“Healthy Plan-Net”: Advancing Health Literacy to meet health education needs

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Health education should aim to develop the knowledge, understanding, and personal skills to programme participants to enable them to make informed decisions to enhance their health. Whether these aims would be achieved or not largely depending on health literacy. Health literacy is about being sufficiently educated to access and use information that can impact on health status. This can manifest in a range of ways at the individual level, including being able to read food or drug labels, being able to understand health information presented in different media, and being able to follow written and verbal instructions. It is about having the personal skills to know what to ask based on a capacity to integrate health information with personal values. Researchers here have commonly used the definition of health literacy adopted by the US Institute of Medicine (IOM, 2004), which defines it as:

> ‘*..the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health deci*sions.’

Health literacy provides individuals with options that would otherwise not be available to them. The concept of health literacy has continued to evolve, moving away from simply examining health literacy from the perspective of an individual patient and his or her skill set, to consider the interaction between the individual capacities, the health care system, and the boarder society. Consequently, the measurement of health literacy at the individual level is clearly inadequate (Baker, 2006). For long term condition management, for example, self-efficacy, greater understanding of the benefits of different health actions, personal health skills in adopting certain specific behaviours, self-monitoring and family support are all important factors. Education, early childhood development, living and working conditions, culture are also possible determinants of health literacy (Rootman and Ronson, 2005).

School is an important setting in helping students to achieve health literacy (St Leger, 2001). The concept of Health Promoting School (HPS) has been advocated as an effective approach to promote health in schools addressing the complexity of health action. (Parson et al, 1996; Lee, 2002). It embodies a holistic, whole school approach in which a broad health education curriculum is supported by the environment and ethos of the school moving beyond individual behavioural change considering organizational structure change such as improving the school's physical and social environment, its curricula, teaching and learning methods (Parson et al, 1996; Lee, 2002) This new approach to school health helps to equip the students' knowledge and skills in shifting health into a more dynamic and political domain so that the determinants of heath can be well addressed to improve school health literacy (St Leger, 2001). Well- developed school health promotion programmes adopting HPS approach are more effective than the traditional information giving approach to encourage children adopting health enhancing behaviours and reducing health compromising behaviours (Hawkins and Catalano, 1990). The approach can be regarded as an ecological model of health promotion in which health is determined by a complex interaction of environmental, organisational, and personal factors (Lee et al, 2010) and improvement of knowledge, attitudes and behaviours towards health and hygiene was observed (Lee et al, 2008).

The model of HPS has proved to be effective in improving school health literacy at both individual and system level as it is based on the conceptual model of health literacy as asset (Nutbeam, 2008). The conceptual framework of "Healthy Plan-Net" (Figure 1) is evolved by drawing on theories of functional literacy (basic skills in daily life- *Self Management, Assessing Information and Services*), interactive literacy (cognitive and social skills to extract different forms of information and derive meaning from different forms of information-*Problems Solving Skills, Choice and Decision Making Skills*), and critical literacy (understanding and personalizing health information and appropriate application of relevant health information-*Critical Thinking, Goal Setting*) by Nutbeam (2000) and integrate with the components of comprehensive school health adopted for HPS school in Hong Kong (Lee, 2009a, Meeks, 1996). This will advance health literacy to become an asset to enable individuals to exert greater control over their health and the range of personal, social and environmental determinants of health (Nutbeam, 2008). Previous study by

the Centre has shown how this kind of holistic could improve health literacy in relationship to healthy eating (Lee, 2009b). In a randomized control study among Chinese diabetic patients in Hong Kong, patients who received an intensive health literacy intervention (based on self-management skills and improvement of self-efficacy) had significantly improved eating habits at follow-up. (Lee et al, 2011). Therefore, the concept of "Healthy Plan-Net" can empower students in healthy living planning in making wise and healthy decision in daily life.

Need assessment can be defined as 'the process by which the programme planner identifies and measure gaps between what is and what ought to be (Jordan et al, 1998). The concept is to identify the needs of the client group and decide whether the needs are met. There can be two types of health need:

- Service needs perceived by the health professionals (Actual Needs)
- Service demands determined by the number clients (Perceived Needs)

Apart for identifying the two main types of needs, needs assessment can also provide information to help regiment the target population according to demographic variables such as age, sex, socio-economic status, health behaviours, attitudes. Such regimenting allows planners to design program for a specific sub-group, which is an important marketing strategy. Sometimes we put more emphasis on Perceived Need to satisfy individual desires, and Actual Need is often neglected. However, there would be other occasions that Actual Need overshadow the Perceived Need. If the Actual Need can be further categorised into Daily Living Need, Evolutional Need and Situational Need, this would be another way of regimenting reflecting more closely towards actual needs but still reflecting the individual circumstances and situation. The Healthy Plan-Net model aims to make use of integration of health literacy with the components of comprehensive school health education to meet the Actual Need and Perceived Need of health education.

The outer layer of the Healthy Plan-Net is to illustrate the individual preference, Perceived Need, and the inner part refers to the Actual Need. One should appreciate the interaction and constrains restraint of Actual Need and Perceived Need during different stages of life planning. By cultivating the six domains of health literacy in the inner circle (Figure 1), students would improve health literacy in the components in the second inner circle (e.g., activity of daily living, avoidance of risky behaviours…) to meet their Daily Living Needs. By advancing their health learning covering the components of third layer of the circle (e.g., Life Ageing and Death, Understanding of Health Services) would improve their health literacy to meet the Situation Need and Evolutionary Needs. This would achieve holistic coordination and balance between Actual Needs and Perceived Needs at macro-level by integrating health learning to cultivate the six domains of different aspects of health literacy. Students can then understand the complexity of life cycle in relationship to health which require a thoroughly planning and development to be conducive to healthy living. Students can enhance their capability to make healthy choice and decision in daily life in order to achieve optimal health and well-being.

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Figure 1. Healthy Plan-Net (Source Lee, Chan and Tse, 2018)