

THE PHARMACIST'S ROLE IN PREVENTIVE AND PHARMACEUTICAL TREATMENT FOR ORAL DISEASES

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Abstract

Community pharmacies are health units that provide health services for population. This paper focused on assessing behaviour, attitudes and knowledge of pharmacists in Bucharest, Romania regarding oral hygiene products and preventive and pharmaceutical treatment for oral diseases. The results show the active role of pharmacists regarding health advice to clients and their readiness to involve in health education of individuals to establish a standard of health care in community pharmacies for the well-being of the society. Due to their direct interaction with patients, pharmacists are a valuable medical information resource, therefore there is a need for further training on public health services, health promotion and primary preventive measures.

Rezumat

Farmaciile sunt unități sanitare, în cadrul cărora se desfășoară servicii de sănătate accesibile întregii populații. Scopul studiului a fost evaluarea comportamentului, atitudinile și cunoștințele farmaciștilor din București, România privind recomandările făcute în privința produselor de igienă orală, disponibile în farmacii și practicile de prevenție și tratament medicamentos al afecțiunilor orale. Rezultatele arată rolul activ al farmaciștilor în oferirea de informații și dorința de implicare în educația populației pentru creșterea standardului de calitate al îngrijirilor din farmacii, care să conducă la îmbunătățirea calității vieții. Datorită disponibilității lor și pregătirii, farmaciștii sunt o resursă valoroasă de informație medicală.

Keywords: pharmacist practices, oral hygiene, pharmaceutical treatment

Introduction

Nowadays, practicing medicine means to gather endeavours from all health professionals, including pharmacists, working as an interdisciplinary team to deliver primary medical care for all individuals [1, 5, 8]. In order to empower oral health, the pharmacists are in a leadership position as dental advisers, due to public confidence in the recommendations of pharmacist, seen as an active member of primary oral health promotion team [9, 11]. In community pharmacies, oral health promotion must be seen as a patient-oriented activity focused on allowing a reliable communication for improving health and addressability to medical care services [6, 7, 15]. During daily activities, the pharmacist can help the people to make informed decisions regarding the use of oral health products, medication for reducing dental pain or inflammation and concerning preventive measures [12]. These health and well-being needs of individuals who use

the services of pharmacists require a standard of care from community pharmacy in order to protect patients' rights related to the quality of health care [10]. First, in order to control and improve the oral health status, the patient has the right to elect and also to change the pharmacist or the pharmacy, in accordance with her/his oral health need at a given moment [10]. Secondly, the patient has the right to quality pharmaceutical care, including professional guidance for a healthy lifestyle, dental disease prevention and proper use of oral health and hygiene products of the quality level required by law and according to their oral health needs at a certain time, all through opportunistic oral health education merged into a holistic approach [10, 13, 14]. Instead of visiting a dental practitioner, a lot of people having oral problems ask for support from pharmacists for several reasons: time pressure, financial issues, dental treatment anxiety, etc. [2, 4]. Community pharmacies are approachable primary dental health services for population, therefore this

paper's main aim is to assess behaviour, attitudes and knowledge of pharmacists in Bucharest, regarding oral health promotion and primary preventive measures for dental diseases. Another objective of the present study is to evaluate educational needs of the pharmacists in regard to the current issues of dental public health care with impact to the quality of community pharmacy services [3].

Materials and Methods

We performed a cross-sectional survey conducted in 2014. There were involved 188 pharmacists, 90.45% female, randomly selected from all districts of Bucharest. In order to obtain the informed consent, the purpose of the study has been explained and subjects were assured of data confidentiality. It was used an anonymous questionnaire with 14 closed and opened items on behaviour, attitude and knowledge of pharmacists regarding oral health care advice, dental hygiene products and primary prevention of oral diseases.

Results and Discussion

Mean age of the pharmacists was 33.51 (SD = 7.74), subjects age was between 23 and 62 years old, prevailed female (N = 170). The mean number of years of practice was 7.84 (SD = 6.28). Depending

on subjects experience as pharmacists, they were divided into three groups: group I (1 to 5 years of experience) with 82 subjects (43.6%), group II (between 6 to 15 years) with 88 pharmacists (46.8%) and group III, over 16 years of practice with 18 pharmacists (9.6%).

Pharmacists behaviour towards oral health care

The active role of pharmacists regarding oral health advice is presented in Table I. Most of the respondents stated that frequently provide oral health information to their healthy individuals, but also for those with general health problems: cardiovascular disease, diabetes, patients with multidrug or anticoagulant therapy. The proportion of oral health advisers increases with experience as pharmacists: 54.9% among group I, 59% for group II and 66.7% for those with more than 16 years of practice.

The pharmacists referral to the dentist people with oral cavity complaints, pregnant women (77.1%; n = 145) and individuals with general diseases: diabetes (81.9%; n = 154), cardiovascular diseases (71.3%; n = 134), hematologic disorders (67%; n = 126) and immune diseases (63.3%; n = 119). In the case of a patient accusing oral problems with pain, pharmacists recommend: referral to the dentist for treatment (88%; n = 167), analgesics (74.5%; n = 140), antibiotic - only the first group with lesser experience (8.5%; n = 7) and dental hygiene and prevention advice (48.4%; n = 91) (Table II).

Table I

Number and percentage of pharmacists regarding pharmacists' role as oral health advisers, by practice experience

Providing oral health advice	Years of experience			Total
	1 - 5	6 - 15	> 16	
Frequently	45 (54.9%)	52 (59%)	12 (66.7%)	109 (58%)
Seldom	13 (15.9%)	10 (11.4%)	1 (5.6%)	24 (12.8%)
Upon client request	24 (29.3%)	31 (35.2%)	2 (11.1%)	57 (30.3%)
Heart diseases	5 (6.1%)	5 (5.7%)	4 (22%)	14 (7.4%)
Diabetes	7 (8.5%)	4 (4.5%)	2 (11.1%)	13 (6.9%)
Multidrug therapy	4 (4.9%)	2 (2.3%)	2 (11.1%)	8 (4.3%)
Anticoagulants	2 (2.4%)	3 (3.4%)	2 (11.1%)	7 (3.7%)

Table II

Number and percentage of pharmacists regarding counselling for oral pain, according to experience

Recommendation for oral pain	Years of experience			Total
	1 - 5	6 - 15	> 16	
Referral to dentist	73 (89%)	79 (89.8%)	15 (83.3%)	167 (88%)
Analgesics	60 (73.2%)	70 (79.5%)	10 (55.6%)	140 (74.5%)
Antibiotics	7 (8.5%)	0	0	7 (3.7%)
Oral hygiene advice	38 (46.3%)	46 (52.3%)	7 (38.9%)	91 (48.4%)

Almost half of the pharmacists (43.6%; n = 82) provide to their patients oral health information leaflets; (19.7%; n = 37) only in case of an oral health problem and (38.3%; n = 72) declared there are no flyers in pharmacy.

Regarding the behaviour of the pharmacists on recommendation of fluoride tablets, results showed

that most of them (81.9%; n = 154) referral the parents of children to the dentist, almost half (54.8%; n = 103) send the pregnant woman to the dentist, (23.4%; n = 44) do not recommend the general use of fluoride and only 0.5% make recommendations in this regard (Table III).

Table III

Number and percentage of pharmacists concerning the use of oral health information leaflets

Pharmacists' behaviour	Years of experience			Total
	1 - 5	6 - 15	> 16	
Providing flyers generally	36 (43.9%)	36 (40.9%)	10 (55.6%)	82 (43.6%)
Providing flyers only for oral problem	16 (19.5%)	21 (23.9%)	0	37 (19.7%)
No leaflets	32 (39%)	32 (36.4%)	8 (44.4%)	72 (38.3%)

In the case of a child with dental caries pain complications in the deciduous dentition, most of the pharmacists (89.9%) recommend dental treatment,

34% analgesics and only 6.9% believe that visiting the dentist is not necessary because temporary teeth will be replaced by permanent teeth (Table IV).

Table IV

Number of subjects and percentage of pharmacists regarding recommendation in the case of a child with pain in deciduous teeth

Pharmacists' recommendation	Years of experience			Total
	1 - 5	6 - 15	>16	
Analgesic	27 (32.9%)	34 (38.6%)	3 (16.7%)	64 (34%)
No need for dentistry	6 (7.3%)	5 (5.7%)	2 (11.1%)	13 (6.9%)
Dental treatment	72 (87.8%)	79 (89.8%)	100%	169 (89.9%)

Pharmacists' knowledge regarding oral health care

In relation to existing dental services close to the pharmacies included in this study, in most cases (60.1%) there are dental offices with schedule only during the week, in 25.5% of cases there are dental offices for emergencies, for 18.1% there is a hospital with dentistry emergency department and in 17.1% of instances there is no office around.

Issues related to health problems of the oral cavity that require recommendations are: dental pain (92%), aphthous ulcers (84%), gingival bleeding (78.2%), dental abscess (63.3%), disorders related to teething (61.7%), choosing the type of mouthwash (55.9%), choice of tooth paste (52.7%), whitening teeth (34.4%), dry mouth (31.9%), lesions that do not heal, but with no complaints of pain (15.4%) and general fluoride administration (tablets) in 13.3% of cases. Regarding the types of oral hygiene products available in pharmacies recommended to patients, results were as follows: mouthwash (98.9%), toothpaste for adults (98.4%), manual toothbrush (97.3%), dental floss (96.8%), toothpaste for children (96.3%), denture adhesives (93.1%), mechanical toothbrushes for adults (73.9%), dental whitening products (69.7%), mechanical toothbrushes for children (68.1%), interdental toothbrushes and products related to orthodontic appliances (60.6%). In terms of antibiotics useful for oral cavity infections, most of the pharmacists (80.5%) chose penicillin group, but also macrolide group (32.5%) and tetracycline (8%).

Oral health care attitude of pharmacists

Most of the pharmacists (85.6%; n = 161) are confident in oral health advice/recommendations provided for their patients, without significant differences by practice experience (86.6% for group I, 86.4% for group II and 77.8% among group III).

Respondents' opinion regarding the opportunity of oral health related advice provided by pharmacists as follows: 115 (61.2%) believe that dental advice from pharmacists are useful, 66 (35.1% especially from group III) think that more recent data are needed in this regard and only 2.7% (5 subjects from the group with 1 - 5 years of experience) consider that oral health promotion is not their responsibility.

Oral health topics desired by pharmacists are: oral hygiene products, fluoride content of toothpastes, gingival problems, dentures cleaning and dental implants. Regarding the sources of oral health knowledge, most of the pharmacists (62.8%) choose brochures with targeted recommendations for the main oral diseases; 58.8% prefer details from the manufacturers, 45.2% seek information in specialized journals and only 29.8% attend courses and workshops.

Conclusions

Pharmacists are eager to diversify their health knowledge and practice regarding dental care, prevention and the type of oral hygiene products, in order to meet health inquiries from their patients and improve primary care in public health services. Results also show their willingness to involve in oral health education in order to establish a standard of health care in community pharmacies for the general public. Due to their availability, pharmacists are a valuable medical information resource, therefore there is a need to establish an interrelationship with dentists for training on oral health care and prevention. In this regard, pharmacists and their professional associations should be encouraged to proceed with oral health

knowledge, featuring pharmacy practice and to bring up to date communication skills.

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