

KAP of primary school teachers about health education techniques

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Abstract: Background and aim: Teachers have an important role, in health education, in transferring health knowledge, attitude, and practice (KAP) to students. Therefore, it is necessary for them to have adequate knowledge of, high attitude toward, and appropriate practice in health education techniques. The aim of this study was to measure KAP of primary school teachers about health education techniques and its relationship with age, gender, nativity, education, work experiences, income, courses they had already taken, and place of education. Design: 114 female and 104 male teachers were investigated. They were asked to fill out a pre-tested and structured questionnaire. Chi-square and multivariate regression analysis were used for data analysis. Findings: 7.1% of teachers had high, 45.2% had medium, and 27.7% had low KAP about health education techniques. Chi-square test showed no relationship between KAP of teachers and gender, nativity, work experiences, and income. However, there was a significant relationship between KAP of teachers and level of education, place of education, and courses they had already taken. Multivariate regression analysis showed that courses they had already taken were the most effective factor on teachers' KAP about health education techniques. High proportions of primary school teachers had low KAP in health education techniques. Regarding the results of this study we recommend development of a specific (pre-service and in-service) training course for teachers to improve their KAP about techniques for health education in primary schools.

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1. Introduction

Schools are identified as a key setting for health promotion and health education. Health promotion in (health) schools has been addressed internationally for about 15 years (Lee *et al.*, 2005). The school age comprises a high proportion of population of each country (WHO, 1992). Students' population has grown enormously in the past and is going to increase in future particularly in developing countries. Students are the most accessible group that can be reached easily and cost-effectively in schools. Health knowledge, attitude, and practice (KAP) can be transferred easily in the process of education and training in schools. Students can act as a bridge to pass health information and behaviors that they learn to families and communities. The large number of students at present, trainability of health, and availability of students are promising points for promoting health in students, their families, and hence the whole community. Teachers have been referred as the main sources of knowledge by students (Agrawal *et al.*, 1999; Pirzadeh *et al.*, 2012). Because unhealthy diets and physical inactivity are risk factors for many non communicable diseases (Kelishadi *et al.*, 2008), there are, apart from formal

educational programs in classes, many other opportunities for health education in schools like meals, environment, and various events (WHO, 2005). These reasons give high priority to health education in schools in every country. Teachers are one of the bases of education process accompanied with curricula, programs, plans, sources, and material. Therefore, it is needed to determine the level of teacher's KAP about health education techniques. This study was conducted to measure the KAP of teachers about health education techniques to find out some barriers to health education in school.

2. Materials and Methods

Primary data and information about number of teachers and addresses of primary schools have been collected from Office of Education in the city of Shahrekord through a formal process. The population of the study was all teachers who were teaching in primary schools of Shahrekord. For this study 114 female and 104 male teachers were enrolled using systematic sampling method.

In the first step, a questionnaire was developed to collect and score each component of KAP of primary school teachers about health education

techniques. The questionnaire was pre-tested and underwent the process of meeting a satisfactory validity. Teachers were questioned by some trained interviewers and the questionnaires were completed through face-to-face interviews. The SPSS 11.5 was used for data analysis. The total score in KAP was calculated for every teacher and categorized as high, medium, and low based on the definition. The total score of questionnaire was 19 and each respondent was categorized as weak if his or her score was lower than 5, medium if between 6 and 13, and high if higher than 13. In the next stage, chi-square test was used to investigate the relationship between the total KAP score and other variables such as age, gender, nativity, education, work experiences, income, courses they had already taken, and place of education. Multivariate regression analysis was applied to find out which of these variables were more effective on teachers' KAP score in health education techniques.

3. Results

54% of teachers were female and 46% were male. Of the whole teachers, 71% of them were native teachers, 28% of them came from another region, and 1% did not specify their nativity status. The highest proportion (33%) of teachers was (were) in age group of 30-35 years followed by 35-40 (25%). However, only 8% of teachers in this study were under 25 years old. On the level of education, 60.7% had high school and 39.3% had a higher education. Table 1 shows the distribution of teachers' KAP and the level of education. As it can be seen in Table 1, 7.1% of teachers had a high, 65.2% a medium, and 27.7% a low score in KAP (Figure 1). The mean, standard deviation, and variance were 7.6, 3.6 and 12.8 respectively.

Table 1. KAP of primary school teachers about health education techniques and level of education

KAP score level of education	High score N (%)	Medium score N (%)	Low score N (%)	Total N (%)
High schools qualifications	2 (0.9)	85 (37.9)	48 (21.4)	135(60.2)
Higher education qualifications	14 (6.3)	61 (27.3)	14 (6.2)	89 (39.7)
Total	16 (7.2)	146 (65.2)	62 (27.6)	224 (100)

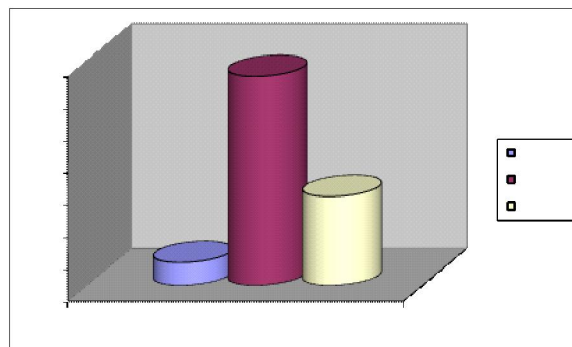


Figure 1. Distribution of KAP score of teachers about health education techniques

Chi-square test showed there was no relationship between KAP of teachers and their gender, nativity, work experiences, and income ($P>0.05$). However, there was a significant relationship between KAP of teachers and the level of education, place of education, and courses they had already taken ($P>0.05$). The multivariate regression analysis showed that there was a strong relationship between KAP of teachers and the level of education compared to other variables.

92.4% of teachers mentioned that they need to know and apply health education techniques in teaching programs and 91.1% mentioned that they are ready to participate in potentially existing courses developed to improve their KAP of health education techniques.

4. Discussion

A health-promoting school is one that constantly strengthens its capacity as a health setting for living, learning, and working which influences health-related knowledge, attitudes, and skills (WHO, 2005). Review of research and practice in health-promoting schools recommended informing development of schools as health promoting organizations in the future (Denman, 1999).

Published papers have reported successful results of promoting health in schools. For instance, in a study in Tanzania the impact of some educational sessions was assessed as changes in the students' oral health KAP in primary schools. In that study the group with modified oral health education achieved better knowledge of oral health, reported reduced consumption of sugar-containing foods, and increased toothbrushing (Nyandindi *et al.*, 1996). Schools could have a powerful role in preventing tobacco use among adolescents (Kumar *et al.*, 2005). The results of the present study show that the majority of primary school teachers do not have enough KAP in health education techniques, which

indicates the necessity of training school teachers about health education techniques in order to improve their knowledge and capability to disseminate health knowledge and information to students. Considering the nature of health education techniques, we should offer the teachers some pre-service and in-service training courses. There is also a need to include some activities in order to promote teachers' positive health behaviors to turn them into model for pupils.

The most effective variable affecting teachers' KAP was the courses they had already taken. Teacher's willingness to participate in educational courses was also investigated in this study, showing teachers' high demand for these courses. These findings highlight the importance of addressing this issue by educational policy makers in future plans.

The results of this study are supported by several other reports, indicating that teachers' health knowledge is insufficient and this may affect teachers' ability to deliver health education in school. The results of a study showed that the majority of teachers did not receive sufficient education on how to address the problem of child abuse and its' prevention in schools (Abrahams *et al.*, 1992). In another study it was reported that teachers needed more knowledge regarding head lice as a problem they had to involve in (Kirchofer *et al.*, 2001). There is a need to educate school teachers about health in order to improve their knowledge (Alnasir and Skerman, 2004) and to do the same for other staff such as school nurses dealing with research (Lightfoot and Bines, 2000).

In a similar study it was recommended that teachers and other individuals who monitor children in schools should receive simple instruction in dental first aid (Blakytyn *et al.*, 2001). The necessity of improving knowledge of oral health diseases and their prevention among the teachers for an effective school-based oral health education program have been reported (Sofola *et al.*, 2002). Some suggestions have also been offered for improving in-service training for teachers and all professionals dealing with children with attention deficit hyperactivity disorder (Jerome *et al.*, 1994).

5. Conclusions and suggestions

The present study identified key components of the primary school teachers' needs in terms of health education techniques and it could be concluded that there is a need to optimize the primary school teachers' contribution to school health and the need for a more strategic approach and research required for teachers' partnership in health education and formal education. The research showed low KAP of teachers about health education techniques. In addition, a strong and significant relationship

between KAP of teachers and the level of education was observed. As a result, an educational program with a specific content of information and skills regarding health education techniques for (would-be-) employed teachers is recommended to make them familiar with the techniques of health education in primary schools. Some suggestions in this regard are as follows:

Providing some courses about health education techniques particularly for teachers without higher studies; these courses could be taught and/or accompanied by applied opportunities to guarantee teachers' ability to utilize the techniques in the real life;

Developing a specific program for (in-service) training courses and/or applying them as pre-service and in-service trainings for teachers in their free time by universities or teacher training centers;

Revising curricula of teacher training centers to include health education techniques and identifying indicators to measure their achievements and ability to apply these techniques for health education in primary schools.

The results of this study can be used as baseline data to monitor and evaluate efforts and changes in the future and persistence of education programs. Government and policy makers should be made obliged to provide and allocate resources which are needed for these changes.

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