



Health Education and Needs Promotion Awareness for Secondary School Students in Uganda

NSUBUGA TOM BALIKUDEMBE
Nexus International University, Uganda

Abstract. Health Education, particularly in Secondary schools, appears to be a neglected area in Uganda. This study investigated the health education needs of Secondary school students. The purpose of the present study is to assess health education needs of Secondary school students. The study adopted mix approach of (qualitative and quantitative) research for data collection. The quantitative data were collected by administering piloted questionnaire on Secondary school students (n=400) and the response rate was 82% (as 328 responses were complete). The same participants were also interviewed in groups of 4-6 students. The data collected through questionnaire were analyzed quantitatively; whereas, interviews were analyzed thematically. Overall, 68% of the Secondary school students required information about the main constructs of health education; 69% appeared to be keen on knowing about physical environment in and around their schools and homes; 77% were interested to get awareness about commonly spreading out diseases and puberty issues. The results of this study appeared to be aligned to the social context of Kampala, Uganda. The Secondary school students were merely aware of the main constructs of health education and needed awareness, specifically in food and nutrition, hygiene, seasonal and tropical diseases, infectious diseases, and psychological problems. Proper school health education programme may be initiated for Secondary school students.

Keywords: Health Education, School Health Programme, Seasonal Diseases, Tropical Diseases, Adolescent Health.

1. Introduction

Starting from, 19th century, health education now is an established profession having a unique body of 'knowledge, defined skills, experiences and a code of

ethics' (Hussain & Mahmood, 2010). It is a dynamic public service domain which embraces theories and models from different allied disciplines like Education & training, health & medical studies, media & communication and anthropology, and areas alike (Shireffs, 1978). This beautiful academic blend is an affirmation of its significance in 21st century's society. Health education, as the name indicates, generally focuses on and addresses the health issues of individuals and communities. It is based on the philosophy of 'Health Promotion for illness Prevention' (Halcomb, 2010). For enhancing the effectiveness of health education, it needs to be initiated from the grassroots level as a social endeavor. Social institutions like schools, communities and families etc. seem to be essential contributors to it. Health education imparted in schools appears to have a multiplying and lasting effect on students in their later lives. In schools, it embraces teaching and learning pertaining to knowledge, beliefs, attitudes, values, skills and competencies (Hussain, Javed, Eng, & Mohammed, 2013) of and about health. It mainly concerns with the health of school personnel, particularly the students and usually focuses on hygiene, food and nutrition; endemic and epidemic communicable diseases like hepatitis, cholera, dengue, and polio, etc seasonal diseases including influenza, gastroenteritis, sun stroke and water borne diseases like diarrhea, dysentery and commonly found tropical diseases of the region or area (Government of Uganda, 2023) in a systematic way. As school is regarded as one of the social institutions and centers of learning it seems necessary for it to design and offer useful activities for overall learning of the students.

Conventionally, schools had been educating children academically, however, in modern world school paradigms seem to have changed with changing

societal dynamics globalization, innovative pedagogy & learning styles, and knowledge society etc. (Hussain,2017). It envisions the role of school as a social institution and academic organization to be broader than ever before. It entrusts school the task of learning for the well-being of students, rather than merely educating them academically. Different studies (conducted by Basch, 2010; Case, & Paxson, 2016; Crosnoe, 2016; Haas, & Fosse, 2018; Hass, 2016; Heckman, 2018; and Shochet, Dadds, Ham, & Montague, 2016) affirmed the significance of different aspects of students' health and asserted that their physical, mental, social, and emotional health facilitate them to learn cognitively. Therefore, apparently, school seems to be responsible for the overall health of its students.

The famous proverb of the renowned philosopher Aristotle, "Education is the process of creating sound mind in the sound body" (Patil, & Sawale, 2011) suits best in school context which inculcates knowledge, skills, attitudes beliefs and values among students to build their later lives (Hussain, & Munshi, 2021) productively. Health education imparted in schools develops positive attitude and social skills necessary for achieving optimum level of wellbeing. It is believed that healthier students are better learners and poor health effects adversely on learning and achievement of school students (Palloni, 2016). Therefore, it seems imperative to impart health education at all the levels of schooling for improving health and well-being of the adolescence and youth.

Aligning health education with school activities appears to be significantly encouraging. Different studies demonstrated interesting results linked with the school's environment to enhance health of students and other personnel. The studies reported greater learning achievement of students (Koivusilta, Arja, & Andres, 2013); greater satisfaction and retention of school staff (Grayson, & Alvarez, 2018); enhanced efficiency and productivity (Harris, Cohen, & Flaherty, 2018); promotion of healthy school environment (Benard, 2014), and upholding a culture of school-community relationship to contribute to the growth and development of students (Fullan, 2011) by involving parents and opinion leaders the main community stakeholders in school health education programme (Bond, & Carmola-Hauf, 2017). A similar study (Marx, Wooley, & Northrop, 1998) affirmed relationship between educational reforms, and health and well-being of students in schools where later it appeared to be a contributory to their academic success.

1.1 Objectives of the Study

This study was conducted with the objectives to:

- Assess awareness of Secondary school students about their health problems.
- Identify their health education needs.
- Translate results of the study to health education promotion practice.

2. Health Education in Secondary Schools

In Uganda, schooling consists of different stages according to grade and or class level of studies (Hussain, 2009). Currently, there are almost five levels of schooling and or education in Uganda ranging from primary (including Primary grade) to graduate and postgraduate levels of education (Hussain, 2014). Although all levels of education are important and need special attention of students, their parents, teachers and other stakeholders, but Secondary level of education seems to be more crucial as it (usually) embraces emerging adolescents (Office of the Prime Minister's Science Advisory Committee, 2021). The Secondary school students of 9-12 or 13-years' age cohort are transitioning to puberty (Kintner, & Sikorskii, 2009) and complete concrete operational stage to entering into formal operational stage of cognitive development (Singer, & Rovenson, 1997; Piaget, 1952). This stage is characterized by applying logic to establish or determine relationship between objects (Lutz, & Huitt, 2014; Huitt, & Hummel, 2013) and activities.

At graduating stage from Secondary schools, the students experience remarkable changes resulting from their growth and development change in body and bodily functions, emotions, intellect and socialization (Crain, 2011). Secondary schooling is a volatile phase and period of identity crisis (Erikson, 1968) in the life span of school students, when desires are countless, friends become as significant as family members. (Tang, & Story, 2005). Individual differences among students also become more apparent (Sugarman, 1986) to be identified and treated accordingly. During Secondary schooling children attain a level of self-organization, empathy and altruism showing a sense of responsibility, independence, obedience, and ability to get along with others (Montemayor, Adams, & Gullotta, 1990). They wish to become independent and plan accordingly being persistent to complete their plans (Jolley, & Mitchell, 1996). As it is a crucial period in the life of students, they need facilitation by their parents and teachers. A minor overlook may lead to development of negative emotions or anti-social behavior among them. At this stage, parents and teachers have the responsibility of redirecting negative

emotions or unwanted behavior of students towards the accepted ones. Therefore, the role of health education in Secondary schools seems to be linked with the fundamental aim of education and/or schooling transforming “how to be a citizen” (Jourdan, 2011) into reality.

Although health education appears to be an integral component of school activities, in Uganda, the concepts of health and well-being included in school curricula seem to be too narrow to promote awareness among students about health promotion and illness prevention. The available literatures scarcely address the health education needs of Secondary school students. A lot of studies have been conducted on health and medical issues touching very narrowly the area under discussion. Different studies addressed different areas including perception and expectations of the faculty about medical education (Khalid, 2013), investigation into behavioral problems of school children (Hussein, 2018), demonstrating the perception and knowledge of high school students about their mental health (Secrist, 2006), indicating the status of health education in schools and challenges of teachers' training (Lavin, 1993), description of a rationale, guidelines and activities for school health education (Valois, 2011; Government of Uganda, 2010); signifying emotional intelligence and mental health (Burchak, & Nosenko, 2014); and provision of guidelines to achieve positive outcomes of a health education programme (Valois, 2013; McCuaig, & Nelson, 2012). Apparently, none of the studies identified the health education needs of Secondary school students. The preceding discussion affirms the significance and provides a firm ground to this study. Therefore, keeping in view, the significance of health and health education, needs of Secondary school students were studied.

3. Research Methodology

It was a smaller scale study that adopted mixed-method approach as the combination of qualitative and quantitative research provide a better understanding of a research problem and or issue than either research approach alone. The researcher employed concurrent transformative mixed method of data collection strategies. It validates and compares data to focus on different types of research questions (Creswell, & Plano-Clark, 2011) of the study. It is a simple approach in which qualitative and quantitative data are collected concurrently, therefore, the same subjects provided both qualitative and quantitative data.

3.1 Population and Participants of the Study

The population of the study consisted of boys from Secondary school students. The study comprised of two stage samples participants: 1). selection of schools and 2). selection of participants. During first stage 40 boy's Secondary schools were selected randomly from a master list of Secondary schools, whereas at the second stage, 10 students were selected again randomly from their roll call register of each of the sampled school. Thus, total participants were (n=400) taken randomly from 40 boys Secondary schools located in Urban areas of Kampala District. The location and gender factors were obvious in selecting those participants due to two reasons. Firstly, the Urban areas appear to have lesser facilities and students studying in Urban Secondary schools tend to face more health problems and need more attention, and secondly, accessing male students was easy. However, their counterparts, the female students were excluded due to socio-cultural issues. A separate study would be conducted to explore their health problems. The students were briefed about the objectives of the study and the process of its completion.

3.2 Procedure

The present study was descriptive in nature, therefore a survey was considered appropriate and adopted by the researcher. The survey consisted of mixed-methods approach of (qualitative and quantitative) research for data collection. The researcher developed two research tools a questionnaire and an interview protocol for data collection. The researcher developed a questionnaire on five-point rating (likert) scale after review of the available related literature. The questionnaire consisted on main themes constructs related with the health education needs of Secondary school students. These themes were drawn from the literature during its review. Initially the questionnaire was administered on 30 students for its pilot testing. In light of the results of the pilot testing, the researcher finalized the questionnaire. Similarly, the researcher developed an interview protocol consisting of main themes to get in-depth information of perspectives of the issue. It also helped researcher to overcome language barriers of the participants. The researcher piloted the interview protocol on eight students. The researcher personally administered the finalized questionnaire on the participants (n=400) of the study for quantitative data collection. However, 328 questionnaires were complete in all respects which affirmed 82% response rate of the participants. As the study adopted concurrent transformative mixed method, the researcher collected qualitative data from the same participants. The researcher interviewed the

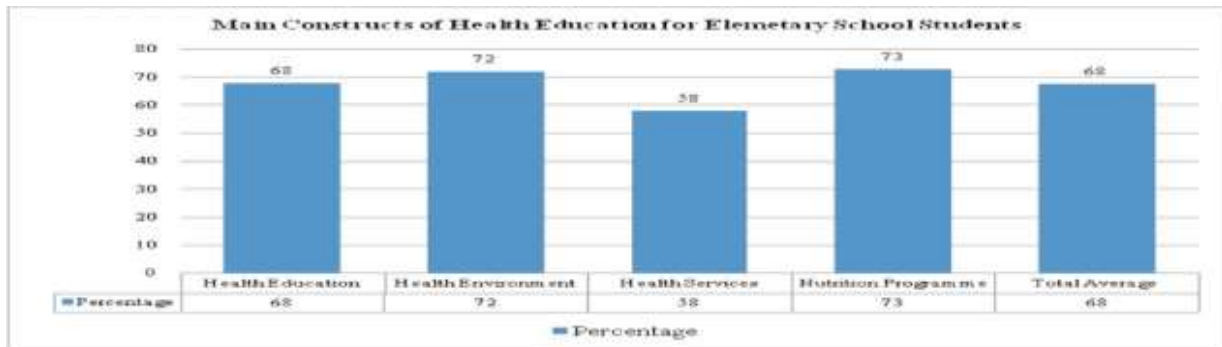
participants of the study in groups by using Focused Group Interview Technique. However, each of the groups consisted of 4-6 participants. The researcher took notes of the responses of interviewees very carefully. This survey involved human subjects in school's setting, and the researcher observed research ethics throughout the study.

4. Data Analysis

When the process of data collection was over, the researcher analyzed quantitative data which were collected through questionnaire by using MS EXCEL Programme. The researcher used simple descriptive statistics i.e. percentage with the aim of unfolding results of the study for the understanding of the stakeholder's Secondary school students, their parents, teachers, policy makers and the public at large easily. The quantitative results were reflected in the form of graphical presentation. However, the researcher used thematic method to analyze qualitative data which were collected through interview protocol. The results of the questionnaire provided magnitude and frequency of ideas, whereas the results of the interview protocol helped in in-depth understanding of ideas. The combination of the results of both of the tools ascertained clear conclusion.

5. Results of the Study

5.1 Analysis of Quantitative Data



Source: Primary Data 2024.

5.2 Areas of health education and related physical facilities in Secondary Schools

Health of individuals and their physical environment are interrelated. The latter has greater impact on the former. Figure 2 reflected that, Secondary school students (86%) were facing the problem of safe and clean drinking water and needed awareness about getting clean water for drinking. They needed awareness about water borne diseases and other conditions related with drinking water. Similarly, 68% of the students were of the view that they needed appropriate sanitation and toilet facilities in their schools. They appeared to be keen on knowing about the diseases caused by poor sanitation conditions and the ways of getting rid of them. Likewise, 61% of them acclaimed that they had poor ventilation in their classrooms and wished to know the usefulness of fresh air for them; 56% appeared to be unaware about the benefits of physical activities and exercises. However, 73% were wishing having information about students' friendly

The data collected from Secondary school students by using questionnaire was analyzed quantitatively in terms of percentage. The results are presented in tabular-cum- graphical form for easy understanding of the phenomenon.

Awareness of Secondary school students about main constructs of health education

Figure 1, indicates the awareness of the respondents about the main ideas of health education program. The respondents appeared to be only known to these terms wishing to applicable information. According to Figure 1, the Secondary school students (68%) were of the opinion that they were only aware of the term 'health education', but not the detailed information about it and its available services. Similarly, 72% affirmed knowing 'healthful environment' with a serious desire to know about its components and the ways of promoting and maintaining it in and around their schools and homes; whereas, 58% showed their familiarity to 'health services' but they preferred to have knowledge about sources of health services and their availability near their schools and homes. Nonetheless, 73% of the respondents acknowledged the term 'food and nutrition' and were keen on knowing about balanced diet and nutritious elements for their daily intake. Overall, 68% of the Secondary school students appeared to be aware of the main constructs of a school health education program, but they required detailed and applicable information about these ideas.

environment and how to create and maintain it in their respective schools. Overall, 69% of the Secondary school students needed awareness about their physical environment in and around their schools and homes.

Source: Primary Data 2024.

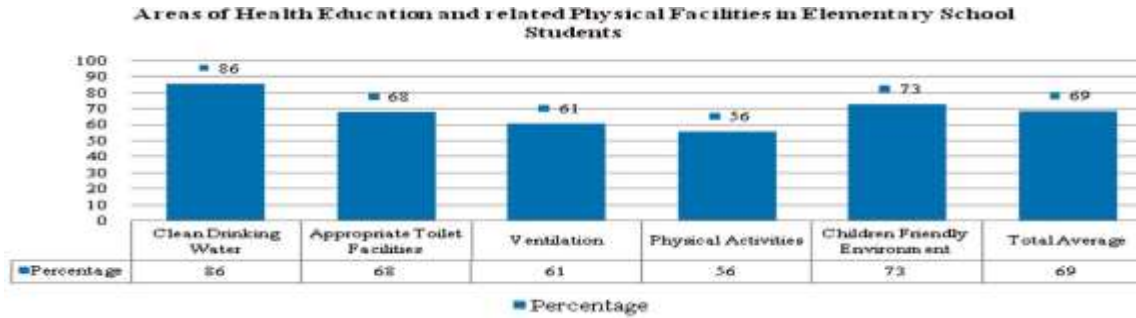


Figure 2. Areas of health education and physical facilities in Secondary schools

Getting detailed and specific honest information for interpreting the situation and or phenomenon under study. The interview protocol was designed after available literature review on basic parameters of health and needs of health education for Secondary school students. The respondents were interviewed in groups of 2-6 in each of the groups. Usually, the groups of students were larger (4-6) than their teachers (2-3). The respondents were explained about objectives of the study in advance and they voluntarily participated in the survey. The respondents were assured about the confidentiality of the information provided by them.

5.3 Seasonal diseases

In response to a question on the type of information they needed on health education, almost all the students were of the voice, “We know a little about seasonal diseases. We need useful information about seasonal diseases, their breaking out, prevention and treatment. We need to know about the preventive measures which we can take easily against seasonal diseases”. They appeared to be more concerned with their health issues. Almost all of them were of the view that they should have proper information about common infectious diseases and their preventive measures like hepatitis, tuberculosis, influenza, malaria etc. They said, “We are not aware of the fatal infectious diseases, their preventive measures and treatment. We even do not know their names except Malaria fever about which information has massively been disseminated through formal and informal means including media campaigns. A massive and organized campaign needs to be launched about infectious diseases, modes of their breaking out, prevention and controlling mechanism. Moreover, vaccination against commonly transmitted infectious diseases is quite necessary for saving our lives”.

5.4 Medication and treatment practices

Medication and treatment of minor ailments counts a lot to be healthy. Secondary school teachers showed their concern to the issue and said, “usually Secondary schools don’t have medication and treatment facilities. Students have to go far away to health facility even for minor ailments like headache, fever, malaria etc. Similarly, in case of any emergency, first aid arrangements are not available. A small dispensary having first aid arrangements needs to be set up in Secondary schools. A teacher should be provided training to run the dispensary. More or less the same views were expressed by the students.

5.5 Food and nutrition

Proper food and nutrition balanced diet ensures the enhanced learning of students by contributing to their healthy growth and development, and cultivating life-long healthy eating behaviors. Balanced diet provides necessary calories to Secondary school students and saves them from many unnecessary physical conditions like obesity, increased level of cholesterol, to prevent their complications later in adulthood. It is of worth mentioning that youth is keen on having fast food which may meet their nutritious needs, but having reduced naturally occurring trace nutrients vitamins, minerals and fiber etc. However, some may be rich with nutrients even after processing with varied level of notorious elements. The level of nutritious elements has effects on the overall health and learning of school students. Food and nutrition are vital for healthy life. Balanced food plays an important role in the growth and development of individuals and protects against diseases by producing proper immunity. Secondary school students are in fast growing stage of life, and therefore, they need special care of their food and nutrition. The students were of the voice, “We used to eat what we have being unaware about balanced food.

We have different food items and if we have proper awareness, can manage to have balanced food for our health”.

5.6 Puberty and physiological changes

Secondary school students belong to adolescent age group. At this stage some hormonal and physiological changes are taking place. Apparently, these changes have significant impact on physique and physical structure of the adolescents including body shapes, voice and psychological traits of their personality. Adolescence is puberty stage which is usually referred to as a ‘volatile stage’ of the life span of an individual. At this stage, one is emotionally charged and needs proper guidance & counseling and training for life. Signs of puberty start to appear during adolescence among Secondary school students (13-16 years’ age cohort). Some psychological, social and physical problems may emerge due to unawareness and inappropriate coaching of teachers and or parents. Majority of the Secondary school students were of the view, “We usually are unaware of the changes which occur during puberty and maturation. We need detailed information about growth and development particularly the physical changes taking place due to hormonal changes. During this stage we feel fear and shyness. This situation creates anxiety and depression among us. We can’t share and discuss with others except sometimes in our social circles due to social norms and taboos. If we know about all happening to us would help us to prevent socio- psychological and physical problems leading to adjustment in home, school and society”. It seems to be necessary for the school to provide detailed information on growth and development to Secondary school students keeping in view their profile.

5.7 Pimples and eczema

Pimples are usual tropical health related conditions which affect faces of physically growing students during summer season. A large number of Secondary school students were of the opinion, “Pimples and eczema are commonly found skin conditions. These conditions affect our faces and we feel psychologically depressed and have inferiority complex. Therefore, we need awareness about pimples and eczema, their proper preventive measures and suitable medication. It was obvious that Secondary school students were conscious about freshness of their faces.

5.8 Health, hygiene and poverty

Health and hygiene are interrelated. Excellent hygienic conditions prevent illness and usually assure

health of individuals. Religion also has emphasized on cleanliness. Therefore, it seems necessary to develop hygienic habits and attitude towards cleanliness of self and surrounding among Secondary school students. It not only promotes the health of students, but also their well-being resulting in welfare of their families. The respondents expressed their views, “We are unsatisfied with sanitary condition in our schools. Safe drinking water is scarcely available. At homes our parents have lesser resources and our families are not well-off to afford much for our personal hygiene. Our parents have to make both ends meet for livelihood and education of our family members. In Urban areas, maintaining one’s hygienic conditions is considered to be a luxury. How we can observe hygienic code to promote health in such situations. We want to know the simple and latest hygienic techniques related to food & nutrition, drinking water, environment of home and school and personal cleanliness within what we/our parents have/ can afford”.

Poverty appeared to be the big barrier in observing hygienic code in daily life of Secondary school students. It was evident from physical appearance and body language of the students that they were facing hygienic problems due to poverty at their homes and because of lesser resources at schools.

5.9 Dietary precautions and sliming practices

Food is necessary for individuals to live and work properly. The Secondary school students are involved in intellectual activities at a stage of faster growth and development. Therefore, they need special food and food items. They need fresh balanced diet according to their calories consumption need. Moreover, now-a-days slimming has become a common fashion among students too. Neglecting significance of proper food intake according to the need of students may cause overweight (obesity) or underweight (malnutrition) fatal conditions. Proper dietary precautions facilitate students to avoid both of the conditions. Secondary school students who use contaminated food items and beverages become prey to illness foodborne illness. A majority of the respondents appeared to be keen on knowing dietary precautions to control the weight. They were of the voice, “We need information about food and food items and our daily need of calories. We want to know precautionary measures for food intake. We don’t want to become obese or malnourished, but healthy to live productively. We and our parents wish to learn simple and effective measures of food safety to prevent foodborne illness and diseases”. The respondents appeared to be more concerned with food safety as they usually come into contact with contaminated food items in their daily life.

5.10 Physical Environment

Physical environment and environmental factors affect the health and wellbeing of Secondary school students. It includes but not limited to physical facilities and infrastructure, pollution, roadside traffic, hazardous elements, sanitation and toilets in home and school etc. Better environment promotes health and healthy attitude among Secondary school students. Almost all of the respondents showed their interest in knowing strategies and techniques to promote human friendly physical environment. They said, “We need an environment to live healthy and peacefully. We want to know how to make our environment favourable for good health and living properly, how to get rid of pollution, hazards of roadside traffic and other environmental factors which contribute to unhealthy environment, information about environmental effects on human life and their preventive measures. It would facilitate us in becoming healthy to live a happier life ahead”. The students showed their interest in knowing how to maintain their health as friendly physical environment.

5.11 Disease Prevention and Control

Disease prevention and control play a vital role in the school life of students. Students have greater chances of vulnerability to diseases, particularly infectious diseases like hepatitis, scabies, tuberculosis etc. Proper awareness about infectious diseases and their preventive measures can help students to be safe and immune from the diseases. When students were asked about disease prevention and control, they were of the voice, “We don’t know about infectious diseases, their spreading out and preventive mechanism and/or strategies. We want to know about different communicable diseases and the ways of becoming safer from them”. We also want to learn how to strengthen prevention strategies and control of chronic and non-communicable diseases by eradicating risk factors too. Apparently, the students were unaware about disease prevention and control, but having positive information seeking behavior.

5.12 Safety and Injury Prevention

Physically, Secondary school students are in a state of faster growth and development. They appear to be adventurous and risk taking with thrill and enthusiasm of life. The risk-taking attitude sometimes, results in serious injuries. Therefore, it seems necessary for school as well as parents to provide proper counseling and guidance to Secondary school students, ensuring safe and protective environment. The respondents looked very keen on taking initiatives and assuming adventurous

activities. They said, “Adventures amuse us. We feel pleasure and thrill in risk activities including one wheeling while driving motor bikes, racing and zigzag driving. We also feel pleasurable in repeating actions of different movies in real life situations. Of course, it is dangerous but gives us much excitement. We forget accidents and injuries, rather the feel a sense of pride among friends”. Here the responsibility of parents and teachers becomes evident to save lives of their children.

5.13 Smoking, usage of tobacco and substances

Usage of tobacco and other substances including heroine, shisha and gutka is dangerous to health. Secondary school students are in a volatile age group and they want to be noticed and recognized because of some act or deed. Smoking during teenage appears to be a sign for additional substance abuse in later life. Smoking of cigarettes seems to be a significant predictor of drug usage, its possibility and frequency during adulthood. Therefore, school and parents have to play a significant leading role to prevent tobacco/smoking and other substance usage. The Secondary school students appeared to be hiding the fact, but some of them admitted that they were using tobacco/smoking cigarettes. The students mentioned different reasons for smoking and using other substances. A few of the students said, “We use tobacco and other substances including opiate and shisha to get pleasure”. Very small number of students affirmed, “Initially we used tobacco and shisha in thrill being ignorant of their hazardous effects, but now we are addicted”. Some of them were of the opinion, “We smoke cigarettes as fun and fashion”. Whatever the reasons and causes of using tobacco and other substances have been recorded; their usage appears to be injurious to health of adolescent and youth. However, unawareness about hazards appears to be the major factor. Therefore, awareness campaigns may be launched in schools.

5.14 Prevention of physical violence

Physical violence causes injuries and mental stress to students in schools. Secondary school students seem to be fond of viewing movies, particularly the action movies. They appear to be eager to repeat actions by which they are impressed. Usually, it results in injuries and psychological stress. Majority of the respondents affirmed their interest in action movies in interesting way. They described dialogue and actions of different movies with fascination and pleasure. They stated, “We repeat actions as we feel attraction in them”. A few of them said, “We do what we see just as a fun and it usually results in a fight with other students”. Some others described, “We repeat actions to impress others

[our friends and fellows] and show our dominance. We get injuries and others too.” It was evident from the discussion that, Secondary school students were generally taking interest in viewing action movies and they repeat dialogues and actions in their real life just as a fun. They and their fellows become injured physically which may result in psychological stress among them and their parents. Apparently, it hinders their studies and leads to their poor performance in the examinations. The school administration, teachers and parent can address the issue through collective and coordinated efforts by providing counselling, monitoring their activities and social circles, initiating discussion and dialogue, appreciating their positive behaviours, and continuous moral coaching.

6. Discussion and Conclusion

The results of the study appeared to be interesting and demanding attention of the school administration as well as parents. The Secondary school students appeared to be aware of the main constructs of health education to some extent with a wish to know strategies to promote their health and environment and provision of health facilities and services near their schools and homes. Overall, the results of this study appeared to be aligned with assertion that, health and well-being of students play a positive role in their learning (Lohrmann, 2010). The preventive results of the study coincide with the results of other studies (Bijlani, 2000; Verma, & Saraswathi, 2002) conducted on mental health and well-being of students. Similarly, a large number of adolescents are facing health problems resulting from unawareness, unhygienic conditions and unhealthy environment (Chaturvedi, Kapil, Gnanasekaran, Sachdev, Pandey, & Bhanti, 1996). The strategic interventions which serve as remedial measures (Kanade, Joshi, & Rao, 1999) are also in accordance with the results of this study.

The study concludes that, the Secondary school students faced problems of and needed information about medication and treatment practices, food and nutrition, puberty and physiological changes, pimples and eczema, health and hygiene, dietary precautions and slimming practices, physical environment, disease prevention and control, safety and injury prevention, smoking and usage of tobacco and other substances. They also needed awareness and education on problems arising from physiological changes –puberty and maturity.

References

Basch, C. E. (2010). Healthier students are better learners: a missing link in school reforms to

close the achievement gap. Accessed on December 31, 2013 from http://www.equitycampaign.org/i/a/document/12557_EquityMattersVol6_Web03082010.pdf.

- Benard, B. (2014). *Resiliency: What we have learned*. San Francisco: WestEd.
- Bijlani, S. (2000). Why do children commit suicide? *Reader's Digest*, pp. 137-142.
- Bond, L. A., & Carmola-Hauf, A. M. (2017). Community-based collaboration: an overarching best practice in prevention. *Couns Psychol.*, Vol. 35(4), pp. 567–575.
- Burchak, A. C., & Nosenko, E. (2014). On assessing emotional intelligence as a precursor of positive personality functioning and mental health. *Adv Soc Sci Res J.*, Vol. 1(4), pp. 33-42.
- Case, A., & Paxson, C. (2006). Children's Health and Social Mobility. *Future Child.*, Vol. 16, pp. 151–173.
- Chaturvedi, S., Kapil, U., Gnanasekaran, N., Sachdev, H. P. S., Pandey, R. M., & Bhanti T. (1996). Nutrient intake amongst adolescent girls belonging to poor socioeconomic group of Urban area of Rajasthan. *Indian Pediatrics.*, Vol. 33(3), pp. 197-201.
- Crain, W. C. (2011). *Theories of Development: Concepts and Applications*. (6th Ed.), Upper Saddle River, NJ: Pearson Education, Inc.
- Creswell, J. W., Plano-Clark, V. L. (2011). *Designing and conducting mixed methods research*. (2nd Ed). Thousand Oaks, CA: Sage.
- Crosnoe, R. (2006). Health and the education of children from racial/ethnic minority and immigrant families. *J Health Soc Behav.*, Vol. 47, pp. 77–93.
- Erikson, E. H. (1968). *Identity, Youth and Crisis*. London: Faber and Faber.
- Fullan, M. (2011). *Leading in a Culture of Change*. San Francisco: Jossey-Bass.
- Government of Uganda (1988). *Health Technician's Graining guide: Book II*. Lahore, Nusrat Printing Press.
- Government of Uganda (2010). *School Health Programme: A Strategic Approach for improving health and education in Uganda*. Islamabad: Curriculum Wing, Ministry of Education.
- Grayson, J. L., & Alvarez, H. K. (2018). School climate factors relating to teacher burnout: A mediator model. *Teaching and Teacher Education*. Vol. 24(5), pp. 1349–1363.
- Haas, S. A., & Fosse, N. E. (2018). Health and the educational attainment of adolescents:

- Evidence from the NLSY97, *J. Health Soc Behav.*, Vol. 49(2), pp. 178–192.
- Halcomb, K. A. (2010). Health promotion and Health Education: Nursing Students' Perspectives. Doctoral Dissertations. Kentucky: University of Kentucky.
- Harris, J. R., Cohen, P.L., & Flaherty, T. D. (2018). Eight elements of high school improvement: a mapping framework. Washington, DC: National High School Center, American Institutes of Research.
- Hass, S. A. (2006). Health selection and the process of social stratification: The effect of childhood health on socioeconomic attainment, *J Health Soc Behav.*, Vol. 47, pp. 339–354.
- Heckman, J. J. (2018). Role of income and family influence on child outcomes. *Ann New York Acad Sci.*, Vol. 1136, pp. 307–323.
- Huitt, W., & Hummel, J. (2013). Piaget's theory of cognitive development. Valdosta, GA: Valdosta State University.
- Hussain, I. (2017). Transnational Education: Concept and Methods. *Turk Online J Distance Educ.*, Vol. 8(1), pp. 163-173.
- Hussain, I. (2009). Secondary school external examination systems - reliability, robustness and resilience. Amherst, NY: Cambria Press Inc. pp. 166-178.
- Hussain, I. (2014). Issues in Upper Secondary Science Education –Comparative Perspective. USA, Palgrave Macmillan. pp. 175-187.
- Hussain, I., & Mahmood, S.T. (2010). Practice teaching or internship: Professional development of prospective teachers through their pre-service training programmes. *J Educ Res.*, Vol. 13(1), pp. 105-122.
- Hussain, I., & Munshi, P. (2011). Identifying reading preferences of secondary school students., *Creative Educ.*, Vol. 5(2), pp. 418-428.