

The Determinants of Self Medications

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Abstract

Self medication is the selection and use of medicines by individuals to treat self recognized illnesses or symptoms.

Objectives: To identify various psychosocial factors associated with self medication.

Design: Population based case control study.

Place and Duration: Lahore—12 months.

Subjects and Methods: A population based case – control study with 1:1 case to control ratio was conducted. A total of 100 persons (50 cases and 50 controls) were recruited in study. Selection was made on laid down criteria after taking due consent. Interviews

were conducted through a pretested questionnaire. Data was collected, compiled and analyzed through SPSS version 19. After describing the demographic characteristics using frequency tables, simple and multivariate logistic regression was used to calculate odds ratio and their 95% confidence intervals.

Results: Total number of subjects was 100. Self medication was found to be more in people below age 25 years (87%) (mean 18 ± 0.338 SD). It was more common in females (61%) as compared to males (39%). It was also found that self medication was more in people with education above metric (96%) than those below metric (4%). People who were unmarried (85%) did self medication more frequently than unmarried (15%). In bivariate analysis, easy availability of drugs, self confidence, lower socio-economic status, repeated exposure to disease, hesitancy to visiting the doctor, anxiety and edge of education were

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found to be significantly associated with self medication. However in multivariate analysis, while controlling all other risk factors, illiteracy, repeated exposure to disease, hesitancy to visit the doctor and edge of education were significantly associated with self medication.

Key Words: Self medication, psychosocial factors, community.

Introduction

The WHO consultative group of experts defined the self medication¹ as “selection and use of medicines by individuals to treat self recognized illnesses or symptoms, it’s an element of self care.” In 1995, the expert committee on National Drug Policies stated “Self medication is widely practiced in both the developed² and the developing³ countries”. The various host factors of self medication may include female sex,⁴ increased age⁵ and prolonged duration of disease.⁶

A number of researches have been conducted on this issue of self medication and its psychosocial determinants. In each case, the respondents represented all socio-demographic characteristics such as age,⁷ gender,⁸ education levels⁹ and occupation.¹⁰ One study indicated that more than 60% of the reported illnesses were self medicated with the use of OTC drugs.¹¹ Another survey pointed out that even with professional health care supervision, it was reported up to 80% of the patients still self medicated with modern medication.¹² The most common reasons for self diagnosis and self medication were non seriousness of diseases¹³ and prior experience about drugs.¹⁴ The mistaken beliefs about the medicine¹⁵ and considerable attitude towards self medication were prevalent. There was insufficient public health education,¹⁶ no control over pharmaceutical promotion and no efficient drug policy¹⁷ and regulation.¹⁸ Predisposing factors of self medication included: individual level characteristics, high perceive appropriateness of self medication and an attitude favoring antibiotic use for minor ailments.¹⁹ Self medication hypothesis of addictive disorders²⁰ derive primarily from clinical observation of patients with substance use disorder.²¹ Individuals discovered that specific actions of each class of drugs relieves or changes the range of painful effect states.²²

The problem is crucial as it poses serious health issues and reduces life expectancy.²³ Wrong use of any drug can bring the life to crippling state. Though studies showed that self medication results in a desired

outcome but still there are reported evidences of unfortunate outcomes due to improper practice of self medication.²⁴

There was little data available on the existing situation in our community due to lack of research on this topic. So there is due need to conduct a research study to find out the extent of psychosocial determinants of self medication so that preventive measures²⁵ may be adopted to prevent this harmful practice in general population.

Materials and Methods

A case – control study was conducted to identify various psycho-social factors associated with self – medication in Lahore. Study population was divided into two groups. The study included people who self – medicate (case group) belonging to any age, gender and socio-economic class who were not suffering from any major illnesses like HTN, DM, etc, were willing to participate and were fulfilling the criteria laid down for the determination of the factors associated with self medication. The control group comprised of adults who did not self – medicate, other criteria similar as used for case group.

Total number of people was 100 (n = 100). Convenient sampling approach was used to recruit study controls from all eligible controls. Prior consent was obtained from all selected study subjects. The variables were defined as below:

Drug dependence is compulsive use of a substance despite its negative or dangerous effects and stopping the drug leads to withdrawal symptoms.²⁶

Depressed people may feel sad, worried, hopeless, guilty and restless. Insomnia, digestive problems, fatigue may also be present.²⁷

Socioeconomic Status

It is measured as a combination of income and occupation.²⁸

Illiteracy

It is defined as the state of being unable to read or write.²⁹

Psychosis

It refers to abnormal condition of mind, and term for a

mental state often described as involving a loss of contact with reality. It includes:
 False beliefs about what is taking place.
 Seeing or hearing things that are not there.³⁰

Self Confidence

It is self – assuredness in one’s personal judgment, ability and thinking. sometimes manifested excessively.³¹

Anxiety

It is the displeasing feeling of fear and concern. It is a generalized mood that can occur with or without triggering event.³²

Avoidance Behaviour

It is a state marked by extreme shyness and sensitivity to rejection.³³

Results

Among people who self medicate (n = 50), cases mostly were females (30), age below 25 years (45), education above metric (49). In control group (n = 50), majority belonged to females (31), age below 25 years (42) and those with education above metric.

After describing the demographic characteristics using frequency tables, simple and multivariate logistic regression was used to calculate odds ratio and their 95% confidence intervals.

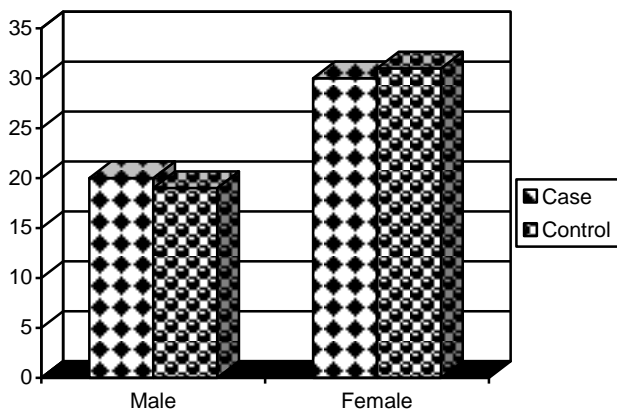


Figure 1: Gender Distribution.

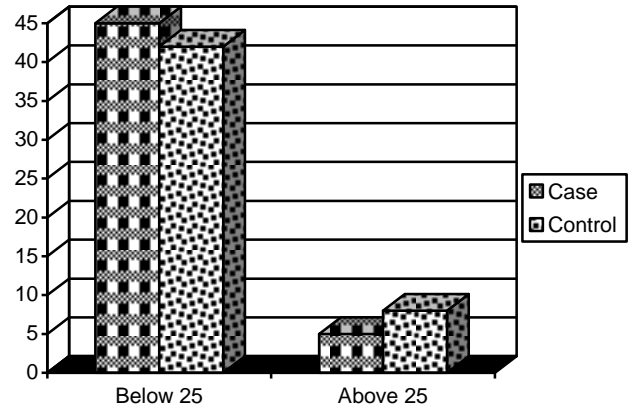


Figure 2: Age Distribution.

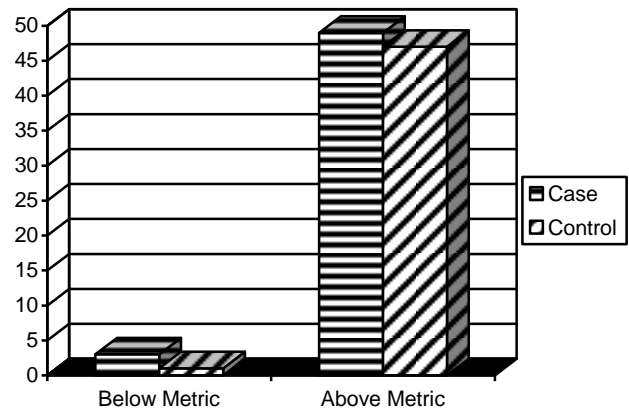


Figure 3: Education Distribution.

Discussion

Self medication is the selection and use of medicines by individuals to treat self recognized illnesses or symptoms. This research topic was selected because self medication is a crucial problem; it poses serious health issues and reduces life expectancy. Hence, there was due need to conduct a research study to find out the extent of psychosocial determinants of self medication so that preventive measures may be adopted in general population. The determinants of self medication are complex and can differ from country to county or even from one community to another. Many factors determine the state of self medication. Our study showed that following factors are associated with self medication.

Self medication was found more in people below age 25 years (87%) In a study an increase pattern of self medication practices was found in the younger age

Table 1: Bivariate Analysis and Chi-square.

No.	Psychosocial Factors	Self Medication		Bivariate analysis			Chi-square Values
		Case n = 50	Control n = 50	Crude Odds Ratio	95% CI		
					Lower	Upper	
1.	Easy availability of drugs	50	7	8.143	4.069	16.297	75.439
2.	Self confidence	40	4	46.000	13.385	158.091	52.597
3.	Illiteracy	21	12	2.293	.972	5.410	3.664
4.	Lack of awareness of side effects of self medication	42	38	1.658	.612	4.491	1.000
5.	Lower socio economic status	50	45	2.111	1.708	2.610	5.263
6.	Self medication on repeated exposure to disease	32	16	3.778	1.650	8.651	10.256
7.	Self medication in emergency situations	21	16	1.539	.679	3.485	1.073
8.	Due to fear of side effects	7	9	.742	.253	2.176	.298
9.	Due to hesitancy to visiting the doctor	20	10	2.667	1.090	6.524	4.762
10.	Due to bad attitude of doctors	14	16	.826	.351	1.947	.190
11.	Due to hesitancy to hospital environment	24	26	.852	.389	1.867	.160
12.	Avoidance Behavior	4	3	1.362	.289	6.426	.154
13.	Anxiety	14	5	3.500	1.152	10.633	5.263
14.	Depression	4	2	2.087	.365	11.948	.709
15.	Drug dependence	3	2	1.532	.245	9.587	.211
16.	Unnecessary advertisement	9	3	3.439	.872	13.653	3.409
17.	Edge of education	43	31	3.765	1.410	10.051	7.484
18.	Social withdrawal	5	3	1.741	.393	7.713	.543
19.	Low self esteem	4	4	1.000	.236	4.241	.000
20.	Difficulty in concentrating	3	2	1.532	.245	9.587	.211
21.	Sleep disturbance	13	7	2.158	.779	5.977	2.250
22.	Low performance at work	7	5	1.465	.432	4.969	.379
23.	Emotional disturbances	2	4	.479	.084	2.743	.709
24.	Hopelessness	2	2	1.000	.135	7.392	.000
25.	Decreased energy level	5	2	2.667	.492	14.445	1.382
26.	Uncontrollable and compulsive desire	2	2	1.000	.135	7.392	.000
27.	Recreational purposes	2	2	1.000	.135	7.392	.000
28.	Feeling of guilt	2	2	1.000	.135	7.392	.000

No.	Psychosocial Factors	Self Medication		Bivariate analysis			Chi-square Values
		Case n = 50	Control n = 50	Crude Odds Ratio	95% CI		
					Lower	Upper	
29.	Hesitancy due to shyness from doctor	5	7	.683	.201	2.315	.379
30.	Hesitancy from doctors due to time wastage	8	4	2.190	.615	7.808	1.515

Table 2: Multivariate Analysis.

No.	Psychosocial Factors	Self Medication		Multivariate Analysis		
		Case n = 50	Control n = 50	Adjusted Odds Ratio	95% CI	
					Lower	Upper
1	Illiteracy	21	12	6.784	1.842	24.983
2	Lower socio economic status	50	45	3.019	.000	
3	Repeated exposure to disease	32	16	3.919	1.360	11.293
4	Hesitancy in visiting the doctor	20	10	4.010	1.163	13.824
5	Anxiety	14	5	3.266	.711	14.995
6	Unnecessary advertisement	9	3	6.759	.818	55.817
7	Edge of education	43	31	7.425	1.761	31.299

group which was 64.8%.³⁴ It was more common in females (61%) as compared to males (39%) study conducted in Mexico revealed that females practiced more self medication (61.9%) than males (38.1%) and identified women had significant risk in the consumption of drugs and self medication.³⁵ Studies conducted in Spain showed that Self-medication is more prevalent among females.^{36,37}

People who were unmarried (85%) did self medication more frequently than married (15%) and another study showed that unmarried persons as compared to married were involved 8% more in self medication.³⁴

It was also found that self medication was more in people with education above metric (96%) than those below metric (4%), however another study showed 74.4% people above metric.³⁴

Our research showed that easy availability of drugs, self confidence, lower socio-economic status, repeated exposure to disease, hesitancy to visiting the doctor, anxiety and edge of education are the factors that are significantly associated with self medication. Pre-

vious Studies showed that the increase in self – medication was due to a number of factors like low socio-economic status, easy availability of drugs, self confidence, Patients hesitancy to visit doctor and repeated exposure to disease, anxiety and edge of education.³⁸⁻⁴²

Conclusion

Self medication was found more in females, age below 25 years, unmarried and those with education above metric. Our research showed that easy availability of drugs, self confidence, lower socio-economic status, repeated exposure to disease, hesitancy to visiting the doctor, anxiety and edge of education are the factors that are significantly associated with self medication.

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