



COMMUNITY PHARMACISTS' KNOWLEDGE, ATTITUDES, AND PRACTICES REGARDING NON-PHARMACEUTICAL PRODUCTS IN JORDAN

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ABSTRACT

Introduction: Community pharmacies are growing rapidly in Jordan. Community pharmacies in Jordan, like in other countries, sell medicals, (OTC) products, and non-pharmaceuticals. Non- medical products include herbal products, cosmetics, baby food and nutrition, maternal and child care products, nutritional supplements, and sports nutrition such as protein powders and protein snacks. A review article on community pharmacy services in developing countries including Jordan concluded that community pharmacy is commercial and profit-oriented especially non-pharmaceutical products. **Aim:** This study conducted to fill a gap in the literature related to community pharmacists' knowledge, attitudes, and practices regarding non-pharmaceutical products. **Methods:** online survey that conducted in Jordan . A total 110 community pharmacists working in all regions of Jordan. The questionnaire was adopted from a previous study with the same purpose contained five sectors. Statistical analysis will perform in SPSS 25 software. Data will analyze using Microsoft Excel 2010. **Results:** 110 pharmacists contributed with a response rate of 90%. The majority (85%) of the them were female. More than half of respondents were between 35 to 55years old. the majority of them were herbal products (35%) and cosmetics (33%).The majority of respondents (60 %) strongly agree with taking courses about non medication products during university .Furthermore, only 5% of them strongly agree that must the pharmacy intereste in these products because profitable. Less than quarter of them often give the customer all information about these products(18%). **Conclusion:** The study found that the best-selling non-pharmacological products are herbal products and beauty products. Pharmacists were educated and college educated, even self-taught in non-pharmaceuticals. Pharmacists showed a positive attitude towards non-pharmaceuticals and were wanted in expanding their knowledge in this area through training and considered marketing and advertising to be important tasks for them.

KEYWORDS: community pharmacy, Jordan, non-pharmaceutical products.

INTRODUCTION

Local pharmacies are a growing sector in Jordan. This sector is the busiest pharmacy in the country and has recently received more attention from the ministry of health.^[1]

In the future the kingdom focused on local partnerships to effectively deliver preventive essential health care. This vision focused primarily on ensuring equal access to healthcare for Jordanian of the country.

This requires evaluating health services by improving the quality of services provided through primary and preventive care while maintaining curative care.^[2]

The future vision will achieve through the implementation of the proposed health transition plans: inclusion of a health services model, a health insurance

and contracting plan, a plan for the participation of the private sector, government, health and work.^[2]

The Ministry of Health (MOH) is the agency that regulates the public pharmacy sector in Jordan.

Public pharmacies are usually run by one or two pharmacists, or by a pharmacist and an assistant. The tours last from 8 to 12 hours a day and 6 days a week.^[3]

Pharmacists must have a permit to work at a local pharmacy. Registration as a pharmacist with the Jordan pharmacy association.^[2]

Therefore, pharmacists who have entered the labor market must have the minimum qualifications and qualifications to enter this profession. To maintain

registration as a pharmacist, additional medical education (CME) is required.

Public pharmacies in Jordan sell drugs in the same way as in other countries, i.e. drug prescriptions, OTC, and non-medical products.

Non-medical products like cosmetics, baby food and powdered milk, maternal and child care products, nutritional supplements and sports nutrition such as protein powder and protein snacks.^[4]

All medicals, including over-the-counter, prescription, herbal products, and dietary supplements, are regulated by the government.^[3]

Social assistance services vary greatly from country to country. Previous studies that conducted in Jordan have shown that consumers typically visit public pharmacies for several reasons, including medical advice.

Buy over-the-counter drugs, cosmetics, and prescription drugs to treat chronic conditions.^[2]

Recent changes in the Jordan health system have expanded the role of community pharmacists to include more clinical services such as immunizations, patient education in the use of medical devices, and drug therapy management.^[5]

Effective patient counseling is a main challenge, as it is influenced by patient expectations of pharmacy visits and in terms of the professional role of pharmacists working in a social environment, the ability of pharmacists to ask questions, the willingness to answer questions, and the different perceptions of illness and treatment between pharmacists and patients.^[6]

However, it is reported that despite the efforts of the Ministry of Health to ensure that local pharmacists are competent to carry out their daily duties, i.e. education and best practice advice does not provide optimal services.^[7]

For example, access to medicals is limited because some prescription drugs are available without a prescription. Another example is the release of drugs without proper guidance, which can cause unintended harm to patients.^[7, 8]

A paper on community pharmacy services in developing countries, including Saudi Arabia, concluded that community pharmacy is commercial.^[9]

This commercial focus on this line of business has resulted in over-the-counter medications being sold at higher prices. Attempts to convince pharmaceutical representatives and promotions for generic pharmaceuticals as gifts, sponsored meetings and

advertising can influence how a pharmaceutical company and its medical products are perceived.^[10]

The role of the pharmacist in society is to provide a comprehensive service and advice to patients, which leads to the expected results of medications and prevents side effects.^[11] Several studies have evaluated the practices and attitudes of local pharmacists towards prescription and over-the-counter medicals, as well as their involvement in the provision of public health services and medicals.

But no one valued his knowledge, attitude and work with non-medical products sold in public pharmacies.

METHODS

Online survey that conducted in Jordan. A total 110 community pharmacists working in all regions of Jordan. The questionnaire was adopted from a previous study with the same purpose. The questionnaire will contain five sectors. First sector will focus in sociodemographic characteristics. Second sector will focus in percentage of non-pharmaceutical selling. Third sector will focus in source knowledge of respondents. Fourth sector will focus in attitude of respondent toward non-medication products. Five sections will focus in practice of respondents. Statistical analysis will perform in SPSS 25 software. Data will analyze using Microsoft Excel 2010.

RESULTS

Sector one: background information

In this study, 110 pharmacists contributed with a response rate of 90%. The majority (85%) of them were female. More than half of respondents were between 35 to 55 years old (62%). Regarding selling products less than third of their selling were non-medical. Further results were shown in table 1 below.

Table 1: background information.

| | n | Frequency |
|-------------------------------|----|-----------|
| 1- Gender | | |
| male | 15 | 15% |
| female | 85 | 85% |
| 2- Age | | |
| Less than 35 year | 62 | 62% |
| 35 year-55 year | 28 | 28% |
| More than 55 | 10 | 10% |
| 3-years of experience | | |
| less than 9 years | 41 | 41% |
| 9 years to less than 15 years | 30 | 30% |
| More than 15 years | 29 | 29% |
| 4-graduates level | | |
| Bachelor | 65 | 65% |
| Pharm. D | 20 | 20% |
| Masters | 15 | 15% |

| | | |
|-------------------------|----|-----|
| 5-more selling products | | |
| Medication prescription | 61 | 61% |
| Non-medication | 29 | 29% |
| OTC | 10 | 10% |

Sector two: percentage of non-pharmaceutical selling products

Regarding the percentage of non-pharmaceutical selling products, the majority of them were herbal products (35%), cosmetics (33%), skin care products (29%). the minority of them were Blood glucose test (11%), thermometer (13%), etc.... Further results are shown in table 2 below.

Table 2: two: percentage of non-pharmaceutical selling products.

| Product | n | frequency |
|---------------------------|----|-----------|
| multivitamin | | |
| Herbal products | 35 | 35% |
| Skin care products | 29 | 29% |
| Oral care | | |
| cosmetics | 33 | 33% |
| Baby things | 29 | 29% |
| Blood glucose test | 11 | 11% |
| Blood pressure monitor | 9 | 9% |
| Thermometer | 13 | 13% |
| Another medical equipment | 25 | 25% |

Sector three: knowledge of respondents

The majority of respondents (60 %) strongly agree with taking courses about non medical products during university. More than third of them agree reading about non medical depending on myself (35%). More than two third of pharmacists strongly agree with maintaining update knowledge of these products . Further results are shown in table 3 below.

Table three: knowledge of respondents

| Statement | Strongly disagree | disagree | neutral | Strongly agree | agree |
|--|-------------------|----------|---------|----------------|-------|
| Taking courses about non medication products during university | 35 | 2% | 5% | 60% | 30% |
| Taking courses about non medication products during my job | 5% | 10% | 10% | 30% | 35% |
| Reading about non medication depending on myself | 5% | 10% | 20% | 30% | 35% |
| Maintaining update knowledge of these products | 1% | 1% | 3% | 70% | 25% |

Sector four: attitude of respondent toward non-medication products

In this survey, the majority of the respondents (39%) strongly agree that counseling of non medication products is the pharmacy responsible.

Furthermore, only 5% of them strongly that must the pharmacy interested in these products because profitable. The minority of them strongly agree (5%) that selling these products make respondents less respect. Further results are shown in table 4 below.

Table four: attitude of respondent toward non-medication products.

| Statement | Strongly disagree | disagree | neutral | Strongly agree | agree |
|---|-------------------|----------|---------|----------------|-------|
| Counseling of non medication products is the pharmacy responsible | 15% | 15% | 20% | 39% | 21% |
| Must update of the pharmacy knowledge | 25% | 25% | 15% | 15% | 20% |
| Must the pharmacy interested in these products because profitable | 5% | 35% | 20% | 20% | 20% |
| Selling these products make respondents less respect | 44% | 30% | 20% | 5% | 1% |

Sector five: practice of respondents

Regarding practice of respondents toward these products, the majority of them always interesting in non-pharmaceutical products (55%). The minority of respondents always counseling customer about used of these products (10%). Less than quarter of them often give the customer all information about these

products (18%). Further results are shown in table 5 below.

Table five: practice of respondents.

| | always | often | Sometime | never |
|--|---------------|--------------|-----------------|--------------|
| Interesting in non – pharmaceutical products | 55% | 10% | 25% | 10% |
| Counseling customer about used of these products | 10% | 15% | 38% | 37% |
| Selling non pharmaceutical products | 20% | 25% | 10% | 45% |
| Give the customer all information about these products | 15% | 18% | 30% | 37% |

DISCUSSION

Several studies that conducted in the public pharmacy related to over-the-counter drugs such as medications care, adverse drug reaction notice, prescription antibiotics, counseling skills, safe medications for pregnancy, etc.^[13, 14]

This allows public health beneficiaries to obtain medicals from local pharmacies in their community, instead of dispensing them for free from hospitals.^[15]

As a result, the public's familiarity with non-pharmaceutical products has increased. The study showed that while local pharmacies sell products that are not medicals, they sell them to a lesser extent than medicals.

The most non medical products are mother and child products and skin beauty products, while the least popular products are medical material, multivitamins and nutrition.

Similarly, an earlier study in Turkey found that the most common non-drug products were dietary supplements and maternal and child products, while sports and nutrition products were the most common.^[12] The data showed that the district pharmacists were well versed in non-pharmacological medicals, having received training in this area during their undergraduate studies.

In addition, the respondents indicated that they agree or strongly agree to stay current in their field through self-directed learning.

We need more education program to serve local communities builds on Jordan with a focus on primary and preventive care and strengthening public-local partnerships in health.

Some undergraduate courses, such as non-medicals products, OTC, etc. provides students with hands-on experience in these settings.^[4] Pharmacists have shown a positive attitude towards non-medical products .Most pharmacists believed that marketing, making money, advising customers, and mentoring and updating in this area were the ground rules for employees in this line of work.

An analysis of the professional requirements of the country's large pharmacy chains shows that pharmacists

need to practice, prescribe, advise on medications and practice the use of medical equipment, monitors key sales performance indicators, processes payments and adjustments with fund management, supervises operations staff, enforces health and safety policies and procedures, and participates in training events and workshops.

In this way, pharmacists fulfilled their professional advisory work and ensured the survival of the company from the economic benefits of the sale of non-medical products.

Similar results were conducted in Turkey, where respondents felt that non-pharmaceuticals must only be sold in local pharmacies to increase money. They also believed that the pharmacist had a duty to advise consumers about these products.^[12]

The results of this study also showed that respondents showed positive results against to non-medical products like, marketing of these products, advice and response to queries, and sale of these products.

This study has limitations, including self-assessment of knowledge by pharmacists, in particular that their views on continuous professional development of these products may be biased.

CONCLUSION

The study found that the best-selling non-pharmacological products are herbal products and beauty products. Community pharmacists demonstrated extensive knowledge of non- medical products.

They were educated and college educated, even self-taught in non-pharmaceuticals. Pharmacists showed a positive attitude towards non-pharmaceuticals and were wanted in expanding their knowledge in this area through training and considered marketing and advertising to be important tasks for them.

Furthermore, they demonstrated their social responsibility by taking responsibility for advising patients on non-medical products. Pharmacists participated in sales, marketing, consulting, and answered questions about non- medical products.

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