Self-medication tendencies of patients visiting outpatient departments of Government homeopathic medical colleges and hospitals in West Bengal, India

Munmun Koley[1], Subhranil Saha[1], Aloke Ghosh[2], Subhasish Ganguly[3], Jogendra Singh Arya[1], Gurudev Choubey[1]

[1]Clinical Research Unit (Homeopathy), Siliguri; CCRH, India
[2]Midnapore Homoeopathic Medical College and Hospital, West Bengal, India
[3]Mahesh Bhattacharyya Homoeopathic Medical College and Hospital, West Bengal, India

ABSTRACT

Background and aims: Self-medication is mostly prevalent in the low- and middle-income population segments of developing countries, thus reflecting the status of health services. Self-medication has frequently been held responsible for inducing drug resistance, higher cost of further treatment, and other complications. The World Health Organization (WHO) promotes self-medication in rural and remote areas to reduce the burden of health services. In this study, the researchers sought to establish the prevalence, consequences, and causes of self-medication. **Methods:** Multicenter, institution-based, cross-sectional study conducted with 456 participants in May, 2013 at the outpatient clinics of 2 Government homeopathic medical colleges in West Bengal, India. A pilot-tested structured questionnaire consisting of 12 self-administered questions in local vernacular Bengali was used; 8 were close-ended questions providing multiple answer options, while 4 were open-ended. **Results:** Overall, 12.7% of interviewees admitted to perform self-medication; 57.7% and 66.0% had appropriate knowledge of the medicines and dose regimens, respectively. Females (64.3%) predominated and self-medication was mostly found in age range 31-45 years old (32.5%). Conventional Western medicine (82.2%) was most preferred therapy, and fever (35.7%), hyperacidity (25.4%) and loose stool (24.3%) the most frequently reported complaints. The main causes for self-medication were feeling no need to consult doctor (32.5%), busy schedule (16.4%), family members advice (16.0%), over-the-counter (OTC) availability of medicines without prescription (12.5%), direct consumer pharmaceutical advertisement (12.1%), and high expenditure in private institutes (10.1%). The chi-square distribution of determinants across the two samples differed significantly. The tendency increased proportionately with literacy (Yates' χ^2=175.731; p=0.000) and poverty (Yates' χ^2=426.817; p=0.000). **Conclusion:** The results reflect the knowledge, attitude, and practice of self-medication among the participants. Further studies should be undertaken in larger samples and different populations.

Keywords: Self-medication, Over-the-counter drugs, Health services, Health-seeking behavior

Introduction

Self-medication is defined as "the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent disease or symptoms" [1, 2]. In economically deprived communities, most episodes of illnesses are treated by self-medication. Non-doctor

prescribing of medicines is also common in developing countries [3, 4]. Self-medication is independent of age in both males and females [5]. Medicines for self-medication are often over-the-counter (OTC) drugs, which are available at pharmacies, and delivered without a doctor's prescription, and are frequently used in the less developed countries [6]. Self-medication is a human behavior in which an individual uses non-prescribed drugs to treat untreated and often undiagnosed medical ailments. Recent developments in the pharmaceutical companies contribute to the wider availability of OTC medicines [4, 7]. Although self-medication is common in many countries, the use of prescription drugs without contact with professional care providers is a problem largely confined to low- and middle-income countries [8 –14]. Studies on self-medication in different countries showed that its determinants are higher educational levels, availability of leftover drugs from previous prescriptions, presence of chronic diseases, less serious ailments, long waiting times, and the need to avoid the cost of medical visits [3, 12, 15, 16]. WHO promotes the practice of self-medication for effective and quick relief of symptoms without medical consultations to reduce the burden on healthcare services, which are often understaffed and inaccessible in rural and remote areas [17, 18]. There may be some positive aspects of self-medication when it is performed according to rational criteria [17, 19]. There is also a potential for misuse and abuse of such products [4, 20, 21]. A major problem of self-medication with antimicrobials is the emergence of bacterial resistance worldwide, and more particularly in developing countries, where antibiotics are often available without a prescription [22]. Irrational use of antibiotics increases the risk of adverse events, bacterial infection, hypersensitivity reactions, drug withdrawal syndromes, and masking disease, which can delay correct diagnosis [22-25]. Self-medication, particularly with antibiotics, has widely been reported, which led the WHO to call the attention to the dangers posed by self-medication as a cause of antibiotic resistance [4, 26-28]. Self-medication is a common practice that is on the rise worldwide, as its results might be good result, and is a convenient practice for patients [29]. Also in industrialized countries, many simple medications are available for routine use, and sold in drugstores and supermarkets [30]. In India, there is a wide range of drugs were available, coupled with inadequate health service resulting in an increased proportion of drug used as self-medication compared to prescribed drugs [4, 29, 31, 32]. In India and Nepal, the 2 south Asian countries with economic and cultural similarities, pharmacists and pharmacy attendants play an important role in fostering self-medication among the public [3]. Combination preparations containing 'hidden' classes of drugs and food supplements or tonics of doubtful value are commonly used in India [3]

The objective of this study was to investigate the drug use behavior, knowledge, attitude and practice of self-medication of the people seeking alternative care like homeopathy, especially in contexts where self-medication is considered as an alternative to the formal healthcare system.

Methods

The present was an institutional-based, cross-sectional, observational study conducted in May, 2013 at the outpatient departments (OPDs) of 2 Government homeopathic medical colleges – Mahesh Bhattacharyya Homoeopathic Medical College and Hospital (MBHMCH), Howrah and Midnapore Homeopathic Medical College and Hospital (MHMCH), Midnapore. Permission was given by the respective institutional ethics committees before the onset of the study. In MBHMCH, out of 1,832 patients visiting OPDs, only 212 admitted of self-medication,whereas it was 244 out of 1,756 in MHMCH. A structured questionnaire was developed in local vernacular Bengali and pilot tested for feasibility on 18 patients at the 2 study settings (Figure 1). The questionnaire consisted of two parts – the first part collected the participants' socio-demographic data, and the second part comprised 12 questions, being 8 eight close-ended questions providing multiple answer options, and and 4 questions were open-ended. No patient identifiable information was requested to ensure confidentiality and anonymity. All the patients visiting the OPDs were given the questionnaire together with verbal orientations by the research assistants. The questionnaire took only 5 minutes time to complete and their data were collected by the research assistants. The completed questionnaires were then sealed in envelopes, and sent to the principal investigator. All the data were extracted and collected individually and analyzed thereafter.

Figure 1. Self-medication Questionnaire

Serial No. ……

Age: …….. years old

Sex: Male ☐ / Female ☐

Residence:

Contact No. (optional):

Educational level: Illiterate ☐ /10thstd. ☐ /12thstd. ☐ / Graduate or above ☐

Monthly household income (in rupees): Less than 10,000 ☐ / 10,000 – 20,000 ☐ / More than 20,000 ☐

……………………….

Instructions: Tick (√) mark the right answer or give proper answers to following questions. You can tick (√) several options.

1. Are you taking any kind of medicine without having consulted a registered healthcare provider?
    ☐ Yes
    ☐ No

2. If yes, how frequently do you take those medicines?
    ☐ Regularly
    ☐ Occasionally
    ☐ Rarely

3. Which kind medicines do you prefer?
    ☐ Conventional medicine
    ☐ Homeopathic
    ☐ Ayurvedic
    ☐ Unani
    ☐ Others

4. What are the causes for taking these medicines by yourself?
    ☐ Residing at a long distance from a healthcare service
    ☐ Advice of family members
    ☐ Advice of friends
    ☐ Long waiting time at doctors' practices
    ☐ High costs of in private institutes
    ☐ Feel no need to consult doctors
    ☐ Poor hospital services
    ☐ Inappropriate behavior of hospital staff
    ☐ Inadequate medicine in hospital pharmacy
    ☐ Unavailability of prescribed medicines
    ☐ OTC availability of medicines without prescription
    ☐ Busy schedule
    ☐ No proper cause specified
    ☐ Others

5. For which complaints do you take these medicines? …………………………………………………………

6. What groups of medicines do you take? …………………………………………………………….....................

7. What is the name of the medicine you take? ……………………………………………..……………....

8. What is the direction of taking the medicine? ………………………………………….……………...

9. Do you know the side effects of the medicines you take?
    ☐ Yes   ☐ No

10. Have you ever felt any side effect after taking these medicines?
    ☐ Yes   ☐ No

11. Do you advice others to consume medicines by themselves?
    ☐ Yes   ☐ No

12. Do you take medicines by yourself along with other treatments prescribed by a registered doctor?
    ☐ Yes   ☐ No

Different online calculators were used for statistical computations; e.g. Jumk.de for mean and standard deviation (SD), Social Science Statistics for independent *t*-test, Epi-Info and Preacher KJ's interactive chi-square test calculator for comparing continuous variables and proportions or categorical variables respectively. $p < 0.05$ (2 tailed) was considered as statistically significant.

Results

Table 1 describes the socio-demographic data of the participants. The mean age was 39.5 years old (SD=16.0) and the maximum prevalence of self-medication was found among participants aged 31-45 years old (32.5%) and 19-30 years old (26.3%). The male to female ratio was 163 (35.7%):293 (64.3%). Self-medication was prevalent in literate people in comparison with illiterate ones (Yates' χ^2=175.731; p=0.000) and it was directly proportional to poverty (Yates' χ^2=426.817; p=0.000).

Table 1: Socio-demographic data (n=456)

Age in years; n (%)	39.5 ± 16.0 (m ± sd)
Under 18	38 (8.3%)
19-30	120 (26.3%)
31-45	148 (32.5%)
46-60	107 (23.5%)
61-75	36 (7.9%)
Above 75	7 (1.5%)
Sex; n (%)	
Male	163 (35.7%)
Female	293 (64.3%)
Educational level; n (%)	
Illiterate	52 (11.4%)
10th std.	215 (47.1%)
12th std.	80 (17.5%)
Graduate or above	109 (23.9%)
Monthly household income in rupees; n (%)	
< 10,000	320 (70.2%)
10,000 – 20,000	93 (20.4%)
> 20,000	43 (9.4%)

Table 2 shows various self-medication tendencies exhibited by the participants. Among 456 participants, 63.6% were on occasional medication, 31.4% were taking medicines rarely; and only 5.0% (23) were on regular self-medication. Among the various therapies, conventional Western medicine (82.2%) was the most popular one, and the use of antipyretics, antacids, antibiotics and analgesics was rampant. About 57.7% and 66.0% participants had proper knowledge of the medications and dose regimen respectively. Only 5.0% were aware of the side effects of the medicines they used, and 8.6% reported various side effects. The most commonly reported complaints were fever (35.7%), hyperacidity and flatulence (25.4%), headache (24.3%), respiratory tract infection (14.5%), and loose stools (11.8%).

Table 2: Different self-medication features (n=456)

Admitted to self-medication; n (%)	456 (12.7%)
Frequency of self-medication; n (%)	
Regular	23 (5.0%)
Occasional	290 (63.6%)
Rarely	143 (31.4%)
Therapy preferred; n (%)	
Conventional medicine	375 (82.2%)
Homeopathy	53 (11.6%)
Conventional and homeopathy	22 (4.8%)
Ayurveda	6 (1.3%)
Others	0 (0%)
Complaints treated; n (%)	
Fever	163 (35.7%)
Hyperacidity, flatulence	116 (25.4%)
Loose stool	111 (24.3%)
Respiratory tract infections	66 (14.5%)
Headache	54 (11.8%)
Pain abdomen	25 (5.5%)
Rheumatic complaints	23 (5.0%)
Injury	9 (1.9%)
Allergy	9 (1.9%)
Miscellaneous	52 (11.4%)
Adequate knowledge of the medicine taken; n (%)	263 (57.7%)
Adequate knowledge of dose regimen; n (%)	301 (66.0%)
Adequate knowledge about side effects; n (%)	23 (5.0%)
Suffering from side effects; n (%)	39 (8.6%)
Continue self-medication with other treatment; n (%)	88 (19.3%)
Suggest others to self-medicate; n (%)	73 (16.0%)

Table 3 describes the reasons to prefer self-medication, the most relevant being feeling of no need to consult doctors (32.5%), busy schedule (16.4%), family members advice (16.0%), OTC availability of medicines (12.5%), direct consumer pharmaceutical advertisement (12.1%) and high cost of private institutes (10.1%).

Table 3: Causes of self-medication; n (%) (n=456)

Feel no need to consult doctors	148 (32.5%)
Busy schedule	75 (16.4%)
Advice of family members	73 (16.0%)
OTC availability of medicines without prescription	57 (12.5%)
Direct consumer pharmaceutical advertisement	55 (12.1%)
High cost of private institutes	46 (10.1%)
Residing at long distance from healthcare service	39 (8.6%)
Advice of friends	25 (5.5%)
No proper cause specified	21 (4.6%)
Poor hospital services	14 (3.1%)
Long waiting in doctors' practices	9 (1.9%)
Inappropriate behavior of hospital staff	5 (1.1%)
Inadequate medicine in hospital pharmacy	5 (1.1%)
Unavailability of prescribed medicines	2 (0.4%)
Miscellaneous	43 (9.4%)

Table 4 shows the comparison of the self-medication tendencies of the participants at the 2 investigated homeopathic outpatient departments.. Among 1,832 participants visiting the OPD of MBHMCH, only 11.6% admitted of self-medication, whereas 13.9% of the 1,756 participants form MHMCH did. The mean ages were 39.2 (SD=14.9) and 39.8 (SD=16.9) years respectively, that difference was statistically non-significant (t=0.265; p=0.791). The results differed significantly in the following determinants – male-to-female ratio (χ^2 =14.63; p= 0.000), educational level (χ^2 =23.68-76.01; p=0.000), except for the 12th standard, monthly household income (χ^2 =8.68-10.59; p=0.001-0.003), except for more than Rs. 20,000 per month, frequency of self-medication (χ^2=9.62-11.01; p=0.000-0.001), except for regular user, therapy preferred (χ^2=28.24-54.89; p=0.000), loose stool treated with self-medication (χ^2=26.58; p=0.000), adequate knowledge of medicine (χ^2=25.42; p=0.000), dose regimen (χ^2=9.62; p=0.001) and side effects (χ^2=14.40; p=0.000), suggesting self-medication to others (χ^2=18.58; p=0.000), main causes of self-medication (χ^2=4.42-62.30; p=0.000-0.035) except for high cost of private institution.

Table 4: Comparison of the self-medication tendencies of individuals visiting 2 different homeopathic outpatient departments in West Bengal, India

Variables	MBHMC&H (n=212)	MHMC&H (n=244)	χ^2 value; p value
Age in years; mean (*sd*)	39.2 ± 14.9	39.8 ± 16.9	0.265‡; 0.791
Sex ratio; male: female	142 : 70	119 : 125	14.63; 0.000*
Educational level; n (%)			
Illiterate	26 (12.3%)	17 (6.9%)	76.01; 0.000*
10th std.	98 (46.2%)	125 (51.2%)	46.44; 0.000*
12th std.	38 (17.9%)	40 (16.4%)	3.29; 0.069
Graduate or above	50 (23.6%)	62 (25.4%)	23.68; 0.000*
Monthly household income in rupees; n (%)			
< 10,000	144 (67.9%)	199 (81.6%)	10.59; 0.001*
10,000 – 20,000	47 (22.2%)	28 (11.5%)	8.68; 0.003*
> 20,000	21 (9.9%)	17 (6.9%)	0.93; 0.335

Admits to self-medication; n (%)	212 (11.6%)	244 (13.9%)	4.16; 0.041*
Frequency of self-medication; n (%)			
Regular	11 (5.2%)	11 (4.5%)	0.01; 0.905
Occasional	140 (66.0%)	125 (51.2%)	9.62; 0.001*
Rarely	61 (28.8%)	108 (44.3%)	11.01; 0.000*
Therapy preferred; n (%)			
Conventional medicine	205 (96.7%)	170 (69.7%)	54.89; 0.000*
Homeopathy	6 (2.8%)	47 (19.3%)	28.24; 0.000*
Complaints treated commonly; n (%)			
Fever	76 (35.7%)	85 (34.8%)	0.02; 0.898
Hyperacidity, flatulence	51 (24.1%)	79 (32.4%)	3.46; 0.063
Loose stool	18 (8.5%)	68 (27.9%)	26.58; 0.000*
Respiratory tract infections	29 (13.7%)	45 (18.4%)	1.56; 0.211
Headache	52 (24.5%)	57 (23.4%)	0.03; 0.855
Injury	4 (1.9%)	6 (2.5%)	0.01; 0.757†
Adequate knowledge of the medicine taken; n (%)	114 (53.8%)	187 (76.6%)	25.42; 0.000*
Adequate knowledge of dosage; n (%)	135 (63.7%)	119 (26.1%)	9.62; 0.001*
Adequate knowledge about side effects; n (%)	7 (3.3%)	34 (13.9%)	14.40; 0.000*
Suffering from side effects; n (%)	19 (8.9%)	17 (6.9%)	0.38; 0.539
Continue self- medication with other treatment; n (%)	35 (16.5%)	57 (23.4%)	2.89; 0.088
Suggest others to self-medicate; n (%)	31 (14.6%)	79 (32.4%)	18.58; 0.000*
Main causes of self-medication; n (%)			
Feels no need to consult doctors	80 (37.7%)	17 (6.9%)	62.30; 0.000*
Too busy schedule to consult a doctor	32 (15.1%)	57 (23.4%)	4.42; 0.035*
Suggestions from family members	38 (17.9%)	17 (6.9%)	11.83; 0.000*
OTC availability of medicines without prescription	23 (10.8%)	51 (20.9%)	7.71; 0.005*
Direct consumer pharmaceutical advertisement	38 (17.9%)	17 (6.9%)	11.8; 0.000*
High cost of private institutes	22 (10.4%)	23 (9.4%)	0.03; 0.855

Chi-square test and independent *t*-test (‡) to compare proportions (categorical variables) and continuous variables respectively; $p < 0.05$ (2 tailed) considered as statistically significant;

* statistically significant; † Fisher exact 2-tailed *p* value

Discussion

Among 3,588 participants, 12.7% admitted of self-medication, from whom 51.5% preferred conventional Western medicine, and only 57.7% and 66.0% had adequate knowledge about the medicines and dose regimen, respectively. Knowledge and the attitudes of patients towards illness and sources of healthcare play an important role in self-medication. The maximum prevalence of self-medication was found in the lowest income group (<10,000 Rs. per month), so poverty might be directly related with self-medication. Use of self-medication was higher among the more educated people versus the illiterate ones. Participants mostly treated fever and hyperacidity by self-medication. The main causes for self-medication were feeling no need to consult doctors, too busy schedule to consult a doctor, suggestions from family members, direct consumer pharmaceutical advertisement, and OTC availability of medicines without prescription – all those factors varied significantly between the two investigated samples.

The results of the present study may not be considered representative of the community as a whole due to the limited number of participants attending the OPDs only. However, they shed some light on the subject. The selection of participants from different socioeconomic groups allowed for a more thorough picture, and the reports differed substantially between the groups.

As self-medication was higher among the educated participants compared to the illiterate ones, our study gives further evidence on that self-medication increases simultaneously with the educational level, as Jain S *et al.* suggested [4]. However, interventions can be performed to discourage the use of self-medication by means of educational actions focusing on its pros and cons [17].

Several actions might thus be implemented: more stringent measures preventing the supply of medicines without prescription at the pharmacy level, direct consumer pharmaceutical advertising at the time of market approval, and making healthcare delivery much less difficult, especially at the primary care level. The present study emphasizes the need for comprehensive programs to improve rational drug use, especially in the case of antibiotics, targeting healthcare providers, as well as the overall population. Health services should be more accessible and responsive to the population's needs. Better collaboration between private and public healthcare providers, as well as patients, should be encouraged. To reduce the risk associated with self-medication, policy makers need to understand the reasons motivating the population's behavior within an increasingly more pluralistic healthcare system. Self-medication might be safe were users to have sufficient knowledge about doses, time of intake, side effects, and signs of overdosing. The OTC Committee of the Organization of Pharmaceutical Producers of India (OPPI) is working towards the promotion of responsible self-medication aiming at the growth of the OTC sector. Those efforts include regulatory support for issues such as accessibility to household remedies, and increase the awareness on the importance of responsible self-medication in the overall public and the Government [4, 33]. From 2008 to 2009, the sales of analgesics in India increased 15.8%; vitamins, minerals and other supplements 8.8%; gastrointestinal drugs 10.4% and other OTC drugs 38.9 % [4].

Further research is needed on self-medication practices involving larger samples to assess the level of medical awareness of lay people, and the factors affecting decisions concerning medication and treatment.

Acknowledgment

References

[1] Guidelines for the Regulatory Assessment of Medicinal Products for use in Self-Medication, WHO/EDM/QSM/00.1, Geneva: World Health Organization, 2000; accessed Feb 9, 2012.

[2] Abdelmoneim A, Eltayeb I, Matowe L, Thalib L. Self-medication with antibiotics and antimalarials in the community of Khartoum State, Sudan. Journal of Pharmacy & Pharmaceutical Sciences 2005;8(2):326–31.

[3] Shankar PR, Partha P, Shenoy N. Self-medication and non-doctor prescription practices in Pokhara valley, Western Nepal: a questionnaire based study. BMC FamPract 2002;3:17.

[4] Geissler PW, Nokes K, Prince RJ, Achieng RO, Aagaard-Hansen J, Ouma JH. Children and medicines: self-treatment of common illnesses among Luo schoolchildren in western Kenya. SocSci Med 2000;50:1771-83.

[5] Jain S, Malvi R, Purviya JK. Concept of Self Medication: A Review. International Journal of Pharmaceutical & Biological Archives 2011; 2(3):831-6.

[6] Pwar NV, Jain SK, Sahi SR. Self medication: how safe: Ask to your pharmacist. The Pharma Review 2009;7(47):150-2.

[7] Hussain A, Khanum A. Self medication among university students of Islamabad, Pakistan- a preliminary study. Southern Med Review 2008;1(1):14-6.

[8] Le TH, Ottosson E, Nguyen TKC, Kim BG, Allebeck P. Drug use and self-medication among children with respiratory illness or diarrhea in a rural district in Vietnam: a qualitative study. Journal of Multidisciplinary Healthcare 2011 Sep;4:329–36.

[9] Pereira FS, Bucaretchi F, Stephan C, Cordeiro R. Self-medication in children and adolescents. J Pediatr (Rio J). 2007;83(5):453–8.

[10] Ylinen S, Hämeen-Anttila K, Sepponen K, Lindblad AK, Ahonen R. The use of prescription medicines and self-medication among children – a population-based study in Finland.Pharmacoepidemiol Drug Saf 2010;19(10):1000–8.

[11] Raz R, Edelstein H, Grigoryan L, Haaijer-Ruskamp FM. Self-medication with antibiotics by a population in northern Israel. Isr Med Assoc J 2005;7(11):722–5.

[12] Bi P, Tong S, Parton KA. Family self-medication and antibiotics abuse for children and juveniles in a Chinese city.SocSci Med. 2000;50(10):1445–50.

[13] Abasaeed A, Vlcek J, Abuelkhair M, Kubena A. Self-medication with antibiotics by the community of Abu Dhabi Emirate, United Arab Emirates. J Infect DevCtries 2009;30(3):491–7.

[14] Landers TF, Ferng YH, McLoughlin JW, Barrett AE, Larson E. Antibiotic identification, use, and self-medication for respiratory illnesses among urban Latinos. J Am Acad Nurse Pract 2010;22(9):488–95.

[15] Grigoryan L, Haaijer-Ruskamp FM, Burgerhof JG, et al. Self-medication with antimicrobial drugs in Europe. Emerg Infect Dis 2006;12(3):452–9.

[16] Yousef AM, Al-Bakri AG, Bustanji Y, Wazaify M. Self-medication patterns in Amman, Jordan. Pharm World Sci 2008;30(1):24–30.

[17] Hussain S, Malik F, Ashfaq KM, Parveen G, Hameed A, Ahmad S, et al. Prevalence of self-medication and health-seeking behavior in a developing country. African Journal of Pharmacy and Pharmacology 2011 July;5(7):972-8.

[18] Tognoni G, Bonati M. Second generation clinical pharmacology. Lancet 1986;2:1028-9.

[19] Borg MA, Scicluna EA. Over-the-counter acquisition of antimicrobial drugs in the Maltese general population. Inter J Antimicrob Agents 2002;20:253−7.

[20] Ali SE, Ibrahim MIM, Palaian S. Medication storage and self-medication behaviour amongst female students in Malaysia. Pharmacy Practice 2010;8(4):1-7.

[21] Wazaifya M, Shieldsb E, McElnayb H, McElnayb JC. Societal perspectives on over-the-counter (OTC) Medicines. Family Practice 2005; 22:170–6.

[22] Chalker J. Improving antibiotic prescribing in HaiPhong Province, Vietnam: the "antibiotic-dose" indicator. Bulletin World Health Organization 2001;79(4):313-20.

[23] Dayani G, Luciana MG, Graziela MA, Silvana CT. Responsible self-medication: review of the process of pharmaceutical attendance. Brazilian J Pharm Sci 2009;45(4):625-33.

[24] Bernal BSR, Silva NN. Self-medication in low-income adults in Southeastern Brazil. Rev SauePulica 2010;44(6):1-6.

[25] Sapkota AR, Coker ME, Goldstein RER, Atkinson NL, Sweet SJ, Sopeju PO et al. Self-medication with antibiotics for the treatment of menstrual symptoms in southwest Nigeria: across-sectional study. BMC Public Health 2010;10:1-10.

[26] Abasaeed A, Jiri V, Mohammed A, Ales K. Self-medication with antibiotics by the community of Abu Dhabi Emirate, United Arab Emirates. J Infect DevCtries 2009;3(7):491-7.

[27] Sarahroodi S, Arzi A, Swalha AF, Ashtranezhad A. Antibiotic self medication among southern Iranian University Students. International J Pharmacol 2010;6 (1):48-52.

[28] Nalini GK. Self medication among allopathic medical Doctor in Karnataka India. British J Med Prac 2010;3(2):325.

[29] Verma RK, Mohan L, Pandey M. Evaluation of self medication among professional student in north India: proper statutory drug control must be implemented. Asian J Pharm Clin Res 2010;3:60-4.

[30] Regina SC, Newton KJ, Edmea RT, Newton KJ, Regina NC. Self-medication: initial treatments used by patients seen in an ophthalmologic emergency room. Clinics 2009;64(8):735-41.

[31] Sharma R, Verma U, Sharma CL, Kapoor B. Self medication among urban population of Jammu city. Indian J Pharmacol 2005;37:37-45.

[32] Kanthe RU. Self medication, Doctors and marketing of OTC products. Asian Journal of Management Research 2010:231.

[33] http://www.indiaoppi.com/ India OTCpharmaProfile2011.pdf; accessed April 28, 2011.

Tendências de automedicação em pacientes que utilizam ambulatórios homeopáticos em universidades e hospitais públicos em Bengala Ocidental, Índia

RESUMO

Introdução e objetivos: A prevalência da automedicação é mais elevada nos segmentos populacionais de baixa e média renda nos países em desenvolvimento, como reflexo de nível de atenção pública. A automedicação é frequentemente considerada como causa de resistência a medicamentos, aumento do custo do tratamento e outras complicações. A Organização Mundial da Saúde promove a prática de automedicação em áreas rurais e remotas, para diminuir a carga dos serviços de saúde. Os autores do presente estudo objetivaram investigar a prevalência, consequências e causas da automedicação. **Métodos:** estudo multicêntrico, institucional e transversal incluindo 456 indivíduos que consultaram em maio de 2013 os ambulatórios de 2 hospitais universitários homeopáticos públicos em Bengala Ocidental, Índia. Foi distribuído para auto-aplicação um questionário estruturado previamente validado num teste piloto. O questionário incluía com 8 perguntas fechadas, com múltiplas opções de resposta, e 4 abertas, na língua vernácula local. **Resultados**: Aproximadamente 12,7% dos entrevistados admitiram se utilizar de automedicação; 57,7% e 66,0% tinham conhecimento adequado sobre o medicamento utilizado e posologia, respectivamente. A amostra esteve composta predominantemente por mulheres (64,3%), e a faixa etária com maior frequência de automedicação foi a de 31-45 anos (32,5%). A medicina convencional foi indicada como a preferida (82,2%) e as queixas mais frequentes foram febre (35,7%), azia (25,4%) e diarreia (24,3%). As principais causas para a escolha de automedicação foram: sem necessidade de consultar um médico (32,5%), falta de tempo (16,4%), conselho de familiares (16.0%), existência de medicamentos de venda livre (12.5%), publicidade farmacêutica dirigida diretamente ao consumidor (12.1%) e alto custo de serviços de saúde privados (10,1%). O teste de qui quadrado identificou diferença significativa na distribuição dos determinantes entre os dois grupos. A tendência para uso de automedicação aumentou paralelamente ao nível de educação (Yates χ^2=175,731; *p*=0.000) e à pobreza (Yates χ^2=426.817; *p*=0,000). **Conclusão**: Os resultados refletem o conhecimento, atitude e prática da automedicação dos participantes. Novos estudos com amostras maiores e diferentes populações são necessários.

Palavras-chave: Automedicação, Medicamentos de venda livre, Serviços de saúde; Condutas de saúde

Tendencias de automedicación en pacientes atendidos en consultorios externos homeopáticos de universidades y hospitales públicos en Bengala Occidental, India

RESUMEN

Introducción y objetivos: La automedicación es más elevada en los segmentos sociales de bajos y medios ingresos en los países en desenvolvimiento, como reflejo del nivel de la atención pública. La automedicación es frecuentemente considerada causa de la resistencia a drogas, mayor costo del tratamiento y otras complicaciones. La Organización Mundial de la Salud promueve la práctica de automedicación en áreas rurales y remotas para reducir la carga de los servicios de salud. El objetivo de los autores de este trabajo fue investigar la prevalencia, consecuencias y causas de la automedicación. **Métodos**: estudio multicéntrico, institucional y transversal con 456 individuos que consultaron en mayo del 2013 los consultorios externos de 2 hospitales universitarios homeopáticos públicos en Bengala Occidental, India. Fue auto-administrado un cuestionario estructurado, previamente validado en un test piloto, con 8 preguntas cerradas y múltiples opciones de respuesta, y 4 preguntas abiertas, elaborado en la lengua vernácula local. **Resultados**: Aproximadamente 12,7% participantes admitieron e uso de automedicación; 57,7% y 66,0% tenían conocimientos adecuados sobre los medicamentos y posología, respectivamente. La mayor parte de la muestra fue compuesta por mujeres (64,3%), y el grupo con 31 a 45 años de

edad presentó la mayor frecuencia de automedicación (35%). La medicina convencional fue indicada como preferida (82,2%), siendo fiebre (35,7%), acidez (25,4%) y diarrea (24,3%) las condiciones más frecuentemente tratadas. Los principales motivos para optar por automedicación fueron: no necesario consultar un médico (32,5%), falta de tiempo (16,4%), consejo familiar (16,0%), existencia de medicamentos de venta libre (12,5%), publicidad farmacéutica dirigida al consumidor (12,1%) y alto costo de los servicios privados de salud (10,1%). La prueba chi-cuadrado demostró diferencia significativa en la distribución de los determinantes entre los grupos. La tendencia para automedicación exhibió aumento paralelo al nivel de educación (Yates χ^2=175,731; *p*=0.000) y la pobreza (Yates χ^2=426.817; *p*=0,000). **Conclusión:** Los resultados reflejan el conocimiento, actitud y práctica de automedicación de los participantes. Nuevos estudios con muestras mayores y diferentes poblaciones son necesarios.

Palabras clave: Automedicación, Medicamentos de venta libre, Servicios de salud; Conductas de salud