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Educating a Healthy Lifestyle using the 'Children-Friendly' Approach in Early Childhood Education

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Abstract
This paper reports the partial findings of a study on a health program that aims to explore the changes in lifestyle of children before and after the implementation of the health program. This health program involved 40 parents and 40 children from the ages of 3-6 years, which was implemented for 32 weeks in kindergartens that use the 'children friendly' approach. This approach refers to a concept that prepares learning notes and activities that comprises special features, which are well liked and suitable for children. It also facilitates the learning process without any coercion involved. Data related to the number of television viewing hours among the children were gathered from reports given by parents during the program. The data were then analysed using the SPSS software. The findings of the study show that educating a healthy lifestyle by using the 'children friendly' approach had contributed towards decreasing the number of television viewing hours among children as seen before and after the health program was introduced. Hence, it can be concluded that the research findings support the educating of a healthy lifestyle using the 'children friendly' approach in early children education. This effort focuses on engendering children to cultivate a healthy lifestyle, which then enables them to obtain learning experience that satiates the instinct and emotions of children to carry on learning and practicing health conscious behaviour.
Keywords: children friendly, early child education, healthy life style.

1. Introduction

Healthy lifestyle education is important for children. In view of the sophisticated world today, children are exposed to innumerable activities that render them inactive, such as computer games, remote control cars, PlayStation, Gameboy or Brickgame and games on mobile phones. Watching television is another popular and well-liked activity among children that renders them inactive. A lifestyle like this has become a phenomenon that needs to be attended to urgently. This is because research has shown that 76% of the pre-school children who are obese are children, less involved in physical activities and live an inactive life by spending most of their time watching television or sitting in front of the computer, playing video games or having unhealthy eating habits (Hillary *et al*. 2005; Taveras *et al*. 2006; Lumeng *et al*. 2006).

Kreichauf *et al*., (2012) also supports this finding and stated that children who are exposed to an inactive lifestyle are at a very high risk of becoming obese. Meanwhile, research by Biddle *et al*., (2004), Rutkowski & Connelly (2011) and Lee *et al*., (2011) found that the increase in unstructured and inactive physical activity among children is the main cause of increasing cases of obesity in children in many countries. Inadvertently this causes children to experience health problems such as cardiovascular diseases, hypertension, diabetes, psychological problems and late development of motor skills at a younger age (Hillary *et al*. 2005; Taveras *et al*. 2006). Hence, children need to possess knowledge pertaining to healthy lifestyles so that they are exposed to good health and continue practicing these lifestyles until adulthood. The question is which approach would be suitable to educate these children. Thus, the researcher is of the opinion that understanding children and the surroundings is important in helping to choose a suitable approach for educating children.

Children and the environment in which they live are unique. When we understand children and their living environment, we find that most these children's time are filled with activities involved in play and exploration and children would learn to build schematics or cognitive structures in an effort to understand their environment or experiences (Ahmad 2006). Children are individuals who are not ready to make their own decisions (Jantan & Razali 2002; Norly 2010). This makes the process of educating children very challenging, especially when trying to expose them to health issues, which consist of complex knowledge and are incompatible with the child's instincts.

This situation had given an idea to the researcher about using the 'children friendly' approach with the intention of attracting the attention, interest, focus and to motivate children when the health awareness program is introduced to the children. According to Santrock (2011) an application from a psychological aspect that is effective in the children's teaching and learning process in class would influence the behaviour and mind of the children when obtaining useful knowledge, learning as well as to behave in a proper manner.

Meanwhile, Bronfenbrenner (1994) is of the opinion that there are four levels that influence the

development of a child, which are the microsystem, mesosystem, exosystem and the macrosystem. Each of these systems influence and are mutually influenced by the other systems when helping the development and growth of the children. This finding is in accordance with this research, whereby the use of the 'children friendly' approach is a factor in the child's mesosystem, which the researcher assumes is a strategy that could help influence the mind and behaviour of children in order to learn health issues without feeling bored. Indirectly, the development of the child is better understood and the child's cognitive processes and pattern of learning are psychologically controlled when learning in class and these elements have been practised in order to educate children on healthy lifestyles.

Based on library research about health programs, previous studies have shown that health programs had used numerous approaches to educate children on healthy lifestyles. Dennison *et al*., (2004) had carried out an intervention study by using the 'health promotion curriculum' to observe the effect of the length of time spent watching television on the decreasing body weight of obese children in rural New York. The findings show that there is a decrease in the time spent watching television among children in the intervention group, which is the decrease in the mean hours of watching television from 5 hours to 3.1 hours one week after the health program was initiated. Dennison *et al*., (2004) suggested that the intervention program for children from ages 2-6 years is needed in order to cultivate a healthy lifestyle, which is the focus of decreasing the frequency of watching television or video among children.

Besides that, Taveras *et al*., (2006) had explored the reduction in hours spent watching television or video as well as the relationship between watching television or video with the consumption of fast foods by children from 2-6 years of age. They had used the method that adjusts the age and gender of children for every increasing hour of watching television/video each day. The study found that there was a reduction in the total time spent on watching television/video and watching television/video was related to consuming fast foods among children from ages 2-6 years. Another study by Lumeng *et al*., (2006) had used the 'controlled exposure' method on health education. The aim of the study was to test the effect of the period of watching television and the relationship between freedom to watch television among children from ages 3-5 years with the risks of being over-weight. The findings of the study showed that there was a reduction in time spent watching television after being exposed to health education, while exposure to watching television for two hours or more had a relationship to the risk of an increase in extra body-weight for children from 36 to 54 months old.

Gortmaker *et al*. (2009) in his intervention study had used the 'school based promotion' approach through the Planet Health program. The aim of their study was to evaluate the effect of intervention on behaviour towards health among 1295 children aged from 6 to 10 years in Boston, Massachusetts. The study showed a significant difference ($p=0.02$) in reduction of time spent watching television among children of both genders after experiencing the Planet Health program. These studies clearly show that education is effective in instilling a healthy lifestyle among children and the child's learning environment should be manipulated by using certain approaches. In this study, the children's learning environment is manipulated by using the 'children friendly' approach, which takes into account the concept of educating children from a psychological perspective during lessons in class and it is hoped that eventually, this approach would have a positive influence on the child's learning and experience.

Therefore, this paper would discuss children's lifestyle and the acceptance of health program education that uses the 'children friendly' approach in the child's learning process. The researcher hopes that the health program in this study is a 'children friendly' program that could help change the lifestyle practices among children.

2. Materials and Method

The study on developing the health program was carried out in a kindergarten in the state of Selangor in Malaysia by using the 'children friendly 'concept. The study began after permission was granted by the PPUKM Community Ethics Committee (Project Code No. GUP-3-1-2011) and involved 40 parents and 40 children from the ages of 3 to 6 years.

A health program containing the components of physical activity and diet was developed for the children's early education program related to this study. This program was carried out for 32 weeks and the contents of the program were presented to the children through the 'children friendly' approach. This approach had used notes in a colorful Power Point format with attractive cartoons and the activities were arranged in a playful manner.

Findings from the informal survey on children from 3-6 years of age found that 30 out of 38 children mentioned that their free time activity was watching television. Hence, this research focuses on watching television. Throughout the research, the number of hours spent watching television among the children was noted and also for every four months. The reason for noting the number of hours was to evaluate the children's change in sedentary activity during their free time before and after the health program was introduced.

The data were gathered using the questionnaire distributed to parents once every four months for a

period of eight months. The main duty of the parents was to report the total number of hours spent watching television in a day by the children while they were at home. The data were analysed inferentially based on the questions, which is basically the total number of hours of watching television before and after the health program was introduced and this was done by using the SPSS Version 13.0 software.

3. Findings of the Research

Table 1. Children's Profile (N = 40)

Children's Profile	Gender		Total
	Male n (%)	Female n (%)	n (%)
Age			
- 3 years	5 (12.5)	2 (5.0)	7 (17.5)
- 4 years	6 (15.0)	6 (15.0)	12 (30.0)
- 5 years	3 (7.50)	4 (10.0)	7 (17.5)
- 6 years	6 (15.0)	8 (20.0)	14 (35.0)

Table 1 shows the profile of children from ages 3 – 6 years who were involved in the study. The majority of the children (n=8 or 20%) involved in this study were female aged 6 years. Female children aged 3 years were the minority (n=2 or 5%). The total number of children in this study with a majority were children aged 6 years (n=14 or 35.0%). Comparatively, children aged 3 and 5 years were the smallest group in this study (n=7 or 17.5%).

Table 2. Total hours spent watching television in a day among children from ages 3-6 (N = 40)

Number of hours watching television	Health Program					
	Pre-data		After 4 months		After 8 months	
	n	%	n	%	n	%
0 hours	0	0.0	4	3.3	6	5.0
1 hour	0	0.0	1	0.8	6	5.0
2 hours	0	0.0	15	12.5	18	15.0
3 hours	2	1.7	14	11.7	8	6.7
4 hours	1	0.8	5	4.2	2	1.7
5 hours	4	3.3	0	0.0	0	0.0
6 hours	11	9.2	1	0.8	0	0.0
7 hours	1	0.8	0	0.0	0	0.0
8 hours	19	15.8	0	0.0	0	0.0
9 hours	1	0.8	0	0.0	0	0.0
10 hours	1	0.8	0	0.0	0	0.0

Table 2 shows that before the program 37 children (30.7%) spent their time watching television for more than (>) 5 hours and the maximum time spent watching television was 8 hours (n=19 or 15.8%). There was one child (0.8%) who watched television for a period of 4 hours, 7 hours, 9 hours and 10 hours. However, the total time spent watching television changed drastically after 4 months of introducing the health program, whereby only one child (0.8%) watched television for 6 hours (>5 hours). Meanwhile, 15 children (12.5%) watched television for less than 5 hours (< 5 hours) and the total time spent watching television was at a maximum of 2 hours.

After 8 months of implementing the health program the maximum hours spent watching television was 5 hours (<5 hours). A majority of 18 children (15.0%) watched television for 2 hours. The study found that the minimum time spent watching television was 0 hours a day for six (5.0%) children. The maximum time spent watching television was 4 hours and only two (1.7%) children did this. This finding shows that there is a difference in frequency of total time spent watching television between before, after 4 months and after 8 months of introducing the health program.

Table 3. Comparing the "total hours spent watching television" among children after being treated with the health program

		N	Mean Rank	Sum of Ranks
'Total number of hours watching television' – Implementing the health program	Negative Ranks	35[a]	31.94	1118.00
	Positive Ranks	62[b]	58.63	3635.00
	Ties	23[c]		
	Total	120		

a. Total hours watching television < Implementing the health program
b. Total hours watching television > Implementing the health program
c. Total hours watching television = Implementing the health program

Table 4. Comparison of the "total hours spent watching television" among children after being treated with the health program

N = 120	'Total hours spent watching television' – health program
Z	-4.56[a]
Asymp. Sig. (2-tailed)	.00**

a. Based on negative ranks
b. Wilcoxon signed rank test
**p < 0.05

Tables 3 and 4 are the 'Wilcoxon signed rank test' for analyzing the comparison of the "total hours spent watching television" after being treated with the health program. The findings of the study show that Z = -4.56 and the value p = 0.00 (p < 0.05). This test shows that there is a significant difference in the "total hours spent watching television" among children before and after being treated for 8 months with the health program.

4. Discussion

The researcher in this study has considered the factor of time spent watching television among children as an important factor that is associated with the issue of obesity and a healthy lifestyle in children. This factor was chosen because during the informal survey on children aged 3 to 6 years, the findings showed that children frequently watched cartoons on television and the majority of children stated that the main activity at home was watching television. Bronfenbrenner (1994) supports this issue and stated that the life of children are associated and related with the ecology surrounding them, which always interacts directly with the social agents with the intention to explore and obtain learning experience. Hence, television is one of the social agents well-liked by children. They like to watch television because it suits their taste and has characteristics that portray the children's world such as programs that usually use colourful objects, animated cartoons and interaction between characters that use children's language.

Meanwhile, Hillary *et al*. (2005), Taveras *et al*. (2006), and Lumeng *et al*. (2006) had stated that children were less inclined to practice healthy physical activities such as exercising, doing household chores or being active in sports in a structured manner. On the contrary, the children's free time were mostly spent on activities that portrayed an inactive lifestyle such as watching television. This clearly shows that most children spend their free time watching television. Besides that, research by Biddle *et al*. (2004), Rutkowski & Connelly (2011), and Lee *et al*. (2011) found that a lack of structured physical activity among children was a serious problem in many countries and this had led to the emergence of a number of chronic diseases, such as obesity. Therefore, it is suggested that health programs for children be made available and the program should focus on a healthy lifestyle for children (Hillary *et al*. 2005; Taveras *et al*. 2006).

As in this study, a health program that is developed should educate and expose children to a healthy lifestyle with the aim of preventing obesity. This study has found that there is a reduction in the total time spent watching television among children when compared to before and after taking part in the health program. The findings correspond to the findings by Dennison *et al*. (2004), Taveras *et al*. (2006), Lumeng *et al*. (2006), and Gortmaker *et al*. (2009), whereby there is a reduction is time spent watching television when compared to before and after taking part in the health program. Conversely, the findings are contrary to findings by Fitzgibbon *et al*. (2005) whereby there was no significant change in total time spent watching television among children before and after taking part in the health program.

Hence, this shows that a school-based education process and the approach used during the teaching of the health program is capable of disseminating well the knowledge about health to young children. The application from an effective psychological aspect (Santrock 2011), which is the use of the 'children friendly' approach during the teaching and learning process in class, had influenced the behavior and mind of children towards obtaining useful experience, learning and behaving according to what they learned. This is clearly seen from the findings, which have shown that children had started to understand the effect and negative implications

of watching television for too long and had responded by reducing the inactive practices. Therefore, health programs that use the 'children friendly' approach are programs that are capable of motivating children to reduce the inactive lifestyle by reducing the total time spent watching television.

5. Conclusion

The findings of this study clearly show that educating a healthy lifestyle using the 'children friendly' approach had a positive contribution towards the education of a healthy lifestyle among children and these children had shown a reduction in total time spent in watching television in a day. Hence, educating a healthy lifestyle using this approach should be maintained as the focus in early childhood education. The study suggests that this approach should also be absolved in the teaching-learning process, especially when involving young students, such as children from the ages of 3 to 6 years. This is because the use of this approach is found to be psychologically capable of fulfilling the children's instincts and emotions to learn and actively practice a healthy lifestyle by reducing the total time spent watching television in one day.

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