Galaxy Publication

Evaluating Community Pharmacy Self-Medication Consultations: Practice Quality, Patient-Reported Outcomes, and Satisfaction

Mikael Korhonen[1], Sanna L. Virtanen[1]*

[1]Department of Pharmacotherapy, Faculty of Pharmacy, University of Helsinki, Helsinki, Finland.

*E-mail ✉ s.virtanen_pharm@gmail.com

ABSTRACT

Community pharmacy teams (CPTs) play a well-recognized role in supporting self-medication practices, thereby promoting the safe and appropriate use of non-prescription medicines. This study sought to characterize CPTs' performance during self-medication consultations, as well as client-reported outcomes and satisfaction. An additional objective was to develop an explanatory model to better understand the factors influencing client satisfaction with this service. A descriptive, cross-sectional exploratory study was conducted. Data were obtained from a purposive sample of pharmacy clients recruited from six community pharmacies in Portugal. CPTs followed a structured self-medication consultation process based on 11 quality criteria, including five related to case assessment and six to counselling. Scores for evaluation, counselling, and overall consultation quality were calculated. Client-reported outcomes and satisfaction were collected through a follow-up telephone interview. In addition to descriptive analyses, linear regression was used to examine associations between multiple independent variables and clients' overall satisfaction. Dispensing focused primarily on product selection was more common among clients with lower educational attainment. Overall adherence by CPTs to the predefined quality criteria was high, reaching 93.95% of the maximum possible score, with the most frequently omitted criterion being the assessment of concurrent medication use. The majority of clients (93%) reported symptom improvement following the consultation. Mean client satisfaction was high, with a score of 4.70 out of 5. Pharmacy loyalty, consultation evaluation score, and female sex were the variables most strongly associated with overall satisfaction. Client-reported outcomes and satisfaction with self-medication consultations were generally positive. Satisfaction appears to be closely linked to the quality of the consultation, particularly the assessment component, highlighting the evolving clinical role of pharmacists. Further research with a larger sample is needed to validate these findings.

Keywords: Community pharmacy services, Self medication, Nonprescription drugs, Patient satisfaction, Counseling, Patient reported outcome measures

Introduction

Self-medication constitutes a fundamental component of community pharmacists' responsibilities in fostering self-care, in line with recommendations from the World Health Organization [1]. Community pharmacy teams (CPTs) play a key role in the management of minor ailments, supporting self-medication practices and ensuring the safe and appropriate use of non-prescription medicines [2].

In Portugal, CPTs consist on average of 3.4 licensed pharmacists, one pharmacy technician, and 0.4 additional staff members per community pharmacy, based on 2016 data. Pharmacists and technicians are legally authorized to dispense non-prescription medicines [3]. Community pharmacies have been associated with higher levels of client satisfaction in addressing minor health conditions when compared with emergency departments and general medical practice, offering easier access while minimizing waiting times and consultation costs [2].

Notwithstanding its advantages, self-medication carries inherent risks, particularly when medicines are used inappropriately, which may result in serious outcomes such as hospital admissions [4]. Inappropriate medication

use includes behaviors such as exceeding recommended treatment durations or consuming doses above approved limits for non-prescription medicines [5, 6].

Patterns of medicine use may also be influenced by seasonal factors, which can increase the likelihood of misuse. For example, paracetamol, commonly included in over-the-counter cold and flu products, is more frequently misused during winter months due to the higher incidence of respiratory infections [7]. Nonsteroidal anti-inflammatory drugs represent another frequently misused category of non-prescription medicines; a study conducted in the United States reported that 11% of participants exceeded the maximum recommended daily dose of ibuprofen [8]. Analgesics, including nonsteroidal anti-inflammatory drugs, are among the medicines most commonly linked to inappropriate use and self-medication-related hospitalizations [4, 6, 8, 9].

In Portugal, self-medication is a well-regulated and widely practiced activity, both in terms of the medicines authorized and the conditions eligible for self-care [10, 11]. The proportion of clients obtaining unprescribed medicines or medicines orally recommended by physicians has been reported as 21.5% in rural areas and 26.2% in urban settings [12, 13]. Previous research suggests that self-medication practices are generally responsible; however, concerns persist regarding the use of specific prescription-only medicine classes, particularly antibiotics [14, 15].

While CPT interventions in self-medication have the potential to prevent unnecessary emergency visits and serious adverse outcomes, it remains essential to uphold practice standards and ensure high-quality consultations [16]. Health care quality is a multidimensional concept, and evaluations of self-medication consultations have addressed both the technical aspects of CPTs' professional practice and their interpersonal communication skills [3]. Additionally, client perspectives and patient-reported outcomes are increasingly recognized as important indicators of health care quality [17].

There is limited evidence regarding client-reported outcomes following self-medication consultations in community pharmacies and their association with CPT performance. Accordingly, this study aimed to characterize CPTs' practice in self-medication consultations, as well as client-reported outcomes and satisfaction. A secondary objective was to develop an explanatory model to better understand client satisfaction with this service.

Materials and Methods

This investigation used a descriptive cross-sectional approach. The data analysed originated from a broader research programme focused on the creation and validation of a Balanced Scorecard (BSC) designed to support quality management in the dispensing of non-prescription medicines within community pharmacy settings. This larger project was conducted using Design Science Research Methodology (DSRM) [18]. DSRM is a problem-solving research paradigm concerned with artefacts developed by human action, emphasizing the systematic design, evaluation, and refinement of solutions intended to address practical challenges [19, 20]. Within pharmacy practice research, DSRM has been successfully applied to bridge theory and practice through the development, implementation, and assessment of tools tailored to specific professional needs [21].

A total of six community pharmacies located in Portugal were intentionally selected to capture variation across relevant operational characteristics, including economic performance, staff composition, and geographical context. These pharmacies, labelled A through F, were asked to recruit eligible participants over a six-month period. Client enrolment was facilitated using an informational leaflet that included written informed consent and a section for participants to provide their telephone contact details for follow-up. Eligible participants were clients involved in encounters where a non-prescription medicine was supplied, either following a request related to symptoms or as a direct request for a specific product. To limit selection bias, CPTs were instructed to invite clients from the first eligible non-prescription dispensing interaction occurring in both the morning and afternoon, contingent on workflow capacity, with recruitment capped at 100 participants for the entire study period.

During the course of the broader study, regular monthly meetings were held with CPTs to review progress and reinforce recruitment efforts. When pharmacies failed to meet the predefined recruitment benchmark of five clients per week, additional encouragement was provided through targeted email communications.

The self-medication consultation process followed a structured framework that was jointly defined with the CPTs. This framework was informed by prior research [3] and incorporated explicit quality criteria addressing both the assessment of the client's condition and the counselling provided during the consultation **(Table 1)**.

Table 1. Structured framework for self-medication consultations agreed with community pharmacy teams

Domain	Consultation questions
Evaluation	For whom is the medicine intended?
	What symptoms is the client experiencing?
	When did the symptoms begin?
	What actions have already been taken to address the problem?
	What medicines is the client currently using?
Counselling	What is the purpose and expected effect of the selected non-prescription medicine(s)?
	How should the medicine be taken in terms of dosage?
	Has the dosage information been written on the medicine package?
	For how long should the treatment be continued?
	What additional advice should be provided (e.g. non-pharmacological measures)?
	What should the client do if symptoms persist or worsen?

Community pharmacy teams (CPTs) entered pseudo-anonymised information into an electronic data collection form, including client characteristics, the non-prescription medicine(s) supplied, and adherence to the predefined quality criteria **(Table 1)**. When CPT members considered self-medication to be unsuitable, they documented whether the client had been referred for medical assessment; such cases were excluded from the analysis. Each quality criterion was self-assessed and scored dichotomously, with one point awarded when fulfilled and zero points when not fulfilled. This scoring process generated three indicators: an evaluation quality score (range: 0–5), a counselling quality score (range: 0–6), and a total consultation quality score ranging from 0 to 11.

Client-reported outcomes and satisfaction were assessed through follow-up telephone interviews conducted between one week and one month after the pharmacy consultation. To reduce recall bias, clients who could not be contacted within one month were classified as lost to follow-up. Telephone interviews were selected to enhance response rates and allow clarification of responses, while avoiding reliance on clients' subsequent pharmacy visits [22]. Interviews were carried out by the field researcher, a pharmacist, during monthly visits to pharmacies A–F. Initial contact was made by pharmacy staff, followed by a second contact attempt by the researcher if the first call was unsuccessful.

The interview questionnaire included three sections: sociodemographic information, self-reported health outcomes, and satisfaction with the service. Regarding health outcomes, participants were asked whether they felt slightly improved, improved, or not improved following the self-medication consultation. Client satisfaction was measured using an adapted version of the questionnaire developed by Armando *et al*. which consists of ten items rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) [23]. This instrument was selected due to its relevance to the study aims, as no validated questionnaire specifically addressing satisfaction with non-prescription medicine consultations in community pharmacies was identified. Individual item scores were summed and normalised to produce a composite satisfaction index ("overall satisfaction"), with possible values ranging from 1 to 5.

Statistical analyses were performed using SPSS version 18. Descriptive statistics were generated, along with association tests such as the Chi-square test, and one-way analysis of variance (ANOVA) was applied to examine differences between groups. Although the Kolmogorov–Smirnov test indicated that the data were not normally distributed ($p < 0.05$), means and standard deviations (SD) were reported, given the robustness of one-way ANOVA to violations of normality assumptions. To investigate the relationship between multiple independent variables and clients' overall satisfaction (dependent variable), linear regression analysis was conducted using SPSS. This approach enabled estimation of correlations and the strength of linear associations between explanatory variables and the outcome measure [24].

The independent variables, selected parsimoniously based on their relevance and preliminary associations with satisfaction, included:

- Clients' sex (binary: 0 = male; 1 = female);
- Age (continuous);
- Educational attainment (categorical: 0 = no formal education; 1 = first basic cycle; 2 = second basic cycle; 3 = secondary education; 4 = higher education);

- Living arrangement (binary: 0 = living alone; 1 = not living alone);
- Pharmacy loyalty, defined as regular use of the same pharmacy (ordinal: 0 = never; 1 = sometimes; 2 = always);
- Evaluation score of the self-medication consultation (ordinal);
- Overall consultation quality score (ordinal);
- Type of consultation (binary: symptom-based versus product-based);
- Perceived improvement following the self-medication interaction (binary: 0 = no; 1 = yes).

Initially, univariate linear regression analyses were conducted to explore the relationship between each independent variable and overall client satisfaction **(Table 2)**.

Table 2. Univariate linear regression analyses between independent variables and overall client satisfaction

Explanatory variable	Adjusted R²	R	F statistic	p-value	Standardised β	p-value	t value
Consultation evaluation score	0.024	0.175	4.400	0.038	0.175	0.038	2.098
Type of consultation (symptom-based vs product request)	-0.008	0.010	0.013	0.909	0.010	0.909	0.115
Total consultation quality score	-0.007	0.023	0.072	0.788	-0.023	0.788	-0.269
Client age	-0.007	0.021	0.063	0.802	-0.021	0.802	-0.251
Client sex	0.022	0.170	4.184	0.043	0.170	0.043	2.045
Living arrangement (living alone vs not alone)	0.004	0.105	1.560	0.214	-0.105	0.214	-1.249
Self-reported improvement after consultation	-0.002	0.078	0.782	0.378	0.078	0.378	0.884
Educational attainment	-0.007	0.014	0.029	0.865	-0.014	0.865	-0.171
Pharmacy loyalty (regular medicine purchases)	0.083	0.299	13.813	<0.001	0.299	<0.001	3.717

Std: standardized; Adj: adjusted.

Relevant univariate regression results are displayed in **Table 2**, indicated by an asterisk (*) next to the p-values. Any independent variables whose regression coefficients did not reach a p-value below 0.20 were removed from further consideration. Subsequently, a stepwise multiple linear regression was carried out to determine the relative contribution of the three final predictors to overall client satisfaction.

The resulting model identified key independent variables significantly associated with client satisfaction, though it was not designed for predictive purposes. As a result, certain standard model checks—such as detailed residual diagnostics or verification of independence among predictors—were not exhaustively conducted. Nevertheless, the Durbin-Watson statistic was computed to evaluate residual autocorrelation, and the residuals' mean (ideally approaching 0) and standard deviation (preferably around 1) were examined. Multicollinearity was assessed via the variance inflation factor (VIF), with thresholds set below 5 for acceptability. Observations identified as outliers (those with studentized residuals exceeding 3 standard deviations) were removed from the analysis. All statistical tests employed a significance level (α) of 0.05 [24].

Ethical approval for the study was granted by the Institutional Ethics Committee of the Instituto de Higiene e Medicina Tropical (IHMT), reference number 14-2016.

Results and Discussion

Across the six participating pharmacies, a total of 215 clients were enrolled, and 135 of these completed the follow-up telephone interview. The participant distribution per pharmacy was:
• Pharmacy A: 47 clients (21.9%), with 35 completing follow-up (25.9%).
• Pharmacy B: 23 clients (10.7%), with 7 completing follow-up (5.2%).
• Pharmacy C: 45 clients (20.9%), with 36 completing follow-up (26.7%).
• Pharmacy D: 20 clients (9.3%), with 11 completing follow-up (8.1%).

• Pharmacy E: 41 clients (19.1%), with 26 completing follow-up (19.3%).
• Pharmacy F: 39 clients (18.1%), with 20 completing follow-up (14.8%).

Clients' and CPTs' baseline characteristics

The average age of participating clients was 51.41 years (SD = 16.76), and the majority were female (66.2%; n = 100). With regard to educational attainment, four participants reported no formal education (2.63%), 41 had completed the first basic education cycle (26.97%), 35 the second basic cycle (23.03%), 40 had finished secondary education (26.32%), and 32 held a university degree (21.05%). No statistically significant differences were observed among the six pharmacies concerning clients' age categories or gender distribution. In contrast, educational level differed significantly between pharmacies B and C (p = 0.018), with pharmacy B presenting lower educational attainment and pharmacy C higher levels. Notably, pharmacy C reported the largest proportion of clients with completed higher education (50%; n = 16). Comparable educational profiles were observed among respondents attending pharmacies A, D, E, and F.

Community pharmacy teams consisted predominantly of pharmacists, accounting for 28 professionals (70%), alongside 12 staff members from other professional backgrounds. Pharmacists represented the majority of personnel in all participating pharmacies, and pharmacy A was exclusively staffed by pharmacists. A statistically significant difference was identified across pharmacies in relation to the nature of self-medication consultations (symptom-based versus product-based) (F = 5.91; p < 0.001). As shown in **Table 3**, pharmacy C recorded the highest frequency of product-oriented requests, whereas pharmacy F was characterized almost entirely by symptom-driven consultations, representing 36 of the 39 interactions documented.

Table 3. Frequencies of symptom-based complaints versus product-based requests in participating pharmacies

Pharmacy	Symptom-driven consultations	Non-prescription medicine requests
A	22	5
B	13	10
C	22	23
D	16	4
E	33	8
F	36	3

NPM: non-prescription medicines

Neither living alone nor consistently attending the same pharmacy—used as an indicator of client loyalty—showed a statistically significant relationship with the type of self-medication consultation (p = 0.224, χ^2 = 1.476 and p = 0.209, χ^2 = 3.127, respectively). Likewise, no significant association was observed between consultation typology and clients' gender. In contrast, educational attainment was significantly linked to the nature of the consultation (p = 0.001, χ^2 = 15.971). Specifically, individuals who had completed basic education up to the 9th grade were more inclined to request a specific non-prescription medicine, whereas those with secondary education more frequently presented symptom-related complaints. No clear pattern emerged for participants whose highest level of education was the 4th grade or a university degree.

Quality of consultations

Assessments conducted across the six pharmacies for all 215 consultations indicated a generally high standard of practice, with the five predefined quality criteria being met in the vast majority of cases (n = 202). Deviations from this pattern were limited, with the criterion "Action taken?" unmet in three consultations and "Medication being taken?" omitted in thirteen instances. The type of consultation—whether symptom-based or product-oriented—was not associated with adherence to any of the five quality criteria.

However, overall consultation quality scores varied significantly between pharmacies. Pharmacies A, D, E, and F achieved significantly higher scores compared with pharmacies B and C **(Figure 1)**. No significant relationships were identified between overall consultation quality and clients' gender, whether they lived alone, or their loyalty to a specific pharmacy.
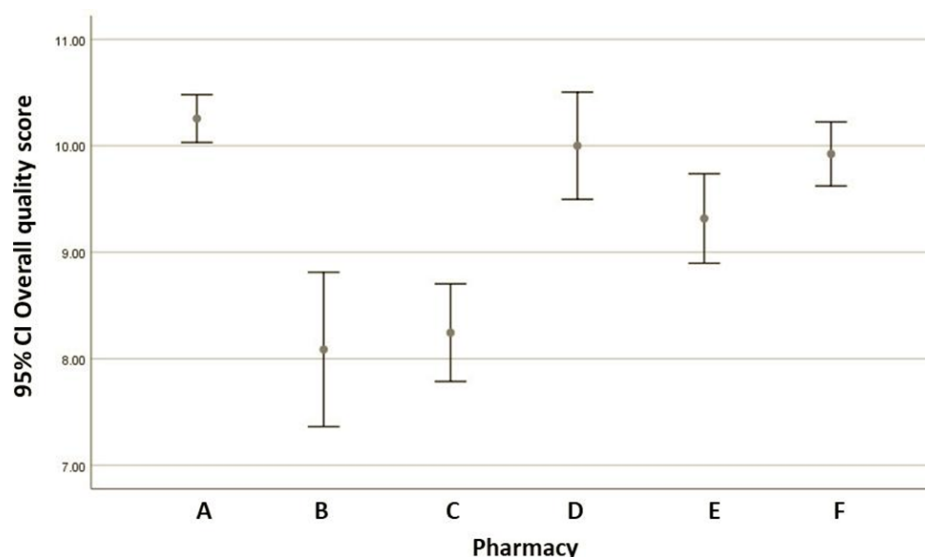
Figure 1. illustrates the overall quality score for self-medication consultations in pharmacies.

The majority of clients (135, representing 93%) indicated that their conditions improved following the consultation. According to self-reported health outcomes, there was no significant association with factors such as study site, client loyalty, or gender. However, it is noteworthy that all instances of reported non-improvement were among female clients **(Table 4)**.

Table 4. Self-reported outcomes by clients

Category	Improved: Yes	Improved: No
Pharmacy where the interaction took place		
Pharmacy A	33	2
Pharmacy B	14	3
Pharmacy C	31	3
Pharmacy D	11	0
Pharmacy E	25	1
Pharmacy F	18	1
Gender		
Female	91	9
Male	51	0
Client loyalty (regularly buys medicines at the enrollment pharmacy)		
Never	7	1
Sometimes	57	1
Always	78	7

Determinants of client satisfaction

The average score for overall client satisfaction was high, with a mean of 4.70 on a five-point scale. Mean satisfaction levels by pharmacy were as follows: 4.64 in pharmacy A, 4.65 in pharmacy B, 4.64 in pharmacy C, 4.72 in pharmacy D, 4.69 in pharmacy E, and 4.87 in pharmacy F. Preliminary univariate analyses, using overall satisfaction as the outcome variable, identified three explanatory factors with statistically significant effects: client loyalty, consultation evaluation score, and gender. Although the association was not statistically significant, client age showed a negative regression coefficient ($\beta = -0.250$). Negative associations were also observed between satisfaction and overall quality score ($\beta = -0.023$), educational attainment ($\beta = -0.014$), and living arrangement (living alone; $\beta = -0.105$).

A stepwise multiple linear regression analysis subsequently confirmed loyalty (binary), evaluation score (range 1–5), and gender (binary) as the key variables independently associated with overall client satisfaction. The

resulting model yielded a multiple correlation coefficient of R = 0.410 and an adjusted coefficient of determination of 0.150, indicating that approximately 15% of the variability in satisfaction scores was explained by the included predictors. The final adjusted regression model was specified as:

$$SRCS = 3.647 + 0.318L + 0206ES + 0.204G \tag{1}$$

where, L=Loyalty, SRCS=self-reported client satisfaction, G=Gender, ES=Evaluation score

In practical terms, the model suggests that client loyalty is associated with an approximate 32% increase in the likelihood of achieving a one-point improvement in overall satisfaction, while each one-point rise in the evaluation score corresponds to an estimated 20% increase in satisfaction. Despite being statistically significant (F = 9.087, p < 0.001), the model demonstrates modest explanatory power. Diagnostic testing indicated no evidence of residual autocorrelation (Durbin–Watson = 2.083) and no multicollinearity among predictors (VIF = 1.018). Following initial model estimation, observations 7 and 130 were excluded due to excessive studentised residuals, and the absolute mean of the remaining residuals was close to zero.

This exploratory investigation suggests that community pharmacy teams (CPTs) reported a generally high level of adherence to recommended quality criteria when conducting self-medication consultations. Most clients indicated an improvement in their health status following the interaction and expressed high overall satisfaction with the service received. Among the variables examined, pharmacy loyalty, clients' evaluation scores, and gender emerged as the most relevant factors associated with overall satisfaction.

The majority of documented consultations focused on symptom-driven presentations (n = 142). Consistent with previous studies, pharmacies with a higher proportion of product-oriented requests—namely pharmacies B and C—demonstrated lower overall consultation quality scores [25-27]. Although these findings would need confirmation in other settings, the reduced quality observed in pharmacies responding primarily to product requests may reflect the enduring tension between the professional clinical role and commercial imperatives within community pharmacy practice. The clinical dimension of pharmacy work has long been advocated by both national and international professional bodies, particularly for its contribution to safer medication use, including commonly used agents such as non-steroidal anti-inflammatory drugs [1, 28]. Nevertheless, further policy initiatives and educational strategies are required to reinforce a patient-centred approach to care [29].

Encouragingly, the nature of the consultation—whether symptom-based or product-based—did not affect compliance with the predefined quality criteria, a finding that contrasts with earlier research [25-27]. The results also diverge from those of a recent systematic review examining CPTs' diagnostic assessments and client consultations [28]. In that review, 63 of the 68 included studies relied on simulated patients to evaluate pharmacy practice, and overall performance was judged to be suboptimal, irrespective of geographical context, scenario, or assessment framework. One possible explanation for the discrepancy between the literature and the present findings is a tendency for CPTs to report their practices in a manner aligned with perceived professional norms. The use of simulated patients could partially address this limitation by providing an external validation of self-reported data, although this methodology is resource-intensive [4]. Alternatively, video-recorded consultations might offer further insights, but such approaches raise concerns regarding feasibility and acceptability within pharmacies. Direct observation may overcome some limitations of self-reporting, though it introduces other challenges, including behavioural changes due to observation (Hawthorne effect).

A statistically significant relationship was observed between clients' educational attainment and consultation typology. Specifically, clients who had completed the second basic education cycle (equivalent to current basic education) were more likely to request a specific product, whereas those with secondary education more often presented symptom-based complaints. This pattern could suggest that clients with lower educational levels tend to self-select products, while those with higher education may be more inclined to seek professional advice from CPTs. However, the absence of a clear trend among clients who completed only the first basic cycle or who held a university degree raises the possibility that this association may be incidental. Larger-scale studies are required to clarify this issue. Nonetheless, the association between self-medication practices and higher educational attainment and/or professional status has been well documented, alongside persistent risks related to inappropriate self-medication [29-32]. Consequently, regardless of consultation typology or formal education level, adequate medication-related functional literacy remains crucial, alongside other essential competencies such as digital and financial literacy [33].

Nearly all clients (93%) reported an improvement in their condition following the self-medication consultation, with only ten participants indicating no perceived benefit. These findings align with earlier observational research conducted in a rural Portuguese pharmacy, where approximately 90% of 298 participants experienced resolution of minor health problems within one week of pharmaceutical counselling [34]. However, these results should be interpreted cautiously. Minor ailments may resolve naturally over time, irrespective of the use of non-prescription medicines, adjunctive therapies, or alternative products not recommended by CPTs. Such factors were not assessed in the present study, which was not designed to establish causal relationships. Moreover, evaluating the impact of self-medication consultations on health outcomes through experimental designs is inherently challenging, given their routine integration into standard care.

Consistent with previous research on satisfaction with community pharmacy services, participants in this study reported high levels of overall satisfaction [35, 36]. For instance, a nationwide face-to-face survey conducted in Portugal in 2015 involving 1, 114 respondents found that 36% used community pharmacies as their first point of contact for minor ailments, and 94% of those who had visited a pharmacy in the preceding year reported being satisfied with the service [36]. Some authors argue that such high satisfaction scores may reflect modest client expectations, which could evolve as service quality improves [35, 37, 38]. However, whether clients' expectations are genuinely low remains debatable. A qualitative study involving 21 patients enrolled in pharmaceutical care programmes suggested that while expectations regarding pharmacists' roles and outcomes were not well articulated, they were not necessarily minimal, as participants anticipated technical expertise from pharmacists [39].

Client satisfaction is inherently subjective and challenging to quantify, as it is shaped by individual judgement. It is generally accepted that satisfaction reflects a combination of personal preferences, expectations regarding the service, and comparisons between anticipated and actual service delivery (e.g. waiting times) [37]. In this study, satisfaction scores may therefore have captured not only the quality of the consultation but also clients' cultural characteristics and expectations within the Portuguese healthcare context. Although not statistically significant, the negative regression coefficients observed for age, overall quality score, educational level, and living alone suggest that satisfaction may be influenced by a complex interplay of factors. One possible interpretation is that more structured and extended professional interactions—often associated with higher perceived quality—may not be expected or even welcomed by older, more educated, or single-living clients. This hypothesis warrants further investigation.

Limitations

The community pharmacies included in this study may not be representative of Portuguese pharmacies overall, as they participated in a broader research project and may therefore have been particularly motivated. Additionally, pharmacists—who have been shown to perform better in self-medication consultations than other pharmacy staff—constituted the majority of CPT members in this sample (70%), which may have biased results towards higher performance estimates [2].

As noted earlier, reliance on CPT self-reporting represents a further limitation and may have led to inflated evaluation scores. Evidence from a study comparing pharmacy staff self-assessments and simulated patient reports with researcher evaluations based on audio-recorded consultations showed that staff tended to rate their own performance more favourably [40].

The tools used to assess client-reported outcomes and satisfaction in this study were specifically developed for this purpose, drawing on items from previously published research. Limitations related to satisfaction measurement—such as the lack of a theoretical framework and psychometric validation—were highlighted more than a decade ago and remain unresolved [35]. Although the development and validation of such instruments lie beyond the scope of many studies in this field, they clearly represent an important avenue for future research. The use of validated international instruments appears particularly promising, as it would facilitate cross-study comparability.

Further attention should also be given to defining core outcome measures specific to self-medication consultations and establishing validated methodologies for their assessment [41]. Advancements in this area could strengthen the evidence base for client-reported outcomes and support the shift of minor ailment management from emergency departments and general practice to community pharmacy settings [41].

Due to the inability to obtain direct access to participants' mobile phone numbers, follow-up contacts occurred between one week and one month after the consultation. Clients contacted later may therefore have been subject

to recall bias [42]. Additionally, given the sample characteristics (e.g. limited size and non-normal distribution) and the modest explanatory power of the regression model, caution is advised when interpreting or generalising the findings.

Conclusion

Community pharmacy teams reported strong adherence to quality criteria in self-medication consultations. Clients largely perceived improvements in their health conditions and expressed high satisfaction with the services provided. Factors such as support with self-medication, pharmacy loyalty, and gender were associated with overall satisfaction, although their combined explanatory capacity was limited. Future research should involve larger samples, standardised instruments for measuring client-reported outcomes, and a broader range of potential predictors. Understanding how clients weight different determinants of satisfaction will be essential for developing a valid and reliable predictive model of satisfaction with community pharmacy services.

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