

SELF-MEDICATION PRACTICES IN DERMATOLOGICAL DISEASES: A CROSS-SECTIONAL QUESTIONNAIRE-BASED STUDYRAKESH KUMAR MEENA^{1*}, SUDHANSHU SHARMA¹, VIVEK SAGAR²¹Department of Dermatology, Venereology and Leprosy, Government Autonomous Medical College, Ratlam, Madhya Pradesh, India.²Department of Dermatology, Venereology and Leprosy, Dr. Baba Saheb Ambedkar Medical College and Hospital, Rohini, New Delhi, India.

*Corresponding author: Dr. Rakesh Kumar Meena; Email: rakesh.meena003@gmail.com

Received: 14 June 2023, Revised and Accepted: 10 August 2023

ABSTRACT

Objective: The study aimed to assess the pattern and reasons for self-medication practices and its rationality in dermatological diseases among the population of the Malwa region of the central India.

Methods: Individuals aged older than 18 years who were practicing self-medication and gave informed consent for participation in the study were enrolled. Doctors, pharmacists, and medical students were excluded from the study. A preformed and semi-structured questionnaire was used to obtain the data.

Results: High tendency of self-medication was seen among young adults of age between 21 and 40 years (61.42%) while it was low among aged < 20 years (15.71%) and > 50 years (7.14%). Self-medication practice was more common in people who had education between high school and graduation (72.85%) in comparison to the illiterate (7.14%) and post-graduated subjects (5.14%). Most of the subjects who had practicing self-medication were taking suggestions from the nearest medical shopkeepers (50%). The main reasons for self-medication were the non-severity of diseases (42.85%) and easy availability of medicine from medical stores without dermatologist prescription (24.28%).

Conclusion: The study showed the prevalence of self-medication was nearly same in both rural and urban population. Health-care providers should educate patients on the dangers of self-medication. Such messages should be extended periodically to the community at large scale by the government health ministry/authorities. Government should enforce relevant and strict legislation, which limits the sales of drugs without prescription.

Keywords: Self-medication, Self-treatment, Drug abuse, Drug dependency.

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INTRODUCTION

The World Health Organization (WHO) defines (WHO, 1998) self-medication as "the selection and use of medicines (including modern, herbal, and traditional products) by individuals to treat self-recognized illnesses or symptoms [1]. The International Pharmaceutical Federation (FIP) and the World Self-Medication Industry (WSMI) defined self-medications as use non-prescription medicines by patients' own initiatives (FIP and WSMI, 1999) [2]. Patients prefer to manage their common health problems using self-medication as it is easier, cost-effective, and time-efficient (WHO, 2000). It also denotes the intermittent/constant use of a medication prescribed by a physician for lasting or repeated illnesses/indications [3]. Self-medication includes obtaining medicines without a prescription; resubmitting old prescriptions to secure new ones; sharing medicines with friends, family members/relatives; or consuming remaining medicines kept at home [4].

The prevalence of self-medication is widely variable. A study from the South Karnataka reported (78.63%) prevalence of self-medication [5]. Another studies conducted in North India and Nepal with the prevalence rate of 62% and 59%, respectively [6,7]. In Brazil, the rates among adults vary from 46% to 53.3% [8]. The selection of drugs for self-medication should be rational, thus considered when patients use medications which are suitable to their clinical needs, with doses that are adequate to their individual requirements, for an appropriate period of time, and with the lowest cost to them and the community. However, regardless of the use of drugs occurring as self-medication or through prescription, the literature points to a high prevalence of non-rational use, with over 50% of medications being misused [9]. Frequent motivators for self-medication are the reuse of previous prescriptions,

sharing medications with family and friends due to household stocks, and the advice from medical store sales personnel [10-14].

Self-medication is also encouraged by drug advertisements and easy access to these products in pharmacies [13,14]. The production of over-the-counter medicines is highly commercialized in India. The consumers are bombarded on a daily basis in print media, television, and the internet by advertisements claiming miracle cure of all sorts of ailments, and routine use of such products for self-care is extremely common. The youth are greatly influenced by the media and the internet, which promotes self-medication behavior. Internet has expanded the horizon in self-medication practices by opening the option of buying medicines, available only on prescription in one country, which can now be obtained by post from a country where regulation is less strict. Patients can perceive some skin problems as irrelevant and self-limited, often engaging in self-medication before they seek medical care. In these situations, the use of topical drugs is frequent, often without apprehensions about adverse events, resistance to drugs, and masking of skin diseases [15].

Although seen in clinical practice, there are few published studies that describe the process of self-medication in dermatology. The purpose of this article is to assess the pattern, pharmacological strategies used, reasons for self-medication practices, and its rationality in dermatological diseases among the population of the Malwa region of the central India.

MATERIALS AND METHODS

This study was conducted at the tertiary care center from January 2023 to June 2023 after the clearance was taken from the concerned

Institutional Ethical Committee. Patients were enrolled from the outpatients department of dermatology, venereology, and leprosy of the institute. Individuals aged older than 18 years who were practicing self-medication and gave informed consent for participation in the study were enrolled. Doctors, pharmacists, and medical students were excluded from the study. Written and verbal informed consent was taken from all the subjects before participation to the study. The confidentiality and anonymity of all the participants was assured. A preformed and semi-structured questionnaire was used to obtain the data. The questionnaire comprised questions regarding sociodemographic profile, use of self-medication, source of information about the drugs, pattern of use of drugs, factors affecting their use, knowledge of the people regarding dose, duration, side effects, and interactions of the drugs in use, and attitude toward allopathic, ayurvedic, and homeopathic medicines. The subjects were interviewed regarding the use of self-medication drugs for a recall period of 12-month duration.

RESULTS

A total of 280 subjects were enrolled during the study period, out of them, 236 subjects were male and 44 subjects were female. One hundred and fifty-six patients were from urban and 124 were from the rural background. Age distributions among subjects were as 44 patients (18–20 years), 104 patients (21–30 years), 68 patients (31–40 years), 44 patients (41–50 years), 16 patients (51–60 years), and 4 patients (>60 years). As per education status, 20 subjects were illiterate, 40 subjects were educated up to primary, 92 subjects were high school, 112 subjects were graduate, and 16 subjects were post-graduate (Table 1). High tendency of self-medication was seen among young adults of age between 21 and 40 years (61.42%) 172 subjects, while it was low among aged below 20 years (15.71%) 44 subjects, and above 50 years (7.14%) 20 subjects (Fig. 1). The proportion of self-medication was more common in peoples who had education between high school and graduation (72.85%) 204 subjects, in comparison to the illiterate and postgraduated subjects (7.14%) 20 subjects, and (5.14%) 14 subjects, respectively (Fig. 2). Tendency of self-medication is also more common in urban subjects (55.71%) 156 subjects, as compared to rural (44.28%) 124 subjects.

Only one-fourth (25.71%) of the subjects consult dermatologists in case of skin diseases before doing either self-medication or taking suggestions with others. Subjects who had practiced self-medication mostly took suggestions from the nearest medical store shopkeepers (50%) 140 subjects, through the old prescriptions written by the doctor for the same or other disease (21.42%) 60 subjects, from relatives and acquaintances (14.28%) 40 subjects, at their own discretion (12.85%) 36 subjects, from the nearest available non-dermatologist doctors

Table 1: Patient’s demographic characteristics

| Characteristics | Numbers (%) |
|--------------------------|--------------|
| Total number of patients | 280 |
| Male | 236 (84.28%) |
| Female | 44 (15.71%) |
| Age distribution | |
| 18–20 years | 44 (15.71%) |
| 21–30 years | 104 (37.14%) |
| 31–40 years | 68 (24.28%) |
| 41–50 years | 44 (15.71%) |
| 51–60 years | 16 (5.71%) |
| >60 years | 4 (1.42%) |
| Residential status | |
| From Urban | 156 (55.71%) |
| From Rural | 124 (44.28%) |
| Education status | |
| Illiterate | 20 (7.14%) |
| Primary | 40 (14.28%) |
| Senior secondary | 92 (32.85%) |
| Graduate | 112 (40%) |
| Postgraduate | 16 (5.71%) |

(10%) 28 subjects, and through the internet or digital platforms (7.14%) 20 subjects (Fig. 3). Most of the subjects got their medicines for self-medication from the nearest medical stores (77.14%) 216 subjects, from known medical representatives (15.71%) 44 subjects, from primary health-care centers (5.71%) 16 subjects, from friends and relatives (2.85%) 8 subjects, and through digital platforms (1.42%) 4 subjects (Fig. 4).

The main reasons for self-medication were the non-severity of diseases (42.85%) 120 subjects, easy availability of medicine from medical stores without dermatologist prescription (24.28%) 68 subjects, high fees of specialist doctors (17.14%) 48 subjects, lack of time (11.42%) 32 subjects, unavailability of the dermatologist (7.14%) 20 subjects, availability of medicines prescribed by the doctor for the same or other ailments (5.71%) 16 subjects, and availability of medicines with relatives (4.28%) 12 subjects (Fig. 5). For self-medication, subjects had different choices for different medicine systems available in India as

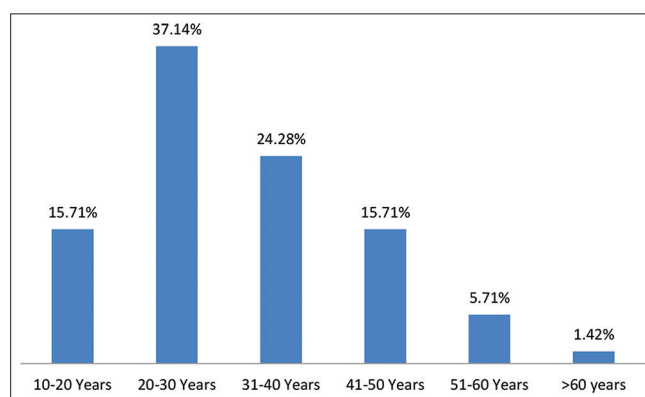


Fig. 1: Prevalence of self-medication among different age groups

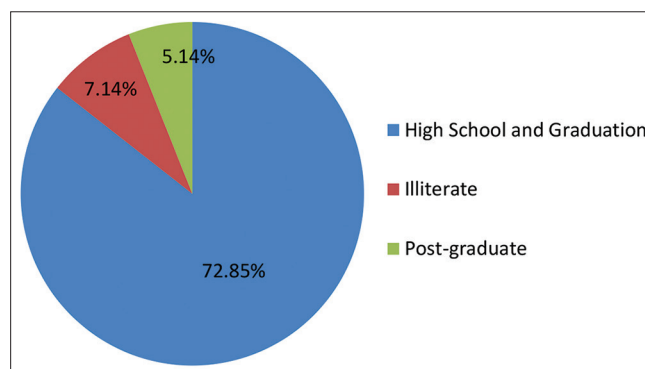


Fig. 2: Prevalence of self-medication among subjects with different education levels

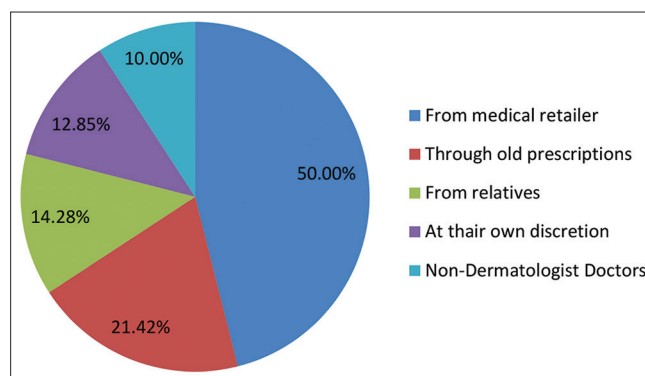


Fig. 3: Sources of suggestions for self-medication

allopathic (54.28%) 152 subjects, homeopathy (24.28%) 60 subjects, Ayurveda (21.42%) 52 subjects, and naturopathy (5.71%) 16 subjects (Fig. 6).

Among self-medicated subjects (51.42%) 144 subjects do not try to know about the advantages or disadvantages of the medicines while buying self-medications at their own discretion or from the seller of medical store. In case of similar problems (41.42%) 116 subjects, instruct their family members/friends to use the medicines which they had used. Among self-medicated (55.71%) 156 subjects wait for 1-10 days, (22.85%) 64 subjects wait for 10-20 days, and (5.71%) 16 subjects wait for 20-30 days before stopping self-medications if the disease does not get better. When called back by the doctor for follow-up visits, (58.57%) 168 subjects go to the doctor every time and took further treatment with his advice, (18.57%) 52 subjects sometimes go to the doctor and took further treatment on his advice, and (12.85%) 36 subjects after taking advice once do not go to the doctor again and buy medicines according to the old prescriptions. Subjects with genital disorders had low self-medication rate (4.28%) 12 subjects, in comparison to those who had skin diseases over other body parts.

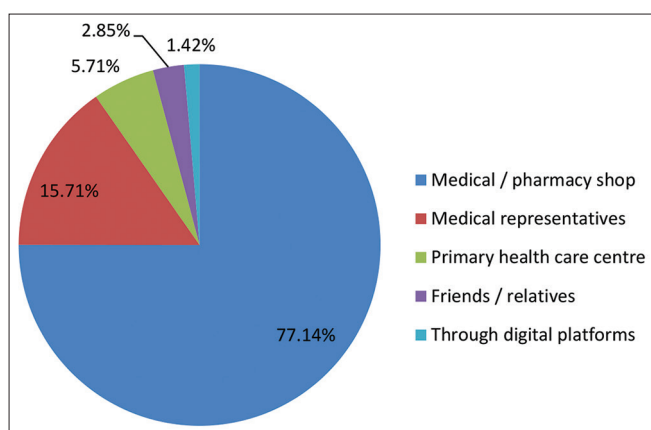


Fig. 4: From where patients got their medicines for self-medication

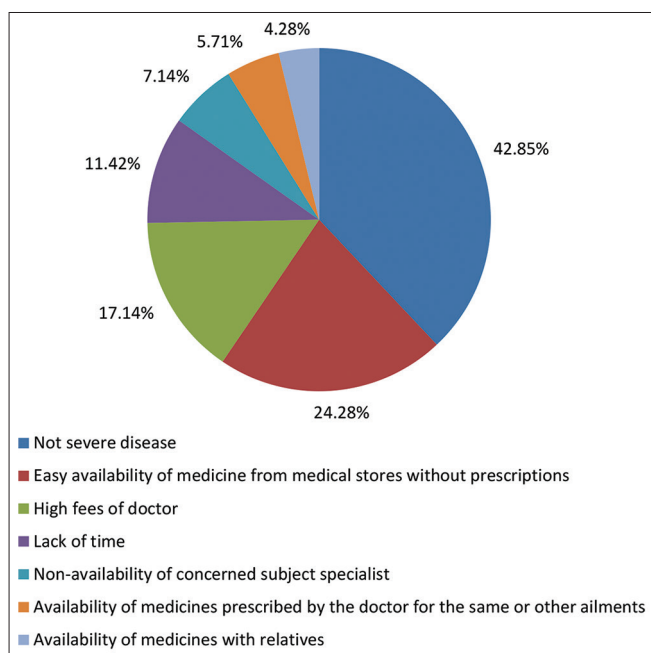


Fig. 5: Main reasons for self-medication

DISCUSSION

Although self-medication is an integral part of self-care as proposed by the WHO, it is extremely important to evaluate its rationality, because this is a very common practice and the inappropriate use of medications can have serious consequences to the health of individuals as well as the community [16,17]. These consequences can occur with medications used both topically and systemically, when managing various skin diseases [18,19]. This becomes especially relevant in newborns and children, since their skin has an immature epidermal barrier, being more susceptible to toxic effects, decreased defense and dryness [20], and also in special physiological conditions such as old age, pregnancy, and lactation [21,22].

High tendency of self-medication was seen among young adults of age between 21 and 40 years (61.42%) while it was low among aged below 20 years (15.71%) and above 50 years (7.14%). The proportion of self-medication was more common in people who had education between high school and graduation (72.85%), in comparison to the illiterate and post-graduated subjects (7.14%) and (5.14%) subjects, respectively. Tendency of self-medication is also more common in urban subjects (55.71%) subjects, as compared to rural (44.28%). These characteristics were similar to the studies of Nagarajaiah et al. [5] in 2016 where authors assessed high self-medication was seen in 41-60 years age group (40.48%) and low among those aged more than 60 years (29.37%), also more prevalent in urban in comparison to rural subjects.

Only (25.71%) of the subjects consult dermatologists in case of skin diseases before doing either self-medication or taking suggestion with others. These findings were in agreement with the previous data by Kombaté et al. [23] where two-thirds (66.7%) of the patients had practiced self-medication before consultation in dermatology units. Subjects who had practiced self-medication mostly took suggestions from the nearest medical store shopkeepers (50%). These findings were comparable with the study by Ayanwale et al. [24] in 2017 where (59.3%) respondents obtained suggestions from chemists/salesperson and pharmacy personnel.

For self-medication, subjects had different attitude for different medicine systems available in India as allopathic (54.28%), homeopathy (24.28%), ayurveda (21.42%), and naturopathy (5.71%) subjects. These results were consistent with the results of Priyan et al. [25] in 2017 where 59.5% of the respondents self-medicated with allopathic drugs and Ayanwale et al. [24] in 2017 where majority of subjects practiced allopathic system of medicine (69.7%), followed by ayurvedic (18.2%), cosmetic product (10.4%), and homeopathic preparation (1.6%) subjects.

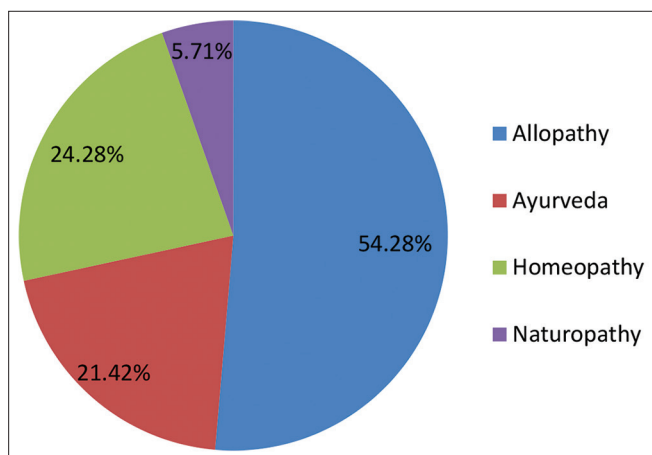


Fig. 6: Choices among different Indian systems of medicine for self-medication

The main reasons for self-medication were the non-severity of diseases (42.85%), and easy availability of medicine from medical stores without dermatologist prescription (24.28%). These findings are comparable to the previous study by Karamata *et al.* [26] in 2017 where they reported the reasons for self-medication were mildness of illness in (42.3%), followed by knowledge about the treatment given from previous prescription in (28.9%) subjects. Seam *et al.* [27] in 2018 also depicted that the major cause for self-medication was minor illness in (59.60%) subjects.

Most respondents gave the reason for self-medication to the fact that they felt that their complaints were minor enough for such self-care. This is a dangerous assumption as minor ailments that could easily have been managed by a physician could easily be mismanaged through self-medication.

CONCLUSION

There are several public and professional concerns about the illogical use of drugs. Dermatology practice in India is plagued by another additional impediment – here almost none of the topical medications, including super-potent topical steroids, are prescriptions-only products, inexplicably so. No wonder that topical steroid misuse, noticeably by patients themselves, has now attained the scale of almost a public health crisis of sorts. In developing countries such as India, easy availability of drugs at medical stores without prescriptions combined with insufficient health services result in raised amounts of drugs used as self-medication compared with prescribed drugs. The main reasons identified for self-medication were their assessment of their ailment as being minor and financial constraints and non-availability of doctors in rural areas. Health-care providers should educate patients on the dangers of self-medication. Such messages should be extended to the community at large periodically by the government health ministry/authorities. Government should enforce relevant and strict legislation, which limits the sales of drugs without prescription. There is a need to create awareness about existing health facilities so that patients will know where to go when the need arises thereby minimizing the potential resort to self-medication.

ACKNOWLEDGMENT

None.

AUTHOR'S CONTRIBUTION

All the authors equally contribute to manuscript concept, design, data acquisition, statistical analysis, and manuscript preparation.

FUNDING

None.

CONFLICTS OF INTEREST

None.

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