Biological Forum – An International Journal **15(6): 787-790(2023)**

ISSN No. (Print): 0975-1130
ISSN No. (Online): 2249-3239

Self-medication Practice of community of Eraviperoor Grama panchayath of Pathanamthitta District in Kerala

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(Received: 19 April 2023; Revised: 18 May 2023; Accepted: 28 May 2023; Published: 14 June 2023)
(Published by Research Trend)

ABSTRACT: Self-Medication Practice (SMP) is the habit of consuming medication without a healthcare professional prescription. The key drive of this study is to identify the area of education required to reduce risk among patients on self-medication and to find the type of disease for which self-medication is most commonly practiced. The present study was a cross-sectional study conducted in a community of 250 people in Eraviperoor Grama panchayath of Pathanamthitta District in Kerala for 6 months. From this study it was able to identify that self-medication practice was more among the younger population, even though they know that self-medication is unsafe and their perception is that they are benefited from it. Among the categories of OTC medication that have been preferred for self-medication, it was found that analgesics, analgesics, gastrointestinal medications, antihistamines, and cough syrup were the most popular. Previous experience with the disease was found to be the main motivating factor for self-medication and the feeling that it is simple. Most commonly, self-medication was used for diseases with moderate symptoms that last for more than three days. The patients gather information about the drug only when they buy medication for the first time. Refilling of antimicrobials was done after consultation with a physician or a pharmacist, but this was not practiced in case of lifestyle diseases.

Keywords: Self Medication Practice, Patient counseling, Pathanamthitta, OTC drugs.

INTRODUCTION

Self-medication practice (SMP) is the habit of using medication without the direction of health care experts. The practice of self-medication is mostly seen with Non-steroidal anti-inflammatory drugs (NSAIDs), drugs for respiratory tract infections, GI disorders, lifestyle diseases, antimicrobials, and corticosteroids (Afolabi, 2008; Awad *et al.*, 2005; Galato *et al.*, 2009). Drug resistance, drug side effects, wastage of resources, and serious health hazards including death are the foremost problems related to the practice of self-medication (Johnson *et al.*, 2016; Kassie *et al.*, 2018). Secondary problems are drug-related complications which include undertreated signs and issues happening while selecting a drug such as drug duplication, wrong drugs, inappropriate dosage form, drug interaction, and contraindications (Araia *et al.*, 2019). The major sources of self-medication are previous prescriptions, friends, advertisements, chemist shops, and books (Pereira *et al.*, 2007). Self-medication practice is influenced by many factors such as education, family society, law, availability of drugs, and exposure to advertisements (Berha *et al.*, 2017).

Reasons for self-medication practice are the perception of symptoms as mild, the similarity of symptoms with past illness, need for quick relief, difficulty to afford and access the present health care system, dissatisfaction with health care system service, long waiting time, irrelevant and unauthorized information obtained by reading materials and medical books, advice from health care professionals /friends /traditional healers, own experience, and internet/media (Ali *et al.*, 2020; Berha *et al.*, 2017; Coelho & Costa, 2014; Phalke *et al.*, 2006).

Patient counseling is defined as giving information about medicines verbally or in printed/handwritten form to the patients or their caretakers on directions about its use, instruction on side effects, lifestyle modifications, diet, precautions and storage.

The practice of self-medication can be made safe, if the people who are using it, have adequate knowledge about the dose of medication, time of administration, and its side effects. But a deficiency of information can lead to thoughtful effects such as antibiotic resistance, hypersensitivity, and allergy. Better knowledge and realization about self-medication may result in rational use and thus reduce or break emerging microbial resistance issues (Bennadi, 2013). A key role in ensuring the safe, effective, and rational use of drugs in self-medication can be done by pharmacists through patient counselling (Bennadi, 2013). The best pharmacy practice standards are being missed now, and the

hazards due to it is increasing which intern leads to losing the contribution to rational self-care. The pharmacy profession's societal recognization to help individuals' everyday health discipline and well-being is getting weakened(Cavaco *et al., 2018*). Through proper patient counseling to the public by trained pharmacists these issues can be rectified

Self-medication is a global issue and a potential donor to human pathogen resistance to antibiotics. Self-medication is more popular in India when compared to other countries Saudi Arabia is 14%, the US is 13%, Australia and Germany 11%, Spain and the UK 9%, but in India, its 73% and is more among educated population among them it is more in north India(Bennadi, 2013). In Kerala, about 70.95% of males and 29.05% of females are practicing self-medication(Kandasamy *et al.,* 2018). Concerning antibiotics about 3.31% practices self-medication and the most common disease for which antibiotics were used was sore throat (Rajendran *et al.,* 2019). This wide variation happens because in India even though there are strict rules for sales of drugs and cosmetics it is not being practiced/ not being properly monitored by the authorities.

Pathanamthitta is a district of Kerala where the majority of the population are residents abroad and their parents are alone at their houses, due to the difficulty in assessing health care system unaccompanied by someone they prefer more for self-medication, especially for lifestyle disease. Simultaneously it is an area where the practice of home delivery from pharmacies is more. Similar is the case with young adults who does not have their parents along with them, due to the laziness of visiting the hospital they too prefer self-medication. So in this present study, an attempt was made to identify the practice of self-medication and to assess the type of patient counseling required for patients on self-medication.

MATERIAL AND METHODS

A cross-sectional study was conducted in a community of 250 population in Eraveiperoor panchayath of Pathanamthitta district in Kerala state for 6 months with objectives to identify the area of education required to reduce risk among patients on self-medication and to identify the type of disease for which self-medication is most commonly practiced. Patient selection was based on inclusion and exclusion criteria which includes individuals treating self-recognized illnesses and symptoms, patients with an age group above 18 years of age, and residents of the rural area of Eraviperoor Panchayath. Exclusion criteria are patients undergone major surgeries and those with hepatic disease, lactating mothers and pregnant women, the residents who were absent on the day of the survey, and differently-abled people. Participants who had given the consent form were asked to fill out a data collection proforma to assess their drug use behavior, questionnaire was filled through direct interaction with the patients. Study variables were age, gender, education, occupation, socio-economic status, disease for self-medication, drugs used for self-medication, and reason for self-medication. It also assessed the type of counseling required for them to improve their knowledge of self-medication.

Statistical Analysis: The response obtained was recorded in Microsoft Excel 2018. The obtained data were statistically analyzed by using Microsoft Excel 2018 and expressed in frequency and percentage

RESULTS AND DISCUSSION

Self-medication practice (SMP) is the consumption of medication without the direction of medical/health care professionals. Through proper patient counseling the population can be made aware of the hazards of self-medication. The cross-sectional study on the assessment of the type of patient counseling required for the patients was conducted in the Eraveiperoor panchayath of Pathanamthitta district in Kerala state. The sample size was 250 and the age range of the population involved in the study was 18 to 77 years and has been divided into 3 class intervals of 20 years (18-37, 38-57, 58-77). In this 66(26%) belongs to the age group 18 to 37, 78(31%) are from the age group of 38 to 57, and finally, 106(43%) are from the age group of 58 to 77. The majority of the population is from middle adulthood and late adulthood.

With respect to the concept of self-medication, multiple responses were given by the participants. Among the age group of 18 to 37 a foremost (81.81%) stated that the practice of self-medication benefited followed by (69.69%) was of the view that it is unsafe and (30.30%) with the status that its safe. within the age group of 38 to 57 yrs practice of self-medication is found to be unsafe chief (84.61) concept, followed by benefitted by (61.53%) and safe by (14.1%). Considering the geriatrics of the age group 58 to 77, (76.41%) the concept that it is unsafe, (70.75%) state that it is beneficial, and (24.52%) that it is safe. In all the age groups except that of 18-37, the major response was that it is unsafe but in that of 18-37 they are of the view that it benefitted. shown in Table 1.

Table 1: Concept regarding self-medication.

Response	Age group		
	15-35	35-55	55-75
Safe	30.30	14.10	24.52
Unsafe	69.69	84.61	76.41
Benefited	81.81	61.53	70.75
Not Benefited	0	0	0

Categories of medicines preferred for self-medication, among the age group of 18 to 37 the most popular class of drugs used for self-medication is antipyretics followed by analgesics, antihistamines, GI medications, skin preparations, vitamins, cough syrups, antimicrobials lifestyle medications, and the least eye/ ear drops.

In the age group 38 to 57 use of antipyretics and analgesics was similar to that of the age group 18 to 37, followed by cough syrups, antihistamines, GI medications, antimicrobials, lifestyle medication, skin preparation and the least vitamins, anti-emetics, and eye drops.

In the age group of 58 to 77, antipyretics, analgesics, and GI medications were most popularly used followed by cough syrups, antihistamines, antimicrobials, skin preparations, antiemetics, and the least vitamins eye /ear drops, and lifestyle medications. Analgesics and antipyretics are found to be the most common class of drugs that have been used by all age groups. The use of antimicrobials is found in small proportion in all groups but more common in the age group 38-57 shown in Table 2.

Table 2: Categories of medicine preferred for self-medication.

Response	Age group		
	15-35	36-55	56-75
Antipyretics	89.39	87.17	70.75
GI Medications	16.66	14.1	49.05
Analgesics	78.78	69.23	52.83
Antihistamines	24.24	16.66	17.92
Antiemetics	1.51	0	1.88
Skin Preparations	12.12	2.56	2.83
Vitamins	9.09	0	0
Eye/Ear/Nasal Drops	0	0	0
Cough Syrups	4.54	19.23	18.86
Antimicrobials	6.06	12.82	5.66
Lifestyle Medication	3.03	3.84	11.32
No self-medication	0	0	0

Table 3: Reason for self-medication.

Response	Age group		
	15-35	35-55	55-75
Simple Disease	45.45	56.41	34.9
Lack of time	1.51	0	8.4
Previous experience with the disease	24.24	2.56	2.8
Presence of health professionals in family	13.63	10.25	15.09
Need quick relief	10.60	10.25	3.77
Peer or family pressure	1.51	0	0
No self-medication	3.0	5.1	5.66
Lack of transportation	0	1.28	1.88
Know about drug and disease	0	12.8	7.54
High treatment cost	0	0	0.94
Lack of hospital in nearest place	0	0	6.60
Simple disease and know about drug and disease	0	0	12.26

In all age groups, the major reason for self-medication is considering it as a simple disease. Considering about subsequent reason for self-medication practice previous experience with disease among the age group 18 – 37yrs, knowledge about drugs and disease among the age group 38-57, and the presence of health care professional in the family in the age group 58-77 are the reasons in various age groups. other reasons for self-medication include the need for quick relief, knowledge about drugs and disease, and lack of transportation is the other allied reason for self-medication. Of the total population, only a few from all groups are on the statement that they are not in the practice of self-medication. Which had been described in Table.3.

The Mainstream population involved in the study belongs to the age group of 38 to 57 years. During the interview, 81.81% responded that the practice of self-medication is beneficial. It would happen because self-medication is considered a part of self-care. This was supported by the findings from a cross-sectional study conducted by Coelho and Costa, in which 86.8% benefitted from the practice of self-medication(Coelho & Costa, 2014). This concept of young adults should have to be changed because they are unaware of the unsafe side of self-medication. But when we come to the group of adults as well as geriatrics even though they had an opinion of benefit, the majority believes that the practice of self-medication is unsafe this could happen from their experience or through the knowledge from various sources about the hazards of self-medication. Considering the category of medication mostly preferred for self-medication majority of the population consumed antipyretics followed by analgesics, antihistamines, and GI medications. This practice follows because fever, cough and cold, and GI disorders are considered simple diseases for which they do not wish to visit a physician. A prospective cross-sectional study conducted by Ibrahim et al showed consumption of analgesics among 87%, drugs for common cold among 82%, and antipyretics 78%(Ibrahim & Halboup, 2019). But the tendency of self-medication was practiced with antimicrobials as well with lifestyle disease in a minority of the population use of antimicrobials as self-medication was more common in adults when compared to other age groups. But the use of medicines for lifestyle diseases without the consultation of physicians was more in geriatrics. The irrational use of antimicrobial agents, as well as its use with the direction of physicians, can lead to serious hazards such as drug resistance and tolerance. The practice of self-medication for lifestyle disease can lead worsening of health status which in turn leads to decreased quality of life. The consideration that the disease is simple and previous experience with the disease is found to be the foremost reason for self-medication followed by the presence of health care professionals in the family, the need for quick relief, lack of time, and lack of transportation are the other reasons. A minority population is there in all age groups who are not on self-medication. These outcomes are to a part supported by the study conducted by Balamurugan et al, the outcome was lack of time for 41.5% followed by 10.5% for minor illness quick relief for 10%, was the reason opted for self-medication, in this study they stated that majority of participants were not aware of the side effects of self-medication which would have been the major reason for self-medication(Balamurugan & Ganesh, 2011). Through

Proper education and conducting awareness programs like seminars or education campaigns, about the threats of self-medication and emerging antimicrobial resistance among the public, the practice of self-medication can be made safe among them.

CONCLUSIONS

Insecure use and consumption of drugs can lead to harmful effects such as adverse drug reactions, drug resistance, and unwanted financial expenditure. The attitude of the public towards self-medication such as consideration of disease as simple and taking medication with previous experience without the directions of qualified health care professionals should have to be changed. The public should have to be made aware of the threats of self-medication and emerging antimicrobial resistance for this steps such as seminars or educational campaigns to reduce the irrational use of drugs should have to be conducted.

FUTURE SCOPE

The promising results of the study may extended to other distrcits of Kerala and then to Southern parts of the country to create the awareness on self medication among the population.

Acknowledgement. The authors are thankful to Vinayaka Mission's RFEsearch Foundation (Deemed to be University), Salem for providing necessary facilities to carry out this study.
Conflict of interest. None.

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How to cite this article: Jayakumar K. S., Arul, B. Philip Jacob and Kothai, R. (2023). Self-medication Practice of community of Eraviperoor Grama panchayath of Pathanamthitta District in Kerala. *Biological Forum – An International Journal*, *15*(6): 787-790.