Determinants of Over-the-Counter Medicine Purchasing Behaviour among Consumers in Dar ES Salaam

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ABSTRACT

This study examined the social, professional, and economic factors influencing the purchase of over-the-counter medicines among adult consumers in Dar es Salaam. A cross-sectional survey design was used, and quantitative data were collected from 302 respondents selected across five districts. Structured questionnaires captured information on demographic characteristics, social influences, professional guidance, and economic constraints shaping purchasing behaviour. Data were analyzed using descriptive statistics and chi-square tests to determine associations between predictor variables and OTC purchasing patterns. The findings showed that several social factors had statistically significant associations with OTC purchases, including family influence, peer influence, social media exposure, privacy concerns, past experiences, and ease of access to pharmaceutical outlets. Professional guidance factors also demonstrated strong associations, particularly trust in pharmacist recommendations, influence of previous physician prescriptions, access to side-effect information, knowledge of dosage, and pharmacy reputation. Economic factors such as household income, medicine price, preference for cheaper brands, transport and accessibility costs, and inflation also showed significant relationships with purchasing behaviour. The results indicate that OTC medicine purchasing decisions are shaped by a combination of behavioural, informational, and financial considerations. Consumers rely on both social cues and professional advice, while affordability and proximity determine the type and frequency of medicines purchased. The study concludes that enhancing consumer health literacy, strengthening pharmacy communication practices, and improving access to affordable medicines may support safer and more informed self-medication practices in urban settings. These insights provide evidence that can guide public health interventions aimed at improving responsible OTC medicine use in Dar es Salaam.

Keywords: Over-the-counter medicines; Consumer behaviour; Social influence; Professional guidance; Economic factors

1. INTRODUCTION

The global rise in self-care practices has contributed to growing consumer dependence on over-the-counter (OTC) medicines as an accessible option for managing minor health conditions. Worldwide estimates indicate that OTC medicines account for an increasing share of pharmaceutical consumption due to their affordability, convenience, and the ability to bypass formal healthcare processes (Sansgiry and Patel, 2013; May et al., 2023). In many low- and middle-income countries, this shift is also driven by structural limitations in health systems, including high consultation fees, long waiting times, and shortages of medical personnel (Morgan et al., 2011; Horumpende et al., 2018). While the expansion of OTC markets has improved timely access to treatment, it has simultaneously intensified concerns regarding incorrect self-diagnosis, inappropriate drug choice, and unsafe patterns of medicine use (Auta et al., 2019; Torres et al., 2021).

Across Sub-Saharan Africa, the uptake of OTC medicines is strongly shaped by socio-cultural norms, informal advice networks, and economic constraints. Evidence from countries such as Nigeria, Eritrea, Ethiopia, and Pakistan shows that family members, peers, and community figures often play an influential role in shaping medication decisions, sometimes more than professional guidance (Olayemi et al., 2010; Bahta et al., 2020; Saleem et al., 2020). Studies further show that pharmacist involvement varies widely depending on regulatory enforcement, the availability of trained personnel, and consumer trust, resulting in inconsistent access to appropriate professional advice (Ndaki et al., 2021; Dameh et al., 2010). Economic considerations remain

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central: price sensitivity, absence of health insurance, and rising medicine costs contribute to decisions to substitute branded medicines with cheaper generic alternatives or to obtain products from informal outlets (Temechewu, 2020; Rutta, 2024). These patterns illustrate that OTC purchasing behaviour is rarely shaped by a single factor; instead, it emerges from the combined effect of social influence, perceived professional authority, and financial capability.

In Tanzania, OTC medicine use is widespread, particularly in urban areas such as Dar es Salaam where pharmaceutical outlets, drug shops, and Accredited Drug Dispensing Outlets (ADDOs) are highly accessible. Despite regulatory reforms such as the Tanzania Food, Drugs and Cosmetics Regulations (2018) and updated national guidelines on antimicrobial stewardship (United Republic of Tanzania, 2020), studies report that consumers continue to purchase medicines without prescriptions, including antibiotics and other restricted products (Mboya et al., 2018; Ndaki et al., 2022). The drivers of these behaviours are multifaceted: consumers frequently rely on personal experience, prior treatment success, peer recommendations, or trust in familiar brands rather than on professional consultation (Justin-Temu et al., 2010; John, 2022). At the same time, pharmacists often function as primary contact points in the urban health system, yet their role ranges from advisory to transactional depending on workload, training, and economic incentives (Goodman et al., 2007). These dynamics reflect broader tensions between public health goals and the realities of consumer-driven pharmaceutical markets.

Theoretical perspectives provide important insight into these behavioural patterns. The Theory of Planned Behavior (Ajzen, 2011) explains how attitudes toward self-medication, perceived social expectations, and perceived control over accessing treatment shape purchasing intentions. Complementing this, the Health Belief Model highlights how perceived susceptibility to illness, perceived benefits and risks of treatment, and cues to action influence whether individuals opt for OTC medicines instead of professional care (Green et al., 2020). Together, these frameworks suggest that OTC purchasing in Tanzania is influenced not only by structural barriers but also by subjective risk assessments, learned experiences, and social pressures within the community.

Despite the growing importance of OTC medicines in Tanzania's health landscape, empirical research examining consumer behaviour in this domain remains limited. Existing studies have largely focused on antibiotic misuse, prescribing practices, or the performance of drug outlets (Horumpende et al., 2018; Ndaki et al., 2021), with less attention paid to how social influence, professional guidance, and economic constraints jointly shape consumer choices. Given Dar es Salaam's rapidly expanding population, diverse economic conditions, and dense network of pharmaceutical outlets, understanding these behavioural drivers is essential for designing effective health communication, enhancing pharmacy practice, and promoting rational medicine use. This study therefore investigates the combined influence of social, professional, and economic factors on OTC pharmaceutical purchasing behaviour in Dar es Salaam, providing evidence to inform regulatory, educational, and practice oriented interventions.

2. LITERATURE REVIEW

2.1 Theoretical Review

The theoretical foundation of this study draws primarily from the Theory of Planned Behavior (TPB) and the Health Belief Model (HBM), both of which offer systematic explanations for why individuals choose to purchase and use over-the-counter medicines. The Theory of Planned Behavior, proposed by Ajzen (1991), explains intention as a result of three components. These components are the individual's attitudes toward a behavior, perceived social expectations, and perceived behavioral control. In the context of OTC medicines, attitudes develop from past experiences, perceived convenience, and expectations of relief. Subjective norms arise from the influence of friends, family members, pharmacists, and community expectations that view OTC use as acceptable for treating minor conditions. Perceived behavioral control involves a person's confidence in self diagnosis, access to pharmacies, and the belief that they can manage minor symptoms without consulting a doctor. Studies applying TPB to medicine-use behavior, including research in similar developing-country contexts, show that perceived convenience, social acceptance, and easy access significantly increase the intention to self-medicate (Habash and Al-Dmour, 2020).

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The Health Belief Model expands this understanding by emphasizing how perceptions of illness and treatment shape health-related decisions. According to HBM, individuals evaluate perceived susceptibility to illness, perceived severity of symptoms, expected benefits of treatment, and perceived barriers to seeking formal care. When consumers perceive their symptoms as minor or familiar, they are more likely to consider OTC medicines as adequate solutions. The perceived benefits of OTC products, which include rapid relief, reduced consultation costs, and shorter waiting times, further motivate consumers to purchase them. Barriers to accessing formal healthcare, such as long waiting periods, transportation challenges, or limited trust in health workers, also influence the decision to self-medicate. Cues to action, which may include advice from pharmacists, media content, or recommendations from peers, encourage consumers to take OTC medicines, while self-efficacy strengthens their confidence in managing symptoms independently. Existing empirical work from Tanzania and other low- and middle-income countries supports the relevance of HBM in explaining self-medication behavior, particularly in contexts where antibiotics, pain relievers, and common cold medications are readily accessible (Horumpende et al., 2018; Ndaki et al., 2021). TPB and HBM offer a comprehensive lens for understanding the internal and external drivers influencing consumer decisions toward OTC medicines in urban settings such as Vadodara.

2.2 Empirical Review

Empirical studies consistently demonstrate that consumer behaviour toward non-prescription medicines is influenced by a combination of personal beliefs, product attributes, and the broader regulatory environment. Studies conducted in the United Kingdom, Australia, and the United States have highlighted that individuals often select OTC and complementary medicines based on perceived effectiveness, previous positive experiences, and trust in brand reputation (Werneke et al., 2004; Braun et al., 2010; Woo, 2007). Large-scale studies by Lee et al. (2022) and Steel et al. (2018) further established that OTC and complementary medicine use is widespread in national populations, driven by increasing self-care practices and greater access to community pharmacies. Research in Lebanon found that consumer confidence in pharmacist guidance also shaped self-medication patterns, especially when individuals had limited clinical knowledge (Hijazi et al., 2021). These findings collectively indicate that internal factors such as perceived need, perceived safety, and brand familiarity continue to guide consumer selection of OTC products.

A substantial body of research has also explored pharmacist practices, information provision, and the quality of dispensing services in LMIC settings. Studies in Tanzania (Horumpende et al., 2018; Ndaki et al., 2021; Ndaki et al., 2022) reported widespread non-prescription dispensing of medicines, demonstrating how inadequate regulation, limited consumer awareness, and commercial incentives influence retail behaviour. Similar dispensing patterns have been documented in Nigeria (Akinyandenu & Akinyandenu, 2014), Eritrea (Bahta et al., 2020), Ethiopia (Erku & Aberra, 2018), Nepal (Acharya et al., 2021), Pakistan (Saleem et al., 2020; Ahmad et al., 2022), Sri Lanka (Zawahir et al., 2019), Vietnam (Nga et al., 2014), and Saudi Arabia (Alhomoud et al., 2018). These studies show that pharmacists often play a dual role as advisors and commercial actors, with their guidance shaping consumer access to medicines. Additional work by Ung et al. (2017) and Popattia et al. (2021) emphasised that pharmacist responsibilities also include communication of safety risks, reporting of adverse reactions, and ethical decision-making, yet practical challenges frequently limit their effectiveness in supporting appropriate consumer choices.

A growing set of empirical studies examines the broader social and structural drivers of medicine use, including information access, socioeconomic constraints, and regulatory policies. Systematic reviews have demonstrated that easy access, limited enforcement of pharmaceutical regulations, and gaps in public awareness contribute to heavy reliance on OTC and non-prescription medicines in many developing countries (Auta et al., 2019; ServiaDopazo & Figueiras, 2018). Studies in East Africa showed that household-level self-medication is strongly associated with poverty, limited healthcare access, and reliance on informal sources of advice (Ocan et al., 2015; Green et al., 2023). Research from Lebanon and Ethiopia also documented that social networks, word-of-mouth communication, and community norms shape decisions to use non-prescription products (Hijazi et al., 2021; Gebretekle & Serbessa, 2016). These findings align with evidence from BMJ Global Health demonstrating that economic hardship, cultural expectations, and limited trust in formal healthcare encourage independent treatment decisions (Adhikari et al., 2021). Such studies highlight the importance of external determinants, including regulatory quality, health system accessibility, and information environments, in shaping consumer behaviour toward OTC products.

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Although the empirical evidence is extensive, a clear gap remains in understanding urban, brand-specific consumer behaviour in the Indian OTC market, particularly in localised contexts such as Vadodara. The majority of existing studies focus on antibiotic dispensing, self-medication practices, AMR-related risks, or pharmacist behaviour in LMIC settings. Very few empirical investigations explore consumer brand preferences, price sensitivity, marketing influence, and digital purchasing trends in Indian OTC markets. Furthermore, most studies emphasise inappropriate dispensing or safety issues rather than consumer decisionmaking processes across competing OTC brands. This gap highlights the need for context-specific research that examines how consumers in Vadodara evaluate competing OTC brands, how promotional and digital influences shape their decisions, and how internal and external factors jointly determine brand choice in a competitive retail environment.

3. METHODOLOGY

3.1 Research Design

This study employed a cross-sectional survey design, which allows the researcher to collect data from participants at a single point in time for the purpose of examining the relationships among key study variables. Creswell and Clark (2017) describe the cross-sectional survey as an appropriate approach for assessing behavioural patterns and associations without manipulating the environment in which the data are collected. The design is suitable for investigating how demographic, social, and economic factors influence the purchase of over-the-counter (OTC) pharmaceutical products in Dar es Salaam because it enables the collection of standardized information from a large sample of consumers. This structure also supports the use of structured questionnaires, which provide quantifiable data suitable for statistical analysis and comparison across respondent groups.

3.2 Population and Sampling

The study population consisted of adult consumers in Dar es Salaam who purchase OTC pharmaceutical products from pharmacies and retail outlets. The National Bureau of Statistics (2022) estimates the city's population at approximately 7.5 million people, which includes a large proportion of individuals who access both formal and informal drug outlets. The target population included adults aged eighteen years and above who had purchased OTC medicines within the previous six months.

The sample size was determined using Cochran's formula for large populations. The calculated minimum sample was 400 participants, which was adjusted to 420 to account for non-response. Data were collected across the districts of Ilala, Kinondoni, Ubungo, Temeke, and Kigamboni. Participants were selected through random intercept sampling in public locations such as markets, pharmacies, and bus terminals. Inclusion criteria required that respondents be adults who had recently purchased OTC medicines. After data cleaning, a total of 302 complete questionnaires were retained for analysis, representing a response rate of 75.5 percent.

3.3 Data Collection Methods

Data were collected using a structured, self-administered questionnaire designed to obtain quantitative information on demographic characteristics, purchasing patterns, and factors influencing consumer behaviour. The instrument consisted of closed-ended questions and Likert scale items, which ensured consistency in responses and supported statistical analysis. Participants were approached in public locations by trained research assistants who explained the purpose of the study and obtained verbal consent. Completing the questionnaire required approximately ten to fifteen minutes.

The questionnaire was pilot tested to assess clarity, reliability, and ease of understanding before full deployment. Research assistants received training on ethical procedures, proper administration, and the handling of participant inquiries to ensure accuracy and uniformity in data collection. Completed questionnaires were reviewed daily to verify completeness and stored securely until entry into the statistical software.

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3.4 Data Analysis

Quantitative data were coded and entered into the Statistical Package for the Social Sciences (SPSS) version 26 for analysis. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were generated to summarize demographic characteristics and purchasing behaviours. These statistics provided initial insights into the distribution and central tendencies of the dataset.

Inferential statistical techniques were then applied to examine relationships among key study variables. Chisquare tests were used to assess the significance of associations between demographic characteristics and purchasing behaviour. This method was appropriate because the variables were categorical and the study aimed to identify statistically meaningful differences among consumer groups. The analytical results were presented in tables and figures that supported interpretation and discussion in subsequent sections.

4. RESULTS

4.1 Demographic Characteristics of Respondents

The demographic characteristics of respondents are summarized in Table 1. Gender distribution shows 52.3% male and 47.7% female, indicating participation from both groups. The age structure is dominated by adults aged 26–35 at 39.1%, followed by 36–45 at 24.5% and 18–25 at 20.5%. Respondents aged 46 and above account for 15.9%, showing representation across multiple adult age categories. Education levels vary, with 31.8% having secondary education, 31.1% holding university degrees, and 25.8% possessing diploma qualifications as presented in Table 1.

The income characteristics presented in Table 1 indicate that 37.7% of respondents earned between TZS 200,000–500,000 monthly, while 25.8% fell within the TZS 500,001–1,000,000 range. Those earning below TZS 200,000 constituted 23.8%, and 12.6% reported incomes above TZS 1,000,000. Respondents were drawn from all districts in Dar es Salaam, with Kinondoni contributing 29.1%, Ilala 24.5%, Ubungo 20.5%, Temeke 17.9%, and Kigamboni 8%. This distribution reflects demographic variation in income, education, and residential location.

Table 1: Demographic Characteristics of Respondents (n = 302)

Variable	Category	Frequency (f)	Percentage (%)
Gender	Male	158	52.3
	Female	144	47.7
Age Group (years)	18–25	62	20.5
	26–35	118	39.1
	36–45	74	24.5
	46 and above	48	15.9
Education Level	Primary	34	11.3
	Secondary	96	31.8
	College diploma	78	25.8
	University degree	94	31.1
Monthly Income (TZS)	Below 200,000	72	23.8
	200,000–500,000	114	37.7
	500,001–1,000,000	78	25.8
	Above 1,000,000	38	12.6
District of Residence	Ilala	74	24.5
	Kinondoni	88	29.1
	Ubungo	62	20.5
	Temeke	54	17.9
	Kigamboni	24	8

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4.2 Association Between Social Factors and The Purchase of Over-Thecounter Medicines

The chi square results in Table 2 indicate that several social factors show statistically significant associations with OTC medicine purchasing behaviour at the $p < 0.05$ level. Family influence was significant, $\chi^2(4) = 16.327$, $p = 0.003$, indicating that household opinions contribute to medicine choices. Peer influence also reached significance, $\chi^2(4) = 19.684$, $p = 0.001$, which suggests that interactions with friends affect decisions about self medication. Past experience showed a strong association, $\chi^2(4) = 41.783$, $p < 0.001$, showing the effect of familiarity with specific brands or products. These findings reflect how interpersonal relationships and previous encounters with medicines shape consumer behaviour.

Additional social factors also showed significant relationships with OTC purchasing patterns in Table 2. Easy access to OTC outlets recorded a high test statistic, $\chi^2(4) = 34.628$, $p < 0.001$, showing the importance of proximity and convenience in obtaining medicines. Privacy concerns were statistically significant, $\chi^2(4) = 29.612$, $p < 0.001$, suggesting that some consumers choose OTC products to avoid discussing personal symptoms in clinical settings. Social media influence was significant as well, $\chi^2(4) = 36.27$, $p < 0.001$, pointing to the increasing role of online information in shaping purchasing choices. These statistically significant associations demonstrate how structural and digital environments contribute to consumer decision making regarding OTC medicines.

Table 2: Chi square test results for the association between social factors and the purchase of over the counter medicines in Dar es Salaam

Social Factor Indicators	Chi-square Value	df	p-value
Family influence	16.327	4	0.003
Peer influence	19.684	4	0.001
Easy access to OTC outlets	34.628	4	<0.001
Past experience	41.783	4	<0.001
Privacy concerns	29.612	4	<0.001
Social media influence	36.27	4	<0.001

4.3 Association Between Professional Influence and Otc Medicine Purchasing

The results in Table 3 show that several professional influence indicators have statistically significant associations with OTC medicine purchasing behaviour at the $p < 0.05$ level. Trust in pharmacist recommendations was significant, $\chi^2(2) = 12.384$, $p = 0.002$, indicating that consumers who rely on pharmacists are more likely to purchase OTC products. Physician prescription influence also showed significance, $\chi^2(2) = 19.387$, $p < 0.001$, suggesting that previous medical advice continues to shape later purchasing decisions. Information on side effects had a strong association, $\chi^2(4) = 38.47$, $p < 0.001$, reflecting how safety explanations influence product selection. These findings highlight the relevance of professional guidance in shaping purchasing behaviour.

Additional professional factors displayed significant relationships with OTC purchasing patterns in Table 3. Dosage information was significant, $\chi^2(4) = 27.416$, $p < 0.001$, pointing to the role of clear dosage guidance in influencing consumer preferences. Pharmacy reputation also demonstrated significance, $\chi^2(3) = 21.64$, $p < 0.001$, which shows that trusted outlets are more likely to influence OTC purchase decisions. These consistent significance levels across indicators suggest that professional credibility shapes how consumers evaluate OTC products. The statistical patterns indicate the importance of structured professional advice in guiding safe and informed medicine choices.

Table 3: Chi square test results for the association between social factors and the purchase of over the counter medicines in Dar es Salaam

Professional Influence Indicators	Chi-square Value	df	p-value
Trust in pharmacist recommendations	12.384	2	0.002
Physician prescription influence	19.387	2	<0.001

Information on side effects	38.47	4	<0.001
Dosage information	27.416	4	<0.001
Pharmacy reputation	21.64	3	<0.001

4.4 Association Between Economic Factors and Otc Medicine Purchasing

The results in Table 4 indicate that household income shows a statistically significant association with OTC purchasing behaviour, $\chi^2(4) = 19.572$, $p < 0.001$, suggesting that income differences shape access to preferred products. Medicine price also demonstrated significance, $\chi^2(4) = 29.61$, $p < 0.001$, indicating that cost considerations influence how consumers select OTC medicines. Preference for cheaper brands was strongly associated with purchasing behaviour, $\chi^2(3) = 42.61$, $p < 0.001$, showing notable sensitivity to lower-cost alternatives. Transport and accessibility costs were significant as well, $\chi^2(4) = 31.42$, $p < 0.001$, reflecting the role of travel-related expenses in determining where and when consumers buy medicines. These statistical outcomes illustrate how economic constraints shape purchasing patterns in different ways.
Additional findings from Table 4 show that inflation and price fluctuations also had a significant association with OTC purchasing behaviour, $\chi^2(3) = 21.63$, $p = 0.002$, signifying that rising prices influence consumer decisions. The consistent significance across economic indicators suggests that affordability is closely linked to how individuals navigate OTC medicine options. Differences in chi-square values show varying levels of influence across the indicators, with cheaper-brand preference showing the strongest association. These patterns demonstrate the role of financial capacity in shaping self-medication choices in urban settings. The statistical results point to multiple economic pressures interacting with consumer decisions in the OTC market.

Table 4: Chi square test results for the association between professional guidance and the purchase of over the counter medicines in Dar es Salaam

Economic Factor Indicators	Chi-square Value	df	p-value
Household income	19.572	4	<0.001
Medicine price	29.61	4	<0.001
Preference for cheaper brands	42.61	3	<0.001
Transport and accessibility cost	31.42	4	<0.001
Inflation & price fluctuations	21.63	3	0.002

5. DISCUSSION

The findings suggest that social influences play a significant role in shaping OTC purchasing behaviour in Dar es Salaam, as supported by the associations identified in Table 2. Family and peer influence showed strong effects, aligning with regional observations where informal networks guide medicine selection, such as those reported by Akande-Sholabi and Akinyemi (2023) and Temechewu (2020). The significance of past experience reinforces arguments from Olayemi et al. (2010) and Arifah et al. (2021), who found that consumers frequently depend on familiar products due to perceived safety and prior relief. Privacy concerns and social media influence also emerged as important behavioural drivers, consistent with patterns highlighted by Nekmahmud et al. (2022) and Putri et al. (2023) regarding stigma avoidance and digital health engagement. These results indicate that social cues and experiential learning operate within a broader behavioural context where consumers combine personal judgment with input from their environments when selecting OTC medicines.

Professional guidance also demonstrated a strong association with OTC purchasing behaviour, as indicated in Table 3, reflecting similar trends documented in studies from Tanzania and abroad. Trust in pharmacists and the continued influence of prior physician prescriptions mirror findings from Nugraheni et al. (2023), Cavaco et al. (2005), and Chang et al. (2016), who showed that professional advice reduces uncertainty and encourages responsible medicine selection. The significance of side-effect information and dosage clarity supports observations by Arifah et al. (2021) and Fimbo et al. (2024), who noted that accessible product information enhances consumer confidence in self-medication. Pharmacy reputation also played a notable role, consistent with evidence from Gharouni et al. (2020) and Goodman et al. (2007), who emphasized that trust in regulated outlets shapes consumer behaviour in markets where informal vendors coexist with licensed pharmacies. These professional determinants suggest that consumers rely heavily on structured guidance to navigate perceived risks when purchasing medicines without prescriptions.

Economic factors further contributed to shaping OTC purchasing behaviour, as shown in Table 4, with household income, price sensitivity, and transport costs emerging as significant predictors. The strong association between price-related indicators and purchasing aligns with findings from Temechewu (2020), Yenet et al. (2023), and Loosli et al. (2024), who noted that financial constraints often drive consumers toward cheaper generics or informal vendors. Inflation and price fluctuations similarly influenced behaviour, reflecting global patterns described by Cameron et al. (2009), where rising costs intensify reliance on low-priced alternatives. Transport and accessibility costs also shaped purchasing decisions, supporting arguments from Yenet et al. (2023) that physical and economic access intersect to shape medicine-seeking behaviour. These patterns suggest that economic constraints interact with social and professional influences to form a layered behavioural environment in which consumers make decisions about OTC medicines.

6. CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

The study examined how social, professional, and economic factors shape the purchase of over-the-counter medicines in Dar es Salaam. The results showed that family influence, peer interactions, social media exposure, and past experiences each demonstrated statistically significant associations with purchasing behaviour. Professional elements, including trust in pharmacists, the influence of prior physician prescriptions, and the importance of side-effect and dosage information, also played an important role. Economic factors such as household income, medicine prices, transport costs, and inflation further shaped consumer choices in meaningful ways. These findings indicate that OTC medicine purchasing is guided by multiple interacting factors rather than a single dominant influence.

The significance of these associations suggests that consumers make decisions using a blend of social cues, professional guidance, and financial considerations. Differences in age, education, gender, and income also contributed to variations in how respondents evaluated and selected pharmaceutical products. The results point to a behaviour pattern in which safety concerns, access to information, and affordability shape the degree of confidence consumers have in their choices. The prominence of pharmacy reputation and side-effect awareness shows that many consumers prioritize trust and clarity when selecting medicines. These findings generate insights into the behavioural dynamics influencing OTC medicine use in urban Tanzania.

6.2 Recommendations

Based on the study's findings, several actions may help strengthen responsible use of OTC medicines in Dar es Salaam. Increasing community health education may enhance understanding of risks, correct dosage, and product safety among consumers. Because many respondents rely on verbal explanations, pharmacies may consider reinforcing communication practices to ensure that guidance is clear and consistent. Social platforms could also be used to distribute verified health messages to groups with high digital engagement. These measures could help reduce misuse and support safer decision-making.

Interventions addressing financial and access-related barriers may further improve equitable access to safe OTC medicines. Expanding the distribution of licensed pharmacies into underserved areas could reduce transport-related constraints for low-income groups. Encouraging the use of affordable, quality-assured generics may help address the strong influence of price on consumer choices. Regular monitoring of medicine prices may support stability during periods of inflation or supply fluctuations. Implementing these actions may contribute to improved safety, accessibility, and confidence in OTC pharmaceutical purchases across different population groups.

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