they found no association with sex, age, or workload.⁴⁵ This result underpins the importance of experience and education concerning dispensing practices. Ansari (2017) reported that the widespread irrational dispensing of antibiotics is due to a lack of professionally trained personnel i.e., pharmacists.⁴⁶ Poor dispensing practices were common among participants who were unsatisfied with their current community pharmacist job. This is consistent with the outcomes of several similar studies. For instance, Al Khalidi and Wazaify (2013) reported that community pharmacists in Amman are less satisfied with their jobs due to long working hours, lack of advancement and promotion opportunities, and poor physician-pharmacist relationships.⁴⁷ Similarly, Yang et al. (2016) performed a cross-sectional survey in South Korea that showed that pharmacists have low levels of satisfaction with the current medication counseling services provided at community pharmacies.⁴⁸

In the assessment of dispensing practices, although the community pharmacists enquired about drugs the patients had recently taken, any medication different from the ones they came to purchase was not asked about. This finding contradicts the result obtained from other cross-sectional surveys of community pharmacists in Saudi Arabia, Qatar, and Ethiopia on their OTC counseling activities. These studies found that

pharmacists always enquired about the medicines the patients wanted to purchase and whether they were taking any other medications.^{49,50}

Although pharmacists enquired about patients' health conditions and duration of conditions, discouraged the long-term use of medications, and recommended visits to physicians, other practices such as issuing warnings about incorrect choices of treatment and recommending non-drug alternatives were less frequent. Understandably, patients/clients would have been well informed after expended quality time with the physicians before coming to the pharmacy to fill their prescriptions. Therefore, community pharmacists may have simply concurred with what they are expected to do which represents their mere aspirations. It can be concluded from the research findings that only trained and experienced pharmacists should dispense medicines and that the education of pharmacists is crucial for good dispensing practices.

The main implications from these results are that organizational policies oriented toward creating a patient-oriented and counseling-friendly environment could increase pharmacists' satisfaction with their organizations and reduce patients' self-medication risks due to improved counseling quality. Furthermore, additional training regarding clinical skills (e.g., OTC counseling) for pharmacists could motivate them to strive for professional self-realization and increase their job satisfaction, thereby improving service quality in pharmacies. Additionally, measures to increase the job satisfaction of pharmacists at retirement age (e.g., higher involvement in patient care, tutoring less experienced colleagues) could be a way to retain experienced staff and maintain high-quality pharmaceutical services.

CONCLUSION

Patient-centered management strategies oriented toward creating a counseling-friendly environment would open more space to achieve professional self-realization through cognitive services. This would not only benefit patients via consistent counseling services but also increase pharmacists' satisfaction with their job and profession.

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AUTHORS' CONTRIBUTIONS

AAJ and SSA conceptualized the project. HK and SSA contributed



in the methodology development, MS, FD and MJ contributed to data collection. AAJ and FD contributed to data analysis and interpretation. AASJ and NMA investigation and write the discussion. The final manuscript has been developed, written, and agreed by all authors. All Authors read and approved the final manuscript.

AVAILABILITY OF DATA AND MATERIALS

All data will be provided upon request.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study received approval from the Institutional Ethics Review Committee of Ajman University. All participants

were informed of the study purpose before data collection. They were also told that their consent was required for the questionnaire to be administered; all participants gave their written informed consent. The participants' identities were not recorded and they were assured of complete confidentiality.

CONSENT FOR PUBLICATION

All authors are agreed for publication of this manuscript in *Pharmacy Practice Journal*.

COMPETING INTERESTS

All authors declare that they have no conflicts of interest.

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