Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Patient Perceptions of Privacy and Consultation Areas in Pharmacies in Kuwait: A Cross- Sectional Comparative Study (2017 vs 2024)

Salah Waheedi

salah.waheedi@ku.edu.kw

Kuwait University

Samuel Koshy

Kuwait University

Sarah Al-Ojaiman

Ministry of Health

Jana Alnesef

Ministry of Health

Research Article

Keywords: Privacy, Pharmacy, Kuwait, Counselling

Posted Date: May 13th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-9304459/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

Additional Declarations: No competing interests reported.

Abstract

Background:

As pharmacy practice in Kuwait expands toward patient-centred care, conversational privacy has become essential for effective counselling. This study compares patients' perceptions of privacy and the need for private consultation areas in government-operated primary care polyclinic pharmacies between 2017 and 2024.

Methods:

Two cross-sectional surveys were conducted in polyclinic pharmacies across Kuwait (2017: January–April; 2024: February–April). Adults aged ≥ 21 years completed an identical bilingual questionnaire (10 Likert-scale items) assessing perceived privacy and need for a private consultation room. Between-year differences were evaluated using χ^2 and Mann–Whitney U tests. Data from both time points were pooled, and multivariable ordinal logistic regression was used to identify factors associated with higher perceived privacy and greater need.

Results:

A total of 517 participants were included (2017: n = 307; 2024: n = 210). Participant characteristics differed between years, including gender, age, education, and pharmacy busyness. Perceived privacy improved modestly (median [IQR]: 18 [13–21] vs 19 [15.75–22]; p = 0.002), with fewer "Poor" and more "Good–Excellent" ratings. The need for a private consultation room remained high and did not differ significantly (17 [16–20] vs 17 [14–20]; p = 0.433). In pooled analyses, lower pharmacy busyness was strongly associated with higher perceived privacy (no patients waiting vs > 5: OR 5.10, 95% CI 2.37–10.89). Younger age groups reported lower privacy and a greater need for private consultation areas. Higher privacy satisfaction was inversely associated with perceived need (OR 0.85, 95% CI 0.812–0.890).

Conclusions:

Perceived privacy in Kuwaiti polyclinic pharmacies improved modestly between 2017 and 2024, yet the consistently high demand for private consultation rooms highlights persistent structural gaps. Addressing pharmacy busyness and integrating privacy-capable consultation spaces into service design and policy frameworks will be essential to support high-quality, patient-centred pharmacy care.

Background

Effective patient care relies not only on clinical expertise but also on the environment in which clinical interactions occur. Patient privacy remains fundamental to safe and effective care across all healthcare settings, including pharmacies. Pharmacy practice has evolved from a product-centred approach to a clinical, patient-centred model. Contemporary quality frameworks explicitly recognize the importance of the care environment, including privacy in consultation areas, and emphasize patient focus as central to pharmacy service quality [1]. A systematic review conducted across 28 countries demonstrates that both the physical and social design of pharmacy spaces, such as counter configuration, queue management, and consultation room availability, significantly influence patient comfort, engagement, privacy, and professional trust [2]. Maintaining conversational privacy is essential for effective routine counselling practices.

Pharmacy practice standards emphasise the importance of confidential patient consultations. The International Pharmaceutical Federation (FIP) identifies patient confidentiality and privacy as core ethical responsibilities of pharmacists within patient-centred care [3]. Consistent with this principle, recent work in Kuwait to develop a national code of ethics for pharmacists highlighted confidentiality and the protection of patient information as fundamental professional obligations within pharmacy practice [4]. National regulators have translated these principles into practice standards. According to the 2024 guidance issued by the Pharmaceutical Society of Ireland, face-to-face counselling must take place in a designated private area within the pharmacy to maintain confidentiality and promote effective patient engagement [5]. The UK regulator, the General Pharmaceutical Council, similarly mandates that consultations occur in private, secure environments. Practical measures are required to prevent conversations from being overheard, including within Pharmacy First services [6]. In Scotland, 'repeatable room' specifications standardise consultation and examination rooms throughout primary care, making privacy-capable rooms a fundamental component of clinical infrastructure [7].

In the United States (US), the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule establishes a national standard for the privacy of conversations in pharmacies by requiring covered entities to implement reasonable administrative, technical, and physical safeguards to limit overheard disclosures [8]. Peer-reviewed evidence from the US indicates that pharmacy layout, particularly the presence and use of dedicated consultation areas, significantly affects patient comfort and willingness to disclose sensitive information during counseling [9].

Evidence from the Middle East indicates that privacy functions not only as a design objective but also as a critical determinant of patient engagement. In Saudi Arabia, a recent national survey identified widespread concerns regarding patient conversations with pharmacists being overheard in community pharmacies [10]. The availability of private space significantly influences patients' willingness to participate in consultations. These results are consistent with an earlier study reporting that consultation areas are frequently limited or underutilised [11]. At the Gulf Cooperation Council (GCC) level, a 2025 scoping review highlights privacy, time constraints, and training as persistent barriers to the expansion of clinical roles in pharmacies [12]. In the United Arab Emirates (UAE), patient-experience research generally reports positive evaluations, although these are tempered by the lack of private counselling

spaces [13]. This observation aligns with GCC-wide findings that the care environment and interpersonal interactions substantially affect perceptions of service quality. In summary, the available evidence demonstrates that privacy constitutes a fundamental and indispensable basis for effective patient–pharmacist interactions.

Policy and workforce initiatives are currently underway in Kuwait, including the implementation of a national transformation programme for pharmacy services.. The Kuwait Advanced Competency Framework, adapted from international standards, and a matrix competency framework for education seek to align pharmacy practice with the objectives of Kuwait Vision 2035 [14–16]. These initiatives facilitate the expansion of pharmacist-led counselling across various care settings. Kuwait's state-funded primary-care system utilises polyclinics, which are multi-physician facilities equipped with basic diagnostics and on-site dispensing. These polyclinics represent the primary context for pharmacist–patient interactions that integrate technical and relational aspects of care. Consequently, polyclinics are well-suited for studying experiential privacy as clinical roles evolve.

The aim of this study is to compare how patients in Kuwait view conversational privacy and the adequacy of consultation areas in polyclinic pharmacies in 2017 and 2024. This timeframe is characterised by reforms associated with Kuwait Vision 2035 and the implementation of competency-based frameworks. The goals are to create useful policy benchmarks, highlight effective space and workflow practices, and set a baseline for future studies.

Method

Study design and setting

This study employed a comparative cross-sectional design using two independent patient samples collected in 2017 and 2024 from government polyclinic pharmacies in Kuwait. Polyclinics are government-operated primary healthcare facilities that provide outpatient medical services and on-site medication dispensing, representing the main setting for pharmacist–patient interactions in Kuwait. The 2017 survey was conducted between 31 January and 5 April, and the 2024 survey between 21 February and 18 April. Data were collected across multiple health regions, including Capital, Hawally, Jahra, Farwaniya, and Ahmadi.

Participants and sampling

Participants were adults aged ≥ 21 years who had just received their medications from the pharmacy, reflecting the legal age of consent for healthcare decisions in Kuwait. To avoid disruption to pharmacy workflow, patients were approached consecutively after dispensing. Due to operational constraints, convenience sampling was employed in both study periods. Eligible patients were approached, and those who provided informed consent participated in the survey, with 307 completing the survey in 2017 and 210 in 2024.

Data collection procedure

Data were collected using a self-administered questionnaire, which took approximately 5–10 minutes to complete. Participants completed the survey immediately after receiving their medications. For participants who were unable to read, trained data collectors administered the questionnaire verbally using a standardized script and recorded responses. Participants were assured of anonymity, and participation was voluntary with the option to withdraw at any time. In 2017, data collection was conducted by a trained pharmacy student under academic supervision. Equivalent training and oversight procedures were implemented in 2024 to ensure consistency.

Study instrument

The same bilingual (Arabic/English) questionnaire was used in both 2017 and 2024 to maintain methodological consistency. The instrument was developed through a literature review, expert input, and patient feedback, followed by pilot testing. Exploratory factor analysis identified two constructs:

1. Perceived privacy during pharmacy interactions
2. Need for a private consultation area

The final questionnaire consisted of 10 Likert-scale items distributed across these two constructs, along with demographic and visit-related variables (e.g., age, gender, education, medication recipient, payment status, and pharmacy busyness). Responses were recorded on a Likert scale ranging from strongly agree to strongly disagree. The English version of the questionnaire is provided as Supplementary Material (Additional file 1).

Pilot testing

The questionnaire underwent pilot testing prior to the main study. Initial testing with seven participants led to refinement of item wording. Two additional closed-ended questions were introduced. A second pilot test with eight participants confirmed clarity and feasibility. No further substantial changes were required.

Ethical considerations

Both the 2017 and 2024 studies were approved by the Joint Health Sciences Centre Ethics Committee and the Ministry of Health in Kuwait. Written informed consent was obtained from all participants prior to participation. For participants who were unable to read, the consent form was read aloud and responses were recorded by trained data collectors. Participation was voluntary, and all data were anonymized and stored securely in accordance with ethical guidelines.

Data analysis

Data were analyzed using IBM SPSS. Descriptive statistics were used to summarize participant characteristics and questionnaire responses. Sociodemographic variables were recoded where appropriate to facilitate comparison between the two time points. Scores were generated for the two constructs (perceived privacy and need for a private consultation area). Higher scores reflected greater levels of the measured construct. Between-year comparisons were conducted using chi-square (χ^2) tests for categorical variables and the Mann–Whitney U test for continuous or ordinal variables.

Data from both time points were pooled for regression analysis to identify overall predictors of perceived privacy and need for a private consultation room. Multivariable ordinal logistic regression was used to examine factors associated with higher perceived privacy and greater need for a private consultation area. All tests were two-sided, with a significance level of $\alpha = 0.05$.

Results

Two cross-sectional samples were obtained from polyclinic pharmacies in 2017 (n = 307) and 2024 (n = 210).

Participant characteristics

Table 1 summarizes participant demographics by year. Statistically significant differences were observed in gender (female: 59.6% in 2017 vs 70.0% in 2024; $p = 0.016$), age (median [IQR]: 35 [28–48] vs 43 [29–55]; $p = 0.011$; distribution $p < 0.001$), marital status ($p = 0.038$), education ($p < 0.001$), and pharmacy busyness ($p < 0.001$). No significant differences were found in medication recipient ($p = 0.066$) or payment status ($p = 0.306$).

Table 1
Demographics summarized for the years 2017 and 2024

Demographic Variable	Category	2017 Count	%	2024 Count	%	p-value
Gender	Female	183	59.6%	147	70%	0.016
	Male	124	40.4%	63	30%	
Age Median (IQR)		35 (28–48)		43 (29–55)		0.011
	18–24 years	33	10.7%	40	19%	< 0.001
	25–34 years	115	37.5%	40	19%	
	35–44 years	57	18.6%	30	14.3	
	45–54 years	55	17.9%	44	21%	
	55 years and over	47	15.3	56	26.7	
Marital Status	Single	77	25.1%	66	31.4%	0.038
	Married	201	65.5%	136	64.8%	
	Divorced	18	5.9%	3	1.4%	
	Widowed	11	3.6%	5	2.4%	
Educational Level	Less than high school	27	8.8%	15	7.1%	< 0.001
	High school	39	12.7%	22	10.5%	
	Diploma	91	29.7%	12	5.7%	
	University degree	134	43.8%	145	69.0%	
	Postgraduate	15	4.9%	16	7.6%	
Recipient of Medications	For self	237	77.2%	176	83.8%	0.066
	For others	70	22.8%	34	16.2%	
Paid for Medications	No	248	80.8%	177	84.3%	0.306
	Yes	59	19.2%	33	15.7%	
Busyness of Pharmacy	No patients were waiting	41	13.4%	74	35.2%	< 0.001
	1–2 patients	149	48.5%	120	57.1%	
	3–5 patients	80	26.1%	12	5.7%	

Demographic Variable	Category	2017 Count	%	2024 Count	%	p-value
	More than 5 patients	37	12.1%	4	1.9%	

Perceived privacy and need for a private consultation room

As shown in Table 2, perceived privacy scores increased modestly from a median (IQR) of 18 (13–21) in 2017 to 19 (15.75–22) in 2024 (p = 0.002). This was accompanied by a shift in distribution, with fewer “Poor” ratings (48.7% to 38.1%) and more “Good–Excellent” ratings (12.0% to 20.0%). The perceived need for a private consultation room remained high and did not differ significantly between years (median [IQR]: 17 [16–20] vs 17 [14–20]; p = 0.433). “Highly needed” remained the most frequent category in both samples (75.9% vs 63.8%).

Table 2
Privacy Levels and Need for Private Room (2017 and 2024)

Privacy Levels	Category	2017 Count	%	2024 Count	%	P-value
	Median (IQR)	**18 (13–21)**		**19 (15.75-22)**		**0.002***
	Poor	146	48.7%	80	38.1%	
	Fair	118	39.3%	88	41.9%	
	Good to Excellent	36	12.0%	42	20.0%	
Need for Private Room	Median (IQR)	17 (16–20)		17 (14–20)		0.433*
	Not Needed	24	7.9%	32	15.2%	
	Moderately Needed	49	16.2%	44	21.0%	
	Highly Needed	230	75.9%	134	63.8%	

* Mann-Whitney U test

Factors associated with privacy and need

Table 3 presents the adjusted associations from the pooled ordinal regression models. Pharmacy busyness was the strongest predictor of perceived privacy. Compared with > 5 patients waiting, having no patients waiting (OR = 5.10; 95% CI: 2.37–10.89) or 1–2 patients waiting (OR = 2.60; 95% CI: 1.27–5.32) was associated with higher perceived privacy.

Table 3
Results of Multivariate Ordinal Regression of the Two Constructs (Privacy Levels and Need for Private Room) and Possible Predictors

Construct	Category/Level	Odds Ratio	95% CI
Privacy Levels			
Pharmacy Busyness	No patients waiting	5.1	[2.37, 10.89]
	1–2 patients waiting	2.6	[1.27, 5.32]
	2–5 patients waiting	1.4	[0.65–3.10]
	> 5 patients waiting	[reference]	
Age Group	18–24 years	0.66	[0.34–1.29]
	25–34 years	0.57	[0.34–0.95]
	35–44 years	0.54	[0.30–0.97]
	45–54 years	0.54	[0.31–0.92]
	55 years and over	[reference]	
Need for Private Room			
Age Group	18–24 years	2.1	[0.95–4.67]
	25–34 years	1.9	[1.06–3.50]
	35–44 years	2.3	[1.15–4.59]
	45–54 years	1.8	[0.96–3.43]
	55 years and over	[reference]	
Patient Satisfaction with privacy		0.85	[0.812, 0.890]
All demographics are integrated into the models. Only statistically significant odds ratios are presented in this table.			

Age was also significantly associated with privacy perceptions. Compared with participants aged ≥ 55 years, those aged 25–34 (OR = 0.57; 95% CI: 0.34–0.95), 35–44 (OR = 0.54; 95% CI: 0.30–0.97), and 45–54 (OR = 0.54; 95% CI: 0.31–0.92) had lower odds of reporting higher privacy.

For the perceived need for a private consultation room, participants aged 25–34 (OR = 1.90; 95% CI: 1.06–3.50) and 35–44 (OR = 2.30; 95% CI: 1.15–4.59) had higher odds of greater need compared with those aged ≥ 55 years.

Perceived privacy was inversely associated with the need for a private consultation room (per-point increase OR = 0.85; 95% CI: 0.812–0.890); nevertheless, a substantial proportion of participants across all privacy levels—including those reporting good to excellent privacy—continued to express a high need for a private consultation room (Fig. 1).

Discussion

This study is the first to track changes in perceived conversational privacy in Kuwaiti polyclinic pharmacies over time. Between 2017 and 2024, “Good–Excellent” privacy ratings rose from 12.0% to 20.0%, and “Poor” ratings dropped from 48.7% to 38.1%. These numbers show steady improvements in the communication environment of public-sector pharmacies. The findings align with global research showing that the layout of pharmacy spaces shapes patients’ comfort, trust, and openness. Hindi et al. (2024) found that privacy problems reduced patient engagement in over 40% of cases in community settings [1]. Dhital et al. reported that poor pharmacy layouts raised perceived exposure and made people 35% less willing to communicate in 28 countries [2]. Regulators like the Pharmaceutical Society of Ireland and the UK General Pharmaceutical Council now require private consultation areas to keep patient discussions confidential [6, 17]. In Kuwait, despite improved privacy, suboptimal ratings in 2024 show that current standards still fall short internationally. Similar issues have been reported in Saudi Arabia, where 57% of patients report a lack of privacy [10], and in the UAE, where about one-third of patients cite a lack of private areas as a key barrier [13]. Together, these results confirm the principle that privacy, recognized in global pharmacy ethics, is vital for safe, high-quality, patient-centred care.

Pharmacy busyness was identified as the strongest predictor of perceived privacy. Patients who encountered no queue were over five times more likely to report greater privacy than those facing more than five individuals waiting, demonstrating a considerable operational effect. International evidence supports this association; Dhital et al. found that increased customer density raised perceived audibility and visibility by 27–40%, consequently reducing subjective confidentiality [2]. Age-based differences were also significant: adults aged 25–44 reported lower privacy satisfaction and had about twice the odds of requiring a private room compared to those aged 55 years or older. These findings correspond with global generational trends, as Nguyen and Hall reported that younger adults were twice as likely as older adults to prefer enclosed consultation areas [18]. Similar patterns have been observed in Saudi Arabia, where 62% of younger simulated clients reported moderate-to-high discomfort regarding overheard conversations [11]. Overall, these results show that privacy perceptions in Kuwaiti polyclinics are determined by environmental, operational, and generational factors, illustrating the need for multifaceted interventions that address both infrastructural design and workflow optimization.

The results are especially significant within the context of Kuwait’s ongoing health sector transformation and the implementation of competency-based pharmacy frameworks aligned with Kuwait Vision 2035. National reforms emphasize expanding pharmacists’ roles in chronic disease management, medicine optimization, and therapeutic monitoring [15], all of which require suitable environments for confidential patient consultation. However, the consistently high demand for private consultation rooms in both 2017

(75.9%) and 2024 (63.8%) suggests that infrastructural progress has not matched expert expectations. A recent GCC scoping review similarly found that over 50% of pharmacists across the region cited the lack of private spaces as a major barrier to the provision of extended clinical services [19]. International models provide further insight; for example, Scotland's "repeatable rooms" initiative demonstrates that privacy-e consultation spaces can be standardized and implemented throughout diverse primary care settings [7]. These results highlight several key recommendations for advancing privacy in Kuwaiti polyclinics. First, investments should be directed toward facility redesign to provide adequate private consultation rooms, as demand remains high despite recent improvements. Second, workflow processes must be optimized to manage workload and reduce queues, as these factors directly influence privacy perceptions. Third, privacy requirements should be formally integrated into national accreditation and regulatory criteria to ensure sustained standards. Drawing on international models, Kuwait can standardize repeatable privacy solutions across clinics, supporting pharmacists in meeting evolving care expectations.

From both clinical and ethical viewpoints, these results reaffirm that privacy remains a fundamental precondition for effective pharmaceutical care. Confidential environments greatly improve the disclosure of medication behaviours, psychosocial concerns, and medication adherence barriers. Evidence from multiple health systems indicates that private counselling spaces increase patient willingness to discuss sensitive information by 30–45%, improve medication understanding, and enhance counselling effectiveness [19, 20]. In the Kuwaiti context, where polyclinics play a central role in chronic disease management and long-term therapy monitoring, inadequate privacy may compromise the therapeutic alliance and impede optimal care. The inverse association between privacy satisfaction and the recognized need for private rooms underscores patients' recognition that confidentiality is essential to effective clinical communication.

Limitations

This study has several limitations. Convenience sampling may limit representativeness, although broad geographic coverage enhances generalizability. Self-reported measures may introduce response bias; however, the use of identical methodology across both time points enhances internal comparability. The study did not include architectural or acoustic measurements, which may influence perceptions of privacy. Nevertheless, the consistent associations observed suggest that the survey captured key factors related to perceived conversational privacy.

Conclusion

This study demonstrates modest but measurable improvements in conversational privacy in Kuwaiti polyclinic pharmacies between 2017 and 2024, forming a strong empirical foundation for future policy and practice development. Despite this progress, the persistent demand for private consultation rooms reveals ongoing structural gaps that must be addressed to support expanded pharmacist-led clinical services. The strong influence of pharmacy busyness and age on privacy perceptions delivers actionable

insights for targeted workflow and environmental interventions. As Kuwait advances its Vision 2035 health-system transformation, prioritizing privacy-capable consultation spaces, embedding privacy standards into accreditation systems, and modernizing pharmacy infrastructure will be essential for enabling pharmacists to provide high-quality, patient-centred care. This study provides a comparative benchmark for privacy performance in the public pharmacy sector and informs future efforts to develop a more patient-focused pharmacy service model in Kuwait.

Declarations

Ethics approval and consent to participate: The 2017 and 2024 studies were approved by the Joint Health Sciences Centre Ethics Committee and the Ministry of Health in Kuwait. : Informed consent was obtained from all participants prior to participation. All procedures followed ethical guidelines in accordance with the Declaration of Helsinki.

Consent for publication: Not applicable.

Availability of data and materials: The datasets generated and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests: The authors declare that they have no competing interests.

Funding: This research received no specific grant from any funding agency.

Authors' contributions: SW conceived the study. SW, SR, and JN contributed to survey development and data collection. SW conducted the statistical analysis and prepared the tables and figure. All authors, including SK, contributed to the drafting, editing, and review of the manuscript. All authors approved the final manuscript.

Acknowledgements: The authors gratefully acknowledge the patients who took part in this study for their time and participation.

References

1. Hindi AMK, Campbell SM, Jacobs S, Schafheutle EI. Developing a quality framework for community pharmacy: a systematic review. BMJ Open. 2024;14(2):e079820.
2. Dhital R, Sakulwach S, Robert G, Vasilikou C, Sin J. Systematic review on the effects of the physical and social aspects of community pharmacy spaces on service users and staff. Perspect Public Health. 2022;142(2):77–93.
3. International Pharmaceutical Federation. Professional ethics: activities, priorities, and resources. The Hague: FIP. 2024. https://www.fip.org/activities-priorityareas-professionalethics. Accessed 18 Mar 2026.

4. Waheedi S, Alfailakawi R, Al-Selili S, Ghadanfari H, Al-Haqan A. Developing a national code of ethics for pharmacists in Kuwait: insights from a survey and a modified Delphi study. PLoS ONE. 2025;20(7):e0326089.
5. Pharmaceutical Society of Ireland. PSI guidelines on medicines therapy review, counselling and prescription extension. Dublin: PSI. 2024. https://www.psi.ie/sites/default/files/2024-07/PSI_Guidelines_to_support_Medicines_Therapy_Review_Counselling_and_Prescription_Extension.pdf. Accessed 20 Mar 2026.
6. General Pharmaceutical Council. Upholding patient confidentiality during pharmacy consultations. London: GPhC. 2025. Available from: https://www.pharmacyregulation.org/about-us/news-and-updates/regulate/upholding-patient-confidentiality-during-pharmacy-consultations. Accessed 20 Mar 2026.
7. National Services Scotland. NHS Scotland repeatable rooms-Version 1, Edinburgh. NSS; 2024. https://www.nss.nhs.scot/media/5215/nhsscotland-repeatable-rooms-report-v1-apr-24.pdf. Accessed 20 Mar 2026.
8. U.S. Department of Health & Human Services, Office for Civil Rights. Summary of the HIPAA Privacy Rule (national standards; reasonable safeguards). Washington (DC): HHS; 2025. https://www.hhs.gov/hipaa/for-professionals/privacy/laws-regulations/index.html. Accessed 22 Mar 2026.
9. Bednarczyk RA, Nadeau JA, Davis CF, McCarthy A, Hussain S, Martiniano R et al. Privacy in the pharmacy environment: analysis of observations from inside the pharmacy. J Am Pharm Assoc (2003). 2010;50(3):362–7.
10. Alrasheed MA, Alfageh BH, Almohammed OA. Privacy in community pharmacies in Saudi Arabia: a cross-sectional study. Healthc (Basel). 2024;12(17):1740.
11. Khojah HMJ. Privacy level in private community pharmacies in Saudi Arabia: a simulated client survey. Pharmacol Pharm. 2019;10:445–55.
12. Noorsaeed SMW, Alshammari H, Weir N, Kurdi A. Exploring community pharmacy services in Gulf Cooperation Council countries: a scoping review. Int J Pharm Pract. 2025;33(5):458–76.
13. Kharaba Z, Alzoubi KH, Al Azzam S, et al. Exploring patient satisfaction with community pharmacy services in the United Arab Emirates: implications for quality improvement. PLoS ONE. 2026;21(1):e0339417.
14. Al Haqan A, Waheedi S, Abdullah I, Meilianti S, Shaaban J. Competency development for pharmacy: adopting and adapting the FIP global advanced development framework. Front Med. 2024;11:1442643.
15. Moreau P, Qaddoumi M, Al Taweel D, Alghanem S, Bayoud T, Alowayesh M, et al. Development and refinement of a matrix competency framework with EPAs for initial pharmacy education in Kuwait. Pharm (Basel). 2023;11(5):149.
16. Ministry of Foreign Affairs, State of Kuwait. Kuwait Vision 2035. https://www.mofa.gov.kw/en/pages/kuwait-vision-2035. Accessed 22 Mar 2026.

17. Pharmaceutical Society of Ireland. Guidelines on patient consultation areas in retail pharmacy businesses. Dublin: PSI. 2024. https://www.psi.ie/sites/default/files/2024-06/01-2_Patient_consultation_areas-AW1.pdf. Accessed 22 Mar 2026.
18. Nguyen T, Hall E. Generational differences in expectations of healthcare communication environments: a cross-sectional study. Patient Exp J. 2022;9(2):101–12.
19. Patel N, Kadakia A, Watterson T. Confidentiality, trust, and willingness to disclose health information in pharmacy settings. J Am Pharm Assoc (2003). 2022;62(4):1292–300.
20. Jones L, Durning P, Seston E. The role of privacy in enhancing medication counselling quality: patient-reported outcomes. Patient Educ Couns. 2021;104(11):2785–92.

Figures

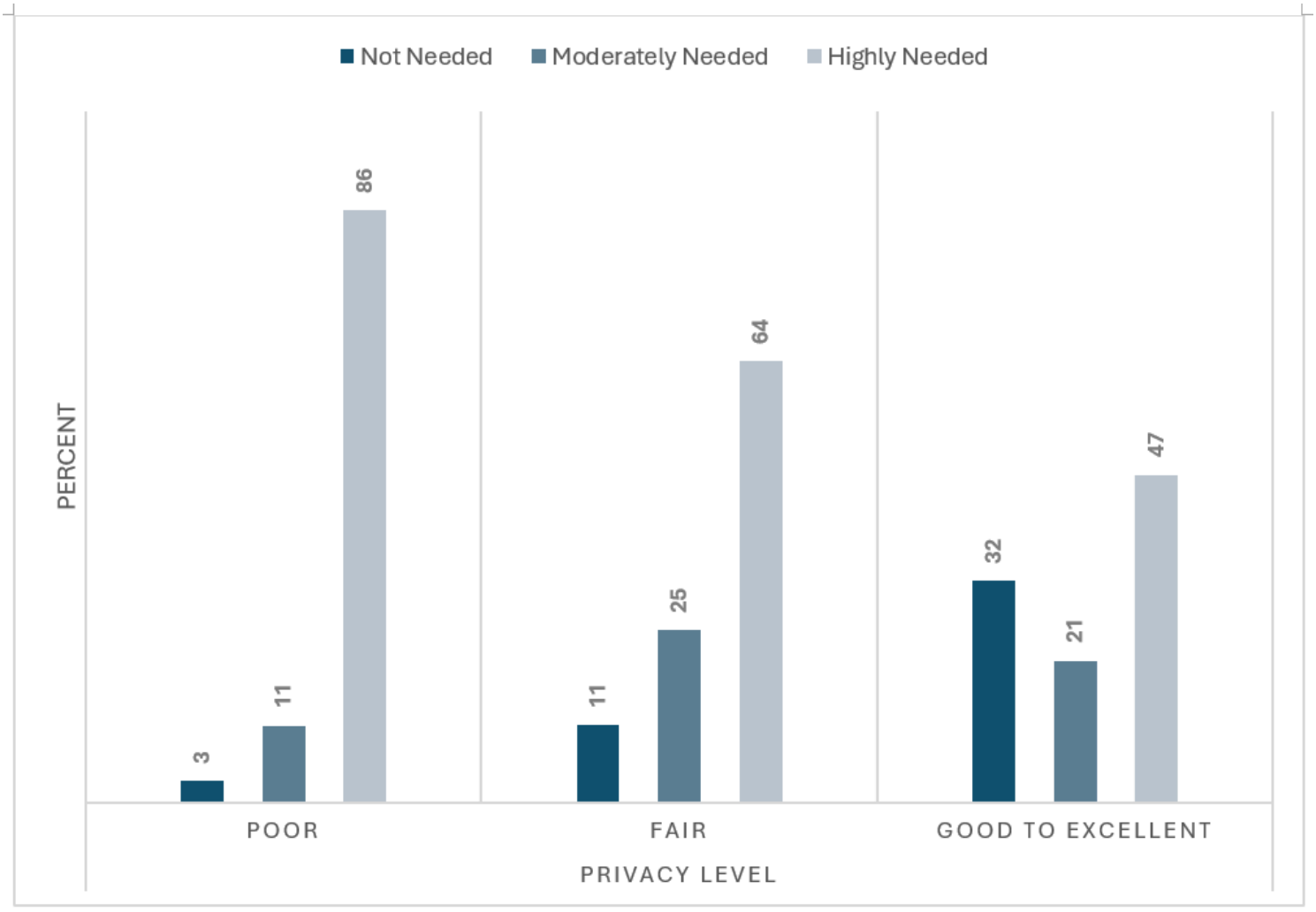


Figure 1

Perceived need for a private consultation room across privacy levels (pooled sample)

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- File1.docx