

TOKEN ECONOMY THERAPY AS AN INNOVATIVE APPROACH TO IMPROVE BATHING SELF-CARE KNOWLEDGE IN PATIENTS WITH SCHIZOPHRENIA: A CASE REPORT

Arselina Prayaninda^a, Marita Kumala Dewi^{b*}, Samsul Arif Prianto^c

^{a,b} Sekolah Tinggi Ilmu Kesehatan Bethesda Yakkum, Jalan Johar Nurhadi No. 6, Yogyakarta, 55224, Indonesia

^cRSJD Dr. RM. Soedjarwadi, Jalan Ki Pandanaran KM. 2, Danguran, Klaten Selatan, Danguran, Klaten Sel.,
Kabupaten Klaten, Jawa Tengah, 57426, Indonesia

**Corresponding author: marita@stikesbethesda.ac.id*

Abstract

Background: Self-care deficits are common among patients with schizophrenia and often result in poor personal hygiene, social stigma, and reduced quality of life. Although Token Economy therapy has been used to improve adaptive behaviors, reports focusing specifically on bathing self-care ability in hospitalized patients with schizophrenia remain limited. This case report describes its clinical application. **Case Summary:** A 34-year-old woman with schizophrenia presented with poor hygiene, including dirty clothing, body odor, poor oral hygiene, and unclean hair and skin, accompanied by low motivation for self-care. **Investigation and Diagnosis:** Psychiatric nursing assessment and mental status examination identified a self-care deficit related to bathing and personal hygiene associated with schizophrenia. **Management:** Token Economy therapy was implemented for five consecutive days in daily 30-minute sessions. Tokens were awarded for completing bathing-related self-care activities. **Outcome:** The patient collected 10 tokens and demonstrated improved bathing, tooth brushing, hair washing, body drying, and use of clean clothing. **Conclusion:** This case suggests that Token Economy therapy may be a practical behavioral intervention for improving bathing self-care ability in patients with schizophrenia and self-care deficits within psychiatric inpatient settings.

Keywords: case report; schizophrenia; self-care deficit; bathing self-care; token economy therapy

INTRODUCTION

Mental health disorders remain a significant public health challenge worldwide. According to the World Health Organization (WHO), approximately one in eight people globally live with a mental disorder, affecting nearly 970 million individuals, with anxiety, depression, and psychotic disorders contributing substantially to the global burden of disease (WHO, 2025). Schizophrenia is a severe and chronic mental disorder characterized by disturbances in thought, perception, emotion, and behavior, often resulting in substantial functional impairment and reduced quality of life. In Indonesia, schizophrenia continues to be a major mental health concern, requiring long-term treatment and psychosocial support. Beyond psychotic symptoms, many patients experience difficulties performing activities of daily living, including personal hygiene and self-care. These functional impairments frequently contribute to social stigma, poor physical health outcomes, and increased caregiver burden, highlighting the need for effective nursing interventions that target adaptive daily living behaviors.

Schizophrenia is frequently associated with self-care deficits, particularly in personal hygiene and bathing activities, due to impaired motivation, poor insight, and negative symptoms that interfere with daily functioning (Boy et al., 2020; Reptiana, 2020; Yusuf et al., 2022). Patients often present with poor grooming, dirty clothing, unpleasant body odor, poor oral hygiene, and neglect of personal appearance, which may

contribute to social isolation, reduced self-esteem, and poorer quality of life (Apriani, 2023; Stuart & Laraia, 2016; Yusuf et al., 2022). Among self-care activities, bathing is one of the most frequently neglected behaviors and requires consistent motivation and behavioral reinforcement. Although previous studies have reported the effectiveness of Token Economy therapy in improving general self-care behaviors among individuals with mental disorders, detailed descriptions of its application using specific bathing-related behavioral targets such as tooth brushing, hair washing, body drying, and changing into clean clothes remain limited. This gap highlights the need for case-based evidence demonstrating how Token Economy therapy can be implemented in psychiatric nursing practice to improve bathing self-care ability in patients with schizophrenia.

Self-care deficits in schizophrenia are closely associated with impaired motivation, reduced initiative, and cognitive dysfunction, which interfere with the patient's ability to maintain personal hygiene independently. Although behavioral interventions such as Token Economy therapy have been reported to improve adaptive behaviors among individuals with mental disorders (Rosdiana, 2022), most published studies have focused on general self-care outcomes rather than specific bathing-related behaviors. Few reports have provided a detailed description of how Token Economy therapy can be implemented to target bathing self-care activities, including tooth brushing, hair washing, body drying, and changing into clean clothes. Therefore, this case is important because it demonstrates the practical application of a structured Token Economy program with clearly defined behavioral targets in a hospitalized patient with schizophrenia, resulting in observable improvements in bathing self-care ability. This case may provide practical insights for psychiatric nurses in managing self-care deficits and promoting patient independence in daily hygiene activities.

This case report is clinically relevant because it demonstrates the practical application of Token Economy therapy using structured and observable behavioral targets to address bathing self-care deficits in a patient with schizophrenia. The educational value of this report lies in illustrating how positive reinforcement can be integrated into routine psychiatric nursing care and evaluated through measurable behavioral outcomes, including successful completion of bathing-related activities and token acquisition. Therefore, this case report aims to describe the implementation of Token Economy therapy and its impact on bathing self-care performance, as reflected by improvements in specific personal hygiene behaviors and the achievement of targeted reinforcement outcomes in a hospitalized patient with schizophrenia.

CASE PRESENTATION

A 34-year-old female patient was admitted to the Dewandaru psychiatric ward of Dr. RM. Soedjarwadi Regional Psychiatric Hospital, Central Java, after being referred from a social care institution. She had a history of paranoid schizophrenia with four previous psychiatric hospitalizations, including one admission earlier in the same year. The patient had completed vocational high school education and was unemployed at the time of admission.

The chief complaints reported by caregivers and nursing staff included social withdrawal, minimal verbal communication, reduced initiative, and poor self-care. The patient frequently wandered around the ward without a clear purpose or goal-directed activity, showed limited interaction with others, and spent most of her time alone. During the initial nursing assessment, she appeared untidy, with disheveled hair, dirty clothing, body odor, long and dirty fingernails, and neglected personal hygiene. She rarely initiated conversation, responded briefly to questions, and demonstrated limited eye contact.

The history of present illness revealed that the patient had previously worked in a factory but experienced prolonged occupational stress related to work demands and performance expectations. Over time, she became socially withdrawn, lost self-confidence, and eventually resigned from her job. Following unemployment, the patient reported feelings of worthlessness, reduced motivation, and diminished interest in daily activities. She frequently neglected bathing, brushing her teeth, washing her hair, and changing into clean clothes because she considered these activities unnecessary.

The patient had a history of medication non-adherence and irregular psychiatric follow-up prior to the current admission. She denied a family history of mental illness. Socially, she preferred isolation, rarely participated in social activities, and had difficulty initiating communication. At admission, the patient was prescribed risperidone 2 mg/day, clozapine 25 mg/day, and trihexyphenidyl 2 mg/day. Laboratory examination revealed fasting blood glucose of 328 mg/dL, random blood glucose of 297 mg/dL, and HbA1c >14%, indicating poorly controlled diabetes mellitus. During hospitalization, the patient received medical evaluation and glucose-lowering therapy in collaboration with the internal medicine team to manage hyperglycemia and prevent further metabolic complications.

Physical examination demonstrated poor grooming and hygiene, including dirty hair and skin, unpleasant body odor, and inappropriate use of clothing. Vital signs remained stable throughout hospitalization. The patient was alert and fully oriented to time, place, and person. No abnormalities were found in memory function. Attention and concentration were mildly impaired, as evidenced by difficulty maintaining focus during interviews. Psychomotor activity was characterized by reduced initiative and occasional purposeless wandering within the ward. No neurological abnormalities were observed.

Mental status examination revealed slow speech with low volume, flat affect, and limited eye contact. The patient denied auditory or visual hallucinations, and no overt delusions were elicited during the interview. Thought processes were coherent but slowed, with limited spontaneous elaboration of ideas. Judgment and insight were impaired, as the patient did not recognize her psychiatric illness and underestimated the importance of personal hygiene. Based on the psychiatric nursing assessment, the patient was diagnosed with a self-care deficit related to bathing and personal hygiene associated with schizophrenia.

CLINICAL REASONING

The patient presented with prominent negative symptoms characterized by poor personal hygiene, social withdrawal, decreased motivation, limited verbal communication, flat affect, and impaired self-care ability. The initial clinical assessment focused on identifying the underlying psychiatric condition contributing to the patient's inability to perform activities of daily living, particularly bathing and personal hygiene.

Several differential diagnoses were considered during the assessment process. The first differential diagnosis was negative symptoms of schizophrenia, as the patient demonstrated avolition, reduced emotional expression, social isolation, lack of initiative, and neglect of self-care. These manifestations are commonly associated with chronic schizophrenia and may significantly impair daily functioning. The patient's history of repeated psychiatric hospitalization, medication non-adherence, and impaired social functioning further supported this consideration.

The second differential diagnosis was major depressive disorder with psychomotor retardation, because the patient appeared passive, withdrawn, and expressed feelings of worthlessness. However, depressive disorder was considered less likely because the patient did not demonstrate persistent depressive mood, suicidal ideation, excessive guilt, or other core depressive symptoms. In addition, the chronic psychotic history and longstanding behavioral disturbances were more consistent with schizophrenia-related negative symptoms rather than primary depression.

The third differential diagnosis was social isolation disorder, given the patient's tendency to avoid interaction and remain alone. Nevertheless, social isolation was interpreted as a secondary psychosocial response associated with schizophrenia rather than the primary diagnosis. The patient's impaired self-care, poor insight, and chronic psychotic history indicated a broader psychiatric condition affecting cognitive and behavioral functioning.

The final diagnosis of paranoid schizophrenia with self-care deficit related to bathing and personal hygiene was established based on the patient's psychiatric history, behavioral presentation, mental status examination, and nursing assessment findings. Supporting clinical findings included neglected self-care behavior, poor personal hygiene, dirty appearance, long and dirty fingernails, body odor, decreased motivation, poor insight into illness, maladaptive coping mechanisms, and impaired ability to independently maintain personal hygiene. The patient also demonstrated limited awareness regarding the importance of self-care activities. In addition, laboratory findings revealed uncontrolled hyperglycemia, which may have contributed to fatigue, reduced energy, and diminished motivation, potentially exacerbating the patient's self-care difficulties. Considering the patient's history of long-term treatment with atypical antipsychotics, including risperidone and clozapine, the possibility of antipsychotic-associated metabolic disturbances was also considered; however, the available clinical data were insufficient to establish a direct causal relationship. Nevertheless, the overall clinical presentation indicated that schizophrenia-related negative symptoms remained the primary factor underlying the patient's self-care deficit.

The clinical decision to implement Token Economy therapy was based on the patient's motivational deficits and impaired behavioral functioning. Behavioral reinforcement was considered appropriate because the patient retained the ability to follow instructions and respond to structured rewards. The intervention aimed to increase motivation, encourage adaptive behavior, and improve independence in performing bathing self-care activities.

DIAGNOSTIC ASSESSMENT

Diagnostic assessment was conducted through psychiatric nursing evaluation, mental status examination, physical examination, and laboratory investigations to identify the patient's clinical condition and contributing factors related to self-care deficit. The assessment primarily focused on behavioral manifestations, cognitive function, personal hygiene ability, and medical comorbidities that could influence the patient's overall condition.

The patient demonstrated poor personal hygiene characterized by dirty clothing, body odor, poor oral hygiene, long and dirty fingernails, and disheveled hair. Mental status examination revealed flat affect, slow speech, minimal verbal response, poor eye contact, social withdrawal, and impaired insight into illness. Behavioral observation indicated decreased motivation and inability to independently perform bathing self-care activities.

Laboratory examination also revealed uncontrolled blood glucose levels, suggesting an underlying metabolic disturbance that may potentially worsen the patient's physical condition and self-care ability. No radiological imaging or advanced diagnostic imaging such as CT scan or MRI was indicated during hospitalization because there were no neurological deficits or acute organic abnormalities requiring further imaging evaluation.

Table 1. Summary of relevant diagnostic findings

Examination	Result	Clinical Interpretation
Laboratory test	Fasting blood glucose: 328 mg/dL; Random blood glucose: 297 mg/dL; HbA1c: >14%	Indicates uncontrolled hyperglycemia and poor long-term glycemic control
Mental status examination	Flat affect, slow speech, minimal communication, poor eye contact, poor insight, social withdrawal	Consistent with negative symptoms of schizophrenia and impaired psychosocial functioning
Physical examination	Untidy appearance, dirty clothing, poor oral hygiene, halitosis, long	Demonstrates self-care deficit related to bathing and personal

	dirty fingernails, disheveled hair	hygiene
Behavioral assessment	Decreased motivation, lack of initiative, inability to perform bathing self-care independently	Suggests impaired functional ability associated with schizophrenia
Nursing assessment of self-care ability	Unable to explain proper bathing procedures and unable to perform bathing activities appropriately before intervention	Confirms deficit in bathing self-care ability
Imaging examination	No imaging studies performed	No clinical indication for radiological evaluation during hospitalization

THERAPEUTIC INTERVENTION

The patient received both pharmacological and non-pharmacological management during hospitalization. According to the medical record and nursing assessment, the patient had a history of irregular medication adherence and inconsistent psychiatric follow-up prior to admission, which may have contributed to symptom exacerbation and functional decline. During the current hospitalization, pharmacological treatment was continued under psychiatric supervision to stabilize psychotic symptoms and support behavioral functioning. The prescribed regimen consisted of risperidone 2 mg twice daily, clozapine 25 mg once daily at night, and trihexyphenidyl 2 mg twice daily. No medication adjustments were made during the five-day observation and intervention period. The patient was routinely monitored for medication adherence, adverse effects, behavioral changes, and overall clinical response. In addition, laboratory findings indicating uncontrolled hyperglycemia were managed collaboratively with the internal medicine team to optimize the patient's physical condition during hospitalization.

In addition to pharmacological treatment, the patient received psychiatric nursing interventions focused on improving bathing self-care ability. The primary intervention was Token Economy therapy, selected because the patient demonstrated poor motivation, reduced initiative, and persistent difficulties in performing personal hygiene activities independently despite receiving antipsychotic medication. The intervention targeted specific bathing-related behaviors that had been identified during the nursing assessment.

Token Economy therapy was implemented for five consecutive days, with one 30-minute session conducted daily. At the beginning of the program, a behavioral contract was established between the patient and the nursing team. Target behaviors included preparing bathing equipment, brushing teeth using toothpaste, bathing with soap, washing hair using shampoo, drying the body with a towel, and changing into clean clothes after bathing. One token (stamp) was awarded immediately after successful completion of each targeted behavior. Positive verbal reinforcement was provided simultaneously to strengthen the desired behavior. Tokens were recorded on a monitoring sheet and accumulated throughout the intervention period. At the end of the program, the accumulated tokens could be exchanged for a predetermined reward agreed upon by the patient and nursing staff.

The intervention also included psychoeducation regarding the importance of personal hygiene, behavioral guidance, direct supervision during self-care practice, and daily evaluation of progress. Patient monitoring focused on completion of target behaviors, number of tokens obtained, participation during therapy sessions, and observable changes in personal hygiene. During the five-day intervention period, the pharmacological regimen remained unchanged, allowing behavioral changes to be evaluated in relation to the structured reinforcement program. The patient successfully collected 10 tokens and demonstrated improvements in

multiple bathing-related self-care behaviors, suggesting that Token Economy therapy contributed to enhanced motivation and engagement in personal hygiene activities beyond symptom stabilization achieved through medication alone.

THERAPEUTIC SEQUENCE

On admission, the patient presented with poor personal hygiene, social withdrawal, low motivation, and impaired bathing self-care ability. Initial assessment identified deficits in bathing activities, including inability to explain proper bathing procedures, incomplete use of bathing equipment, inadequate oral hygiene, and inconsistent self-care practices. The patient also demonstrated poor insight into illness and low participation in daily activities.

During the early phase of hospitalization, the patient continued receiving pharmacological treatment consisting of risperidone 2 mg, trihexyphenidyl 2 mg, and clozapine 25 mg to stabilize psychiatric symptoms and support behavioral control. Nursing observation and mental status examination were performed regularly to evaluate the patient’s psychological and functional condition.

On the first day of behavioral intervention, baseline observation of self-care ability was conducted. The patient was unable to perform bathing activities correctly and required significant prompting and supervision. Following assessment, Token Economy therapy was initiated as part of the nursing management plan. The patient was educated regarding behavioral targets and informed that tokens would be provided for successful completion of self-care activities.

From day one to day five, the patient participated in one daily 30-minute Token Economy session. Positive reinforcement was consistently provided whenever the patient completed targeted hygiene behaviors. Gradually, the patient showed improved motivation, increased participation, and better understanding of bathing procedures. The patient became able to identify bathing equipment correctly, explain proper bathing steps, brush teeth appropriately, wash hair with shampoo, and wear clean clothes after bathing.

At the end of the intervention period, reassessment demonstrated improvement in bathing self-care ability and personal hygiene condition. The patient appeared cleaner, neater, and more cooperative during self-care activities. However, although improvement was observed, the patient had not yet fully maintained bathing activities consistently according to a regular daily schedule. No changes in pharmacological therapy were required during the intervention period because the patient remained clinically stable and tolerated the medications adequately.

CASE TIMELINE

Use the following table to present the chronological sequence of clinical events. Add or delete rows as needed according to the case.

Table 2. Clinical case timeline

Time	Clinical Event	Investigation	Treatment	Outcome
Day 0	Patient admitted to psychiatric ward with confusion, social withdrawal, poor communication, and self-care deficit	Initial psychiatric nursing assessment, mental status examination, physical examination, and laboratory tests	Continuation of pharmacological therapy: risperidone 2 mg, trihexyphenidyl 2 mg, and clozapine 25 mg	Patient remained passive, poorly groomed, and unable to perform adequate self-care

Day 1	Baseline assessment of bathing self-care ability performed	Observation of personal hygiene ability and behavioral assessment	Introduction of Token Economy therapy and explanation of behavioral targets	Patient showed minimal participation and required prompting
Day 2	Patient began participating in self-care training	Daily observation of bathing activities and hygiene practices	Token reinforcement provided after completing bathing-related tasks	Patient showed slight improvement in motivation and cooperation
Day 3	Improvement in understanding of bathing procedures	Follow-up behavioral observation and nursing evaluation	Continued Token Economy sessions with positive reinforcement	Patient was able to identify bathing equipment and explain basic bathing procedures
Day 4	Increased engagement in personal hygiene activities	Reassessment of self-care performance	Continued behavioral reinforcement and supervision	Patient demonstrated improved grooming and participation in bathing activities
Day 5	Final evaluation of intervention outcomes	Post-intervention assessment of bathing self-care ability	Completion of Token Economy therapy sessions	Patient demonstrated improved bathing ability, better hygiene, and neater appearance
Follow-up	Continued inpatient monitoring after intervention	Ongoing nursing observation and medication monitoring	Maintenance of pharmacological therapy and behavioral encouragement	Improvement maintained, although patient was not yet fully consistent with scheduled self-care activities

OUTCOME AND FOLLOW-UP

Following five days of Token Economy therapy, the patient demonstrated noticeable improvement in bathing self-care ability and personal hygiene. Before the intervention, the patient was unable to explain proper bathing procedures, identify complete bathing equipment, or independently perform bathing activities appropriately. The patient also showed poor motivation, lack of initiative, and inadequate grooming behavior.

After completion of the intervention, the patient became able to identify and prepare bathing equipment correctly, explain the steps of bathing, brush teeth using toothpaste, wash hair with shampoo, dry the body using a towel, and wear clean clothes after bathing. Clinically, the patient appeared cleaner, neater, and more cooperative during self-care activities. Motivation toward maintaining personal hygiene also improved throughout the intervention period.

No significant adverse events or complications were observed during the implementation of Token Economy therapy. Pharmacological treatment remained unchanged because the patient tolerated the medications well and showed stable psychiatric symptoms during hospitalization.

Short-term follow-up indicated that the patient continued to require supervision and encouragement to maintain regular self-care routines. Although improvement was achieved, the patient occasionally remained inconsistent in performing bathing activities according to a fixed daily schedule, particularly bathing twice daily. Continuous support from healthcare providers and caregivers was considered necessary to sustain long-term behavioral improvement.

DISCUSSION

This case report demonstrated that the implementation of Token Economy therapy was associated with improved bathing self-care ability in a hospitalized patient with schizophrenia and self-care deficit. Following five consecutive days of intervention, the patient demonstrated observable improvements in several bathing-related behaviors, including brushing teeth with toothpaste, washing hair with shampoo, drying the body with a towel, and changing into clean clothes after bathing. The patient also successfully collected 10 tokens and showed greater participation in self-care activities. These findings suggest that structured behavioral reinforcement may facilitate the acquisition of adaptive self-care behaviors among patients with schizophrenia who experience impaired motivation and initiative.

The improvement observed in this case can be understood through the principles of operant conditioning theory proposed by Skinner. According to this theory, behaviors followed by positive consequences are more likely to be repeated in the future. Token Economy therapy applies this principle by providing immediate positive reinforcement in the form of tokens following the successful completion of targeted behaviors. The tokens function as secondary reinforcers that acquire motivational value because they can later be exchanged for meaningful rewards. In the present case, immediate token delivery, positive verbal feedback, and clearly defined behavioral targets appeared to strengthen the patient's engagement in bathing-related activities. The structured reinforcement process may have increased the likelihood of repeating desired behaviors and contributed to the gradual development of self-care habits.

Patients with schizophrenia frequently experience negative symptoms, including avolition, apathy, reduced initiative, and diminished goal-directed behavior, which are strongly associated with self-care deficits. These symptoms often persist even when positive psychotic symptoms are adequately controlled. Behavioral interventions such as Token Economy therapy are particularly relevant because they directly target motivation and behavioral activation rather than psychotic symptoms themselves. In this case, the patient demonstrated increased participation in self-care activities despite initially showing little interest in personal hygiene, suggesting that behavioral reinforcement helped overcome motivational barriers that interfered with daily functioning.

The findings are consistent with previous studies demonstrating the effectiveness of Token Economy therapy in improving adaptive behaviors among individuals with severe mental illness. Mintarsih (2021) reported that Token Economy interventions improved self-care ability among individuals with schizoaffective disorder by encouraging consistent personal hygiene practices and increasing awareness of the importance of self-care. Similarly, Nasution et al. (2021) found that Token Economy-based behavioral therapy positively influenced personal hygiene performance among individuals with mental disorders experiencing self-care deficits. The present case extends these findings by providing a detailed description of the implementation process and observable behavioral targets specifically related to bathing self-care activities in a psychiatric inpatient setting.

The interpretation of outcomes in this case should also consider potential confounding factors. The patient received ongoing pharmacological treatment with risperidone and clozapine throughout hospitalization. Antipsychotic therapy likely contributed to symptom stabilization and may have indirectly improved behavioral functioning. Therefore, the observed improvements cannot be attributed exclusively to Token Economy therapy. However, no medication changes or dose adjustments occurred during the five-day intervention

period, whereas the most noticeable improvements were observed in the specific self-care behaviors that were directly targeted and reinforced through the Token Economy program. This temporal relationship suggests that behavioral reinforcement may have contributed substantially to the observed changes.

Another important consideration is the presence of uncontrolled diabetes mellitus, as indicated by fasting blood glucose of 328 mg/dL, random blood glucose of 297 mg/dL, and HbA1c >14%. Severe hyperglycemia may cause fatigue, reduced energy, impaired concentration, and decreased physical functioning, all of which can negatively affect self-care performance. Consequently, the patient's poor hygiene and reduced motivation may not have been solely attributable to schizophrenia. In addition, long-term exposure to atypical antipsychotics, particularly clozapine and risperidone, has been associated with metabolic disturbances, including weight gain, insulin resistance, and hyperglycemia. Although a direct causal relationship could not be established because baseline metabolic data were unavailable, the possibility of antipsychotic-associated metabolic effects should be considered when evaluating the patient's overall clinical condition. Management of hyperglycemia during hospitalization may also have contributed to improvements in physical well-being and functional capacity.

The clinical relevance of this case lies in demonstrating how Token Economy therapy can be integrated into routine psychiatric nursing practice using simple, structured, and measurable behavioral targets. The intervention required minimal resources and could be implemented by nursing staff as part of daily care. A particular strength of this case was the use of clearly defined bathing-related behaviors and objective reinforcement outcomes, including token accumulation and direct observation of self-care performance. These features allowed more systematic monitoring of behavioral change than subjective impressions alone.

Several limitations should be acknowledged. The intervention period was limited to five days, preventing evaluation of long-term maintenance of behavioral gains. The absence of standardized self-care assessment scales also limited quantitative measurement of improvement. Furthermore, because the patient simultaneously received pharmacological treatment and medical management for uncontrolled diabetes mellitus, the independent contribution of Token Economy therapy cannot be determined with certainty. Future studies incorporating longer follow-up periods and standardized outcome measures are needed to better evaluate the sustainability and effectiveness of behavioral reinforcement interventions in patients with schizophrenia.

Overall, this case highlights the importance of addressing self-care deficits through behavioral as well as pharmacological approaches. The clinical lesson is that Token Economy therapy may serve as a practical strategy to enhance motivation, reinforce adaptive behaviors, and improve bathing self-care ability among patients with schizophrenia. Continued support from healthcare providers, family members, and caregivers remains essential to sustain these behavioral improvements after discharge (Daulay & Ginting, 2021).

DIAGNOSTIC CHALLENGE

One of the primary diagnostic challenges in this case was differentiating self-care deficit caused by schizophrenia-related negative symptoms from other psychiatric conditions such as depressive disorders or severe social withdrawal. The patient presented with passivity, low motivation, and isolation, which may also occur in major depressive disorder. However, the chronic psychotic history, repeated psychiatric hospitalizations, impaired insight, and longstanding behavioral dysfunction supported schizophrenia as the primary diagnosis.

Another challenge involved assessing the patient's actual level of self-care ability because the patient showed limited communication, poor insight, and minimal verbal responses during interviews. Behavioral observation and repeated nursing assessments were therefore essential to identify the severity of functional impairment and determine appropriate therapeutic interventions.

In addition, maintaining patient motivation during therapy posed a clinical challenge. Patients with schizophrenia frequently demonstrate fluctuating engagement and inconsistent adherence to behavioral interventions, requiring continuous supervision and reinforcement from healthcare providers.

LIMITATION

This case report has several limitations. First, the intervention period was relatively short, consisting of only five days of Token Economy therapy, which limited long-term evaluation of behavioral sustainability. Second, the report was based on a single patient case, reducing the generalizability of the findings to broader psychiatric populations. Third, no standardized psychiatric rating scales were used to quantitatively measure symptom severity or functional improvement. In addition, long-term follow-up after discharge was not available, making it difficult to determine whether improvements in self-care behavior were maintained outside the hospital setting.

LEARNING POINTS

1. Token Economy therapy can improve bathing self-care ability and personal hygiene in patients with schizophrenia experiencing self-care deficits.
2. Positive reinforcement strategies may increase motivation and participation in daily self-care activities among psychiatric patients with negative symptoms.
3. Comprehensive psychiatric nursing assessment is important to identify functional impairment and determine appropriate behavioral interventions.
4. Consistent supervision and caregiver support are essential to maintain long-term behavioral improvement in self-care activities.
5. Behavioral interventions combined with pharmacological therapy may provide better outcomes in managing self-care deficits in schizophrenia patients.

CONCLUSION

This case report describes a hospitalized patient with schizophrenia and bathing self-care deficit who demonstrated noticeable improvement in personal hygiene behaviors during a five-day period of combined pharmacological treatment, medical management of uncontrolled hyperglycemia, and Token Economy therapy. Improvements were observed in several targeted behaviors, including tooth brushing, hair washing, body drying, and changing into clean clothes, although consistency in maintaining a daily self-care schedule remained incomplete.

The case is clinically relevant because it illustrates how a structured behavioral reinforcement approach can be incorporated into routine psychiatric nursing care to support self-care activities in patients with impaired motivation and functional limitations. However, because this report describes a single patient receiving concurrent pharmacological, medical, and behavioral interventions, the specific contribution of Token Economy therapy to the observed improvements cannot be determined with certainty.

Clinicians should consider both psychiatric and physical health factors, including metabolic conditions such as diabetes mellitus, when evaluating self-care deficits and planning individualized interventions for patients with schizophrenia.

PATIENT CONSENT

Written informed consent for publication of this case report, including clinical data and relevant information, has been obtained from the patient. All efforts have been made to ensure patient confidentiality by removing any identifying information, and no personal identifiers are disclosed in this report.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest related to the writing and publication of this article.

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AUTHORS' CONTRIBUTION

The first author contributed to the conceptualization of the study and data collection. The second author contributed to manuscript drafting, manuscript revision, and approval of the final version. The third author contributed to clinical analysis of the case.

DATA AVAILABILITY

The data supporting the findings of this case report are not publicly available due to patient confidentiality and ethical restrictions. However, relevant data may be made available from the corresponding author upon reasonable request and with appropriate ethical considerations.

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FIGURE AND TABLE LEGENDS

The following table presents the comparison of the patient's bathing self-care ability before and after the implementation of Token Economy therapy.

Table 3. Improvement in Bathing Self-Care Ability Before and After Token Economy Therapy

Variable	Result	Notes
Ability to explain the benefits of bathing	Improved	Patient understood the importance of personal hygiene
Ability to identify bathing equipment	Improved	Patient correctly mentioned and used bathing tools
Ability to describe bathing procedures	Improved	Patient explained bathing steps appropriately
Ability to perform bathing correctly	Improved	Patient demonstrated proper bathing and grooming
Ability to follow daily self-care schedule	Partially improved	Patient still inconsistent in maintaining routine

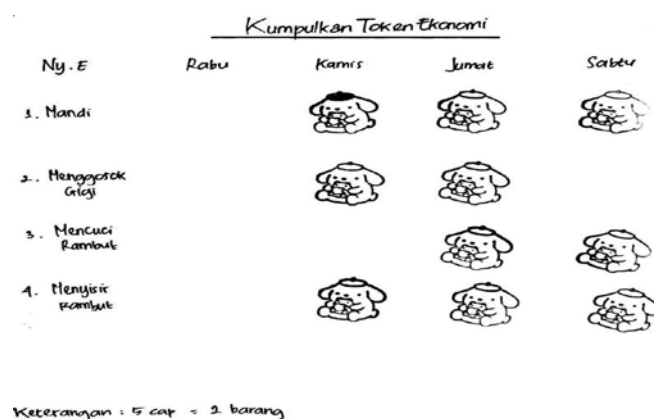


Figure 1. Token Economy Reinforcement Chart

Figure 1 demonstrates the implementation of the Token Economy system over a five-day intervention period. The patient received a total of 10 tokens (stamps) as positive reinforcement for completing targeted self-care activities, including bathing, brushing teeth, washing hair, and grooming. The accumulation of tokens indicates progressive improvement in the patient's motivation and adherence to self-care behaviors. This finding suggests that the Token Economy method was effective in encouraging the patient to perform personal hygiene activities consistently during the intervention period.

REFERENCES

- Apriani, K. T. (2023). Gambaran Perilaku Isolasi Sosial Pada Pasien Skizofrenia Di Rumah Sakit Jiwa Provinsi Bali Tahun 2023. Poltekkes Kemenkes Denpasar Jurusan Keperawatan 2023.
- Daulay, W., & Ginting, R. (2021). Dukungan Keluarga dan Tingkat Kemampuan Perawatan Diri Pada Orang Dengan Gangguan Jiwa (ODGJ). JINTAN: Jurnal Ilmu Keperawatan, 1(1), 7–15.
- Fiddaraini, N. S. (2023). Pengaruh Penerapan Terapi Token Ekonomi Pada Asuhan Keperawatan Pasien Harga Diri Rendah. Jurnal of Community Health Development, 4(1), 36. <https://doi.org/https://doi.org/10.20884/1.jchd.2023.4.1.7554>
- Kementrian Kesehatan Republik Indonesia/Kemenkes RI. (2018). Riset Kesehatan Dasar.pdf. In Badan Penelitian dan Pengembangan Kesehatan (p. 674). http://labdata.litbang.kemkes.go.id/images/download/laporan/RKD/2018/Laporan_Nasional_RKD2018_FINAL.pdf
- Mintarsih, R. A. (2021). Pengaruh Token Ekonomi Untuk Meningkatkan Kemampuan Rawat Diri Pada Individu Dengan Gangguan Skizoafektif. Procedia: Studi Kasus Dan Intervensi Psikologi, 9(4). <https://doi.org/https://doi.org/10.22219/procedia.v9i4.16346>
- Nasution, M. L., Daulay, W., & Wahyuni, S. E. (2021). Implementation Of Behavioral Therapy (Economic Token) On The Ability Of People With Mental Disorders In Fulfilling Self-cleaning (Personal Hygiene) In Medan Sunggal Subdistrict. Open Access Macedonian Journal of Medical Sciences, 9(T3), 84–86. <https://doi.org/https://doi.org/10.3889/oamjms.2021.6307>
- Reptiana, A. (2020). Latihan peningkatan personal higiene masalah defisit perawatan diri pada pasien dengan gangguan jiwa. Tugas Akhir Universitas Muhammadiyah Magelang.
- Rosdiana, A. M. (2022). Teknik Token Ekonomi : Teori dan Aplikasi. CONSEILS: Jurnal Bimbingan Dan Konseling Islam, 2(2), 42–52. <https://doi.org/https://doi.org/10.55352/bki.v2i2.658>
- Stuart, G.W. dan Laraia, M. . (2016). Principles and Practice of Psychiatric Nursing. Mosby Year Book.

World Health Organization. (2025, September 30). Mental disorders. <https://www.who.int/news-room/fact-sheets/detail/mental-disorders>

Yusuf, A., Fitryasari, R., & Nihayati, H. . (2015). Buku Ajar Keperawatan Kesehatan Jiwa. Buku Ajar Keperawatan Kesehatan Jiwa, 1–366. <https://doi.org/ISBN 978-xxx-xxx-xx-x>

Yusuf, A. H., Fitryasari, R., Nihayati, E. H., & Tristiana, R. D. (2022). Keperawatan Kesehatan Jiwa: Pendekatan Holistik Dalam Asuhan Keperawatan. Salemba Medika.