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## Review Article

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## School Health Services in Oman

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## Abstract

Basic school health services in Oman came into existence in 1972 as the Ministry of Health (MOH) attempted to tackle the student's health problems through its health care institutions and school health visitors. In 1991, a school health program was initiated and continued as one of the programs of the Five year development plan. School health program aims to provide a comprehensive health services that cover the physical, mental and social health needs of school aged children and adolescents. The allocation of a full-time school nurse is an achievement that improved the services provided to school children and adolescents with regular on-job training to build the skills of school nurses providing these services.

**Keywords:** Adolescents; Health promoting schools; School health; School nurse

## Introduction

A positive and healthy school environment plays an important role in promoting the health and overall academic achievement of students. This environment is recommended as an ideal setting for health promotion as school aged children and adolescents usually spend approximately 6-8 hours per day in schools. Therefore, health promotion is a cost effective intervention leading to prevention and control of communicable and non communicable diseases. In addition, scientific reviews have documented that school health interventions have positive effects on health risk behaviors and health and educational outcomes [1].

## Background

### History of School Health in Oman

The school health program in Oman started in 1972 providing basic services to students including immunizations and basic health education. Between 1991-1995, the school health program was officially established as a program through the Ministry of Health (MOH) and included preventive health services and case referral to primary health care institutions. These services was provided by part-time physicians and registered nurses.

After the epidemiological spread of H1N1, his Majesty Sultan Qaboos ordered the recruitment of 1500 registered nurses, one for each governmental school in the country. In 2011, the MOH developed a five year plan to allocate a full time school health nurse per school in all governmental schools. Currently in the 2017-2018 academic year, we have 764 nurses in a school setting providing services for 586,739 students in 1124 schools throughout Oman.

## Evolution of School Health Services in Oman

School health services	Year started
Basic health services	1972
Official School health program	1991
“Fact’s For Life” Book	1996
Peer education program	2004
Health Promoting Schools	2004
Registered nurse / governmental school	2011
Adolescent health section	2012
Training on counseling	2013 2016

Availability of nurses assigned for schools has strengthened the program and improved the provided services, resulting in reduced referrals of students during school days with a proper preservation of student health records. Currently, school health nurses are key focal points at schools to implement health services. The roles of school nurses are mainly to provide health services, maintain student’s health records, perform health education, and provide first aid.

The school health program vision is to ensure “A physically and psychologically healthy generation of school and university students, scientifically distinct and socially active”. Its mission is providing a safe and health-enhancing learning environment that enables students to increase their educational and practical achievements and to acquire the skills and behaviors needed to cope with life conditions and to integrate into society. School health services are provided to all students, in general, and specifically to students of grades 1, 7 and 10. Students at these three grade levels are subjected to a physical examination by a physician and a detailed interview by the health worker in which nutrition, physical activity, and risky behavior practices are discussed.

Availability of a full time nurse assigned to each school is considered a strength in conducting preventive and health promotion services at schools. For example, the adolescent health section is building capacity for school nurses by training them on t adolescent health care needs and counseling.

The school health program aims to provide a comprehensive health service that address the physical, emotional, and psycho-social needs of students. There are different services provided by school health mainly screening, emergency case management, and health promotion. These services are provided through the following activities:

**Screening Services:** consist of physical examination, nutritional status, eye & ear health care and oral health.

**Preventive and Health Promotion Services:** consist of immunization, health promoting school initiative, counseling, peer education, adolescent health, hand hygiene, girl’s health and “Facts for Life” Book activities.

**Case Management:** school health clinics are equipped and nurses are trained to provide first aid, manage minor cases, follow-up students with chronic health issues, and refer cases when needed.

The following examples are giving clear picture of main school health programs in Oman

### Health Promoting Schools

Health promoting schools initiative aims to promote students’ health and health of school’s community in particular and the local society in general. Master trainers from all governorates are trained on the concepts, principles of health promoting schools and monitoring and evaluation processes of this initiative. The target group is governmental schools in the sultanate. The initiative started in 19 schools in 2004 and currently the number has reached to 432 schools out of 1045 schools in the academic year 2016-2017(constituting 43% from total governmental schools).The initiative contains eight components which are:

### Skill Based Health Education

In health promoting schools, health education aims to increase knowledge and to help students to learn skills. In Oman schools, this is achieved through using active methods involving group work, discussion, games, problem solving. These actions are supported by conduction of health competitions among students and implementation of different health campaigns such as personal hygiene, anti-tobacco campaign and peer education program.

### Healthcare Services

In terms of health services, Oman has unique experience as assigned nurses are available for school health services. The school nurse play a major role in implementing health promoting schools starting from analyzing the main problems in schools through interviews or surveys and setting priorities and plans to tackle these problems . As these nurses need clinics to work, equipped school clinics were established at schools. Through these clinics, the nurses are able to document student health information in the student health record, conducting physical screening, providing school immunization and referring cases to Primary Health Care.

### **Nutrition at School**

In Oman, unhealthy nutrition habits is a public health problem among school aged children and adolescents as they eat less fruits and vegetables as recommended by Oman Nutrition Plate. In Health Promoting Schools, many interventions are implemented to tackle this health problem. Of these, health education activities for healthy nutrition and food safety are conducted in peer education program and competitions among students to prepare healthy dishes or bring breakfast from homes. Continuous efforts are done to revise and update the school canteens policies and establish close monitoring for these canteens. In addition, healthy food for underprivileged children is provided with the support from the private sector. There is an effort to finalize the nutrition surveillance system guideline to monitor the growth of students and give health education and provide case management for malnourished cases discovered.

### **Physical Environment at School**

A lot of efforts have been done to establish health promoting environment at schools. For examples, schools have developed emergency preparedness plan and train school staff on this plan. Monitoring of waste management and drinking water is conducted regularly. In addition, the schools are targeting to increase green areas in the school and shading the yards. Schools are regularly conducting cleaning campaigns within the school and local communities.

### **Psychological Support**

In health promoting schools, psychological support is one of the most important components that have positive impact on educational achievement and health of students. Students in health-promoting schools reported improved resilience scores in their perceptions of peer support, feeling that they are making a difference, self-esteem and overall feelings of happiness. There was a decrease in psychosomatic complaints, school stress, mental pressure and negative emotions [2]. In this regard; many health education campaigns on different psychological and mental health issues including psychotropic drugs are conducted. Ministry of Education also makes an effort in this field by ensuring the availability of social workers who are trained to tackle these issues. Ministry of Health is working on guideline for mental health services at schools which will help to establish mental health program for school age children and adolescents by school nurses.

### **Health Promotion of School Staff**

Studies showed that staff in health-promoting schools reported improved feelings of trust, safety and tolerance, felt more positive about their schools, achieved more and had higher resilience scores than non-health-promoting school teachers [2]. In Oman, health promoting schools develop health education programs for school staff as they are the role models for their students and they are part of the school community. Moreover, physical screening for school staff is conducted regularly including anthropometric measurements, blood sugar and blood pressure.

### **Physical Education**

Studies showed positive effects of physical activity in improving the health and well-being of students and their academic achievement [3]. In health promoting schools, health education is given about the importance of physical activity on health and wellbeing. Efforts are done to increase physical education for students at school time. Allocation of indoors and outdoors places for physical activity by providing proper sport halls or shading the Yards. As part of the private sector participation, physical activity equipments are supplied to some schools by community participation and private sector.

### **Community Participation**

Connection between students, families and local community is key component in health promoting schools. In Oman , Health promoting schools conduct different activities in the community such as open days ,meetings and health education activities in order to strengthen the community participation in health.

### **Facts for Life**

“Facts for life” book is a joint publication of many international organizations such as UNICEF, WHO, UNESCO, UNFPA and others. The aim of this book is to provide families and communities with health knowledge to improve their children’s lives. Currently, the last updated version is the 14th edition of “facts for life” Book. This book is being used as a tool for health education in schools by doctors, school nurses as well as school teachers.

“Facts for life” Book provides health messages and information for students and their parents and it is written in easy Arabic language. It includes chapters on motherhood and child protection it focuses attention on actions that are needed to ensure that children grow up in protective environment.

“Facts for life” Book consists of 33 chapters focusing mainly on healthy lifestyles, childbirth, major childhood illnesses, adolescence, child protection, parenting and care and support for children. It is distributed to all students in grade 9 and 10. In each edition there is update for the information and the statistics .

“Facts for life” Competition is established to encourage students to conduct research and review the health educational resources. Students on grade ten are targeted by this competition. Central and regional committees are formulated to assess the student’s research in order to choose the best 10% of these researches. The central committee evaluates and chooses the 4 winners at the sultanate level.

The activities of facts for life have been evaluated through 3 surveys to know the extent of the benefits of this book in 1999, 2005 and in 2010. These studies showed that the book has positive impact on the knowledge of students and many recommendations have been raised. Some of these recommendations include changing the way of the competition, putting the components of the book into CD, and to establish an interactive website for this book.

### **Adolescent Health**

There are approximately 1.2 billion adolescents aged 10-19 years who constitute 18% of the world’s total population. Statistics show that more than 1 million adolescents die each year mainly due to preventable causes. As a result, the Every Woman Every Child Global Strategy for women, children and adolescent health was launched globally by the UN Secretary-General in September 2015 [4] underscoring the importance of developing adolescent health interventions in the health development plans for every nation.

In Oman, as adolescents in the ages of 10-19 years constitute 12.9% of the total population of Oman and 20% of Omani population [5], MOH has realized the importance of this age group and has set this as a priority for more than a decade. This is evident by many interventions and activities accomplished by MOH.

In 2004, MOH has developed the national multi-sectoral strategy called “The national strategy on Information, Education and Communication (IEC) for the adolescents. The strategy was developed in co-ordination with various departments of MOH and many other ministries in the country .Subsequent to that, in the year 2007, a multi-sectorial IEC plan of action in perspective of the strategy was put in place in which each ministry has its own targets and indicators. Following are the main objectives of the strategy:

- Raising awareness of the adolescents and community in regards to different aspects related to the health of adolescents
- Create a supportive environment through the social mobilization of community groups including governmental and non-governmental organizations
- Provide a legal framework for adolescent’s health
- Provide resources needed to implement the strategy

Adolescent` health was established as a separate health domain within the 8<sup>th</sup> five year plan (2011-2015) with its specific objectives and strategies. Great efforts are being paid to start adolescent friendly services in the primary health care through the development of clinical guidelines, standard operative procedures, health education materials and training of health care providers on counseling for adolescents.

Adolescent health program was established in the Department of School Health by the presence of adolescent & Youth health Section in 2012, which is working on initiating adolescent friendly services in the primary health care in addition to providing the needed health services through school setting.

This section is working in collaboration with other departments in the Ministry of Health and other concerned sectors in the country based on the 8<sup>th</sup> Five year Plan of health development. Great efforts are being paid to start adolescent friendly services in the primary health care through the development of clinical guidelines, standard operative procedures, health education materials and training of health care providers on counseling for adolescents.

### **Main Adolescents` Health Program**

There are many programs that are implemented in school setting which for example are Peer education package, Adolescent friendly services in the primary care, Counseling services, Adolescent health package, Health promoting schools, Facts for life and mental health for adolescents. Below is description of main activities or components of these programs in schools.

Peer education package was prepared by UNICEF consultant in a national workshop in 2013. Training on this package was conducted by UNFPA consultant in 2016. The package includes multiple topics: road safety, violence, nutrition, sexually transmitted disease including AIDS, and tobacco use using interactive techniques such as role plays, scenarios and stories. In addition to the theoretical topics, the package includes a module on life skills which contains allot of important skills for this age group like how to think and make the right decisions. The peer education program targets students in grades 7-10. The implementation phase has started in the academic year 2017-2018 in six governorates (10 schools per governorate) under the supervision of the Department of School and University Health.

**Adolescent Friendly Services in Primary Health Care Institutions:** It is planned for the service to be initiated in stages starting with reproductive health issues. The service will be provided through standard protocol with training of health care providers prior to the start of the service. These services will be provided for all Omani adolescents.

**Counseling Services:** During adolescence, adolescents are establishing behaviors that may last lifetime; therefore, it is crucial to counsel this group about healthy lifestyles during school health screening or at the wellbeing clinic. The counseling service is planned to take place at both primary healthcare facilities and schools. A national workshop was conducted in 2013, in which 30 master trainers from different governorates were trained on counseling for adolescents. The training included different health topics which are considered as the priority need for this age group. A training package on counseling was prepared by a national team focusing on main health topics for adolescents: reproductive health, healthy nutrition, tobacco and drug use prevention and mental health. There are central and national implementation plans in order to set priorities and to monitor the counseling activities conducted by governorates. The target groups of this package are health care providers in schools and in Primary Health Care institutions in order to equip them with basic knowledge on counseling and support for adolescents [6-11].

Adolescent's health package was prepared by Ministry of Education in collaboration with Ministry of Health. Master trainers were trained on this package from different governorates under both Ministries. The package focuses on different healthy and risky behaviors mainly: puberty and adolescence changes, nutrition, physical activity, road safety, tobacco and drug use. The target group is adolescents in grades 7-10. Implementation has started in the academic year 2017-2018 in five governorates (10 schools in each governorate) under the supervision of Ministry of Education.

### On Job Training Program

It is well known that the education and training is an important pillar for nurses to gain and update their skills and knowledge, since there is No academic training specialty for school health nurses, the Directorate General of Nursing Affairs in collaboration of the Department of School and University Health has developed on job training for 16 weeks. The aim of this training is to prepare Nurses to assess, plan, implement and evaluate the holistic needs of children in the school setting. Key areas of care delivery include health promotion and health education activities developed to target specific health behaviors and to promote healthy lifestyles.

The nurse is expected after this on-job training to engage in educational activities as part of the lifelong learning process, this process includes self-assessment and engagement in reflection in order to assess own weaknesses and action plan strategies for improvement. Working as a team with other professions is central to the role and function of the school health nurse, as is making appropriate referrals to other professionals when dealing with situations outside the role and scope of the school health nurse.

### Future Directions

- Data on quality of adolescent health services will be evaluated after the launching of the services in the primary health care. This will be done through monitoring and evaluation through indicators of the five year plan.
- Efforts will be paid to include adolescent health topics within the undergraduate curriculum for nursing and for teachers.
- Health promoting colleges and cities using the strategies of health promoting schools

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