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Development and evaluation of nutrition education package for primary school children – The Healthy Kids Programme Malaysia

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The Healthy Kids Programme (HKP) Malaysia, a collaborative education programme between the Nutrition Society of Malaysia (NSM) and Nestle Malaysia, was launched in August 2010 with the aim to improve nutrition knowledge and promote healthy lifestyle among school children in the country. It consists of two main components: the awareness component to reach out to masses; and the research component – a longitudinal (3 years – 2011 – 2013) intervention study to develop, implement and evaluate the nutrition education modules appropriate for primary school children. The ultimate goal at the end of the 3-year-study is to develop interactive nutrition education modules that the Ministry of Education can utilize for implementation in all primary schools in the country.

The awareness component focused on building and improving the dedicated HKP website (www.healthykids.org.my) that was launched at the end of 2010. Attractive interactive games for children were included to make the nutrition learning process fun and engaging. Articles and recipes in both English and Bahasa Malaysia languages were also uploaded to make the website relevant and interesting for the parents. Efforts in promoting and improving the website have been done throughout 2011 and 2012 in order to increase the number of hits and to reach out more effectively to more parents and children.

The research component, the “Evaluation of Nutrition Education Package for Primary School Children” started in Feb 2011 (Year 1) and is entering the final year this year (Year 3). A total of 359 standard 3 students from 12 selected primary schools (6 intervention schools and 6 control schools) in Klang Valley are participating in the study. The Nutrition Education Package consisted of 18 educational modules which were developed to promote healthy eating and active lifestyle among primary school children. The intervention group received six educational sessions with the respective modules in each year. To date, the intervention group has received 12 educational sessions, throughout Year 1 (2011) and Year 2 (2012). Each year a pre-intervention and a post-intervention survey on the children’s nutrition knowledge, attitude and practices (KAP) was carried out to determine the level of their KAP. Weight and height were measured to calculate body mass index (BMI) of the children.

A total of four KAP surveys had been conducted in year 2011 and 2012. In year 2011, the pre-intervention survey was conducted in Feb 2011 followed by post-intervention survey in August 2011 while in year 2012, the pre-intervention survey was conducted in Feb 2012 followed by post-intervention survey in Oct 2012. Findings of the KAP survey (at

the beginning of Feb 2011 (baseline) and at the end of Oct 2012) showed encouraging results. In intervention group, significant improvement was seen in the children's mean knowledge score (from 54.6 ± 10.1 to 68.0 ± 14.1 , $p < 0.001$) and mean practice score (from 71.9 ± 8.9 to 76.1 ± 8.4 , $p < 0.001$). However, the mean attitude score of the intervention children has declined slightly (from 80.8 ± 13.1 to 79.3 ± 14.1 , $p > 0.05$). The improvement of the mean knowledge score among the intervention group was significantly higher than that of the control group ($F(4.9)$, $p < 0.01$). The mean attitude ($F(1.7)$, $p > 0.05$) and practice scores ($F(1.7)$, $p > 0.05$) of the intervention group was also higher than the control group, yet their improvement was not significantly higher than that of the control group. The intervention group also showed improvements for some selected practices, with a decline in the percentage of children drinking sweetened cordial juice (72.2% to 39.7%) and an increment in the percentage of children consuming bread (57.0% to 64.9%) and cereals (26.5% to 27.2%) as breakfast.

The Year 3 (2013) intervention educational sessions have commenced at the beginning of 2013 and will focus more in depth in nutrition. The children in the intervention group are hoped to learn from the educational sessions and show improvement in their KAP level in the end of 2013 (Year 3).