Parents' Knowledge and Children's Toilet Training Practices: Study in Kindergartens in Jatinangor

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Abstract

Background: Constipation has serious threats for children, however, this condition can be treated by toilet training. The level of parents' understanding of defecation affects the success of the training to reduce the symptom of constipation. This study aimed to assess the knowledge of the parents and their children's practice in toilet training at kindergarten.
Methods: This was an analytic study with a cross-sectional method which conducted at kindergartens in Jatinangor, selected by a total random sampling method. A self-made validated questionnaire was distributed to parents asking about knowledge and toilet training. Incomplete answer sheets and parents who did not come to school by the time of the study were excluded.
Result: In total, 111 parents returned the questionnaire, and most of the parents (98.19%) had good knowledge regarding toilet training. Moreover, most of the children (96.39%) were also good at practicing the toilet training. There was a strong and significant correlation between parents' knowledge and the children's practice of toilet training with coefficient correlation 0.701 and p-value <0.05.
Conclusions: Good knowledge of parents help the children practicing toilet training, therefore, education to new parents is necessary.

Keywords: Constipation, knowledge, practice, questionnaire, toilet training

Introduction

Toilet training is a method to habituate children to defecate and urinate in the toilet. It has many methods to be conducted, and guidance by parents is needed.[1] Besides that, this training can also be management for constipation. It is a behavior modification that has a purpose to make children have a regular pattern of defecation.[2,3]

Children with constipation have a lower quality of life than those without the symptom. Although constipation rarely causing a life-threatening complication, this condition can disturb children's psychological and their relationship with friends, even create stress in the family. One-third of constipated children continue to have constipation in adulthood despite receiving any treatment.[4,5] In Indonesia, the prevalence of functional constipation in children with age lower than 5 years old is 4.4%.[6]

Toilet training has been shown to decrease the prevalence of constipation. This is evidenced by the study conducted by Xini[7] as which showed the success of toilet training as a treatment of constipation.[7] Some aspects have to be considered before doing the training, such as children's readiness, parents' understanding, and good toileting practice are important aspects that have to be known by parents. Those aspects can increase children's capability during the toilet training period.[8] The children need parent's help in doing self-care, including toilet practices. Therefore, parents must have good knowledge so that children can carry out the toilet training correctly.

In Indonesia, there has not been any study about the correlation between the knowledge and practice of toilet training. The objective of the present study was to find out

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the correlation between the knowledge of the parents and children's practice of toilet training at kindergarten in Jatinangor.

Methods

This was an analytic study with cross-sectional method using primary data obtained through self-filling questionnaires. Subjects of the study consisted of 111 parents of the students of the kindergartens or known as "Taman Kanak-Kanak (TK)" who were recruited using total random sampling. There were 5 kindergartens selected from 17 kindergartens in Jatinangor area after the randomization. Parents' consent was obtained before data collection. The inclusion criteria of this study were parents of the children at the selected kindergartens, parents who could communicate well and agreed to be the respondents of this study. The incomplete answer sheets and parents who did not come to school by the time of data collection were excluded.

The evaluation method used in this study was a self-made questionnaire that consisted of demographic information and details of 28 questions about knowledge and 8 questions about the practice. It was a modification of the questionnaire used in the previous study by considering a factor that affects the training. It had been validated using 30 samples that were not included in this study. The items that were not valid and reliable yet were modified to reach the Alpha Cronbach level of 0.71 points.

The study was conducted in March until May 2017. Ethical approval was granted from the Research Ethics Committee of Universitas Padjadjaran, District Level Implementation Unit of Kindergarten, and each headmaster of 5 Kindergartens in Jatinangor.

All data were analyzed using Microsoft Excel 2016 and SPSS version 20. The data were presented in frequency and percentage whichever appropriated. For the parents' level of knowledge and children's practice, "good" is represented by parents who had >75% correct answer, "enough" is for 50–75% and "poor" is for <50%. The correlation of the variables was analyzed using Rank Spearman Correlation to define the power and the significance of the correlation of the variables considered when the p-value was <0.05.

Results

Table 1 showed that most of the subjects were female (85.59%) and the mean age was 34.07 ± 4.71 years old. The educational status varied

Table 1 Characteristics of the Subject

Variables	n	%
Age (years)		
21–30	35	31.53
31–40	62	55.85
41–50	13	11.71
>50	1	0.90
Mean ± SD	34.07 ± 4.71	
Sex		
Male	16	14.41
Female	95	85.59
Education		
Elementary School	3	2.70
Junior High School	18	16.21
Senior High School	48	43.24
Associate Degree	10	9.00
Bachelor Degree	21	18.91
Graduate Degree	2	1.80
Unidentified	9	8.10

Table 2 Characteristics of Toilet Habits of the Children

Variable	N	%
Bowel habit		
Use a water closet	104	93.7
Use diaper	5	4.5
Others	2	1.8
Age when starting to defecate in the toilet (year)		
1 year old	26	23.4
2 years old	48	43.2
3 years old	28	25.2
4 years old	7	6.3
Have not started yet	2	1.8
Bowel position during defecation		
Squat	83	74.8
Sit	23	20.7
Stand up	5	4.5
Others	-	

among the subjects, but most of the subjects were graduated from senior high school (*Sekolah Menengah Atas*, SMA) and there were 9 subjects with unknown educational background.

Table 2 showed the characteristics of the toilet habits of the children based on the questionnaire answered by their parents. Regarding the bowel habit, most of the children used a water closet (93.7%). Meanwhile, the age when they start to defecate on the toilet varied among the children. In the bowel position criteria, most of the children's bowel position during defecation was squatting (74.8%).

Table 3 showed that in both groups, most of the children started to defecate in the toilet at the age of 2 years old (boys: 38.5%. girl: 47.5%). In the boy group, there were 3.8% of children that have not started to defecate in the toilet.

Table 4 showed the level of parents' knowledge and children's practice of toilet training. It showed that most of the parents had a good knowledge regarding toilet training (98.19%) and most of the children also good at practicing toilet training (96.39%). There were no parents with poor knowledge nor children with poor practice regarding toilet training.

Table 5 showed the correlation between the parents' knowledge and the children's practice of toilet training using the Rank Spearman Correlation test showed that the coefficient correlation is 0.701 and the p-value was

Table 3 Age of Children When They Start to Defecate in the Toilet.

Age	Gender			
	Boys		Girls	
	N	%	N	%
1 y.o	14	26.9%	12	20.3%
2 y.o	20	38.5%	28	47.5%
3 y.o	13	25%	15	25.4%
4 y.o	3	5.8%	4	6.8%
Have not started yet	2	3.8%	-	-

Table 4 The level of Parents' Knowledge and Children's Practice of Toilet Training

Variable	n	%
Parent's knowledge		
Good	109	(98.19%)
Enough	2	(1.81%)
Poor	-	
Children's Practice		
Good	107	(96.39%)
Enough	4	(3.61%)
Poor	-	

Table 5 Correlation of the Parent's Knowledge and Children's Practice

Correlation	Coefficient correlation	p-value
Parents' knowledge of children's practice of toilet training	0.701	**0.00***

Note: Based on Rank Spearman Correlation, *P-value <0.005

<0.05, which meant the correlation between the variables were strong and scientifically significant.

Discussion

Functional constipation is a common pediatric problem worldwide that can be characterized by an infrequent bowel movement, hard and/or large stools, painful defecation, fecal incontinence, and is often accompanied by abdominal pain. These symptoms can have a significant impact on child's well-being and health-related quality of life.[9] The fact that the symptoms of functional defecation disorders are chronic leads children into a process of ill-adaptation to the act of evacuation, conditioning them to inhibit it, which result in emotional consequences, such as increased anxiety levels, negative self-esteem, and withdrawal from social intercourse, especially at school.[9]

Toilet training is a method to habituate children to defecate and urinate in the toilet. In this study, it shows that most of the respondents have a good knowledge regarding toilet training (98.19%). Moreover, most of the children's practice of toilet training is also good (96.39%). This study also shows that the knowledge level of the parents and the children's practice of toilet training has a strong and significant correlation (coefficient correlation 0.701, p-value <0.05). It can be concluded that the better level of parent's knowledge will bring a better level of children's practice.

In Indonesia, the prevalence of constipation in children below 5 years old is 4.4%. This may be related to the high level of knowledge and practice of parents in performing toilet training.[6] The age for toilet training is 2 to 4 years when the child usually shows readiness. The age for starting toilet training is varied in different cultures. It is suggested that the appropriate age of toilet training initiation is at the minimal age of 18 months when the neurodevelopment of the children is adequate. The starting age to do toilet training has the highest number at the 2-year-old age (Table 4). This result is matched with the normal starting age.[10] Thus, in this study, most of the children start to defecate in the toilet at the age of 2 years old (43.20%), consistent with the literature.

Generally, girls have faster development than boys which can be seen from their practice of self-care independently such as wearing clothes and finishing toilet training earlier than boys. The fact that boys do urinate and defecating with two different positions (standing and sitting/squatting), it is assumed to be one of the factors causing them to learn more slowly. Conditions that create stress in children can inhibit the process of development, which can make the child urinate and defecate in places that are not appropriate.[11] However, in this study, boys and girls have similar dissemination of starting age

for toilet training (Table 3).

All findings in this study represent the result of the questionnaire about the understanding and practice of toilet training. This is in accordance with the study that says those things are appropriate with the good methods of toilet training. The difference in outcomes of this study compared with previous studies may be due to several factors, including the types of methods used and the involved samples. The previous study regarding the impact of the health education to the parents' attitude towards toddler's toilet training, involving parents who graduated from elementary school, senior high school and college.[8]

The limitation of this study was the usage of the questionnaire as the tools of data collection. The respondents' answer is difficult to be confirmed and might not reflect the real situation. Directly observation of the children's practice in the toilet training has been suggested for further study, rather than asking the parents to fill in the questionnaire.

As a conclusion, most parents in Jatinangor have good knowledge about toilet training and most of the children also good at practicing the toilet training. There is a strong correlation between the parent's knowledge and the children's practice regarding toilet training. Further analysis is recommended for the correlation between the prevalence of constipation in children and the level of knowledge and practices of toilet training.

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