International Journal for Research in Applied Sciences and Biotechnology

ISSN: 2349-8889
Volume-7, Issue-1 (January 2020)

www.ijrasb.com

https://doi.org/10.31033/ijrasb.7.1.3

Assessment of the Existing School Health Promotion Program in a Selected Educational Zone, Sri Lanka - Cross - Sectional Study

K.G.P.H. Kandegedara[1], K.M.N. Perera[2] and G.G.N. Guruge[3]

[1]Lecturer in Health Promotion, Department of Health Promotion, Faculty of Applied Sciences, Rajarata University of Sri Lanka, Mihintale, SRI LANKA

[2]Senior Lecturer in Community Medicine, Department of Public Health, Faculty of Medicine, University of Kelaniya, SRI LANKA

[3]Senior Lecturer in Health Promotion, Department of Health Promotion, Faculty of Applied Sciences, Rajarata University of Sri Lanka, Mihintale, SRI LANKA

[3]Corresponding Author: prabuddhika06@gmail.com

ABSTRACT

The health promotion school program was designed to promote the wellbeing of school students. This concept was introduced during the 1980s by the World Health Organization (WHO). In Sri Lanka; it was initiated and implemented in 2008 targeting all government schools. The aim of the study was to assess the existing school health promotion program. The cross-sectional study was implemented in May 2018 with all secondary schools in a selected education zone in Sri Lanka which represent three types of schools, 1AB, 1C and type 2. The study participants were students and teachers. The newly developed tool (Health Promoting School Assessment Tool) was used to assess the existing school health promotion program under six main criteria. The nominal group technique was followed to fill the assessment tool designed in the study where a team of teachers and a team of students separately took part in the assessment. The findings of the study show that the existing health promotion school program is partially unsuccessful in the selected educational zone. The existing situation of the school health promotion program, according to the main six criteria of the Health Promotion School Assessment Tool, was not at a satisfactory level of the implementation (38.2%). Only three schools (N=23) scored more than 50% while other schools (n=20, N=23) were scored less than 50%. According to the assessment, for each group of an individual school, there was a difference between teachers' assessment and students' assessment of the overall health promotion program. It is important to conduct continuous monitoring and have an evaluation plan for the school health promotion program to acquire effective changes in school settings.

Keywords-- Health Promotion, School, Setting, Assessment

I. INTRODUCTION

The health promotion approach is successful where the community needs to make changes to improve their wellbeing and lifestyle as well as a community of those who are empowered enough to identify and analyze determinants for their health status (Samarasinghe et al., 2011). In the health promotion approach individuals in the community can develop indicators by themselves to assess their changes. Also, the community has the power of entering the process of improving their wellbeing (Samarasinghe et al., 2011). The health promotion school concept was designed and introduced during the 1980s by the World Health Organization (WHO, 1986). The Ottawa Charter proposed at the first international conference on health promotion inspired this creation of the framework for health promotion. Health promotion is recognized as an approach that can play a significant role in improving the health and wellbeing of individuals and communities (WHO, 1986).

Health is created by people within the setting of their everyday lives, and school is a vital and important public health setting since it is possible to reach a large proportion of school-going children (WHO, 1986 and Romano, 1992). The school is the place in a person's life that develops skills, educates and gives guidance for the selection of once own future path. A school going child spends a considerable amount of time of a day in school. Therefore, school is an important place for a child and the school attending period is more crucial to childhood development (Eccles, 1999). Health Promotion Schools (HPS) can be described as schools that continuously improve the ability to live, learn and work. Therefore, effective interventions are needed at the school level (WHO, 1997).

It is evident that the setting-based health promotion approach is effective where health promoters are focusing settings instead of individuals (Whitelaw et al., 2001). According to the European HPS network, the goals pursued by schools that support this approach and its success depend on the cooperative effort of teachers, students, parents, and the community members (WHO, 1999). Schools in many countries initiated to implement more comprehensive and integrated health promotion approaches to address individuals' attitudes, behavior and the school environment (Deschesnes et al, 2003 and Samdal et al, 2011).

The HPS aims at ensuring the entire school population a healthy lifestyle through the creation of a positive health climate (Lee et al, 2019). This needs the

provision and preservation of healthy and health-enhancing social and physical environments at school to provide incentives and commitments (Parsons et al. 1997). Six essential elements, including healthy school policies, the physical condition of the school environment, the school's social environments, individual health skills and action competencies, community links, and health services, have been outlined in the school health promotion approach (Moynihan et al, 2016).

Lynagh et al. literature survey from 1997 showed that most of the health promotion programs focus only on health curricula (Lynagh et al, 1997) for various school-based health promotion programs conducted from 1983 to 1995. The evaluation of health promotion efficacy appears to have epistemological and methodological problems (Langford et al, 2014).

Recent reviews have identified the evidence of the Health Promotion School Program (HPSP) and its comprehensive and integrated approach in improving children's and young people's health in many areas (Langford et al, 2014 and, Bonell et al, 2013). Moreover, it is important that understanding the current HPSP and effects in school settings, because still, it is a neglected area (Gugglberger et al, 2012). In 2008, the Ministry of Education (MoE) and the Ministry of Health (MoH), Sri Lanka together launched a school health promotion program to enhance the wellbeing of school communities. The aim of this study was to assess the existing school health promotion program in a selected educational zone in Sri Lanka.

II. METHODS

This cross-sectional study was implemented in May 2018 targeting all the secondary schools (n=23) according to their types (1AB, 1C and type 2) which were categorized by the MoE (DCS, 2010) in the selected education zone in the hill country of Sri Lanka. The students (age between 12 to 14 years old) and teachers who fulfilled the inclusion criteria were recruited for the study. A tool which was developed to collect information based on six assessment criteria namely; the level of implementation of the health-promoting school concept, (1) within the school, (2) to promote psychosocial wellbeing, (3) To enhance educational performance, (4) To develop the school physical environment, (5) To design and implement school health policies and, (6) With related to interventions to the external school community and those criteria were followed by thirty-six sub-criteria.

Both teachers and students provided information for the questionnaire as a team therefore each school generated two sets of tools that assessed the Health-Promotion School Program (HPSP) and its achievements in the school. The student group was comprised of representatives of grades seven, eight and nine, while the teachers' group consisted of teachers nominated by the principal and school health promotion teacher, was mandatorily included to the group. The number of members in the groups was varied from five to ten. The nominal group technique (CDC, 2018) was applied to collect information from the group members. The assessment criteria of the tool were explained by one of the members of the group and the individual responses were checked within the group. The six main criteria were assessed using five options namely; "not initiate", "plan to initiate", "just initiate", "going on" and, "implemented but stop now". The final answer for each sub-criterion was selected based on the agreement of the majority of the group with the evidence they mentioned relevant to the school health promotion program and used a scale ranging from one to seven.

SPSS 16.0 version was used to carry out the descriptive analysis. An average mark of both groups was considered to develop a score for the schools. Based on the score, each school was categorized under "Low" and "High" which reflected the current situation of the school. Schools that were scored more than 50 % were accounted for the "High" category.

Ethical consideration of the study was reviewed and granted the approval by the Ethical Review Committee of the Faculty of Applied Sciences, the Rajarata University of Sri Lanka.

III. RESULTS

The total number of participants for the cross-sectional study was 224 with 150 students and 74 teachers representing all three types of schools.

Table 01: Distribution of Participants Study by Type of School

Type of the school	No of Students		Total N=23	No of Teachers		Total N=23
	F	M		F	M	
2 (n=8)	30	20	50	26	2	28
1C (n=9)	34	26	60	18	10	28
1AB (n=6)	25	15	40	15	3	18
Total	**89**	**61**	**150**	**59**	**15**	**74**

1. The Level of Implementation of the School Health Promotion Program

The implementation level of the school health promotion program according to the main 6 criteria's is described in the following table (02).

Table 02: Perceived Implementation level of the School Health Promotion Program

Criteria (Level of implementation of the health promoting schools concept)	**Student/Teacher (N=23)**	**Not Initiate No. (%)**	**Plan to Initiate No. (%)**	**Just Initiated No. (%)**	**Going on No. (%)**	**Implemented but stopped No. (%)**
Within the school (overall)	S	3 (13.0%)	1 (4.3%)	5 (21.7%)	12 (52.2%)	2 (8.7%)
	T	4 (17.4%)	1 (4.3%)	2 (8.7%)	16 (69.6%)	0 (0.0%)
To promote psychosocial wellbeing	S	4 (17.4%)	2 (8.7%)	5 (21.7%)	11 (47.8%)	1 (4.3%)
	T	3 (13.0%)	0 (0.0%)	2 (8.7%)	17 (73.9%)	1 (4.3%)
To enhance education performance	S	1 (4.3%)	2 (8.7%)	1 (4.3%)	19 (82.6%)	0 (0.0%)
	T	2 (8.7%)	3 (13.0%)	3 (13.0%)	15 (65.2%)	0 (0.0%)
To develop a physical environment	S	1 (4.3%)	0 (0.0%)	1 (4.3%)	20 (87.0%)	1 (4.3%)
	T	2 (8.7%)	1 (4.3%)	1 (4.3%)	19 (82.6%)	0 (0.0%)
To design and implement health policies	S	3 (13.0%)	1 (4.3%)	4 (17.4%)	15 (65.2%)	0 (0.0%)
	T	4 (17.4%)	3 (13.0%)	2 (8.7%)	14 (60.9%)	0 (0.0%)
With related to interventions to the external school community	S	14 (60.9%)	3 (13.0%)	1 (4.3%)	5 (21.7%)	0 (0.0%)
	T	5 (21.7%)	1 (4.3%)	3 (13.0%)	14 (60.9%)	0 (0.0%)

S- Student, T- Teachers

The majority of student groups, 12 (52.2%) and teachers groups 16 (69.6%) mentioned that the health promotion concept was implemented in the schools. The rest of the students' groups stated that health promotion programs are not yet initiated (n=3, N=23), just initiated (n=1, N=23) and planned to be initiated (n=5, N=23), whereas 4 teachers' groups mentioned that health promotion program is not yet initiated.

According to the student group and teachers' group, there was a clear difference for the perceived implementation of first, second, and third criteria for the options "Just Initiate and "Going On". In the sixth criterion, it was different for the options "Not Initiate" and "Going On". Rests of the options (3) were relatively

similar for each criterion (first, second, third and sixth). Also, every option (5) was not shown a clear difference to the perceived implementation of the fourth and the fifth criteria.

2. Assessment of the Existing School Health Program

Each main criterion (6) was assessed using selected sub-criteria (36). Table 03 is describes the assessment of each criterion (6) for all the selected schools (n=23) in the educational zone.

Table 03: Assessment of the Existing Health Promoting School Program

Criteria Level of implementation of the health promoting schools concept:	The maximum score for the criteria	Mean score (SD)		
		Students (n=23)	Teachers (n=23)	Overall (N=23)
Within the school	49	19.0 (8.5)	17.7 (10.6)	**18.4 (9.5)**
To promote psychosocial wellbeing	70	25.0 (15.8)	28.3 (14.4)	**26.7 (15.1)**
To enhance education performance	36	20.7 (7.6)	17.4 (10.9)	**19.1 (9.4)**
To develop a physical environment	28	13.3 (5.0)	12.8 (6.8)	**13.0 (8.3)**
To design and implement health policies	35	14.3 (7.3)	11.6 (9.1)	**12.9 (8.3)**
With related to interventions to the external school community	28	2.8 (5.5)	9.4 (6.4)	**6.1 (6.7)**
Overall HPSP	252	95.1(26.2)	97.3 (45.2)	**96.1(36.5)**

Implementation of the existing health promotion program in the selected education zone received a mean total score of 96.1 (SD = 36.5; maximum score=252). According to the students, mean total score was 95.1 (SD = 26.2; maximum score=252) and it was 97.3 (SD=45.2; maximum score=252) for teachers. Table 02 explained the assessment of the existing health promoting school program in individual schools.

3. Assessment of the Existing Health Promoting School Program in Individual Schools

Each school was assessed by the students and teachers separately and their scores for the relevant schools are explained in the following table (03) for the overall assessment related to the main six criteria.

Table 03: Assessment of the School Health Promotion Program in Individual School

School Type	Students Group (n=23)		Teachers Group (n=23)		Total (N=23)			
	Total marks (252)	Mean score (SD)	Total marks (252)	Mean score (SD)	Overall marks (504)	Overall Mean Score (SD)	%	Category*
Type2 (n=8)	125	20.8 (7.2)	83	13.8 (10.7)	208	17.3 (6.5)	41.3	Low
	54	9.0 (9.9)	108	18.0 (11.5)	162	13.5 (11.3)	32.1	Low
	120	20.0 (6.6)	52	8.7 (14.6)	172	14.3 (12.3)	34.1	Low
	70	11.7 (12.8)	93	14.8 (5.4)	163	13.2 (9.5)	32.3	Low
	95	15.8 (8.4)	82	13.2 (4.9)	177	14.5 (6.7)	35.1	Low
	91	15.2 (12.4)	159	26.0 (10.5)	250	20.6 (12.3)	49.6	Low

	112	18.7 (12.3)	123	20.2 (10.7)	235	19.4 (11.0)	46.6	Low
	101	16.8 (12.8)	159	25.7 (10.1)	260	21.2 (11.9)	51.6	High
1C (n=9)	106	17.7 (12.7)	101	16.0 (13.1)	207	16.8 (12.3)	41.1	Low
	107	17.8 (6.4)	74	12.0 (5.1)	181	14.9 (6.3)	35.9	Low
	72	12.0 (11.7)	52	8.3 (11.1)	124	10.2 (11.0)	24.6	Low
	72	12.0 (12.4)	150	24.2 (8.6)	222	18.1 (12.0)	44.0	Low
	100	16.7 (10.1)	54	8.7 (8.2)	154	12.7 (9.7)	30.6	Low
	145	24.2 (14.0)	185	29.8 (11.4)	330	27.0 (12.5)	65.5	High
	115	19.2 (12.6)	0	0 (0)	115	9.6 (13.1)	22.8	Low
	40	6.7 (16.3)	95	15.8 (9.7)	135	11.2 (13.7)	26.8	Low
	128	21.3 (13.7)	146	23.7 (10.8)	274	22.5 (11.8)	54.4	High
1AB (n=6)	73	12.2 (14.3)	95	15.2 (9.7)	168	13.7 (11.7)	33.3	Low
	99	16.5 (10.6)	17	2.8 (6.9)	116	9.7 (11.1)	23.0	Low
	120	20.0 (8.4)	117	18.7 (8.5)	237	19.3 (8.1)	47.0	Low
	102	17.0 (11.0)	100	16.3 (12.0)	202	16.7 (11.0)	40.1	Low
	62	10.3 (8.8)	109	17.3 (8.0)	171	13.8 (8.8)	33.9	Low
	78	13.0 (11.2)	84	14.0 (16.0)	162	13.5 (13.1)	32.1	Low
Total	**2187**	**95.1 (26.2)**	**2238**	**97.3 (45.2)**	**4425**	**96.1 (36.5)**	**38.2**	**Low**

*Scores less than 50% - "low", Scores more than 50% -"high"

Highest subtotal mean score recorded from two 1C schools (M=27, SD=12.5), (M=22.5, SD=11.8), and one type 2 school (M=21.2, SD=11.9) and, these schools (n=3, N=23) were categorized under "High" (More than 50 marks) category for the level existing health promotion program. Other schools (n=20, N=23) were categorized under "Low" (Less than 50 marks) category (Table 03).

IV. DISCUSSION

This study was implemented in Sri Lanka to assess the existing school health promotion program with the participation of students and teachers. The present study indicated that the majority of students and teachers of the selected schools had identified that the health promotion programme is in the ongoing process. However, there was a deviation between the overall assessments for the main six criteria (Table 02) and detailed assessment of the sub-criteria (Table 03) and it could be due to the awareness of the HPSP and their attitude towards the HPSP. Moreover, the lack of stronger evidence related to the sub-criteria was impacted by the detailed assessment of each school. Pieces of evidence are required in identifying the existing gap of the ongoing school health promotion program and can be used to identify and design a new paradigm to the school health promotion program.

According to the present observation, the majority of students and teachers' groups perceived the implementation of HPSP related to the first five criteria; (a) implementation of HPSP within the school and (b) HPSP to promote psychosocial wellbeing, (c) to enhance education performance, (d) to develop physical environment, and (e) to design and implement school health policies was in the going on process. However, there was a disparity between the students and teachers' perception about the sixth criterion, (f) intervention to the school external community and majority student considered that it was not included to the school health promotion program while majority of teachers perceived that it was a considerable factor to the school health promotion program due to their experience.

The cross-sectional study revealed that the implementation of the existing school health promotion program was inadequate in the selected educational zone.

The WHO expert committee also makes a point that the HPS concept is more advanced than its actual implementation (WHO, 1997). Also, the assessment of all six criteria based on the sub-criteria shows a relatively low score and it was 96.1(SD=36.5, maximum score =252) and 38.2% as the average score for the selected education zone. It was indicated that the overall program was categorized under the "low" category for the educational zone which included the study. It has happened due to the assessment of sub-criteria expected to provide pieces of evidence for the answer selected by the study participants in the scale and marks were relatively low due to the unavailability of strong evidence for each criterion. Also, the assessment of the existing Health Promotion School Program showed that there were only three schools (N=23) that had higher scores to the overall assessment criteria of the HPSAT than other schools involved in the assessment. The other twenty (N=23) were in less than 50% categories.

In Sri Lanka, schools are categorized for four categories according to the available facilities and the functioning of classes in the school (1 AB – having advanced level science stream, 1C- having advanced level without science, type 2- having classes up to grade 11 and type 3- having classes up to grade 8) (DCS,2010). According to the results of table 4, it shows that there were no schools that scored 50% or more than 50% in the category of 1AB Schools in the selected educational zone while it belongs to the privileged or highly privileged status grouping (MoE, 2017).

The present study has identified a few limitations which need to be addressed in future studies. The first one is the involvement of study participants as groups and answers may depend on the group agreement. Also, it is difficult to generalize the finding across the wider population due to the study setting was catered into a limited geographical area.

V. CONCLUSION

Overall the present study revealed that the existing implementation status of the school health promotion program in the selected study setting was not at a satisfactory level. The structure of the existing school health promotion program is needed to be modified to get effective changes in school settings. Also, monitoring and evaluation should be conducted periodically following the relevant indicators of the program targeting every school in the country. Also, necessary inputs can be given to the stakeholders of the school health promotion program for sustaining the expected outcomes of the school health promotion program island wide. After the study, it is recommended that.

RECOMMENDATIONS

Assessment techniques and indicators used to assess the overall health-promoting school program at the national level are recommended by applying relevant modifications are recommended. Based on the assessment results new intervention can be designed to implement in schools settings and continuous assessment is needed to establish a proper mechanism to sustain the health promotion school program.

The development of a network system with schools, educational zones to share experiences periodically is recommended. Hence, it can be used as a technique to strengthen the health-promoting school program.

ACKNOWLEDGEMENT

Firstly, I would like to express my sincere gratitude students, teachers in the schools. Also, I would like to thank director of the zonal education office. Heartfelt thanks goes to experts who were involved in the validation of data collection instrument for this research.

REFERENCE

[1] Bonell, C., Wells, H., Harden, A., Jamal, F., Fletcher, A., Thomas, J., Moore, L. (2013). The effects on student health of interventions modifying the school environment: systematic review. *Journal of Epidemiology and Community Health, 67*(8), 677-681. doi: https://doi.org/10.1136/jech-2012-202247

[2] CDC, (2018). Evaluation Briefs. *Gaining Consensus among stakeholders through the nominal group technique*: US department of health and human services; Center for Disease Control and Prevention. Available at: https://www.cdc.gov/healthyyouth/evaluation/pdf/brief7.pdf

[3] Deschesnes, M., Martin, C., and Hill, A.J., (2003), Comprehensive approaches to school health promotion: how to achieve broader implementation. *Health Promotion International, 18*(4), 387-396

[4] DCS, Ministry of Finance and Planning (2010). Annual Bulletin of Education Statistics. Available at: http://www.statistics.gov.lk/Newsletters/Education%20Bulletin.pdf

[5] Jacquelynne S Eccles. (1999). The development of children ages 6 to 14. *The Future of Children, 9*(2), 30-44.

[6] Gugglberger, L., and Inchey, J., (2012). Phases of health promotion implementation into the scottish school system. *Health Promotion International, 29*(2), 256-66.

[7] Langford, R., Bonell, C.P., Jones, H.E., Pouliou, T., Murphy, S.M., Waters, E., Komro, K.A., Gibbs, L.F., Magnus, D., Campbell, R. (2014). The WHO health

promoting school framework for improving the health and well-being of students and their academic achievement. Available at: http://www.cochrane.org/CD008958/BEHAV_the-who-health-promoting-school-framework-for-improving-the-health-and-well-being-of-students-and-their-academic-achievement

[8] Lee, A., Lo, A.S.C., Keung, M.W. et al. (2019). Effective health promoting school for better health of children and adolescents: indicators for success. *BMC Public Health 19*, 1088 doi:10.1186/s12889-019-7425-6

[9] Lynagh, M., Schofield, M., and Sanson –Fisher, R., (1997). School health promoting program over a decade: a review of literature. *Health Promotion International*, *12*(1), 44-60

[10] Ministry of education. (2017). School census 2016- June-1.Battaramulla: Ministry of Education of Sri Lanka. Available at: http://www.statistics.gov.lk/education/School%20Census%20Report_2017.pdf

[11] Parson, C., Stears, D., Thomas, C., Thomas, L., and Holland, J. (1997). The implementation of ENHPS in different national contexts. The European Network of Health Promoting Schools. WHO/ EURO, COPENHAGEN. Available at: http://www.euro.who.int/__data/assets/pdf_file/0012/111117/E90358.pdf

[12] John L. Romano. (1992). Psychoeducational Interventions for Stress Management and Well-Being. *Journal of counseling and development, 71*(2), 199-202 doi: https://doi.org/10.1002/j.1556-6676.1992.tb02200.x

[13] Samarasinghe, D., Guruge, D., Ranasinghe, R., Amunugama, S., Fernando, M., Indrawansha, S. (2011). "Saukya Prawardhana Kriwaliya". Colombo, SRI LANKA.

[14] Samdal, O., and Rowling, L., (2011), Theoretical and empirical base for implementation components of health promoting schools. *Health Education, 111*(15), 367-390

[15] Whitelaw, S., Braxendale, A., Bryce, C., Mac Hardy, L., Young, L., Whitney, E. (2001). Settings based health promotion: a review. *Health Promotion International*. *16*(22), 339-353.

[16] WHO, (1986). *Adopted at an International Conference on Health Promotion. In: The Ottawa Charter for Health Promotion*. Ottawa, Ontario, CANADA. Available at: http://www.ijrasb.com/SubmissionGuidelines.aspx

[17] WHO, (1997). Promoting health through schools. Report of a WHO Expert Committee on Comprehensive School Health Education and Promotion. WHO Technical Report Series No.870. WHO, Geneva. Available at: https://www.healthpromotion.ie/hp-files/docs/HPM00840.pdf

[18] WHO/EURO, (1999). The European Network of Health Promoting Schools. WHO/EURO, Copenhagen, Available at: http://www.who/webmaster@who.dk