



MOTHER'S SUPPORT RELATED TO TOILET TRAINING IN TODDLERS 18-36 MONTHS

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ABSTRACT

Toilet training was important developmental milestone for toddlers, because the ability to control the urge to urinate and defecate begins to develop at this time. At present, many mothers work outside at home, so there was less time to stimulate children's toilet training. The purpose of this study was to determine the relationship between mother's support and toilet training success in toddlers aged 18-36 months at Posyandu Jemunang Pandanrejo Wagir Malang. The design of this research was analytic correlation with the cross sectional approach. Sample of research were 30 respondents with a total sampling technique. The research instrument was a questionnaire filled out by mothers who had toddlers aged 18-36 months. The results showed that most of the mother's support was in the category of good support (66.67%). The success of toilet training was partly in the success category (53.33%). The results of data analysis using Spearman rank (ρ) obtained 0.614, significant value (p -value) = 0.000 with α 0.05. Conclusion: there was significant relationship between maternal support and toilet training success in toddlers aged 18-36 months. Parents, especially mothers, were expected to continue to provide support to children when doing toilet training.

Keywords: Mother's Support, Toilet Training, Toddler Age

INTRODUCTION

Toddlers were the most critical age period so they were called the golden period because in this phase there was process of forming the basic personality and development of children's intelligence. One of the main tasks of development at the age of under five is control of the elimination process. The ability to independently control micturition and defecation not only a challenging process for children but also for parents because still limited evidence regarding the right time and method for carrying out Toilet Training (TT), uncooperative responses of children to do TT, and nighttime bedwetting incidents (Baird et al., 2019).

Inaccurate time and lack of parental support for TT could children to fail in carrying out their developmental tasks. The failure of toddlers to carry out developmental tasks to

control the elimination process is called enuresis. Enuresis was one of the most common cases worldwide. This case occurs in children aged over 5 years who are characterized by the inability to control the discharge of urine automatically which occurs both throughout the day and during sleep. Globally, the prevalence of enuresis in children over 5 years has relatively the same results, namely 15% -28% (Yousefichaijan et al., 2016). The results of the Household Health Survey in Indonesia show that 75 million toddlers to pre-school-age children in Indonesia have enuresis (Permatasari et al., 2018). Boys more often experience enuresis than girls with a ratio of 3 to 1 (Thurber, 2017). Enuresis harms child development, this is evidenced by 20-30% of enuresis patients having psychological and behavioral disorders (M Rincorn et al., 2022). This problem was influenced by genetic factors, parental support, and comorbidities such as constipation, urethral obstruction, ectopic ureter, cystitis, diabetes insipidus, small bladder capacity, and overactive bladder (Chan et al, 2019).

One of the solutions to prevent enuresis in children is to do toilet training. Toilet training is a training process for children to be able to independently control elimination from using diapers to going to the bathroom like adults (Netto et al., 2020). Toilet training was recommended to applied when the child is ready to perform micturition and defecation independently, namely at toddler age (1-3 years), because at this age the ability of the urethral sphincter to control the urge to urinate and the anal sphincter to control the urge to defecate begins to develop (Luxem et al, 1994; Baird et al, 2019). However, recent studies have shown that age couldn't used as a benchmark for parents to start TT because every child has a different rate of development, for that TT must be started based on developmental signs in the form of a child being able to walk and undress independently, have understood instructions, have a wider vocabulary, and are interested in doing bathroom elimination (Wyndaele et al., 2020).

The factors that could affected success of TT include the age of the mother, the education level of the parents, the mother's employment status, the socioeconomic status of the family, single parenthood, and the gender of the child (Schum et al., 2002; Koc et al., 2008; Joinson et al., 2009; Netto et al., 2020). Parental support has a big role in the success of the TT process, but now parents have a shift in roles to carry out activities outside the home or work (Ito et al, 2022). The shift in the role of parents was also supported by an increase in the use of Disposable Diapers (DDs) which reduces the decrease in TT by parents to children with an age range of 2.5-4 years (Li et al., 2020). These things are certainly a factor supporting the failure of TT. Based on a preliminary study conducted in November 2018 at the Posyandu Jemunang Pandanrejo Wagir, interviews were conducted with 8 mothers who had children

aged between 18-36 months, the results obtained were 75% of mothers said that their child still wet the bed at night, 62.5% of mothers said that their children still had the habit of wearing diapers because children could not yet express their desire to defecate and urinate and were still lazy to practice defecating and urinating in the bathroom, and only 25% of mothers said they rarely put diapers on their children because diapers are quite expensive so that they are motivated to train children for defecation and urination. The explanations obtained from the mothers who were met during the preliminary study said that they had taught TT, but only at certain times for reasons of having a job. For this reason, this study aims to determine the relationship between maternal support and the success of TT in toddlers aged 18-36 months at Posyandu Jemunang Pandanrejo Wagir.

The research design used in this research is correlation analytic using a cross-sectional approach. The population in this study were 31 mothers with children aged 18-36 months who were registered in March 2019 at Posyandu Jemunang Pandanrejo Wagir. The sampling technique used was total sampling, namely taking all populations that met the inclusion criteria, namely: mothers who cared for their own children (≥ 8 hours/day), a total of 30 people. Data collection was carried out in March 2019 together with Posyandu activities and home visits when the mother of a toddler was not present at the Posyandu.

METHOD

The research design used in this research was correlation analytic using a cross-sectional study. The population in this study were 31 mothers with children aged 18-36 months who were registered in March 2019 at Posyandu Jemunang Pandanrejo Wagir. The sampling technique used was total sampling, namely taking all populations that met the inclusion criteria, that is mothers who cared for their own children (≥ 8 hours/day), a total of 30 people. Data collection was carried out in March 2019 together with Posyandu activities and home visits when the mother of a toddler was not present at the Posyandu.

The research instrument used was a questionnaire and there were 2 questionnaires in this study, the mother's support questionnaire compiled by the researchers themselves, and the toilet training success questionnaire modified from Rahmawati's research (Rahmawati, 2015). Questionnaires that have been tested for validity and reliability using the product-moment correlation test from Pearson and reliability with the help of computer data analysis software with Alpha Cronbach reliability values, with the number of valid and reliable questions on each questionnaire totaling 20 questions.

In this study, to determine the score of the questionnaire on maternal support and the

success of toilet training using the Likert scale, with the conclusion that maternal support was said to be good if the T score \geq Mean T score, and if the T score $<$ Mean T score was said to be lacking. The toilet training success questionnaire for children was said to be successful in toilet training if the T score \geq Mean T score, and the possibility of a child not succeeding in toilet training if the T score $<$ Mean T score. Data analysis using test statistical test used was Spearman's rho with a significant level of $\alpha = 0.05$.

RESULTS

A. General Data

1. Mothers' Characteristics

Table 1. Frequency Distribution of Mother Characteristics at Posyandu Jemunang Pandanrejo Wagir in March 2019

Characteristics	Category	Frequency (<i>f</i>)	Percentage (%)
Age (n=30)	17-25 years	6	20
	26-35 years	18	60
	36-45 years	6	20
Education	Elementary School	10	33.33
	Junior High School	12	40
	Senior High School	8	26.67
Employment	Employed	10	33.33
	Housewife	20	66.67

Based on table 1 it is known that the characteristics of mothers based on age who have children aged toddler 18-36 months at Posyandu Jemunang Pandanrejo Wagir in March 2019 are mostly aged between 26-35 years (60%), some have junior high school education (40%), most mothers didn't work/ be housewife (66.67%).

2. Children Characteristics

Table 2. Frequency Distribution of Characteristics of Toddlers Age 18-36 Months at Posyandu Jemunang Pandanrejo Wagir in March 2019

Characteristics	Categori	Frequency (<i>f</i>)	Percentage (%)
Gender (n=30)	Male	15	50
	Female	15	50
Age	18-24 months	9	30
	25-30 months	11	37
	31-36 months	10	33
Diapers Use	Using	16	53,33
	Not Using	14	46,67
Early Age of Toilet Training	<18 months	17	56,67
	18-36 months	13	43,33

Based on table 2, the characteristics based on the sex of children aged 18-36 months toddlers are mostly male (50%), a small number of children are in the 25-30-month-old group (37%), some children still use pampers (53, 33%), and some have been trained in toilet training since the age of <18 months.

B. Specific Data

1. Mothers' Support

Table 3 Frequency Distribution of Mother's Support for the Success of Toilet Training at Posyandu Jemunang Pandanrejo Wagir in March 2019

Support Category	Frequency (<i>f</i>)	Percentage (%)
Good	20	66.67
Less	10	33.33
Total	30	100

Based on table 4.3, it can be seen that the level of support for mothers with toddlers aged 18-36 months at Posyandu Jemunang Pandanrejo Wagir in March 2019 was mostly in the good category (66.67%).

2. The Successful Toilet Training (TT)

Table 4. Frequency Distribution of toilet training success in toddlers aged 18-36 months at Posyandu Jemunang Pandanrejo Wagir in March 2019

The Successful Toilet Training	Frequency (<i>f</i>)	Percentage (%)
Successful	16	53,33
Unsuccessful	14	46,67
Total	30	100

Based on table 4 it can be seen that the success rate of toilet training in toddlers aged 18-36 months in March 2019 was that some children were successful in toilet training (53.33%).

3. Relationship between Mother's Support and Toilet Training (TT) Success

Table 5. Cross Table of Relationship between Mother's Support and Toilet Training Success for Toddlers Aged 18-36 Months at Posyandu Jemunang Pandanrejo Wagir in March 2019

Mothers' Support Category	The Successful of Toilet Training				Total		Spearman Rank
	Berhasil		Unsuccessful		f	(%)	P value
	f	(%)	f	(%)	f	(%)	
Good Support	15	50,00	5	16,70	20	66,	0,000 <
Less Support	1	3,00	9	30,	10	67	0.05
				00		33,33	r=0,615
Total	16	53,33	14	46,	30	100,00	
				67			

Table 5 shows that the mother's support is in a good category, giving success in toilet training by 50%, and the mother's support which is less successful in toilet training is 3%. Statistical test results using the Spearman rho correlation test, obtained a significant value or p-value of 0.000, which means less than an α value of 0.05 which indicates that there is a relationship between maternal support and toilet training success in toddlers aged 18-36 months at Posyandu Jemunang Pandanrejo Wagir Health Center Work Area, with a correlation coefficient value of 0.614 which means it shows a positive correlation and with a strong correlation strength

DISCUSSION

Toilet Training is an important step to support children's ability to control micturition and defecation independently. Control of elimination was carried out by the cerebral cortex which is responsible for facilitating and inhibiting the micturition reflex (Griffiths, 2015; Netto et al., 2020). To be able to perform these abilities a child needs to go through a complex process that is influenced by anatomical, physiological, and cultural factors (Carvalho et al., 2022). Apart from depending on the maturation and rate of child development, the success of TT is influenced by the support of parents, especially mothers who act as caregivers for children (Lestari et al., 2022).

The success of TT is influenced by the appropriateness of starting TT at a mature age and when the child has shown development and is ready to perform elimination in the bathroom. The results showed that the success rate for children aged 18-36 months in doing TT was 53.33% and 56.57% of children were trained in TT for the first time at the age of fewer than 18 months, and 43.33% at the age of 18-36 months. These results are in line with other studies which say that the ideal age range for children to start TT is 18-30 months because children aged less than 18 months still do not have control over bladder and bowel

movements (Blum et al., 2022). Apart from the age factor, the physical, emotional, and psychological readiness of the child is also an important factor in supporting the success of TT. This is shown through signs of achieving language and motor development tasks, namely when children can fulfill language development both verbally and non-verbally to carry out the elimination process and can mobilize to the bathroom (Astuti & et al, 2018; Kurnianingsih, 2019).

In addition to the accuracy of the age and rate of child development, parental support factors play an important role in the success of TT.. Mothers in the good support category have a higher percentage of success in performing TT on their children, which is 50%. These results are in accordance with research (Ramadhini et al., 2019) which states that parental support is related to the success of TT in children. This happens because the mother is the closest person to the child and is the first source of learning in the family environment. The greater the mother's support which is poured in by stimulating the child's ability to respond to instructions to do elimination in the bathroom and frequently/regularly training the child to do elimination in the bathroom, the greater the potential to form new habit patterns in children. The results of another study regarding family support for TT readiness in 51 parents, showed that 86.3% of those who played a role in TT were mothers, and only 13.7% were carried out by fathers (Putri et al., 2021). Mother's support given to toddlers in toilet training practices can be in the form of instrumental support in the form of infrastructure to support TT practices, but can also be in the form of emotional support, including paying attention to children when telling their bowel and bladder experiences, and being gentle when children are not yet fully able to control defecation and urination (Anidia, 2022).

A good mother's support could also foster a sense of security for children related to the development of cognitive, physical, and emotional health functions in changing habits, especially in carrying out elimination. The results of this study are in accordance with the theory of Friedman (1998) which explains that parental support consistently has positive associations with all aspects of social competence in children, including in this case TT behavior.. The mother's age also influences the ability to provide good support in the TT process. The results of this study show that 60% of mothers are in the age range of 26-35 years. This age belongs to the category of early adulthood and reproductive age, at this time a woman is considered ready to accept responsibility as a mother, has a level of maturity in thinking, and is able to translate experience into an action (Nursalam, 2008; Hurlock et al, 2011). Hence, at that age, the mother is considered capable of providing support to the child to do TT.

There is a significant relationship between maternal support and the success of toilet training in toddlers aged 18-36 months at Posyandu Jemunang Pandanrejo Wagir. It can be seen that maternal support has a very important role in supporting the success of TT. Mothers who provide good support, children are able to fight anxiety, can increase self-confidence, and are not afraid to do new habits (Netto et al., 2020). The role of the mother in accompanying the child to successfully carry out TT can have good benefits for the child's physical, psychological, cognitive, and emotional health development, and conversely, the low support of the mother can cause problems related to the child's development in the future.

CONCLUSION

The results of the study can be concluded that there was a relationship between a mother's support and the success of toilet training. This TT practice can be started in children at the right age and what was no less important is when the child has shown readiness both physically and psychologically. The TT process also requires emotional support from the mother, so that toddlers can go through the developmental phase of controlling micturition and defecation abilities properly.

ABBREVIATIONS

TT: Toilet Training; DDs: Disposable Diapers; Posyandu: Pos Pelayanan Terpadu, Puskesmas : Pusat Kesehatan Masyarakat

COMPETING INTEREST

Authors declare that we have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper

AUTHORS' CONTRIBUTION

The first author was the collector of the research data , second and third author performed in correcting the result of this research, and the corresponding author was compiling manuscripts

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REFERENCES

- Anidia, A. (2022). The relationship between emotional support provided by mothers and toilet training practices in toddlers. *Jurnal Kesehatan Ilmiah Indonesia (Indonesian Health Scientific Journal)*, 7(1), 115. <https://doi.org/10.51933/health.v7i1.792>
- Astuti, F. P., & Sofiyanti, I. (2018). Differences in Enuresis Frequency Before and After Giving Behavior Modification (Alarm Enuresis). *Jurnal Penelitian Kesehatan Suara Forikes (Forikes Sound Health Research Journal)*, 9(2), 1689–1699. <https://forikes-ejournal.com/index.php/SF/article/view/9202>
- Baird, D. C., Bybel, M., & Kowalski, A. A. W. (2019). *Toilet Training: Common Questions and Answers - PubMed*. American Family Physician. <https://pubmed.ncbi.nlm.nih.gov/31613577/>
- Baird, D. C., Bybel, M., & Kowalski, A. W. (2019). Toilet Training: Common Questions and Answers. *American Family Physician*, 100(8), 468–474. <https://www.aafp.org/pubs/afp/issues/2019/1015/p468.html>
- Blum, N. J., Taubman, B., & Nemeth, N. (2022). Relationship between age at initiation of toilet training and duration of training: A prospective study. *Pediatrics*, 111(4), 810–814. <https://doi.org/10.1542/peds.111.4.810>
- Carvalho, T. A., Vasconcelos, M. M. de A., de Bessa, J., Bastos, J. M., Dutra, M. F., Guimarães, I. C. de O., Lima, E. M., E Silva, A. C. S., & Mrad, F. C. de C. (2022). Relationship between primary monosymptomatic enuresis and process toilet training: a case-control. *International Braz j Urol: Official Journal of the Brazilian Society of Urology*, 48(6), 944–951. <https://doi.org/10.1590/S1677-5538.IBJU.2022.0381>
- Chan, I. H., & Wong, K. K. (2019). Common urological problems in children: Primary nocturnal enuresis. *Hong Kong Medical Journal*, 25(4), 305–311. <https://doi.org/10.12809/hkmj197916>
- Friedman, M. (1998). Family Nursing Theory and Practice. In *EGC*. EGC.
- Griffiths, D. (2015). Neural control of micturition in humans: A working model. In *Nature Reviews Urology* (Vol. 12, Issue 12, pp. 695–705). Nature Publishing Group. <https://doi.org/10.1038/nrurol.2015.266>
- Hurlock, & Elizabeth. (2011). *Developmental Psychology: An Approach Throughout the Life Span*. Jakarta: Erlangga.
- Ito, H., & Inoue, M. (2022). Parent-Mediated Toilet Training for a Child with Autism Spectrum Disorder through Teleconsultation: A Case Report. *Yonago Acta Medica*, 65(1), 90–95. <https://doi.org/10.33160/yam.2022.02.004>
- Joinson, C., Heron, J., Von Gontard, A., Butler, U., Emond, A., & Golding, J. (2009). A prospective study of age at initiation of toilet training and subsequent daytime bladder control in school-age children. *Journal of Developmental and Behavioral Pediatrics: JDBP*, 30(5), 385–393. <https://doi.org/10.1097/DBP.0B013E3181BA0E77>

- Koc, I., Camurdan, A. D., Beyazova, U., Ilhan, M. N., & Sahin, F. (2008). Toilet training in Turkey: the factors that affect timing and duration in different sociocultural groups. *Child: Care, Health and Development*, 34(4), 475–481. <https://doi.org/10.1111/J.1365-2214.2008.00829.X>
- Kurnianingsih, M. (2019). The Effectiveness of Using a Combination of Audio Visual Media and Booklets Compared to Media Booklets on Toilet Training Knowledge in Mothers with Toddlers. *Smart Medical Journal*, 2(1), 1. <https://doi.org/10.13057/smj.v2i1.25666>
- Lestari, S., Anggraeni, L. D., & Suriyanto, F. (2022). Knowledge, Readiness of Mothers and Children in the Success of Toilet Training. *Faletehan Health Journal*, 9(02), 190–194. <https://doi.org/10.33746/FHJ.V9I02.271>
- Li, X., Wen, J. G., Shen, T., Yang, X. Q., Peng, S. X., Wang, X. Z., Xie, H., Wu, X. D., & Du, Y. K. (2020). Disposable diaper overuse is associated with primary enuresis in children. *Scientific Reports*, 10(1), 1–9. <https://doi.org/10.1038/s41598-020-70195-8>
- Luxem, M., & Christophersen, E. (1994). Behavioral toilet training in early childhood: Research, practice, and implications. *Journal of Developmental and Behavioral Pediatrics*, 15(5), 370–378.
- Netto, J. M. B., de Paula, J. C., Bastos, C. R., Soares, D. G., de Castro, N. C. T., do Vale Sousa, K. K., do Carmo, A. V., de Miranda, R. L., de Carvalho Mrad, F. C., & de Bessa, J. (2020). Personal and Familial Factors Associated with Toilet Training. *International Braz J Urol*, 47(1), 169–177. <https://doi.org/10.1590/S1677-5538.IBJU.2020.0129>
- Nursalam. (2008). *Practical Approach to Nursing Research Methodology*. Jakarta: Sagung Setung Seto.
- Permatasari, R. C., Perdani, R. R. W., & Bustomi, E. C. (2018). Diagnosis and Management of Pediatric Enuresis. *Medical Journal Of Lampung University*, 7(2), 283–287.
- Putri, R. A., Indriat, G., & Herlina. (2021). *View of Relationship between Parental Support and Toilet Training Readiness in Toddler Age Children*. Jurnal Keperawatan. <https://e-journal.poltekkesjogja.ac.id/index.php/caring/article/view/631/757>
- Rahmawati, P. (2015). Factors Influencing the Success Rate of Toilet Training in Preschool Children (3-6 Years) in Kindergarten, Lowokwaru District, Malang City. Repository Brawijaya University. <http://repository.ub.ac.id/id/eprint/124938/>
- Ramadhini, D., Siregar, Y. F., & Salnisah. (2019). The Relationship Between Parental Support with Children Toilet Training. *Jurnal Kesehatan Ilmiah Indonesia (Indonesian Health Scientific Journal)*, 4(2), 16–21.
- Schum, T. R., Kolb, T. M., McAuliffe, T. L., Simms, M. D., Underhill, R. L., & Lewis, M. (2002). Sequential acquisition of toilet-training skills: a descriptive study of gender and age differences in normal children. *Pediatrics*, 109(3). <https://doi.org/10.1542/peds.109.3.e48>
- Thurber, S. (2017). Childhood Enuresis: Current Diagnostic Formulations, Salient Findings, and Effective Treatment Modalities. In *Archives of Psychiatric Nursing* (Vol. 31, Issue 3,

pp. 319–323). W.B. Saunders. <https://doi.org/10.1016/j.apnu.2016.11.005>

Walker, R. A. (2019). Nocturnal Enuresis. In *Primary Care - Clinics in Office Practice* (Vol. 46, Issue 2, pp. 243–248). StatPearls Publishing. <https://doi.org/10.1016/j.pop.2019.02.005>

Wyndaele, J. J., Kaerts, N., Wyndaele, M., & Vermandel, A. (2020). Development Signs in Healthy Toddlers in Different Stages of Toilet Training: Can They Help Define Readiness and Probability of Success? *Global Pediatric Health*, 7, 2333794X20951086. <https://doi.org/10.1177/2333794X20951086>

Yousefichaijan, P., Khosrobeigi, A., Salehi, B., Taherahmadi, H., Shariatmadari, F., Ghandi, Y., Alinejad, S., & Farhadiruzbahani, F. (2016). Incidence of obsessive-compulsive disorder in children with nonmonosymptomatic primary nocturnal enuresis. *Journal of Pediatric Neurosciences*, 11(3), 197–199. <https://doi.org/10.4103/1817-1745.193371>