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## Application of Extinction and Token Economy Techniques to Overcome Enuresis Behavior in 8-Year-Old Children

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DOI : <https://doi.org/10.56480/jln.v3i2.857>

Received: March 17, 2023

Revised: April 13, 2023

Accepted: May 23, 2023

### Abstract

*This study aims to eliminate or overcome enuresis behavior in children aged 8 years using extinction and token economy methods. After being given treatment for 10 days, the researchers saw the changes that had occurred in SA. It was seen that after the treatment, the frequency of wetting the bed in SA had begun to decrease. Based on the interventions that have been carried out on the SA subject, it can be concluded that the subject has bedwetting behavior where prior to the treatment this subject's bedwetting behavior appeared continuously. However, with the provision of interventions to the subject, it can be seen that the subject experienced a decrease in the frequency of bedwetting.*

**Keywords**– *Extinction, Token Economy, Behavior Enuresis*



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## **1. Introduction**

Children are a gift and a source of happiness for parents. Parents have an obligation to love, protect, and provide the best education for their children. According to WHO, the definition of a child is calculated from the time a person is in the womb until the age of 19. According to Article 1 Paragraph 1 of Law Number 23 of 2002 concerning Child Protection, a child is someone who is not yet 18 years old, including children who are still in the womb. Children are the nation's assets and will continue the nation's struggle, so their growth and development must be considered (Depkes RI, 2014).

At the stage of child development in the anal stage, there is enuresis behavior which indicates that the child is not progressing in toilet training, where at the age of 5-7 years the child should no longer wet the bed, but in some cases there are still children who wet the bed at the age of more than 7 years. This indicates that there is unwanted behavior and must be eliminated by behavior modification. In the process of behavior modification, enuresis behavior will be eliminated with the right technique so that the modification goal can be achieved.

During the growth and development of children in early elementary school age, parents face many problems, one of which is the problem of urination or enuresis. Enuresis is a functional disorder in the control of bladder emptying. The problems arising from this symptom are considered as one of the factors that make it difficult to define enuresis. Enuresis has adverse psychological and social impacts, disrupting the child's life and affecting their quality of life as an adult. According to Wong & Hockenberry (2008), if the problem of enuresis is ignored and not addressed immediately, it will have an impact on children, such as children becoming insecure, embarrassed, and social relationships with their friends become disrupted.

One of the steps to overcome enuresis can be applied by using extinction and token economy techniques. Extinction technique is the reduction of unwanted behavior by suppressing or not providing positive reinforcement that has strengthened the behavior (Reza Fahmi, 2011: 15). Token economy is a form of behavior change that aims to increase preferred behavior and reduce non-

preferred behavior through the use of tokens or coins (Ayllon, 1999). Researchers use extinction and token economy techniques based on several previous studies that have successfully overcome enuresis behavior in children, such as in the journal *The effectiveness of behavior modification to overcome enuresis in children* by Nasution, E. S. (2016). The study was conducted with several stages to reduce the subject's bedwetting behavior while sleeping at night with extinction and token economy methods.

## **2. Method**

This article discusses "Application of Extinction Techniques and Token Economy to Overcome Enuresis Behavior in 8 Year Old Children" with analysis using a single-subject design or single case design. According to Borg and Gall (1983) Single Subject Design (SSD) is research with a single subject, if the subject consists of two or more, then it is treated as one group, but this is also considered a single subject experiment. Meanwhile, according to Rosnow and Rosenthal (Sunanto, 2005), single subject research focuses on personal data as a research sample. There are several conditions available for comparison, namely baseline conditions and experimental (intervention) conditions. As previously explained, the type of research used is quasi-experimental. One of the components that must exist in this experimental research is to provide treatment or intervention to the intervention subjects used in this study. The intervention used in this study is behavior modification with extinction and token economy methods. According to (Reza Fahmi, 2011: 15) Extinction is the reduction of unwanted behavior by suppressing or not providing positive reinforcement that has strengthened the behavior. And tokens according to (Ayllon, 1999) is a form of behavior change that aims to increase preferred behavior and reduce non-preferred behavior through the use of tokens or coins.

The type of design used is ABA type. In this ABA type, the meaning is A (baseline, which is the initial condition before being given an intervention), B (intervention), and A (final condition after being given an intervention). Phase A is the measurement phase of nail biting in a day, while phase B is the intervention

implementation phase. The data will be obtained using interview or observation methods (Suryani & Fitria, 2017). The data collection techniques used are observation, interview and documentation techniques.

The research location was conducted at the subject's home. This place was chosen by the researcher because the subject's house is the most comfortable place for the subject and the subject's house is an easy place to reach in the process of implementing the intervention. The research was conducted in May 2022 until completion. This research will be conducted for 14-21 days. The details of the implementation stages begin with intake, which is the stage of collecting personal data on the subject and data on things that the subject likes to determine the appropriate reinforcement reward to be given to the subject in the treatment process later. The methods used at this stage are interviewing parents and observing the subject. Next is the baseline stage, this stage is carried out to obtain an overview of the subject's bedwetting habits. This data collection process is carried out by observing the behavior of the subject. the subject. The last stage is In this phase, behavior modification is carried out in the form of extinction techniques and economic tokens. In this case the child will be helped to eliminate habitual enuresis. Treatment was conducted for 10 days. The subject in this study is an 8-year-old girl with the initials SA. The object of this research is using extinction and token economy.

### **3. Result and Discussion**

This study will be conducted for 14-21 days. Within 14-21 days, initial observations will be made, and the application of extinction and token economy methods to SA. The intervention consists of 10 days, starting on day 10 is the target that must be achieved by SA every week, so that the ultimate goal of this intervention to eliminate bedwetting behavior can be realized.

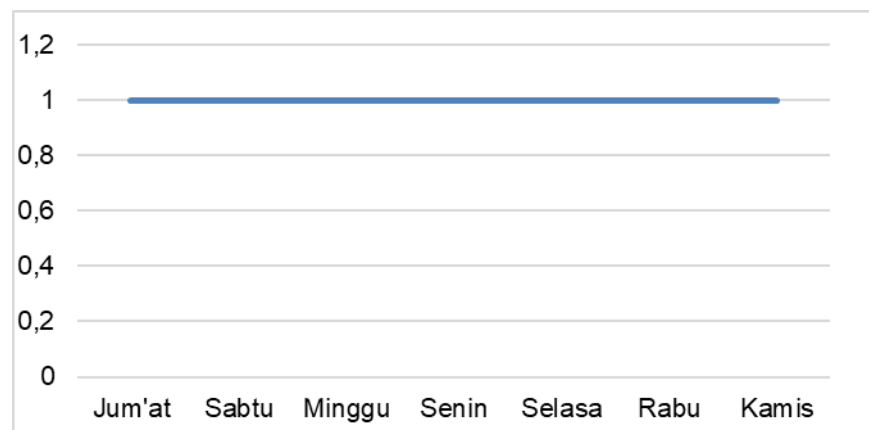
The results of providing interventions with extinction and token economy methods on SA can be seen that SA has decreased the frequency of bedwetting. This occurs through the provision of negative reinforcement, namely reducing

drinking milk and telling the subject to clean his own bed. The following are the results of baseline measurements and SA intervention programs.

**Tabel 1.** Baseline Measurement Results Based on Tab

<b>DAYS</b>	<b>Information</b>	<b>YES</b>	<b>NO</b>
Friday	During the day SA was playing jump rope	✓	
Saturday	with his friend. And when he stopped	✓	
Sunday	playing, the researcher invited SA to talk.	✓	
Monday	SA looks down and shy. At night before	✓	
Tuesday	going to bed SA also plays jumping rope	✓	
Wednesday	and before going to bed SA drinks a bottle	✓	
Thursday	to two bottles of milk		

SA's baseline results from seven days of observation found that SA wet the bed every day.



**Figure 1.** Baseline Measurement Results Based on Graphs

SA baseline results from observations for seven days found that SA wet the bed every day. Where the information is that the number 0 is denoted as incontinent and the number 1 is denoted as incontinent

**Table 2.** Intervension Program result

Day	Information	Yes	Do not
Friday	On the first day of the intervention, SA was still wetting the bed because he still drank 2 bottles of milk before going to bed and during the day SA played chase with his friends.	✓	
Saturday	On the second day, SA had started drinking less milk and during the day SA was not very active in chasing anymore but SA was still wetting the bed in the morning.	✓	
Sunday	On the third day, SA drank one bottle of milk an hour before going to bed and he urinated first before going to bed so that SA did not wet the bed anymore.		✓
Monday	On the fourth day of the intervention, SA was too active during the day because his parents were not at home to encourage SA not to play for too long. SA drinks milk during the day and before going to bed so SA returns to bedwetting in the morning.	✓	
Tuesday	On the fifth day of the intervention, SA was not very active in jumping rope with his friends, and SA also drank one bottle of milk an hour before going to bed, then SA urinated first.		✓
Wednesday	On the sixth day of <i>treatment</i> , SA was also not very active in chasing and jumping rope. SA also only drinks 1 bottle of milk an hour before going to bed.		✓
Thursday	On this seventh day, exactly a week of <i>treatment</i> is carried out. SA became accustomed to drinking one bottle of milk an hour before he went to bed.		✓
Friday	On the eighth day of the intervention, SA was very active in playing, especially jumping rope because SA saw his friends playing jumping rope next to SA's house so he was tempted to play together.	✓	
Saturday	On this day SA does not play outside the house because SA is cool watching and playing on his brother's gadgets. SA also drinks milk an hour before she falls asleep so that SA does not wet the bed in the morning.		✓

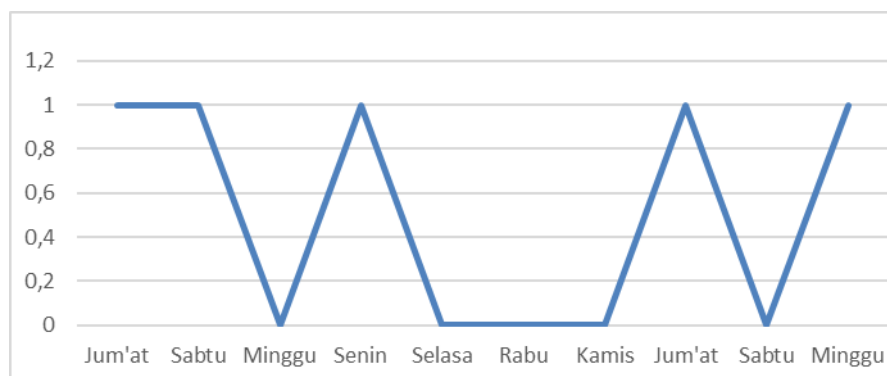
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Sunday	On the last day, SA wet the bed because SA did a lot of activities during the day so SA drank two bottles of milk during the day because he felt exhausted. At night SA also drinks milk and does not urinate before going to bed.	✓
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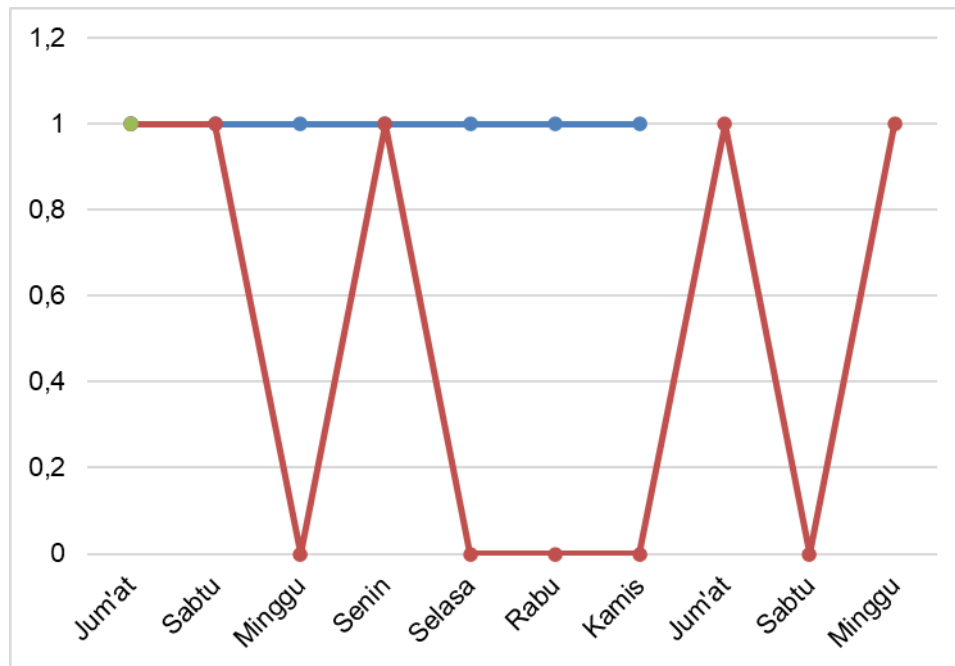
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From 10 days of intervention time carried out by SA wetting the bed 5 times, namely on Friday, Saturday, Monday, Friday, and Sunday. For time not wetting the bed also 5 times, namely on Sunday, Tuesday, Wednesday, Thursday, Saturday. Where the description is that the number 0 is denoted not wetting the bed and the number 1 is denoted bedwetting.



**Figure 2.** Baseline measurement results based on graphs

From 10 days of intervention time carried out by SA wetting the bed 5 times, namely on Friday, Saturday, Monday, Friday, and Sunday. For time not wetting the bed also 5 times, namely on Sunday, Tuesday, Wednesday, Thursday, Saturday. Where the description is that the number 0 is denoted not wetting the bed and the number 1 is denoted bedwetting.



**Figure 3.** Measurement results between baseline and treatment

From these results, it can be seen that the difference in the frequency of bedwetting subjects between baseline and treatment has decreased, namely on Sunday, Tuesday, Wednesday, Thursday, and Saturday. Where the description is that the number 0 is denoted not wetting the bed and the number 1 is denoted bedwetting.

**Table 3.** Changes in Subject Behavior

No	Behavior Before Action	Post-action behavior
1	The subjects drank 2-3 bottles of milk before bedtime	The subject drank only 1 bottle of milk an hour before the subject went to bed.
2	The subject never dried the bedding himself	The subject was told to dry his own bedding
3	The subject is very active playing chase with his friend	The subject refrained from playing chase because he was always reminded by his brother and parents.
4	Subjects play rope jumping day and night before going to bed	The subject no longer jumps before bed and begins to play less of a chase.

The intervention consists of 10 days, from 10 days, to the target that must be achieved by SA every week, so that the ultimate goal of this intervention to



eliminate bedwetting behavior can be realized. By applying some rules such as, when SA wets the bed then he is told to clean himself and dry his bedding. Treatment is carried out every day at SA's home for 10 days.

When carrying out SA treatment, it is also told that enuresis behavior is unnatural for people his age. Explain the impact that occurs if SA still wets the bed, both in terms of health and psychological to social. If SA still continues to wet the bed then he will be told by his parents to clean himself and dry his own bedding. At the end of the intervention, if SA manages not to wet the bed for 4 days a week, SA will get an economy token in the form of pop it.

Implementation of an aan treatment is done by making an appointment first with the subject, and then after arriving home the subject treatment is carried out by conveying negative reinforcement to the subject in the form of reducing the portion of drinking milk and telling the subject to dry his own bedding if the subject is still wetting the bed. After the treatment on the first day, the subjects began to reduce the portion of drinking milk and drying their own bedding because the subjects were still wetting the bed. On the second day of treatment, SA had started to drink less milk and during the day SA was not very active playing chase with his friends but SA still wet the bed in the morning. On the third day, SA drank one bottle of milk an hour before going to bed and he urinated first before going to bed so that SA did not wet the bed anymore. On the fourth day of treatment, SA was too active during the day because his parents were not at home to encourage SA not to play for too long. SA drinks milk during the day and before going to bed so SA returns to bedwetting in the morning. On the fifth day of treatment, SA was not very active playing with his friends, and SA also drank one bottle of milk an hour before going to bed, then SA urinated first, so on this fifth day SA did not wet the bed.

On the sixth day of treatment, SA was also not very active in chasing and jumping rope, SA also only drank 1 bottle of milk an hour before going to bed so SA did not wet the bed. On this seventh day, exactly a week of treatment, SA began to get used to drinking one bottle of milk an hour before he went to bed so SA did not wet the bed. On the eighth day of treatment, SA was very active in

playing, especially jumping rope because SA saw his friends playing jumping rope next to his house so SA was tempted to play together. On the ninth day of treatment, SA did not play outside the house because SA was busy watching and playing his brother's gadgets. SA also drinks milk an hour before she falls asleep so that SA does not wet the bed in the morning. On the last day, SA wet the bed because SA did a lot of activities during the day so SA drank two bottles of milk during the day because he felt exhausted. Then at night SA also drinks milk and does not urinate before going to bed.

The SA baseline results from observations for seven days found that SA wetted the bed every day. After being given treatment for 10 days, researchers saw many changes that occurred in SA seen after treatment the frequency of bedwetting SA had begun to decrease.

From these results, it can be seen that the difference in the frequency of bedwetting of subjects between baseline and treatment has decreased every day. From the baseline and treatment results, it can be seen that this intervention is quite effective. In addition, this success also achieved the short-term target set by the researcher at the beginning, namely the subject did not wet the bed 4 days a week.

#### **4. Conclusion**

Based on the interventions that have been carried out on SA subjects, it can be concluded that the subjects have bedwetting behavior where before the treatment bedwetting behavior of this subject appears continuously. However, with the provision of intervention to the subject, it can be seen that the subject has decreased the frequency of bedwetting. This happens through the provision of negative reinforcement, namely the reduction of drinking milk and telling the subject to clean his own bedding. When there is a change in the frequency of bedwetting decreases and the desired target is achieved, then at the end of the treatment the subject gets positive reinforcement, namely getting a reward for his achievement in the form of pop it toys.

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