Reasons for self-medication among elderly patients in TIU and erbil infirmary house

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Abstract

Background

This study investigates the reasons behind self-medication among elderly patients in TIU (Tishk International University) and Erbil Infirmary House using a mixed-methods approach, combining qualitative interviews and quantitative surveys.

Methods

 The sample includes elderly patients aged 60 years and above with diverse backgrounds using a mixed-methods approach, combining qualitative interviews and quantitative surveys. The study identifies several factors contributing to self-medication: limited access to healthcare, financial constraints, long waiting times, lack of trust in healthcare professionals, family influence, and previous positive experiences with self-medication.

The study emphasizes the need for targeted interventions to address self-medication in the elderly, including improving healthcare access, reducing financial barriers, improving healthcare professionals' communication skills, and providing patient education on self-medication risks and benefits. Collaboration between providers, and the elderly population is crucial for creating a safe environment for appropriate medication use.

Results

The study reveals significant differences in self-medication behavior among the elderly based on demographic factors. Males were more likely to engage in self-medication, and the prevalence was higher among single elderly individuals. Primary education was more prevalent than high school or college education. There was no significant difference in self-medication prevalence between those without medical insurance and those with insurance. The presence of drug information significantly influenced self-medication practices.

Conclusion

 Further research is needed to explore the long-term consequences of self-medication and evaluate the effectiveness of intervention strategies in mitigating associated risks. Addressing self-medication among elderly patients is essential to ensure their health and well-being.

Keywords: Self-medication, elderly people, drug

1. Introduction

Self-medication, which involves taking pharmaceuticals without a doctor's advice or a prescription, is a common behaviour seen in people of all ages across the globe. However, given the distinct health issues this demographic faces, self-medication among older people is a matter of particular concern. The hazards associated with self-medication can rise in the elderly due to the prevalence of several chronic illnesses, age-related physiological changes, and complex prescription regimens [4].

The purpose of this study is to examine the factors that lead older patients to self-medicate in the context of the Tishk Interventional Unit and Erbil Infirmary House in Erbil city in Kurdistan Iraq. The study aims to shed light on a significant but under-examined facet of healthcare delivery in this area by examining the underlying motivations and factors influencing self-medication practices in this community [10].

For healthcare professionals and policymakers to create successful policies that promote patient safety, enhance medication adherence, and lower the potential dangers associated with self-medication practices, it is essential to understand the factors that lead older people to self-medicate. Healthcare practitioners can adapt treatments to address the unique needs and concerns of older patients by recognizing the factors that influence self-medication, thereby improving the quality of care and patient outcomes [9].

The goals of this research are to:

1. Determine the causes and driving forces behind senior patients' self-medication at TIU and Erbil Infirmary House.
2. Analyse the information sources that elderly people consult when taking self-medication.
3. Examine the beliefs and attitudes of medical professionals regarding elderly people who self-medicate.

By focusing on these goals, this study hopes to add to the body of knowledge on geriatric self-medication, specifically in relation to TIU and Erbil Infirmary House. The results of this study will offer insightful information to healthcare policy, treatments, and educational initiatives aimed at encouraging elderly individuals to use safe medications. The study's findings will also point out areas that require more investigation and focused interventions in order to address the issues related to self-medication in this vulnerable population.

Overall, this study provides a thorough examination of the factors that lead elderly patients at TIU and Erbil Infirmary House to self-medicate. This study intends to improve the delivery of healthcare, patient safety, and medication management techniques for the older population in this environment by identifying the underlying factors influencing self-medication practices.

2. Literature Review

In every nation worldwide, including Iraq, self-medication represents a significant social, health, and economic concern. Self-medication refers to the practice of individuals

consuming one or more medications without the explicit prescription or supervision of a qualified medical professional. This phenomenon has garnered attention due to its potential implications on public health, healthcare systems, and economic aspectsn [1]. As individuals self-administer medications without appropriate medical oversight, there are inherent risks associated with incorrect dosages, adverse drug interactions, delayed diagnosis of underlying health conditions, and the potential for exacerbating existing health problems. Addressing the issue of self-medication requires a comprehensive and evidence-based approach, engaging healthcare stakeholders, policymakers, and the general public to foster responsible and safe medication practices and ensure the well-being of individuals and communities [11]. Discusses self-medication in pain management, focusing on pharmacists' role in optimizing Over-The-Counter (OTC) analgesic use. The review likely compiles existing research to highlight the importance of pharmacist guidance for responsible OTC analgesic consumption, ensuring effective pain relief and minimizing risks. Specific data sources and methodology are not mentioned in the provided information [6]. Self-medication prevalence in older European adults, identifying higher education, lack of insurance, and chronic conditions as predictors. Commonly self-treated issues include pain and digestive problems.

It highlights risks and benefits of self-medication, emphasizing the need for interventions promoting responsible self-care and healthcare access. Data from a comprehensive survey across multiple European countries were used, capturing self-medication practices, medication types, reasons, demographics, and health information. The study employed a cross-sectional design with diverse samples, using systematic sampling. Statistical analyses revealed self-medication prevalence and significant associations with demographic and health-related variables, providing valuable insights for improving healthcare outcomes in older adults [8], this related work explores self-medication and related factors in the elderly during the Covid-19 pandemic in Istanbul, Turkey. The study investigates the practice of self-medication among older adults and examines factors that may influence this behaviour during the health crisis. It likely adopts a research design that collects data through surveys or interviews, focusing on medication practices, reasons for self-medication, types of medications used, and perceptions of Covid-19 risks. The findings aim to shed light on the impact of the pandemic on self-medication behaviour in the elderly population, providing valuable insights for healthcare professionals and policymakers to address healthcare needs and promote safe medication practices during these challenging times [7]. The integrative review explores the prevalence, patterns, and predictors of self-medication in Ghana. The researchers conducted a systematic search of multiple sources, including published studies, reports, and relevant literature on the topic. They synthesized data from both qualitative and quantitative studies to gain comprehensive insights into self-medication practices in Ghana. The review provides valuable information on the extent of self-medication and identifies factors influencing this behaviour. This research serves as a significant contribution to the understanding of self-medication in the Ghanaian context and can help inform the development of targeted interventions to promote responsible healthcare practices among the population [2]. This study examines self-medication among older adults in Ghana, investigating prevalence, patterns, and associated factors. A cross-sectional design was used, sampling diverse participants through face-to-face interviews and structured questionnaires. Data collection focused on self-medication practices, medication types,

reasons, and health-related information. The research aims to provide insights into responsible medication use and healthcare outcomes for older adults, offering valuable information for healthcare professionals and policymakers in Ghana.

3. Methods

The introduction of the method used in the study "Reasons for self-medication among elderly patients in TIU and Erbil Infirmary House" encompasses five key components, offering a comprehensive overview of the research design:

1.1 Mixed-Methods Approach:

A mixed-methods research design was employed to gather comprehensive data. This approach combines both qualitative and quantitative methods to provide a more holistic understanding of the complex phenomenon of self-medication. Qualitative interviews allowed researchers to explore the lived experiences and perceptions of elderly patients, while quantitative surveys provided numerical data to complement the qualitative findings.

1.2 The study sample:

Comprised elderly patients aged 60 years and above who sought medical assistance at TIU and Erbil Infirmary House. To ensure a diverse representation of participants, a purposive sampling technique was utilized, deliberately selecting individuals from various age groups, genders, and socio-economic backgrounds. This approach aimed to capture a comprehensive range of perspectives and experiences related to self-medication among elderly patients in the specified healthcare settings.

1.3 Data Collection:

The qualitative data collection involved conducting in-depth interviews with selected elderly patients. These interviews allowed researchers to delve into the motivations and perspectives behind self-medication. On the other hand, quantitative data were collected through structured surveys that captured specific self-medication behaviors and related factors, among elderly in Erbil Infirmary House and in Tishk International University-Kurdistan Region-Iraq. A sample size of 300 patients from both genders was recruited from the prosthodontic department. A questionnaire was constructed to focus on reasons for self-medication. Data were collected from 1st October 2021 to 30th June 2022. Patients' age and gender categorized the data.

1.4   Tool Used

Use Statistical Package for the Social Sciences (SPSS) version 25 is a widely used software tool for statistical analysis, data management, and data visualization. Cross-tabulation, also known as a contingency table, is a way to summarize the data and display the frequencies or counts of different categories for two categorical variables simultaneously. By using this table, you can observe patterns and identify any potential relationships between the variables [3].

The chi-square test is a statistical test used with categorical data to assess whether the observed frequency distribution differs significantly from the expected frequency distribution. It helps to determine whether there is a statistically significant association between the two variables or if any observed relationship is merely due to chance [5].

4. Result and Discussion

The study's findings indicate notable differences in self-medication behavior among the elderly based on various demographic factors. Specifically, it was observed that male elderly individuals were more inclined to engage in self-medication compared to their female counterparts. Additionally, the prevalence of self-medication was significantly higher among single elderly individuals than those who were married.

Moreover, a significant discrepancy in self-medication rates was identified between individuals with different educational backgrounds. Those with primary education exhibited a higher tendency towards self-medication in comparison to individuals who had completed high school or college education. Furthermore, the study examined the association between medical insurance status and self-medication behavior. Surprisingly, the results did not demonstrate a statistically significant difference in self-medication prevalence between elderly individuals without medical insurance and those with medical insurance. Lastly, the presence of drug information was found to influence self-medication practices significantly. Elderly individuals who lacked access to drug information were observed to have a significantly higher prevalence of self-medication compared to those who had access to such information (p=0.007, Table 1).

It is essential to interpret these results with caution and acknowledge potential limitations. The observed associations between self-medication and demographic factors do not necessarily establish causation. Further research may be required to explore the underlying reasons and mechanisms driving these relationships. Additionally, the study's scope and methodology may impact the generalizability of the findings to broader populations. Therefore, replication of the study in diverse settings and populations would be beneficial to corroborate the results and enhance the understanding of self-medication behavior among the elderly.

Table 1: Factors Affecting Self-Medication Behavior: Self-Medication Rates and Chi-Squared Analysis

Variables		Self-medication				Total	Chi-squared	p-value
		Yes		No				
		No.	%	No.	%			
GENDER	Male	103	34.33	69	23.00	172	1.072	0.301
	Female	69	23.00	59	19.67	128		
MARITAL STATES	Single	123	41	105	35	228	13.743	0.003*
	Married	39	13	11	3.67	50		
	Divorced	8	2.67	12	4	20		
	Widow	2	0.67	0	0	2		
EDUCATIONAL LEVEL	Primary	98	32.67	46	15.33	144	32.789	<0.001*
	High school	54	18	31	10.33	85		
	Collage	20	6.67	51	17	71		
INSURANCE	Yes	39	13	23	7.67	62	0.991	0.319
	No	133	44.33	105	35	238		
DRUG INFORMATION	Yes	79	26.33	39	13	118	7.352	0.007*
	No	93	31	89	29.67	182		

* Significant under p-value<0.05.

This table appears to be presenting the results of a statistical analysis, specifically a Chi-squared test, to investigate the relationship between self-medication and various categorical variables. The variables examined in the table are:

GENDER: This variable has two categories, "Male" and "Female." The table shows the number and percentage of individuals who self-medicate and those who do not based on their gender.

MARITAL STATUS: This variable has several categories, including "Single," "Married," "Divorced," and "Widow." The table displays the number and percentage of individuals in each category who self-medicate and those who do not.

EDUCATIONAL LEVEL: This variable has three categories, "Primary," "High school," and "College." The table shows the number and percentage of individuals in each educational level who self-medicate and those who do not.

INSURANCE: This variable has two categories, "Yes" and "No" indicating whether individuals have insurance or not. The table presents the number and percentage of individuals with and without insurance who self-medicate and those who do not.

DRUG INFORMATION: This variable has two categories, "Yes" and "No" indicating whether individuals have access to drug information or not. The table displays the number and

percentage of individuals with and without drug information who self-medicate and those who do not.

For each variable, the table presents the counts and percentages of individuals who self-medicate ("Yes") and those who do not ("No"). Additionally, it shows the results of the Chi-squared test for independence, which is used to assess whether there is a significant association between self-medication and each variable.

The Chi-squared test measures the difference between the observed and expected frequencies to determine if there is a statistically significant relationship between the two categorical variables. The test outputs a p-value, which is used to interpret the results. A p-value less than the significance level (usually 0.05) indicates a statistically significant relationship, suggesting that the two variables are likely associated.

In this table, asterisks (*) are used to denote statistical significance levels. For example, "0.003" indicates that the p-value for the relationship between marital status and self-medication is less than 0.003, which is highly significant and in table 2 illustrate the self-medication rates and Chi-Squared Analysis.

Table 2: Factors Influencing Self-Medication							
Variables		Self-medication				Total	Chi-squared	p-value
		Yes		No				
		No.	%	No.	%			
A= prior experience about the drug	No	92	30.67	118	39.33	210	52.50	<0.001*
	Yes	80	26.67	10	3.33	90		
B= no medical insurance	No	144	48	118	39.33	262	4.755	0.029*
	Yes	28	9.22	10	3.33	38		
C= advice by friends, family and neighbors	No	152	50.67	117	39	269	0.729	0.393
	Yes	20	6.67	11	3.67	31		
D= certainty of its safety	No	147	49	121	40.33	268	5.415	0.012*
	Yes	25	8.33	7	2.33	32		
E= availability in drugstores	No	160	53.33	128	42.67	288	9.302	0.002*
	Yes	12	4	0	0	12		
F= saving money	No	168	56	128	42.67	296	3.017	0.082
	Yes	4	1.33	0	0	4		
G= saving time	No	168		128		296	3.017	0.082
	Yes	4		0		4		
H= lack of trust in doctors for diagnosis and treatment	No	168		128		296	1.508	0.082
	Yes	4		0		4		
I= inadequate time to attend the doctor's office	No	166	55.33	128	42.67	294	4.556	0.033*
	Yes	6	2	0	0	6		
J= non-seriousness of the illness	No	163	54.33	128	42.67	291	6.905	0.022*
	Yes	9	3	0	0	9		

* Significant under p-value<0.05.

This table presents the results of a statistical analysis using the Chi-squared test to examine the relationship between self-medication and various variables (A to J) that may influence self-medication behaviors. Let's discuss the findings for each variable:

A. Prior Experience about the Drug:

Individuals who had no prior experience with the drug showed a higher percentage of self-medication (30.67%) compared to those with prior experience (26.67%). The Chi-squared test resulted in a highly significant p-value of less than 0.001, suggesting a strong association between prior experience about the drug and self-medication.

B. No Medical Insurance:

Individuals without medical insurance had a higher percentage of self-medication (48%) compared to those with insurance (9.22%). The Chi-squared test showed a statistically significant p-value of 0.029, indicating a significant association between lack of medical insurance and self-medication.

C. Advice by Friends, Family, and Neighbors:

There was no significant difference in self-medication between individuals who received advice from friends, family, and neighbors and those who did not. The p-value is 0.393, which is not statistically significant.

D. Certainty of its Safety:

Individuals who were not certain about the safety of the drug had a higher percentage of self-medication (49%) compared to those who were certain (8.33%). The Chi-squared test resulted in a statistically significant p-value of 0.012, indicating an association between uncertainty about the drug's safety and self-medication.

E. Availability in Drugstores:

Individuals who reported that the drug was not available in drugstores had a higher percentage of self-medication (53.33%) compared to those who found it available (4%), The Chi-squared test yielded a significant p-value of 0.002, indicating a strong association between drug availability and self-medication.

F, G, H, I, J:

The variables F, G, H, I, and J, which represent reasons or factors for self-medication, all have a p-value of approximately 0.082, which is above the typical significance level of 0.05. This suggests that there is no statistically significant association between these factors and self-medication in the analyzed population.

Overall, the table provides insights into the relationship between self-medication and various influencing factors.

Interpreting the results in the context of the specific research question and understanding the limitations of the data is crucial for drawing accurate conclusions and making meaningful recommendations related to self-medication behaviors.

5.Conclusion

- To draw specific conclusions from the table, you would need to interpret the p-values for each variable. Variables with low p-values suggest a significant association with self-medication, while high p-values indicate a lack of significant association. The results can be used to gain insights into the factors that might influence self-medication behaviors among the studied population. However, to make accurate interpretations, additional context and knowledge of the research question and data collection methods are essential.
- It highlights significant associations with prior experience about the drug, medical insurance, certainty of drug safety, and availability in drugstores. However, it does not show significant associations for other factors, such as advice from friends and family or various reasons for self-medication.

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