Exploring educationalists’ views on the need for school nurses in secondary schools in Greece

School nurses have an important role to play in the health and wellbeing of children and young people in the short and long term. There are many variations in the school nurse’s role in different countries; however, it is generally a combination of clinical care and public health practice. The school nursing role may include some of the following: a responsibility for providing first aid in school accidents, the promotion of children’s health, the education of school staff and children on topics such as hygiene and attending to the needs of children with mental or physical requirements.

In Greece, school nursing appeared in the early 1910s in the form of a School Health Service in the Ministry of Education (Alexandropoulou et al, 2006). Since then, governmental supervision and practice of school nursing has been rather obscure and confusing. A number of sectors, divisions and offices in various ministries were established only to be removed, renamed or transferred. Today, school nurses are employed in special schools and are supervised by the Ministry of Education, Religious Affairs, Culture and Athletics. Currently, there are no school nurses in public primary and secondary schools.

Although there are numerous studies in the area of school nursing worldwide, little research has been carried out in Greece. Since the authors believe that nursing should play an important role in schools, it was decided to initiate a series of exploratory studies in order to establish the potential benefits of school nurses in Greece.

Literature review

A literature review was carried out to provide some background on the various aspects of the school nursing role and areas in which they can make an important contribution (some of these are included in Table 1).

School nurses’ offices, where available on the school premises, were found to be often visited by students complaining of somatic symptoms (e.g. headaches, stomach aches, infections, dizziness, tiredness). Schneider et al (1995) found that some complaints (e.g. headache, dizziness, tiredness, unspecific complaints) could be related to stress, anxiety, poor sleep, family and school problems (p<0.005). They concluded that school nurses should explore these situations further for underlying psychosocial problems.

Abstract

School nurses promote pupils’ health, and their balanced physical, mental and social development. School nurses working in the Greek public sector are only employed in special schools and are supervised by the Ministry of Education and Religious Affairs, Culture and Sports.

A study was undertaken to explore public secondary school teachers’ beliefs about the role of school nurses and whether they thought they would be useful in schools.

The majority of respondents believed that the role of the school nurse is to provide first aid (63.9%). Teachers who said that they would feel more secure by the presence of a school nurse in their school were 41 times more likely to believe a school nurse would be useful in the case of school accidents (chi square=57.125, p<0.001, OR=41).

The researchers believe that public schools in Greece need to employ school nurses and that the Greek government should consider taking appropriate measures towards this end.

Key words

School nurse  Secondary schools  Mainstream education  Role  Teachers’ views  Greece

Ryan (2008) suggested that nurses need to be involved in health promotion programmes for educationalists and school staff. Ryan believes that teachers can act as role models for their students. In this context, in a randomised...
controlled trial, Pbert et al (2006) found that school nurses are suitable for delivering a smoking cessation intervention that resulted in increased self-reported rates of abstinence and decreasing amounts and frequency of smoking among high school students.

In the same way, Brabin et al (2011) examined factors that may affect HPV vaccine uptake and reported that school nurses need more support and help in order to ensure high coverage rates. Nonetheless, in an online survey on the knowledge, attitudes and beliefs of school nurses, Kinne and Bobo (2010) reported that 73% of school nurses are more likely to trust immunisations that 'have been around' for a while.

The additional burden carried by school nurses in special schools is described by Moore et al (2003) who conducted research in Northern Ireland. Among other tasks, the school nurses administered medication, provided mouth care, suction, catheterisation, peg and nasogastric tube feeds and glucose measurements, tasks which were performed in the control schools by assistants, teachers or the pupils' parents with an unknown level of training.

The complexity of caring for children in special schools is also presented in Kruger et al's (2009) article where it is illustrated that school nurses function as clinicians responding to the needs of children in a direct way and maintaining long-term relationships with pupils' families and teachers. The need for consultation, supervision and budgetary support is highlighted by the authors.

Technological advances gain more and more ground even in the area of school nursing. As reported by Izquierdo et al (2009), a telemedicine system with videoconference in the New York area resulted in decreased A1c values from baseline to 6 months in students with type 1 diabetes mellitus compared to students in the usual care group (p<0.02).

However, school nurses can also play a role in a major public health issue that may lead to diabetes mellitus, namely childhood obesity. In a study by Murphy and Polivka (2007) it was found that just above one third of parents (36.2%) expressed that schools were not doing enough. Parents also wanted to be informed of their children's BMI, preferably through a letter from the school nurse. More encouragingly, Borup and Holstein (2010) found that the annual or biannual health visit of school nurses in Denmark had a positive impact on overweight children and especially boys who more often reflected on this dialogue (odds ratio (OR)=1.73), discussed it with their parents (OR=1.79) and visited the school nurse again (OR=2.68).

Another important area for school nursing includes children's mental health needs. Dowdy et al (2010) discuss techniques to screen for risks of emotional and behavioural problems, the identification and monitoring of these problems, and future directions for screening practices as part of a wider public health approach focused on early identification and early intervention.

Aim
The primary aim of this descriptive study is to explore whether the teachers in public secondary education schools in one region of Greece are aware of the existence of school nurses in special schools and whether they perceive that a school nurse would be useful in their mainstream schools. Secondly, the researchers wish to examine whether there is a first aid kit in schools, the number of school accidents school teachers may have witnessed, their involvement and their knowledge in providing first aid.

Method
The present study was undertaken in the prefecture of Samos (43.995 inhabitants) where there are 11 public high-scholis, five public lyceums, four public vocational lyceums and two public vocational schools. These structures constitute all the schools providing public secondary education and nearly 500 teachers work in them. There is also one public special school.
A total of 190 invitations were sent in January 2012 to public school teachers and 144 accepted to participate in structured interviews (75.8%) with the researchers one month later.

There were 15 questions (Table 2) regarding information about the existence of a school nurse in the teachers' schools and in other schools in general, the potential role of the school nurse in their own opinion as well as the number of children with chronic diseases in their school. Participants were also asked whether they had witnessed any accident in their school or whether there had been any cases when a child required medical assistance and how they responded. Socio-demographic data were also collected, including age, years of experience and level of education.

Questionnaire items were initially constructed by the principal investigator after reviewing the literature. A panel of experts, namely a psychologist, a sociologist, two community nurses, a school nurse, 2 secondary school teachers, a lecturer and an assistant professor in nursing studies were asked to review the set of questions prior to interviews. Item content validity (ICV) was performed by dividing the item scores by the total number of experts (ICV index: 0.80). Since the authors were not aware of any similar set of questions in Greece at the time of the study, it was difficult to demonstrate the questions' construct validity. Pilot interviews were performed with ten secondary school teachers and minor changes were made to the wording of two of them.

**Ethical approval**

Researchers also obtained written permission from the Division of Secondary Education of Samos Prefecture and participants were asked to sign an informed consent form prior to participation.

**Analysis**

All data were coded and analyzed using the computer program Statistical Package for Social Sciences (SPSS) v.19. Since none of the continuous variables presented normal distribution, non-parametric tests were performed.

**Results**

The mean age in our sample was 39.63 years, 65.3% of the teachers were married and 34.7% single. There were more women (58.3%) than men (41.7%) and on average, school teachers had 9.5 years of working experience (range: 1 to 30 years) (Table 3). 33.3% of the participants hold a postgraduate degree.

Only six participants (4.2%) knew about the existence of school nurses in special schools and the majority of the participants believe that the role of a school nurse is to provide first aid (63.9%) (Figure 1). Almost half of the participants (48.6%) did not know if there were any children suffering from a chronic disease in their school. Nonetheless, 74 teachers (51.4%) had been present at the time of an accident in the school premises involving children and 68.8% of them provided first aid and called for an ambulance. A total of 130 (90.3%) respondents believed that a school nurse would be useful in the event of an accident.

All but two of the participants knew whether there was a first aid kit in their school, 81.9% have used it, however, only 41.7% thought that it was adequately equipped and another 27.8% were unaware of the person responsible for its content and its maintenance. The majority (88.9%) of the participants said that they would feel more secure if there was a school nurse in their school and 59.2% considered the school environment to be safe. Finally, slightly more than one third of the teachers had been trained in providing first aid (34.7%).

Further analysis of data revealed that age and years of experience were related to the use of the first aid kit (rs: 0.264, p=0.01 and rs: 0.374, p=0.001 respectively), showing that teachers who are older and/or with more working experience tended to use the first aid kit more. Also, training in providing first aid was associated with...
working experience (rs: 0.278, p=0.01), indicating that these teachers may have had more often the chance to be trained in providing first aid.

After examining categorical variables using the chi square test, it was found that school teachers who were trained in providing first aid were more likely to think that the first aid kit in their school was adequately equipped and that the primary role of school nurses is to provide first aid compared to their colleagues who were not trained in providing first aid (chi square=21.83, p<0.001 OR=5.56 and chi square=2.3, p=0.027 OR=2.3, respectively). Also, teachers who would feel more secure by the presence of a school nurse in their school compared to teachers who would not, were 41 times more likely to believe that a school nurse would be useful in the event of a school accident (chi square=57.125 p<0.001, OR=41) (Figure 2).

Discussion

As shown by the literature review, the role of school nurses is multifaceted. As advocated by Gibbons et al (2012) advocate that school nurses should act as leaders in the school community.

In a study by Green and Reffel (2009) on the role of the school nurse as perceived by administrators and school nurses themselves, it was found that, among other tasks, a school nurse is expected to provide emergency care for ill and injured children and is responsible for managing immunisations and keeping health records. Significant differences were noted in five items of their questionnaire. These included the statement that the school nurse cares for students and staff, supervises care for children with chronic health conditions, implements individualised health care plans, connects students, their families and staff with community health care workers and educates children and staff about health. The authors ascribe these differences to administrators’ lack of knowledge and information. Despite the fact that sample size was rather small (29 administrators and nine nurses), Green and reffel (2009) provided a useful tool for future research and shed light into the possible misperceptions currently existing in school nursing services. A way to raise awareness of the school nurse’s role is explicitly presented by Schoessler (2008).

In a study by Maughan and Adams (2011), 33 educators, school nurses’ and parents’ perception of the school nursing role with regard to the number of children they oversaw, was explored using a qualitative approach. Both parents and educators stated that the primary role of the school nurse is medication administration and first aid. Their perceptions were influenced by the quality of interactions between them and the school nurse as exhibited by professionalism and an active role of the school nurse. In our study, the majority of teachers (63.9%) believe the school nurses’ role is to provide first aid.

Another key aspect of the role of the school nurse is presented by Robinson (2009). In her article, she underlines the importance of the school nurse as a leader in infection control, especially in light of recent pandemics. Kent (2003) also examines the crucial role of the school nurse in crisis situations. Similarly, Kohl-Malone and Dewey-Bergren (2010) discuss the issue of emergency and life-threatening situations in schools. They mention that 17% of public school teachers have faced at least one life-threatening situation during their career, even if they had not had any health care training. They propose the Failure To Rescue (FTR) index to be adopted in school nursing as a way of measuring cost-effectiveness. In our study, 44 school teachers reported having provided first aid; however, 36.4% of them had never had any training.

In the same way, Patsaki et al (2012) conducted a study on 310 high school teachers in Athens to assess their theoretical knowledge concerning cardiopulmonary resuscitation, automated external defibrillation and foreign body airway extraction. They found that only 21.03% of the teachers had participated in life support courses and 93% of the respondents thought that nurses should teach them and the children about resuscitation skills.

Limitations

This was the first time that the present set of questions was used; therefore test-retest reliability is limited. Also, although teachers were randomly selected, they come from only one region of Greece, limiting the generalisability of the findings.

The response rate was high (75.79%). However, some of the school teachers were on a long-term leave and their potential participation could have altered the study’s results.

Conclusion

School nurses can play an important role in the health and wellbeing of children and young people. Children need to be healthy in order to achieve a good level of education. The school environment may also expose students to physical hazards. The presence of school nurses at schools is necessary to promote the health of pupils
and their academic success, and to contribute towards a balanced physical, mental and social development in the long term. School nurses contribute towards a healthy environment and a better quality of life as well as the early prevention of diseases. They can help ensure that young people’s absences from school or from their other activities are kept to a minimum. Moreover, preserving children’s health today can lead to healthy adults in the future who will be capable of driving society to further development and prosperity.

It is therefore important to inform the community and teachers about the role and the necessity of school nurses. The authors believe that the Greek government needs to take all the necessary financial and legislative measures to have school nurses appointed to each school. Having a school nurse should not be a privilege but a necessary service that all children deserve.

**Recommendations for practice and further research**

School nursing in Greece should be extended to all schools to enable the development of effective public health strategies starting from school age. School nurses can contribute towards the development of children’s self-esteem and the development of necessary skills for health promotion through the direct contact or through the education of parents and teachers.

Further research on the health needs of school children and the need for school nurses from the parents’ and children’s perspective in Greece could reveal a gap in Greek education and might result in necessary legislation and governmental measures towards the implementation of school nursing nationally, even in the most remote areas of the country.

**Conflict of interest:** None declared


