

## ATTITUDES TOWARD MEDICATIONS: A PILOT STUDY IN PALESTINE

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.SPSS 2005 2004  
%79.9 573 :  
%4.7 %15.4

**ABSTRACT: Aims:** The effectiveness of drug therapy is largely influenced by noncompliance, which is believed to be affected by attitude toward drugs. The aim of the this study was to evaluate the attitudes toward drugs from an epidemiological perspective in Palestine.

**Methodology:** A cross-sectional study, based on questionnaire survey randomly distributed to individuals in Palestine in the period starting November 2004 to January 2005. Data collected were entered and analyzed using Statistical Package for Social Sciences Program (SPSS) version 11 for windows.

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**Results:** Out of 573 respondents, 79.9% considered drugs as positive, a help; 15.4% viewed medication as necessary, evil; 4.7% considered medication as negative danger. "Self-Care" oriented people viewed medications more positive than others. Differences in attitude were observed among users of different types of drugs; those using antihypertensive or asthmatic, psychotropic drugs viewed medication more negatively than others. Patient's medication knowledge greatly affects attitude toward drugs and thus patients compliance and drug effectiveness.

**Discussion and Conclusion:** The majority of the study sample viewed medication as something positive, a help. Both written and oral information given to patients about illness and drug use greatly influence the attitude toward drugs and patient compliance. Certain population such as the elderly, patients using antihypertensive, psychotropic and asthmatic drugs needs special concern. Clinical pharmacists are the appropriate specialists to provide drug education to patients.

### Introduction

Compliance, defined as the extent to which a person's behavior coincides with the given medical advice[1], is a major factor contributing to the success of drug therapy. The most common factors affecting drug compliance include patient's attitude, side effects of the drug, lack of adequate counseling and poly-pharmacy, disease status, physician and health care system[2,3]. There are often great differences between what doctors say to patients and what patients actually hear and understand. Even if the patients know exactly what their doctors want them to do, some patients may choose not to follow for a variety of reasons. Some patients may not be convinced with the medical advice as a result of careful consideration a phenomena called "intelligent non-compliance"[4]. For example, patients on chronic medications are often concerned about their dependence on drugs. Some patients often weigh the risk and benefits and may ultimately decide that following the therapeutic advice is not worth the trouble or cost.

Issues of non-compliance is especially critical in older patients because of their complex medical history, polypharmacy and the presence of multiple chronic conditions[5]. Patients tend to have better drug compliance when they have a positive attitude towards drugs[6]. The word "attitude" represents a summary of psychological object captured in dimensions such as good-bad, harmful- beneficial, pleasant and un pleasant, likable and unlikable[7,8]. The Health Belief Model (HBM) is one of the most widely used conceptual framework for understanding health behavior developed in early 1959s. The model is based on the understanding that a person will take a health related action if he/she feels a positive outcome by taking a

recommended action or feels that a negative health condition can be avoided. Motivating people to take a positive health action to avoid a negative health outcome can only be achieved by developing health education strategies[9].

Attitudes towards drugs have been investigated qualitatively and quantitatively in many European countries[10,11]. However, there is no published data about attitudes towards drugs in general population groups in Palestine. The objective of this study was to investigate the factors affecting attitudes toward drugs in general population in Palestine.

### **Methodology:**

This cross-sectional study is based on questionnaire survey that was carried out during the period starting November 2004 and January 2005. The questionnaire was randomly distributed to individuals through West-Bank / Palestine. The questionnaire was adapted and translated from a study carried out in Sweden[12]. The target study sample was planned to include 1000 participants. Only 700 questionnaire were distributed because of the difficulty in reaching remote areas under the occupation conditions. The study sites where the questionnaire was distributed include clinical (hospitals and pharmacies) and non clinical sites like shopping malls.

The questionnaire consists of five major domains which contain multiple choice questions. In the first domain, personal questions like gender, age, marital status, education level, monthly income, health status were asked (Table 1). In the second domain the following question was used to measure the attitude towards medications: Which of the following alternatives do you think explain your own view of medications? Possible answers were: - medications are something positive (a help); medications are something negative (a danger); medication is necessary but evil (Table 2). Domain number three in the questionnaire handles self care orientation. Self care orientation was defined by the number of hypothetical conditions a person reported he or she would self-treat. Persons who chose to self-treat four or more conditions out of 13 were considered to be self-care oriented. The conditions were: 1. shortness of breath at rest; 2. diarrhea or constipation; 3. skin rashes; 4. headaches; 5. persistent cough; 6. loss of weight without dieting; 7. sore throat; 8. backaches; 9. dyspepsia or gastric upset; 10. Sleeping problems; 11. feeling tired; 12. common cold and 13. Feeling dizzy. In domain number four, medical utilization patterns were assessed. The questions on medication use were phrased "Have you used any of the following medications during the last two weeks followed by a list of prescription drugs, over the counter drugs and herbal remedies. Answers to

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these questions were either yes or no. In domain number five, medication knowledge was assessed by the number of correct true-false answers to six statements about medications (table 1). Only one point was given to correct answer, and one point was deducted for incorrect answer. Respondents with a total score of 4 or more points were considered to have high medication knowledge, those with total score of 1 to 3 points were considered to have moderate medication knowledge while those with a total score of zero or less points were considered to have poor medication knowledge. Only those who have answered 4 or more of the questions in this domain were included. The statements used to evaluate medication knowledge were: 1- Penicillin strengthens the immune system; 2- nose may be blocked up if nasal spray is used for more than 10 days in a row; 3- some medications can be absorbed into the blood through the skin; 4- if the given instruction were 1 tablet 2 times a day, it means that tablets ought to be taken at 8 hours intervals; 5- sedamol<sup>R</sup> and otamol<sup>R</sup> (two paracetamol brand names in Palestine) both contain the same active ingredients; 6- you must check the instructions before using any medication. All collected data were then analyzed using the statistical package SPSS (Statistical Package for Social Sciences).

### **Results:**

A total of seven hundred questionnaires were distributed to the various Palestinian districts. Only 573 respondent forms were returned giving a response rate of 81%. Of the 573 who had answered the question on attitudes towards drugs, 79.9% had considered drug passive but a help, 15.4% viewed medication as necessary but evil, 4.7% considered medication as negative and a danger (Table 1).

Data analysis showed that positive attitude on drugs decrease by age but was found to be higher among those with high medication knowledge compared with those having poor medication knowledge (Table 1). People who are self oriented had a more positive view towards drugs than those who are not self-oriented (Table 1). Differences in attitudes between those with different health status were also analyzed. It was found that people with excellent health showed slightly more positive view towards drugs than those who reported have good or bad health. Various other personal factors were analyzed and found to have slight effect on attitude toward drugs (Table 1).

Data showed that those suffering from chronic illness like elevated blood pressure, asthma, and those who received medications for treatment of depression had lesser positive attitude towards medications than that found

among general population (Table 2). People who are on antibiotics and users of medications for treatment of headaches and pain relieving drugs had equal positive attitude toward drugs compared to that in the general population. People who are on antihypertensive drugs tend to have a more negative attitude than non users. In this field the total number of individuals who answered this question was 570. Female users of contraceptive methods have higher positive attitude toward drugs compared to the general population (Table 2).

Analysis of data based on gender and type of drugs showed that 102 of the female respondents were users of non prescription medications, 96 were users of prescription drugs, 62 were users of herbal remedies. When these three female categories were compared with their non-user counterparts, slight differences were found with respect to their attitude toward drugs (Table 3).

**Table (1) Attitudes in percent towards medical drug in Palestine, 2005 analysis carried using SPSS. (\* means statistically significant factor with *P* value less than 0.05)**

Category	Total	Positive, a help (Percent)	Negative, a danger (Percent)	Necessary but evil (Percent)
Total Average (%)		79.7	4.7	15.4
<b>Age group</b>	573			
20-44	446	82	4	13.6
45-66	98	77	3	19.3
65-74	25	60	16	24
75-84	4		50	50
<b>Gender</b>	573			
Female	246	78	6	15
Male	327	81	3	15
<b>Marital status</b>	573			
Single	171	81	5	13
Marred	373	80	3.4	15.5
Devoiced	13	76	15	7.6
Widowed	16	43	18	37.5
<b>Education</b>				
Pre-high school	115	71	7.8	20.8
High school	130	86.9	3.8	9.2
University	231	81	4	14.2
Others	3	66.6	-	33

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Diploma	94	77.6	3.1	19.1
<b>Employment</b>				
Yes	416	79.5	3.6	16.8
No	157	80.8	7.6	11.4
<b>Income per month /JD</b>				
<200 JD		83	5.2	11.4
<500 JD		80	3.5	16.3
<1000 JD		72	5.7	7.3
>1000 JD		75	10	15
<b>Health</b>				
Excellent		79.7	2.8	17.3
V. good		82.9	5.9	11
Good		72.9	8.3	18.7
Bad		53.8	7.6	38.4
<b>Self-care oriented*</b>				
Yes	456	80.9	5.2	13.8
No	117	76	2.5	21.3
<b>Medication Knowledge*</b>				
High	147	84	2.7	12.9
Medium	225	79	3.5	17.3
Poor	201	77.6	7.4	14.9

**Table 2. Attitudes towards drugs with respect to various types of drug use in Palestine. (\* means statistically significant factor with *P* value less than 0.05)**

Drugs		Attitude			
		Total	Positive, a help (Percent)	Negative, a danger (percent)	Necessary but evilPercent
Non-prescription	Users	231	77	6	16
	Non users	342	81	3	14
Prescription	Users	216	79	4	15
	Non users	357	80	4	15
Herbal Medicine	Users	169	76	6	17
	Non users	404	81	3	14
Anti-hypertensive drugs*	Users	80	66	10	23
	Non users	490	82	3	14
Anti-asthma Drugs*	Users	45	68	4	26
	Non users	528	80	4	14
Antibiotics	Users	156	83	3	12
	Non users	417	78	5	38
Sleeping, anxiety / depression*	Users	62	72	8	19
	Non users	511	80	4	14
Pain / Headaches	Users	175	80	6	13
	Non users	398	79	4	16
Vitamins purchased at Pharmacy	Users	124	71	7	13
	Non users	449	80	4	15
Vitamins as herbal remedies	Users	69	69	10	20
	Non users	504	81	3	14
Oral Contraceptive pills (women 20-44 y)	Users	32	81	9	9
	Non users	157	82	3	14
Hormonal replacement therapy (women 45-64)	Users	25	60	12	28
	Non users	140	82	3	13

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**Table 3. Attitudes toward drugs among female users or non users of prescription drugs, non prescription and herbal remedies.**

Category		Total	Positive	Negative	Evil
Prescription drugs	Users	96	(79%)	(5.2%)	(15.6%)
	Non Users	148	(78%)	(6.7%)	(14.8%)
Herbal remedies	Users	62	(74%)	(9.6%)	(16%)
	Non Users	184	(79.8%)	(4.8%)	(15.2%)
Non prescription drugs	Users	102	(77%)	(8.8%)	(13.7%)
	Non Users	144	(79%)	(4%)	(16.6%)

### Discussion:

In this study, the majority of the respondents have positive attitudes toward drugs that is influenced by age and gender. Males tend to have higher positive attitudes to drugs than females. To a certain extent, this is inconsistent with data reported by a study conducted in Uppsala, Sweden in 2002[12], in which men viewed drugs less positively than women. Our findings show that age, self-care orientation, medication knowledge and health status affect the positive attitude of respondents toward drugs. On the other hand, socioeconomic factors tend to have little or no effect. This findings contradicts with other studies which showed that socioeconomic factors greatly affect the patient's attitude and compliance[13]. People with excellent or very good health have higher positive attitude to drugs than those in poor or bad health. Possible explanation for this contradiction is that medications help maintain the person in a good health and possibly overcome the disease[14]. Differences in attitude between users and non users of certain types of drugs were found. Users of anti-hypertensive and anti-asthmatic drugs have similar relatively low attitude towards drug. Experiencing side effects of such drugs might be the reason behind such low attitude [15] . Users of psychotropic drugs tended to have relatively low positive attitudes to drugs compared, for example, to antibiotic or contraceptive drug users (83%)[14]. Oral contraceptives and hormonal replacement therapy have received a lot of attention in media and several Medical Journals[16,17]. Such drugs were accused of venous thrombo-embolism, myocardial infraction and stroke. Nevertheless, users of such drugs tend to have relatively high positive attitude because of their strong belief that such drugs will prevent any unwanted pregnancies and of negative symptoms of the menopause.

People with poor medication knowledge are more often consider drugs dangerous compared with those having good medication knowledge. One might suggest that good medication knowledge could possibly bring about more positive attitude and consequently better compliance in the general population, as reported in several studies[18,19] These studies showed good correlation between drug knowledge or drug education in one hand and drug compliance on the other hand. These studies showed that educational sessions are needed to have a long-term effect on medication under study, and a single "information giving" sessions are ineffective[19-22]. The pharmacists are the most appropriate professionals to provide drug education to increase knowledge about drug benefits and problems associated with drugs that will ultimately change attitudes of patients toward drugs[23].

In conclusion, our findings showed that an absolute majority of population considered drugs as positive and helpful while very small proportion considered drug as danger or necessary but evil. Medication knowledge, self care orientation and health status were found to be associated with positive attitudes. Differences in attitude were also in favor of drug users compared to non-users.

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