

Part 12: Core Module Rationale

Overview

Introduction This part provides the rationale for inclusion of each of the GSHS core modules. For each module there is a summary of research findings and how school health programmes can help.

In this part This part covers the following topics.

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Respondent Demographics

Introduction The questions in this module measure the age, gender, and grade/section/level/form of the respondents.

Rationale The rationale for including these questions is that these characteristics are related to the health risk behaviours and protective factors assessed by the GSHS survey.

How these data can help Data describing how health risk behaviours and protective factors vary by demographic characteristics can help guide policy and programme planning and implementation.

Alcohol Use

Introduction The questions in this module measure:

- age at first alcohol use
 - current alcohol use
 - amount of alcohol use
 - how students get the alcohol they drink
 - episodes of heavy drinking
 - problems associated with alcohol use.
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Research findings

Some research findings related to alcohol use are as follows:

- Worldwide, alcohol use causes 3% of deaths (1.8 million) annually, which is equal to 4% of the global disease burden.
 - Across sub-regions of the world, the proportion of disease burden attributable to alcohol use is greatest in the Americas and Europe ranging from 8% to 18% of total burden for males and 2% to 4% of total burden for females.
 - Besides the direct effects of intoxication and addiction, alcohol use causes about 20% to 30% of each of oesophageal cancer, liver disease, homicide and other intentional injuries, epilepsy, and motor vehicle accidents worldwide¹, and heavy alcohol use places one at greater risk for cardiovascular disease.²
 - In most countries, alcohol-related mortality is highest among 45- to 54-year-olds, but the relationship between the age of initiation of alcohol use and the pattern of its use and abuse in adulthood makes the study of alcohol consumption among adolescents important.³
 - Unintentional injuries are the leading cause of death among 15- to 25-year-olds and many of these injuries are related to alcohol use.⁴
 - Young people who drink are more likely to use tobacco and other drugs and engage in risky sexual behaviour, than those who do not drink.^{5,6}
 - Problems with alcohol can impair adolescents' psychological development and influence both the school environment and leisure time negatively.⁷
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How school health programmes can help

Although scientific evidence on the efficacy of school health programmes conducted in schools is limited,⁸ such programmes have been designed to help reduce risks associated with alcohol use among young people⁹.

School health programs can help students acquire communication, critical thinking, refusal, and other life skills needed to avoid problems associated with alcohol use.

Dietary Behaviours

Introduction

The questions in this module measure:

- self-reported height and weight
 - frequency of hunger
 - fruit and vegetable consumption
 - carbonated soft drink consumption
 - frequency of eating at fast food restaurants.
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Research findings

Some research findings related to dietary behaviours are as follows:

- During adolescence, obesity is associated with hyperlipidemia, raised blood pressure (hypertension), abnormal glucose tolerance, and adverse psychological and social consequences.
 - Obesity acquired during childhood or adolescence may persist into adulthood and increase risk later in life for coronary heart disease, diabetes, gallbladder disease, some types of cancer, and osteoarthritis of the weight-bearing joints. Obesity may be associated with soft drink consumption and consumption of foods frequently found in fast food restaurants.
 - Nutritional deficiencies (protein-energy malnutrition, iron, Vitamin A, and iodine deficiency) affect school participation and learning.¹⁰
 - Fruits and vegetables are good sources of complex carbohydrates, vitamins, minerals, and other substances important for good health. Dietary patterns that include higher intakes of fruits and vegetables are associated with several health benefits, including a decreased risk for some types of cancer.¹¹
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How these data are used

Data on self-reported height and weight will be used to calculate body mass index and provide a reasonable proxy measure of whether students are obese or underweight.¹²

How school health programmes can help

As part of a school health programme, school meal programs can be a source of healthy foods to students (who may not have other regular sources of food) and can promote daily attendance, class participation, and academic achievement.

Schools can teach nutrition education as part of health education curricula to help students develop the knowledge, skills, and behaviours needed to foster lifelong healthy eating habits.^{13,14,15}

Drug Use

Introduction The questions in this module measure:

- lifetime drug use
 - age at first drug use
 - current drug use
 - source of drugs used.
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Research findings

Some research findings related to drugs use are as follows: ¹⁶

- The illicit drug trade touches millions of lives in both developed and developing countries. Its most negative impact is concentrated amongst the vulnerable and marginalized.
 - The UN estimates that some 185 million people worldwide – 3.1 % of the global population or 4.3% of people aged 15 years and above - were consuming drugs in the late 1990s; this figure includes 147 million consuming cannabis, 33 million people consuming amphetamine-type stimulants (notably methamphetamine and amphetamine, with 7 million people using ecstasy), 13 million people taking cocaine and 13 million people abusing opiates, 9 million of whom are taking heroin.
 - Drug use contributes directly and indirectly to the HIV epidemic, unintentional injuries and violence, and infant morbidity and mortality.
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How school health programmes can help

Although scientific evidence on the efficacy of school health programmes conducted in schools is limited,¹⁷ such programmes have been designed to help reduce risks associated with drug use among young people¹⁸.

School health programs can help students acquire communication, critical thinking, refusal, and other life skills needed to avoid problems associated with drug use.

Hygiene

Introduction The questions in this module measure frequency of:

- tooth-cleaning
 - hand-washing
 - hand-washing with soap.
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Research findings Some research findings related to hygiene are as follows:

- Dental caries affect between 60-90% of children in developing countries and are the most prevalent oral disease among children in several Asian and Latin American countries. In Africa, the incidence of dental caries is expected to rise drastically in the near future due to increased sugar consumption and inadequate fluoride exposure.¹⁹
 - In addition to causing pain and discomfort, poor oral health can affect children's ability to communicate and learn. More than 50 million school hours are lost annually because of oral health problems.²⁰
 - In both developed and developing countries, many children do not have access to water fluoridation or professional dental care. Daily tooth cleaning or brushing can help prevent some dental disease.²¹
 - Diarrhoeal diseases kill nearly 2 million children every year. Hygiene education and the promotion of hand-washing can reduce the number of diarrhoeal cases by 45%.²²
 - About 400 million school-aged children are infected with worms worldwide. These parasites consume nutrients from children they infect, cause abdominal pain and malfunction, and can impair learning by slowing cognitive development.²³
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How schools can help Schools can help improve child and adolescent health by providing and maintaining sanitary conditions.

By providing well-maintained and adequate numbers of sanitation facilities and safe water as part of the school health program, schools can reinforce the health and hygiene messages delivered in health education and serve as a model to both students and the broader community.

Mental Health

Introduction The questions in this module measure:

- feeling of loneliness
 - loss of sleep due to worry
 - sadness and hopelessness
 - suicide ideation and attempts
 - attachment to peers.
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Research findings Some research findings related to mental health are as follows:

- World-wide, approximately 20% of children and adolescents suffer from a disabling mental illness.²⁴
 - Anxiety disorders, depression and other mood disorders, and behavioural and cognitive disorders are among the most common mental health problems among adolescents.
 - Half of all lifetime cases of mental disorders start by age 14.²⁵
 - Every country and culture has children and adolescents struggling with mental health problems. Most of these young people suffer needlessly, unable to access appropriate resources for recognition, support, and treatment. Ignored, these young people are at high risk for abuse and neglect, suicide, alcohol and other drug use, school failure, violent and criminal activities, mental illness in adulthood, and health-jeopardizing impulsive behaviours.
 - Each year, about 4 million adolescents world-wide attempt suicide. Suicide is the third leading cause of death among adolescents.^{26, 27}
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How school health programmes can help

As part of a school health programme, school mental health and social services can play a critical role in fostering healthy social and emotional development among students.

To help students develop positive mental health, school mental health and social services can teach life-skills such as problem-solving, critical thinking, communication, interpersonal relations, empathy, and methods to cope with emotions and crises.

In addition, school mental health and social services can include prevention, assessment, treatment, and case management for students either directly or through referrals to community-based programs.²⁸

Physical Activity

Introduction The questions in this module measure:

- physical activity
 - travel to school
 - participation in physical education class
 - participation in sedentary leisure behaviour.
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Research findings

Some research findings related to physical activity are as follows:

- Participating in adequate physical activity throughout the life span and maintaining normal weight are the most effective ways of preventing many chronic diseases, including cardiovascular disease and diabetes.²⁹
 - The prevalence of type 2 diabetes is increasing globally and now is occurring during adolescence and childhood.³⁰
 - Participating in adequate physical activity also helps build and maintain healthy bones and muscles, control weight, reduce blood pressure, ensure a healthy blood profile, reduce fat, and promote psychological well-being.³¹
 - Roughly 60% of the world's population is estimated to not get enough physical activity. Patterns of physical activity acquired during childhood and adolescence are more likely to be maintained throughout the life span, thus sedentary behaviour adopted at a young age is likely to persist.³²
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How school health programmes can help

As part of school health programmes, schools can offer physical education and opportunities, both during and outside the school day, for all students to participate in physical activity and sports.

Physical activity helps children to stay alert and concentrate better. Students who are physically active are more likely to have higher academic performance and fewer disruptive behaviours.³³

Protective Factors

Introduction The questions in this module measure:

- school attendance
 - perceived social support at school
 - parental regulation and monitoring.
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Research findings

Some research findings related to protective factors are as follows:

- For most adolescents, school is the most important setting outside of the family. School attendance is related to the prevalence of several health risk behaviours including violence and sexual risk behaviours.³⁴
 - Adolescents who have a positive relationship with teachers, and who have positive attitudes towards school are less likely to initiate sexual activity early, less likely to use substances, and less likely to experience depression.
 - Adolescents who live in a social environment which provides meaningful relationships, encourages self-expression, and also provides structure and boundaries, are less likely to initiate sex at a young age, less likely to experience depression, and less likely to use substances.³⁵
 - Being liked and accepted by peers is crucial to young people's health development, and those who are not socially integrated are far more likely to exhibit difficulties with their physical and emotional health. Isolation from peers in adolescence can lead to feelings of loneliness and psychological symptoms. Interaction with friends tends to improve social skills and strengthen the ability to cope with stressful events.³⁶
 - Parental regulation and monitoring is associated with lower levels of depression and suicidal ideation, alcohol use, sexual risk behaviours, and violence.³⁷
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How school health programmes can help

School health programmes can help create a supportive and caring school environment and provide students with knowledge and skills they need to develop positive and supportive relationships with their peers and families.

Sexual Behaviours that Contribute to HIV Infection, Other STI, and Unintended Pregnancy

Introduction

The questions in this module measure the prevalence of:

- lifetime sexual intercourse
- age at first intercourse
- number of sexual partners
- condom use
- birth control use.

Research findings

Some research findings related to sexual behaviours are as follows:

Topic	Research findings
HIV infection and AIDS	<ul style="list-style-type: none"> • AIDS has killed more than 25 million people since 1981. • As of 2007, an estimated 33 million people were living with HIV. In that year alone, roughly 2 million people died of HIV and another 2.7 million people became infected with HIV.³⁸ • Young people between the ages of 15 and 24 are the most threatened group, accounting for 40% to 50% of those newly infected with HIV. • As of 2007, an estimated 5.4 million young people aged 15 to 24 were living with HIV. • Studies show that adolescents who begin sexual activity early are likely to have sex with more partners and with partners who have been at risk of HIV exposure and are not likely to use condoms. • In many countries, HIV infection and AIDS is reducing average life expectancy, threatening food security and nutrition, dissolving households, overloading the health care system, reducing economic growth and development, and reducing school enrollment and the availability of teachers.
Sexually transmitted infections (STI)	<ul style="list-style-type: none"> • STIs are among the most common causes of illness in the world and have far-reaching health consequences. They facilitate the transmission of HIV and, if left untreated, can lead to cervical cancer, pelvic inflammatory diseases, and ectopic pregnancies.³⁹ • Worldwide, the highest reported rates of STIs are found among people between 15 and 24 years; up to 60% of the new infections and half of all people living with HIV globally are in this age group.⁴⁰

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Sexual Behaviours that Contribute to HIV Infection, Other STI, and Unintended Pregnancy, Continued

How school health programmes can help

School health programs can play an important role in helping students reduce their risk of pregnancy, STI, and HIV infection and AIDS.⁴¹

Based on community norms and preferences, school health education can help students develop the knowledge and skills they need to avoid or reduce sexual risk behaviours, school health services can provide or refer to reproductive health services, and school health policies can protect students and staff infected with HIV and foster a safe and respectful environment for everyone.

Tobacco Use

Introduction

The questions in this module measure:

- current cigarette use
 - age of initiation of cigarette smoking
 - current use of other tobacco products
 - attempted cessation of cigarette smoking
 - exposure to second-hand smoke
 - tobacco use by parents/guardians (i.e., role models).
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Research findings

Some research findings related to tobacco use are as follows:

- About 1.1 billion people worldwide smoke and the number of smokers continue to increase. Among these, about 84% live in developing and transitional economy countries.
 - Currently 5 million people die each year from tobacco consumption, the second leading cause of death worldwide. If present consumption patterns continue, it is estimated that deaths from tobacco consumption will be 10 million people per year by 2020.⁴²
 - The overwhelming majority of smokers begin tobacco use before they reach adulthood. Among those young people who smoke, nearly one-quarter smoked their first cigarette before they reached the age of ten.
 - Smokers have markedly increased risks of multiple cancers, particularly lung cancer, and are at far greater risk of heart disease, strokes, emphysema, and many other fatal and non-fatal diseases. If they chew tobacco, they risk cancer of the lip, tongue, and mouth.
 - Children are at particular risk from adults' smoking. Adverse health effects include pneumonia and bronchitis, coughing and wheezing, worsening of asthma, middle ear disease, and possibly neuro-behavioural impairment and cardiovascular disease in adulthood.
 - Many studies show that parental smoking is associated with higher youth smoking.
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How school health programmes can help

Schools can provide an ideal venue not only to teach about the harmful effects of smoking, but also to teach students refusal skills and an understanding of the behaviour of the tobacco industry. A school tobacco control programme must also incorporate prohibiting tobacco use at all school facilities and events and helping students and staff to quit smoking.⁴³

Violence and Unintentional Injury

Introduction

The questions in this module measure:

- how often students have been physically attacked
 - how often they have participated in a physical fight
 - frequency of serious injuries
 - type and cause of most serious injury
 - frequency of bullying
 - type of bullying.
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Research findings

Some research findings related to child and adolescent violence and unintentional injury are as follows:

- Unintentional injuries are a major cause of death and disability among young children.⁴⁴
 - Each year, about 875,000 children under the age of 18 die from injuries and 10 to 30 million have their lives affected by injury.
 - Injury is highly associated with age and gender. Males aged 10-14 have 60% higher injury death rates than females. Teenagers aged 15-19 have higher rates than those aged 10-14 years (64 compared to 29 per 100,000).
 - Estimated global homicide death rate for males aged 15-17 is 9 per 100,000⁴⁵. For every youth homicide, approximately 20 to 40 victims of non-fatal youth violence receive hospital treatment.⁴⁶
 - Many unintentional injuries lead to permanent disability and brain damage, depression, substance abuse, suicide attempts, and the adoption of health risk behaviours.
 - Victims of bullying have increased stress and a reduced ability to concentrate and are at increased risk for substance abuse, aggressive behaviour, and suicide attempts.⁴⁷
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How school health programmes can help

School health programmes can help reduce violence and unintentional injuries in schools by:

- Establishing social and physical environments that promote safety and prevent injuries and violence.
 - Implementing health education that teaches students knowledge, attitudes, and skills they need to adopt safe lifestyles.
 - Establishing crisis response mechanisms.
 - Providing mental health and social services to meet the needs of students.
 - Providing safe physical education and extracurricular physical activity programmes.^{48,49}
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