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ORIGINAL ARTICLE

Saudi school students' knowledge, attitude and practice toward medicines

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KEYWORDS

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Abstract The current study was aimed to assess Saudi school students' knowledge, attitude and practice about medicines. A pretested self-administered questionnaire was used anonymously among 15–20 year-old adolescents attending tertiary schools in Taif City, KSA. A total of 1022 students completed the questionnaires. Only 15.4% of the respondents knew the medicines' uses. Most of the students 79.6% affirmed that they used to take medicines after consulting physicians, and 45.1% of the students thought that tablet size affects the medicine's efficacy. More than half of the students knew that high temperatures affect the efficacy of medicines, there was a significant difference between rural and urban areas ($P = 0.005$). Physicians (50.6%) and community pharmacists (15.7%), were the main students' reliable sources of information about medicines. The majority of the students 70.5% were interested in learning more about medicines. The younger students ⩽18 years wish to learn more than the older ones ($P < 0.014$). The study showed that Saudi school students aged 15–20 years old have poor knowledge, misconception and negative attitudes about medicines. Low level of knowledge may expose adolescents to health-related problems. Educational efforts are important to improve students' practice toward medicines.

1. Introduction

Falling ill is one of the major problems that humans face during their life and as a consequence, it is common for humans to be in contact with medicines to treat their ailments. Medicines play an important role in the lives of children. School children play an active role in the use of medicines and they perceive themselves as more autonomous than their caretakers perceive them. Poor knowledge could lead to the improper use of commonly used medicines which in turn may lead to serious repercussions. Moreover, attitudes toward medicines formed at a young age may affect the use of medicines later in adulthood. The literature has shown that adolescents get information about medicines from a variety of sources such as: physicians, pharmacists, family members, friends, the media, teachers and the medicine package inserts (Stoelben et al., 2000; Chambers et al., 1997).

Children spend a long time of their growing years in schools. However; most school curricula do not include

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education about medicines. The United Nations Convention on the Rights of the Child advocates the right of every child to self-determination, dignity, respect, non-interference and the right to make informed decisions. Informed decision- making in the area of health implies that children should be informed about medicines (The Right to Health, 2008). Early health education can prevent high-risk behavior in children, enable them to improve decision-making ability about medication uses, and correct misconceptions about them.

This study could be considered as a first attempt to study school students' behavior toward medicines in Saudi Arabia. The objective of this study was to assess Saudi school students' knowledge, attitude and practice toward medicines.

2. Method

A self-administered questionnaire was designed to be used anonymously, validated and pretested, then reviewed by experts from the Ministry of Education and College of Pharmacy, Taif University. The questionnaire was originally drafted in English, then translated to Arabic language, and was tested for consistency. The structured survey was developed to elicit the general knowledge, attitude and practice and sources of information about medicines among 15–20 years-old adolescents attending tertiary schools in Taif City, KSA during the period of September to December 2012. A total of 1022 students were randomly selected from eighteen schools. The schools' selection depended on stratified and randomized base from rural and urban areas. Data collection was carried out during usual class periods under the supervision of the investigators. The questionnaire was prepared in such a way that questions and responses were simple and direct. The students filled up the questionnaire, without help from the teachers or investigators. The students took about 10–15 min to complete the questionnaire. The questionnaire included queries about the following:

Socio-demographic characteristics, medicines and their uses, awareness about prescriptions and pharmacists, knowledge about whether efficacy of medicines is related to color or shape of a tablet, the different dosage forms that exist and ways of taking medicines, whether a medicine having more than one name, and how to ask questions to health care professionals about medicines, how one could differentiate between medicines for children and for adults, proper storage of medicines and observation of expiry date and side effects of medicines. Questions were also inquired about whether commonly used over-the-counter medicines could cause harm if taken in excess and sources of information about medicines. A close ended question was asked whether the respondents wish to learn more about medicines.

Permission was obtained from the Ministry of Education. The questionnaire was pre-tested with a suitable number of students, the pilot students were selected from a similar setting. The pilot outcome results were not included in the research study. The collected data were analyzed by using Statistical Package for Social Sciences (SPSS) program (version 16). The differences in the participants' responses were measured with the chi-square test, P value < 0.05 was considered statistically significant.

3. Results

A total of 1022 students completed the survey. The students' ages ranged from 15–20 years (mean 17.63 $\pm$ 1.33 years), most of them 825 (80.7%) were $\leqslant$18 years old, the majority of respondents 738 (72.2%) were living in urban areas.

Results indicated that only 158 (15.5%) of the students were familiar with the term medicines, and 157 (15.4%) of them knew medicines' uses. Results had shown a significant difference between rural and urban areas, when correlating knowledge of students about medicines' definition to their residence (P-value < 0.001). Only 294 (28.8%) of the participants defined the pharmacist correctly, and 767 (75.0%) respondents did not know the pharmacist role. More than half 532 (52.1%) of the students were able to enumerate the route of administration of drugs. There was a significant difference between students' ages below and above 18 years, (P-value < 0.001). The present study revealed that 667 (65.3%) of the students did not recognize the names of the medicines that were prescribed for their illness.

Fig. 1 showed that most of the students 814 (79.6%) affirmed that they used to take medicines after consulting physicians.

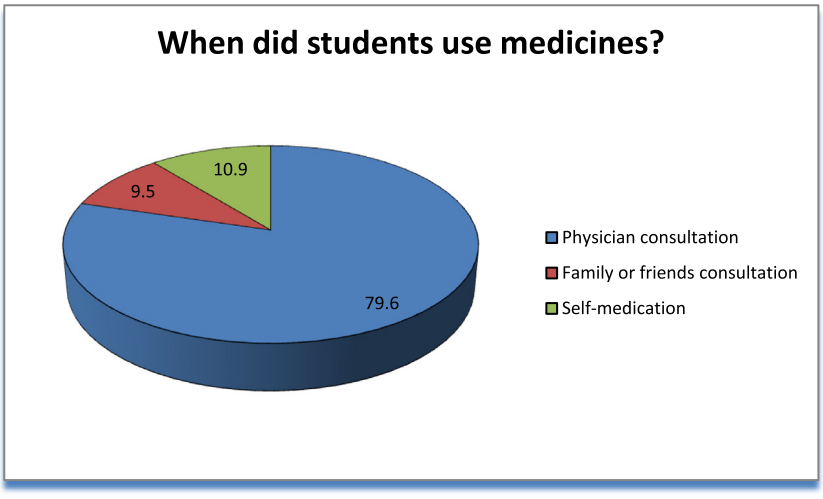

Figure 1 The situation in which the students used medicines.