ABSTRACT

Influenza is a highly contagious disease caused by influenza virus that affects the respiratory tract. The influenza virus has great potential to undergo mutation or re-assortment leading to the emergence of new strains causing seasonal epidemic or more destructive pandemic influenza. Vaccination is the main preventive method adopted for influenza. Non-pharmaceutical measures, especially, hand washing has equal place in the prevention of influenza. These methods also play a major role in preventing other common communicable diseases like other respiratory tract infections, diarrhoeal diseases and impetigo. Effectiveness of non-pharmaceutical measures in prevention of influenza and other communicable diseases depends on people's adoption of these behaviours correctly. Behaviour Change Communication (BCC) is identified as an effective method in inculcating new behaviour or changing or strengthening existing behaviours.

Schools have been identified as a key setting that can play an important role in influencing healthy behaviours and lifestyles in children and young people. The school health promotion programme in Sri Lanka was initiated in the year 2007 and already established School Health Clubs (SHCs) in school setting used to carry out the health promotion activities. SHCs were chosen to plan and implement the BCC programme for this study.

This study was designed with the objectives of evaluating the functioning of SHCs in the Kalutara District and to assess the effectiveness of a BCC package in improving the personal hygiene related to influenza diseases among Grade 8 and 9 school children. The study consisted of three components.

The component I assessed the functioning of SHCs and health promotion activities conducted by them using a cross sectional design. All the schools (406) in the Kalutara District were selected to the study out of which the basic information data on schools were collected from only 376 schools using a SAQ. Subsequently, trained data collectors

visited the schools that were identified as having SHCs, and collected data on the functioning of SHCs and health promotion activities carried out by SHCs.

Study component II was designed to describe factors associated with functioning of SHCs. The PI collected the necessary information through seventeen in-depth interviews with school principals (of schools with SHCs and without SHCs) and coordinating teachers of SHC.

The study component III, a quasi-experimental community trial with pre test and post test assessments and a comparison between intervention and control group, was planned to determine the effectiveness of the BCC package in improving the personal hygiene related to influenza disease. The BCC package was developed to provide the necessary information using participatory techniques, to enhance skill development and to monitor the personal hygiene. Supplying soap, providing frequent reminders of messages using different communication methods and problem solving sessions were also included in the BCC. Pre and post tests using a SAQ and an observation check list on hand washing technique were conducted among school children from 26 clusters (cluster size 30), selected using stratified multi stage cluster sampling technique, in the intervention and control groups.

The proportion of functioning SHCs in Kalutara District was 29.5% and none of the Type 3 schools had a functioning SHC. Functioning of SHC was significantly associated with the education zone ($p<0.001$) and functional grade of the school ($p<0.001$). With regard to performance of functioning SHCs, 37.8% was good, 23.4% was satisfactory and 38.7% was poor. The common health promotion activities carried out by functioning SHCs were exercise programmes (93.7%), regular cleaning of school environment (91.9%), providing first aid facilities (88.3%), participating in SMI (74.8%), giving health talks at school assembly and community health projects. Maintaining a health resource centre (13.5%) was the least common activity done by SHC.

Having committed and responsible principal, having a skilful coordinator, efficient management of available resources and the positive attitude towards health promotion were identified as the positive factors associated with the functioning of a SHC. The main

negative factors identified were lack of resources and lack of awareness on school health promotion and poor inter-sectoral collaboration.

The mean of the knowledge score obtained for different aspects of influenza diseases (26% to 37% with comparatively higher knowledge on influenza prevention) in pre intervention period nearly increased by 30% after the intervention. The pre intervention knowledge on hand washing (mean score - 45%) and cough etiquettes (mean score – 57%) reported nearly 25% improvement at the post intervention survey. However, only 2% improvement was reported on behaviours during illness, which had a mean score of 87% during the pre intervention stage.

The overall attitude score shifted towards the positive direction with more than 10 point improvement in the attitude score at the post intervention survey. Six months after the intervention, significant improvements were noticed on self reported frequency of hand washing with soap (Pre int. Mean 3.4 to post int. mean 5.2 per day), always hand washing with soap (20.7% to 37.9%) and on always using running water for hand washing (20.7 to 37.9). Mean score for observed hand washing technique improved 16 % from that of the pre intervention value (61.3%). Practice on cough etiquettes (45% to 67%) and behaviours during illness (50% to 63%) also reported significant improvement at post intervention stage.

Lack of resources, lack of awareness on health promotion concept among stake holders and poor inter-sectoral corporation were identified as main constraints for the establishment and functioning of SHCs. The implementation of BCC package to improve personal hygiene through SHC was effective in improving the knowledge, attitude and practices on personal hygiene related to influenza diseases and the knowledge on influenza disease.

Providing regular in service training programmes on school health promotion to relevant staff at school, conducting awareness programmes for community members and for parents and the revitalization of SHC programme are recommended. The BCC package to improve personal hygiene with relevant modification to the target community needs to be implemented in other schools in the District of Kalutara.