

Self – Medication and Over-the-Counter Practices: A Study in Palestine.

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Abstract

Self medication, over-the-counter practices and drug utilization studies are very few in Palestine. The purpose of this study is to describe and analyze the self medication patterns and over-the-counter practices in Palestine. A random sample of patients seeking self medication at community pharmacy was interviewed using a 15-item questionnaire. Social, demographic, disease information and information on drugs used for self-medication or dispensed over the counter were collected. The percentage of patients who were seeking self medication study was approximately 60%. Those patients were mostly males, educated, above the age of 40 and have a monthly income of less than 200 USD. Most patients were seeking self medication for headache, dental pains, muscle/joint pains and throat or respiratory or urinary tract infections. The drugs most commonly dispensed or purchased on a self medication basis were NSAIDs, paracetamol and anti-microbial drugs. Patient health awareness programs and pharmacist continuing education are necessary in Palestine.

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Introduction:

The Palestinian pharmacy practice law requires that prescription medications are sold on a prescription only basis (1). However, due to the political and economical instability, the pharmacy practice law in Palestine is loosely applied. Furthermore, there is no well-established health care system in Palestine that can provide health services with a reasonable cost. This situation has encouraged many irrational health and pharmacy practices which are unfortunately encouraged by patients and by community pharmacists. One of these irrational practices is self medication for, sometimes, serious infectious diseases. Another irrational practice is selling a wide range of medication products as an over-the-counter (OTC) drugs. Actually, there is no clear and official list of OTC medications issued by the ministry of health (MOH) in Palestine, which practically makes the door open for community pharmacies to sell a wide range of medications as OTC products. As a consequence, community pharmacists have increasing involvement in the self-management of minor and moderate illnesses as a result of the availability of this wider range of over-the-counter (OTC) medicines and because they are faster and less expensive than public or private clinics. Drug utilization studies are very rare in Palestine. Furthermore, there are no background information available on the community pharmacy practices and their role in self medication among the Palestinian population. The purpose of this study is to describe and analyze the self medication patterns, over-the-counter sale practices and the factors encouraging these practices in Palestine.

Method:

This study took place at community pharmacy center in the northern part of Palestine over a three month period. Randomly selected samples of customers were interviewed with a structured questionnaire after they had purchased a medicinal product. The total number of patients interviewed was 2087 patients. One thousand two hundred and sixty three (1263) patients were purchasing one or more type of drugs without prescription for one or more defined condition or ailment. The choice of medications was made either by the patient or selected by the community pharmacist. Those patients were asked to verbally answer a 15-item questionnaire that include questions about age, sex, place of living, level of education, income, type or nature of disease he or she is medicating, number, type, price and knowledge about the drug(s) he or she is purchasing, presence of chronic

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diseases, satisfaction with pharmaceutical advice given by pharmacy personnel, clear writing instructions and finally utilization of herbal products as an alternative remedy.

Results:

The percentage of patients who were seeking self medication was approximately 60% from the total number of patients purchasing medication from the community pharmacy over the study period of three months. Table one (table 1) illustrates the statistical characteristics of the interviewed patients in the sample. The majority of the patients under testing and evaluation were males above 40 years of age. Most patients are residing in the city (~58%) while the rest are residing in villages and refugee camps. The majority of the patients were educated and (22%) were illiterate. Regarding income, more than 60% of the patients in the sample had a monthly income of less than 200 USD. Approximately half of those patients are already suffering from chronic diseases and are currently taking one (11%), or two or more than two (32.9%) medications on a chronic daily basis. These medications include anti-hypertensive, other cardiac drugs, anti-diabetics and bronchodilator drugs.

Table (1): Characteristics of the patients in the study that were seeking self medication.

Patient Parameter	Result.
Age	32.2% > 60 years. 41.9% 40-60 years. 25.9% < 40 years.
Sex	63.4% males. 36.6% females.
Place of Living	58.6% City 41.4% Village or Refugee Camp
Chronic Illness	6% Diabetes Mellitus 12.5% Cardiovascular diseases 14.2% Orthopedic and Rheumatology problems 3% Asthma and other COPD. 9% Peptic Ulcer or the GIT problems 7% other diseases. 48.3% have no chronic diseases
Education	21.3% illiterate 78.7 % educated
Income (USD monthly)	29% <100 USD 37% 100 - 200 USD 34% > 200 USD
Social Status	74.6% married. 23% single. 2.4% widowed.
Number of different medications taken per day on a chronic basis.	11.6% take one medication. 32.9% take two or more medications. 55.5% take no medications at all

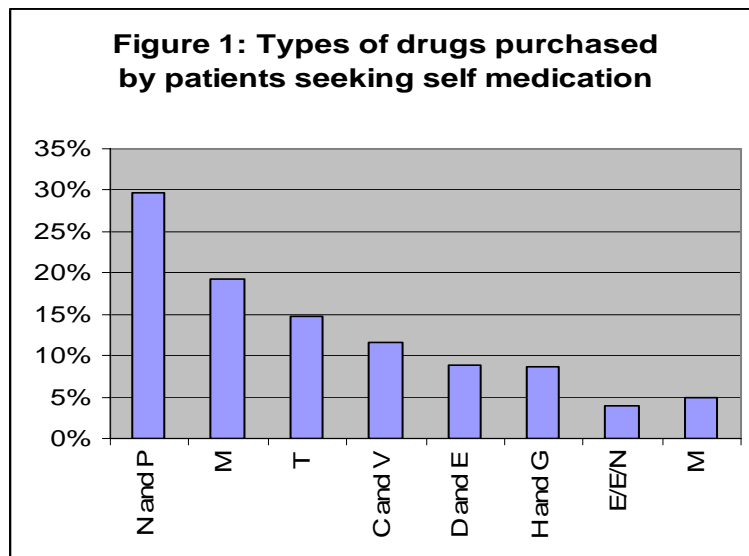
The patients in the sample were seeking self medications for the following conditions (Table 2): muscle and joint pains, cough and common cold, headache and dental pain, dermatological problems, contraceptive method, throat and chest infections, gynecological problems, hyperacidity and GIT disorders, ophthalmic infections and allergy, pediatric remedies and urinary tract infections.

Table (2): Conditions that are seen among patients who were seeking for self medication.

Category / condition	Frequency
Headache and dental pain	16.1%
muscle and joint pains	15.3%
Cough and common cold	10.2%
Gynecology and contraceptive methods	8.1%
Dermatological problems	9.2%
Throat and chest infections	13.8%
Hyperacidity and GIT problems	10%
Ophthalmic conditions	5.6%
Urinary Tract Infections	4.2
Pediatric conditions	6.1%
Miscellaneous	<2%

The total number of drugs purchased on a self selection or pharmacist recommendations for the above conditions was 2091. This gives an average of approximately 1.5 medications per patient. The total amount of money paid by the patients in the sample for the 2091 purchased drugs was 5018 USD giving rise of an average of 4 USD per patient per self medication. The types of drugs purchased on a self medication or over the counter were listed in figure (1). Analgesics ranked first in self medication followed by anti-microbial agents and topical medications. Among the analgesic class, diclofenac sodium and paracetamol were the most commonly purchased. Within the anti-microbial agents, amoxicillin and amoxicillin/clavulanic acid were the most commonly purchased followed by cephalexin trihydarte. Sub-therapeutic doses were seen in 37% of anti-microbial sale. Among the topical preparations, corticosteroids were the most commonly purchased. Among the gynecological medications, combined contraceptive pills and miconazole antifungal vaginal preparations were the most commonly purchased.

Figure 1:Drugs dispensed for patients seeking self medications. Drug N = NSAIDs, P = Paracetamol, T = Topical preparations, M = anti-microbial agents, C = contraceptives, V = Vaginal preparations, D = Decongestants, E = Expectorants, H = H2-antagonists, G = GIT drugs, E/E/N – Eye/ Ear / Nose, M = Miscellaneous



The reasons given for self-medication were analyzed and shown in table 3. Most patients indicated several reasons for self medications. Among these reasons are previous experience with the disease and its therapy, cost of physician’s service, lack of medical insurance and finally the perception that the disease is not serious.

Table (3): Analysis of the reasons for self-medication.

Reason	Frequency (Percentages are overlapping, so the total is not 100%)
Disease is not serious	48%
Familiar with the diseases and its remedy	41%
Cost of Physician’s Service	39%
Lack of Insurance	28%
Lack of a trustful physician	14%

Discussion:

Self medication could be defined as taking drugs without the advice and monitoring of a physician (2). Self-medication is widely practiced in many less developed countries (3, 4, 5). In our sample study in Palestine, self medication was common and irrational. Predictive factors for self-medication in Palestine seem to be, males with age above 40, married, good level of education and less than 200 USD monthly income. In our country, self medication should be considered a public health problem due to lack of health awareness among the population and lack of medical continuing education among community pharmacists. The number of population in the West bank (Palestine) is 1,873,476 and the annual growth rate is 3.1% ⁽⁶⁾. The number of community pharmacies in West bank is approximately 500 until the time of submission of this paper. This means that there is a good pharmacy provider to population ratio (one community pharmacy services approximately 4,000 individuals). The Palestinian pharmacy law strongly advocates the proper and legal sale of medications, however, in Palestine, as well as in many less developed countries, almost any drug available in the market can be purchased as an over the counter medication. In Palestine, many patients seek medical advice directly from the community pharmacies because they are easily accessible, faster and less expensive than the doctor's clinics. This is even more obvious in village areas where medical services are less developed. This makes the community pharmacies in a situation to play a major and important role in public and community health issues. Unfortunately, the pharmacy personnel in Palestine are scientifically behind and un-updated on clinical pharmacology and pharmacy practice issues. For example, anti-diarrhoeal drugs might be sold without emphasis on ORS therapy, strong antibiotics are sold as OTC and many strong NSAIDs are sometimes dispensed without direction for secure use. Nineteen percent of the sample took antimicrobials without prescription. These antibiotics were mainly self-administered for upper respiratory tract symptoms, particularly sore throat, and urinary tract infections with community pharmacies being the major source in more than 90% of the cases. This irrational use of antibiotics might contribute to the development of new resistant bacterial strains in Palestine. The local pharmaceutical companies play a negative role in the marketing and promotion of these antibiotics in the Palestinian market.

Paracetamol and other NSAIDs were the drugs that commonly used for self-medication. These results are similar to other studies conducted in other countries (7, 8). There were two major points regarding self medication with analgesics. The first problem is the possible risk of nephropathy and possible drug-induced gastric ulceration. In most of the cases, gastric protective medications were not dispensed or purchased with strong NSAIDs. The second problem is overuse of analgesics like paracetamol, aspirin or NSAIDs especially when given in combination increases the risk of chronic toxicity among patients. Similar results on over the counter acquisition of antibiotics have been reported in other countries (9, 10).

Conclusion:

The potential effectiveness of self medication is questionable because of the lack of medical follow-up, inadequate information supplied to the patient by community pharmacists and above all the incorrect diagnosis and/or therapy. In the case of antibiotics sale, for example, sub-therapeutic doses were given to at least one third of the patients. In some other instances, antibiotics were purchased with no clear signs or symptoms of bacterial infection. Furthermore, these irrational self medication and over the counter practices might cause serious drug interactions or adverse reactions among patients taking medications for chronic diseases. This study indicates the need for an educational campaign on proper medication use amongst the Palestinian general public and health practitioners. Furthermore, a national health insurance policy must be adopted to offer good quality of health services with a reasonable cost.

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