

School Health Services





Introduction

Definitions of school health services:

“are services provided by a health worker to students enrolled in primary or secondary education, either within school premises or in a health service situated outside the school.” [1] defined by WHO

Overview

Schools are essential for young people to acquire knowledge, socioemotional skills including self regulation and resilience, and critical thinking skills that provide the foundation for a healthy future. Access to education and safe and supportive school environments have been linked to better health outcomes. In turn, good health is linked to reduced drop-out rates and greater educational attainment, educational performance, employment and productivity.[1]

WHO has long recognized the link between health and education and the potential for schools to play a central role in safeguarding student health and well-being. In 1995, WHO launched the Global School Health Initiative, which aimed to strengthen approaches to health promotion in schools. Among those approaches, pairing children with health services occupies an important place.[1]

Components of school health services

The Comprehensive school health program include 8 component[4]:

1-Physical Education:

provide student the necessary skills and knowledge for lifelong participation in physical activity,It is characterized by a planned, sequential curriculum that provide cognitive content and learning experiences in a variety of activity areas.The outcome of a quality physical education program is a physically educated person who has the knowledge, skills, and confidence to enjoy a lifetime of healthful physical activity.

2-Health Education:

provides students with opportunities to acquire the knowledge, attitudes, and skills necessary for making health-promoting decisions, achieving health literacy, adopting health-enhancing behaviors. Health education includes courses that address a variety of topics such as alcohol and other drug use and abuse, healthy eating/nutrition, mental and emotional health.it helps students to live healthier lives.

3-Nutrition Services:

schools should provide access to a variety of nutritious and appealing meals that accommodate the health and nutrition needs of all students.

4-Health Services :

services that are designed to ensure access or referral to primary health care services or both, foster appropriate use of primary health care services, prevent and control communicable disease and other health problems, provide emergency care for illness or injury, promote and provide optimum sanitary conditions for a safe school facility .



5-Healthy and Safe School Environment:

It includes the physical and aesthetic surroundings and the psychosocial climate and culture of the school. Factors that influence the physical environment include the school building and the area surrounding it. The psychosocial environment includes the physical, emotional, and social conditions that affect the well-being of students and staff.

6-Health Promotion for Staff:

Schools can provide opportunities for school staff members to improve their health through activities such as health assessments, health education, and health-related fitness activities. These opportunities encourage staff members to pursue a healthy lifestyle that contributes to their improved health status.

7-Family/Community Involvement:

An integrated school, parent, and community approach can enhance the health and well-being of students. Schools actively solicit parent involvement and engage community resources and services to respond more effectively to the health-related needs of students.

8-Counseling & Support Services:

These services are provided to improve students' mental, emotional, and social health and include individual and group assessments, interventions, and referrals. Organizational assessment contributes not only to the health of students but also to the health of the school environment.



The components of school environment are divided into three categories[5]:

A-physical components:

1- classroom

2- schoolyard

3- libraries

B-academic components:

1-Teacher relationship with student

2-Teaching methods

3- Evaluation and tests

4-Teaching strategies

C- Social components:

1- Justice

2- Sustainability

3- Social coexistence

Responsibilities of the school health team members

Definition of school health team :

“ is a group of individuals representing different segments of the community, who collectively act to provide advice to a school on aspects of the school health program. These teams can work with schools to help identify health problems and concerns, set priorities, and design solutions.”[2]

Who are the members of the school health team?

1. school physician
2. school nurse
3. school counselor
4. school psychologist
5. school social worker

Role of School Physician:

Physicians play a variety of roles in schools and school health programs, including being researchers, public health officials, and university teachers as well as providing generalist and specialist direct patient care. Their services include consultation on health curricula, health policy, and evaluation of programs and services; direct consultation concerning a single patient or group of patients; and participation in providing health services in a school setting. Pediatricians have provided sexuality education and health education programs, orthopedic surgeons have set up scoliosis screenings and sports medicine programs, and asthma specialists have developed asthma education programs.[25]

Role of school nurse:

School nurses are the traditional "backbone" of school health services and are often the only health care providers at the school site on a regular basis.[25]

- **School nurses provide quality health care and intervene with actual and potential health problems.**


- Using screenings, referrals, and follow-up, school nurses detect and treat health-related issues at an early stage.[15]
- **School nurses provide leadership in promoting health and safety.**
 - Nurses provide health-related education to students, including food service workers and physical education teachers. They also provide safety plans to address bullying, violence, and emergency situations that can occur in schools.[16]
- **School nurses facilitate normal development.**
 - Students' learning needs, readiness, and ability are assessed by the school nurse using appropriate teaching methods based on their developmental level.[15]
- **School nurses promote a healthy school environment.**
 - A school nurse maintains a healthy learning environment by monitoring immunizations, promoting vaccines, and reporting communicable diseases. Schools with school nurses have much higher vaccination compliance rates.[14]
- **School nurses lead the development of health policies and programs.**
 - School nurses lead the development and evaluation of school health policies as a health care expert within the school system.[17]

Role of school counselor:

Generally speaking, school counselors are professionals who assist students with their academics and career pursuits. In an effort to develop students' healthy mindsets, attitudes, and behaviors, school counselors play a crucial role in the overall educational process. Students can get guidance from them on choosing courses, exploring career options, and applying to colleges. Counselors assist students in developing collaboration and cooperation skills, perseverance, time management, study skills, and self-motivation.[18]

Role of school psychologist [19]:

- **Improve Academic Achievement**
 - Promote student motivation and engagement.
 - Conduct psychological and academic assessments
- **Promote Positive Behavior and Mental Health**
 - Improve students communication and social skills

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- Promote problem solving, anger management and conflict resolution
 - **Create Safe, Positive School Climates**
 - Support social-emotional learning
 - Assess school climate and improve school connectedness
 - **Strengthen Family-School Partnerships**
 - Help families understand their child's learning and mental health needs
 - Help effectively engage families with teachers and other school staff

Role of school social worker:

They serve as a link between home, school, and the community. Social workers and counselors often perform the same tasks, but counselors tend to focus on more academic matters or to be more focused on the school's internal functions and programs than social workers are more concerned with family and community matters. It is common for social workers to deal with discipline, School attendance problems, child abuse and neglect, divorce and separation, substance abuse, and problems involving parenting and pregnancy, as well as suicide and family finances.[20]



Functions of School Health programs

Definition of school health programs:

“A comprehensive school health program is an integrated set of planned, sequential, school-affiliated strategies, activities, and services designed to promote the optimal physical, emotional, social, and educational development of students. The program involves and is supportive of families and is determined by the local community, based on community needs, resources, standards, and requirements. It is coordinated by a multidisciplinary team and accountable to the community for program quality and effectiveness”.

What are the school health program's goals?

The overarching goals are to enable all students to achieve and maintain an optimal state of health and well-being, reach their full academic potential, and develop into healthy productive adults who take personal responsibility for their own health, and that can be achieved by the seven goals of a school health program:

- 1- Ensure access to primary health care.
- 2- Provide a system for dealing with crisis medical situations.
- 3- Provide mandated screening and immunization monitoring.
- 4- Provide systems for identification and solution of students' health and educational problems.
- 5- Provide comprehensive and appropriate health education.
- 6- Provide a healthful and safe school environment that facilitates learning.
- 7- Provide a system of evaluation of the effectiveness of the school health program.[13]



Preventive services that can be provided in school setting

School health services staff can help all students with preventive care such as Influenza vaccines and vision and hearing screening, as well as acute and emergency care. Qualified professionals such as school nurses, nurse practitioners, dentists, health educators, physicians and physician assistants provide these services.[6] which include the following:

1-Acute and emergency care:

Injury or illness emergencies can happen at any time including during the school day. Often the school nurse may be the only health professional in the building who is formally trained to respond to a medical crisis. In addition, school nurses are also prepared to assist in larger emergency events or disasters that affect multiple students and staff, such as weather related events, environmental exposures, or violent crimes.[7]

2-Care coordination:


Care coordination (sometimes called case management) by school nurses helps to create a strong connection between students, families, and primary health care providers.[8] School nurses keep track of health status updates and medications and ensure that students follow their overall health care plan during the school day. Some studies show that students in schools with case management have significantly fewer urgent care visits, emergency room visits, and hospitalizations.[9][10][11]

3-Chronic disease management:

Children and adolescents with chronic health conditions spend many hours in school and depend on trained school staff and a healthy school environment to help them manage these conditions. A good working partnership between students, school nurses, clinicians, school staff, and administrators, can help reduce absenteeism and improve academic achievement. Schools are responsible for helping students manage chronic health conditions because the students may rely on the school for clinical services.[12]

4-Family engagement:

Involving families in school health activities can be an important strategy to support students with chronic health conditions because they can encourage schools to provide a healthy environment



and health services. This can promote ongoing communication between the school, the family, and health care providers to follow the health care plan for that student.

There are several benefits to family engagement in school health services and some of them are:

- * Health status updates.
- * Timely distribution of medication.
- * Testing during the school day as needed (e.g. blood sugar levels for diabetic students).
- * Dietary and physical considerations.[6]

School health services in KSA, scope and structure

Overview

The Ministry of Health (MOH), represented by the Public Health Agency, has launched the «Healthy Schools» Program to improve the health of students in concordance with the global standards, policies, and procedures of the World Health Organization (WHO).[3]

The Healthy School can be defined as a place where all school community members, including students, their parents, teachers, and administrators work together to enhance student health. Also, the Healthy School takes all measures to promote the student health along with the educational process through the integrated partnership between MOH and the Ministry of Education (MOE), in addition to adopting all existing measures and a set of basic programs of school health education.[3]

MOH has recently developed a more comprehensive approach that focuses on students in all physical, psychological, social, and religious aspects, in line with the National Transformation Program (NTP) 2020 and Saudi Vision 2030, in terms of education and health aspects.[3]

Definition of “Healthy School”

“A school that constantly strengthens its capacity as a safe and healthy setting for living, learning and working”.[29]


Program objectives

Overall Objective

Promote students' health and school community in particular, and society in general.[28]

Detailed Objectives

1- Acquiring knowledge, developing skills, and promoting healthy habits for members of the school community.

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- 2- Motivating students to participate in the activities of school health promotion.
 - 3- Creating a healthy and safe school environment.
 - 4- Strengthen the relations between different schools
 - 5- Active promotion of school staff health.
 - 6- Maintain closer relations and cooperation between the school and the community.[28]

Justifications for promoting public health through schools

- 1- School age students represent about 25% of the population.
- 2- The long time the student spends from his age at school.
- 3- Ease of access to this group through schools.
- 4- There may be a positive impact on students through comprehensive awareness programs at these ages.
- 5- School students are part of society with all its components and socio-economic backgrounds, and they often suffer from the same health problems.
- 6- Those students can transfer their knowledge and healthy behaviours from the school to their families and communities.[28]

The ten components

1. Health education:

- It is the cornerstone and the beginning of raising awareness and healthy behavior among students and changing wrong behaviors.[28]
- By investing in the health opportunities available in the curricula and initiating health activities within the school in cooperation with the health centers in the neighborhood.[28]
- The textbooks contain a set of planned health messages that provide a real opportunity to gain the information and skills students need to make good health decisions.[28]

2. Healthy nutrition:

- School feeding services provide meals that meet the standards of the Food and Drug Authority. Schools also market and promote healthy foods and drinks and encourage participation in school meal programs and bringing healthy meals from home and ensure that students have access to clean drinking water for free throughout the school day.[28]

3. Physical activity:

- Schools can create an environment that provides many opportunities for students to be physically active throughout the school day.[28]
- It's achieved through five components:
 1. Physical education
 2. Physical activity during classes
 3. Physical activity before and after school
 4. Staff participation
 5. Family and community participation[28]
- Physical education is the basis of comprehensive school physical activity, and it is an academic subject characterized by a sequential curriculum based on national standards for physical education.[28]

4. School health services:

- School health services interfere with actual and potential health problems, including providing first aid, emergency medical care, stabilizing them, evaluating and planning for managing and following up on chronic conditions (such as asthma or diabetes, etc.).[28]
- In addition, promoting public health, providing preventive services to the school community, and educating students is what helps them to maintain the highest levels of health, wellness and fitness, and parent s' education (through their children or through direct communication) what they must do towards their children to maintain their health and wellness and inform the school about the diseases that the student suffers from, which may be in a dormant phase or under control, with treatments such as epilepsy, asthma, diabetes and other diseases that require follow-up, medical care and prompt intervention by a specialist or trainer present within the school; which may save the life of a student or school employee through the health team or qualified health advisor.[28]
- School health services cooperate effectively with school and community support services to increase the ability of students and families to cope with health and social pressures, such as chronic diseases or social and economic conditions that may have a negative impact on student health, and the ability to manage and overcome these pressures.[28]

5. School environment:

- The healthy school environment deals with physical school materials (such as ventilation, humidity, temperature, noise, natural and artificial lighting). School environments include the following 3 elements:
 1. School building
 2. School canteen
 3. Water (drinking or sewage)[28]

6. Mental health, guidance and counseling:

- These services are concerned with preventive measures and therapeutic interventions that support the psychological, behavioral, social and emotional health of students, thus enhancing their ability to learn better. Mental health is one of the most important factors assisting the progress of educational achievement among students. These services require the integration of the mental health aspect with the other aspects, such as the educational and social aspect, and the knowledge of the obstacles that may lead to the decline in academic achievement of students.[28]
- These services need specialists in the field of mental health and counseling to provide counseling services to students, harmonize community efforts in the environment surrounding the school and benefit from them, which guarantees students better health and thus better learning.[28]
- These services are provided by a team of qualified professionals who are:
 1. Psychologist
 2. Student advisor
 3. Social worker[28]
- This guarantees the provision of service with greater skill and effectiveness, so that it will positively affect the psychological and social health of students.[28]

7. Social and emotional environment:

- The school's social and emotional environment refers to the psychological and social aspects of students' educational experience, which is an important factor for students' social and emotional growth and may affect students' engagement and participation in school activities and events, as well as their relationships with those around them from other students, their teachers, and the rest of the school staff, and extends also to the family and society.[28]
- The existence of a stable and healthy social and emotional climate inside the school leads to a more effective learning environment and provides great opportunities for continuous improvement through the participation of students in the various activities and events set up and volunteering inside and outside the school such as serving the guests of the two

holy mosques "ضيوف الرحمن" and other appropriate beneficial activities that enhance and develop their social and emotional aspects.[28]

8. Staff health:

- Schools are not only places of learning, but also sites of work. Promoting the health of school staff through the following four aspects: physical, mental, spiritual and social, this will protect them and raise their academic and functional performance towards students, and supports students' health, success, and academic achievement.[28]

9. Family contribution:

- Family and school members work together to support and improve students' academic achievement, refine them and enhance their health. School staff is committed to making families feel welcome, engaging families in a variety of ways that are more social and emotional than others, and maintaining continuous family contact.[28]
- Families are obligated to provide effective support for their children's education and improvement of their healthy skills and behaviors. This relationship between school staff and families is integrated and promotes student health and learning in multiple places - at home, at school, in programs outside the school, and in the community.[28]

10. Community contribution:

- Society and non-profit organizations, companies and private foundations create partnerships with schools and support their own resources and volunteer to support learning, skills-building and health-related activities.[28]
- Examples:
 1. Education of diabetes charities for the school community and distributing glucose meters among patients.
 2. Participation in the awareness programs of health authorities on diseases and prevention methods and attending their activities.[28]

Common conditions school health deals with in KSA

1-Obesity:

Health services in KSA deal with multiple conditions that are commonly seen in school, one of which is obesity, which is considered a global problem.

Worldwide, obesity rates have nearly tripled since 1975. In 2016, 340 million children and adolescents aged 5-19 were overweight or obese. Approximately 39 million children under the age of 5 were overweight or obese by 2020.[21]

According to the Results of the National Survey for Health Information in 2013, the rate of obesity in the Kingdom reached 28.7% and the rate of overweight is 30.7% for the age group of 15 and older. One study indicated that the rate of school age students with overweight reached 23% and those with obesity amounted to 9.3%. Based on these information, the MOH, in collaboration with the Ministry of Education, adopted an initiative called Rashaqa to reduce obesity rates among school students, by means of improving food habits, increasing physical activity for students, and raising awareness about the risks of obesity and ways of prevention.[22]

2-Diabetes Mellitus:

According to the World Health Organization (WHO), Saudi Arabia has the second highest number of diabetes cases in the Middle East and is ranked seventh in the world for diabetes rates. It is estimated that around 7 million of the population are diabetic and almost around 3 million have pre-diabetes. Diabetes mellitus is rapidly increasing in prevalence, and becoming a significant cause of medical complications and even death.[23]

3-Mental Disorders:

A study was conducted on high school students at National Guard Housing in Riyadh, Saudi Arabia, and the results showed that the prevalence of mental disorders was 48% (41% in males and 51% in females); more than 80% of these disorders were mild to moderate in nature. There were more severe disorders among females than males, so it is crucial to have a school counselor who can understand and elevate the pressure from the student.[24]



4-Substance Abuse

Schools may partner with rehabilitation programs to provide care for a student to help successfully reintegrate him or her. Educational planning is an integral part of after-care contracts that pediatricians, mental health professionals, or rehabilitation programs form with students and their families. The school's roles in such a collaborative relationship include identifying any underlying learning disabilities that may have contributed to the problem, making special accommodations for students when necessary, providing remedial work so that students can catch up with their classmates, helping to reinforce expectations for students to attend school and to comply with follow-up or monitoring as prescribed by the health care professional or rehabilitation facility, and assisting with finding after-school programs.[26]

5-Asthma

Asthma is a leading chronic illness among children and adolescents in the United States. It is also one of the leading causes of school absenteeism. On average, in a classroom of 30 children, about 3 are likely to have asthma. Low-income populations, minorities, and children living in inner cities experience more emergency department visits, hospitalizations, and deaths due to asthma than the general population. Asthma-friendly schools are those that make the effort to create safe and supportive learning environments for students with asthma. They have policies and procedures that allow students to successfully manage their asthma.[27]

6- Smoking

Smoking prevalence among the population in Saudi Arabia , aged 15 years and more, is around 12 % with male predominance. E-cigarettes smoking is less than 2% in Saudi Arabia [36]. A study at AIRas, 2021 on school aged children found the influence of siblings, getting more pocket money and poor academic performance were found to be important predictors of children smoking behaviours and attitudes [34]. Smoking cessation clinics were established and may have an impact to increase the quitting rate among the population.

7- Physical Inactivity

Alqahatani et al found a low level of physical activity among Saudi adults [30]. The adults are usually a role model for their children which may influence their physical activity [31]. During COVID pandemic the school age children have a dramatic change in their lifestyle which has an effect on mood as well especially on boys [32]. Saudi female children are less active than males [33].

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