

**1st International Conference, Exhibition & Innovation
on Public Health & International Community Services
Waterfront Hotel Kuching, Sarawak, Malaysia
19-22 Aug 2025**

Organiser: Universiti Teknologi MARA (UiTM), Malaysia
Co-Organisers: Universitas Muhammadiyah Malang (UMM), Indonesia, Universitas Airlangga (UNAIR), Indonesia, UiTM Technoventure, Malaysia

Key Elements enhancing Motivation in People with Schizophrenia

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Abstract

This study explores key motivational elements that enhance participation in rehabilitation activities among individuals with schizophrenia in institutional settings. Using a meta-inference approach, data from a scoping review and interviews with patients, occupational therapists, and healthcare providers were synthesised. Eight core elements were identified: autonomy and choice, structure, relatedness, meaningful activity, variety, reinforcement, relevance, and feedback. These findings support the design of patient-centred interventions grounded in CBT, SDT, and SET. While limited to institutional settings, the study offers practical insights for improving engagement, and recovery outcomes and guiding future mental health programs and policy development.

Keywords: Meta-inference; motivation; schizophrenia; mental health institution; occupational therapy

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DOI: <https://doi.org/10.21834/e-bpj.v10iSI35.7510>

1.0 Introduction

Motivation is a key aspect of psychiatric rehabilitation, especially among individuals with schizophrenia who commonly experience negative symptoms, impaired cognition, and social withdrawal (Saperstein et al., 2020; Schlosser et al., 2018). These challenges can diminish engagement in therapeutic activities (Choi et al., 2020). In institutional settings, such barriers are often intensified by environmental limitations such as rigid routines, understaffing, and limited resources (Nathan & Lewis, 2021; Jagtap et al., 2022). Addressing motivation is thus essential to improve patient participation and therapeutic outcomes (Alice et al., 2020). Recent research has explored ways to enhance motivation through theoretical and practical strategies. Self-Determination Theory (SDT), Cognitive Behavioral Theory (CBT), and Self-Efficacy Theory (SET) offer strong foundations for understanding motivation in schizophrenia (Favrod et al., 2015; Hamada, 2019; Saperstein et al., 2020).

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This study investigates the motivational elements that contribute to successful engagement in institutional rehabilitation settings. The aim is to identify key motivational elements derived from literature and empirical data to support the development of effective interventions (Thanh et al., 2022; Blanca et al., 2023).

2.0 Literature Review

Motivation in individuals with schizophrenia is influenced by a combination of internal factors, such as cognition and insight, and external factors like social support and environment (Kvarnström et al., 2021; Najas-García et al., 2022). SDT explains that motivation improves when autonomy, competence, and relatedness are supported (Saperstein et al., 2020; Kim et al., 2023). Cognitive-behavioural and metacognitive approaches also strengthen motivation by helping patients modify unhelpful thoughts and cognitive biases (Moritz et al., 2023). Self-efficacy plays an additional role, as individuals are more motivated when they believe in their ability to complete tasks (Chang et al., 2022). Studies show that motivation enhances participation in physical activity, cognitive training, and social programmes (Blanca et al., 2023; Mow et al., 2022). However, low motivation, effort-cost difficulties, and limited person-centred planning continue to restrict engagement (Jagtap et al., 2022; Vancampfort et al., 2024).

3.0 Methodology

This study applied a mixed-methods design with two clearly defined procedures. First, a scoping review was conducted using Arksey and O'Malley's framework to map existing evidence on motivational elements for individuals with schizophrenia. Second, semi-structured interviews were carried out with five occupational therapists, five healthcare providers, and five patients to obtain context-specific insights. All qualitative data were analysed using Braun and Clarke's thematic analysis, and findings from both sources were consolidated through meta-table synthesis to identify candidate elements for intervention. To ensure methodological rigour, each identified element was reviewed through iterative consultation with stakeholders and two expert reviewers. This step provided justification for selecting elements that aligned with SDT, CBT, and SET, and confirmed their relevance and feasibility for institutional rehabilitation settings.

4.0 Findings

This study synthesized data from a scoping review, 80 articles screened, and 16 studies were included in the final synthesis based on relevance to motivation-based interventions in schizophrenia. And semi-structured interviews with individuals diagnosed with schizophrenia (SCZ), occupational therapists (OTs), and healthcare providers (HPs). The integration of these data sources revealed eight key motivational elements that support participation in institutional rehabilitation. These elements were consistently validated across literature and real-world settings, forming a comprehensive motivational framework.

Table 1. Synthesized Motivational Themes from Literature and Stakeholder Interviews

Scoping Review		Interview		
Types of activities		SCZ	OT	HP
		Active		
	Dance with Instructions aerobic and physical exercise Choi et al., 2020; Shreya et al., 2022; Alice et al., 2020; Blanca et al., 2023	Physical activities such as gardening. Recreational and outdoor activities such as visiting Cameron Highlands. Cognitive activities such as playing carrom.	Physical activities such as exercise, morning walks, dancing, playing football, gardening. Cognitive activities such as Carrom and checkers. Recreational and outdoor activities visited Cameron Highlands and Penang Hills.	Physical activities, such as morning walks, bowling, and aerobics. Recreational and outdoor activities, such as outings/visited parks.
	Behavioural Activation Walks (e.g., walking in a garden) Role-Playing Scenarios Social Skills Training Games Nguyen et al., 2016; Favrod et al., 2019; Martin et al., 2020; Tabak et al., 2015; Melike et al., 2016			
	Virtual Role-Playing Scenarios Walking Challenge with Step Counter Mororó et al., 2023; Schlosser et al., 2018; Luther et al., 2020; Mow et al., 2022			

Passive					
	Yoga with Guided Focus Choi et al., 2020; Shreya et al., 2022; Alice et al., 2020; Blanca et al., 2023	Watching movies, listening to music.	Watch TV, and listen to the radio.	Watching TV, listening to a radio, karaoke session.	Passive
	Guided Meditation or Mindfulness Practice Deep Breathing Exercises Body Scan Relaxation Listening to Soothing Music Nguyen et al., 2016; Favrod et al., 2019; Martin et al., 2020; Tabak et al., 2015; Melike et al., 2016				
	Mindfulness Practice Mororó et al., 2023; Schlosser et al., 2018; Luther et al., 2020; Mow et al., 2022				
Frequency	3 times per week for 13 to 14 weeks (Mororó et al., 2023). 8 sessions (Nguyen et al., 2016; Favrod et al., 2019) 4 days per week for 12 weeks (Schlosser et al., 2018). 3 weeks once for 30 sessions (Thonon et al., 2020). Daily sessions (Tabak et al., 2015). The intervention lasted for 8 weeks (Luther et al., 2020). Conducted twice a day for 60 days (Mow et al., 2022). 3 times per week for 6 months (Choi et al., 2020). 3 times per week for 12 sessions (Blanca et al., 2023). 30 minutes per session over 6 months (Thanh et al., 2023).	Several Times per Week		3 times/week for 12 sessions	
Duration	The total duration was 41 hours (Mororó et al., 2023). Each session lasted approximately 1 hour (Nguyen et al., 2016; Thonon et al., 2020; Favrod et al., 2019). Duration ranged from 15 to 45 minutes per session (Tabak et al., 2015).	Patients stated that they participate in activities at any time, as the activity room is always open.	The occupational therapist mentioned that the schedule is flexible and tailored to the patient's needs, but activities are typically available on weekdays. Additionally, the activity room is always open for patients.	HP mentioned that most activities follow the therapy schedule.	45 minutes – 1 hour
Method of delivery	Group-based interventions were commonly used (Nguyen et al., 2016; Favrod et al., 2019; Martin et al., 2020; Tabak et al., 2015; Melike et al., 2016; Choi et al., 2020; Shreya et al., 2022; Alice et al., 2020; Blanca et al., 2023).	Group	Group Individual	Group	Group activities
Benefits	Active participation in activities was negatively associated with stress (Iso-Ahola & Park, 2006) and depressive symptoms (Lu,	Psychological		Providing relaxation, reducing stress, facilitating interest and offering a sense of accomplishment	Psychological benefits are well-documented, reinforcing the need for activities

	2011; Calmbach & Dhanda, 2003).			and purpose.	that promote emotional well-being.
			Social		
	Activities have shown a strong association with improved social relationships (Cheung, 2007).	Feel connected to others, build supportive relationships, and improve their sense of belonging.	Increase a patient's sense of belonging and enthusiasm for activity. Psychological uplift patient's emotions and increase their sense of enthusiasm	Enhance social interaction, allowing patients to connect with others, build relationships, and create a sense of belonging.	Both sources emphasize the importance of social engagement. Activities should be structured to foster interpersonal connections.
			Cognitive		
	Leisure activities have been shown to provide a protective effect on cognitive function by slowing the decline of brain performance (Scarmeas & Stern, 2003; Katzman et al., 1998).	Improve focus and memory. Reduces mental stress, enhances creative thinking, and helps develop problem-solving and time-management skills.	Enhancing patient's mental agility and overall cognitive function.	Improving focus, problem-solving, memory, and decision-making	Activities positively impact cognition, supporting the use of both structured cognitive training and informal games.
			Health-related		
	Iwasaki et al. (2014) found that a greater perception of active engagement referred to as perceived active living was a significant predictor of recovery as well as overall physical and mental health.				Engaging in activities enhances overall well-being, reinforcing the importance of maintaining an active lifestyle.
			Self Esteem		
	Activities such as exercise have been shown to improve self-esteem and increase dopamine levels, which in turn enhance patient motivation (Hamada, 2019).		Able to carry out activities, they are skilled at.	Boosts confidence. Patients feel empowered.	
			Physical		
		Improved physical health, increased energy levels, and better motor coordination.	Improve physical abilities.		Activities should be designed to provide a sense of accomplishment, supporting self-esteem and motivation.
Barriers	Identified individual-level barriers to engagement included: Presence of other medical conditions (Kvarnström et al., 2021) Lack of family support (Yoshida et al., 2021) Illness-related stigma (Valery & Prouteau, 2020) Cognitive impairment (McCutcheon et al., 2023) Poor insight into illness (Subotnik et al., 2020) Symptoms of depression (Wander, 2020) Social isolation (Huang et al., 2021)	Behaviour – The patient is unmotivated in carrying out activities and prefers to sleep. Type of activities – Repetitive activities that the patient does not enjoy. Facilities – Many tools are insufficient and there is no new technology.	Behaviour – The patient is not motivated, and uninterested in activities. Facilities Limitations – The place is not well-maintained, and there is damage to old items. Staff Shortage – There is an insufficient number of assistants and staff to carry out activities with the patients.	Facilities – Old and lack of proper maintenance. Staff – Staff are unmotivated and not creative. Behaviour – Not cooperative and unmotivated. Symptoms – Lack of mood, and unstable or aggressive behaviour	Both sources highlight motivation as a major barrier. However, interviews emphasize logistical challenges (e.g., lack of staff and resources), indicating a need for systemic improvements.

Substance misuse (Nathan & Lewis, 2021)				
Factor Influence Motivation	Autonomy and Choice			
	Allowing patients to choose tasks enhances motivation and engagement. Thonon et al. (2020) showed that choice in task selection improved participation, while Saperstein et al. (2020) found that aligning activities with personal values increased involvement. Self-directed routines also boosted enjoyment (Choi et al., 2019), and shared participation by facilitators created a more supportive environment (Favrod et al., 2019).	The freedom to choose what is wanted to be done and when it is wanted to be done.	Involve them in the activity selection process.	Providing patients with activity choices can improve engagement and adherence.
	Clear structure and routine			
	Scheduling regular cognitive practice sessions was found to improve engagement through structured routines (Jagtap et al., 2022). In addition, goal-oriented activities helped promote anticipation and motivation by activating different psychological mechanisms of change (Luther et al., 2020).			A balance between structured routines and patient-driven flexibility may optimize motivation.
	Relatedness			
	Daily social interaction and emotional support were found to enhance motivation in individuals with schizophrenia. Regular contact and encouragement improved goal attainment (Martin et al., 2020), while increased social behaviour was linked to higher activity levels (Mow et al., 2022). Social reinforcement and support from peers and therapists further sustained engagement (Schlosser et al., 2018; Jagtap et al., 2022).	Always providing moral support as well as equipment.	Provide good facilities and make the activities enjoyable.	Social encouragement and well-equipped environments are key factors in sustaining engagement.
	Meaningful activity			
	Individuals were more willing to put in effort when the task was inherently interesting or personally meaningful (Thanh et al., 2022).		Encouragement is offered, a fun approach is used, and activities are linked to the personal goals of the patients.	Linking activities to personal goals increases adherence and motivation.
	Variety and Novelty			
	Introducing a variety of experiences helped participants become more aware of their thoughts, emotions, and sensations, creating opportunities for new learning and personal growth (Tabak et al., 2015). This approach also supported goal-directed behaviour by maintaining focus and motivation over time (Luther et al., 2020).		Introducing diverse and new elements to keep activities engaging.	A mix of familiar and novel activities ensures sustained interest and long-term participation.
	Positive reinforcement			
	Providing rewards during activities was found to	Offering incentives, such as food,	Rewards, whether tangible (like food or	Both sources support using

enhance participation and motivation among patients (Alice et al., 2020).	money, or enjoyable activities, to motivate individuals to participate in specific tasks or behaviours.	small gifts) or experiential (like enjoyable activities), help create positive reinforcement, increase participation, and encourage consistency in therapy.	rewards to reinforce engagement.
Relevance and personal interest			
Participants were given the option to receive remote cognitive remediation, which allowed them to engage in the intervention from a distance (Jagtap et al., 2022).		Provide explanations of the benefits of the activities and create a comfortable, supportive atmosphere.	Understand their interests and offer relevant and engaging activities for them.
Feedback and open communication			
Patients were encouraged to share feedback and reflect on their experiences during activities. Favrod et al. (2015) noted that reflection helped them relate tasks to their personal lives. Duman (2015) found that asking patients about confidence and importance increased self-awareness. Similarly, Nguyen et al. (2015) reported that participants openly shared their thoughts while doing the tasks.		Hold open discussions to gather their feedback.	Creating a feedback loop helps tailor activities to patient needs.

4.1 Types of Activities: Active vs Passive

Activities were categorised as either active or passive. Active engagement included physical, cognitive, and social tasks such as walking, dancing, gardening, bowling, carrom, and outdoor excursions (Choi et al., 2020; Blanca et al., 2023).

In contrast, passive activities focused on relaxation and mindfulness, including watching television, listening to music, karaoke, yoga, and guided meditation (Nguyen et al., 2016; Shreya et al., 2022). These findings highlight the need to offer a diverse range of activities tailored to individual preferences and therapeutic goals.

4.2 Frequency, Durations, and Delivery

Activities were generally delivered in group settings, aligning with literature promoting social reinforcement (Favrod et al., 2019; Mow et al., 2022).

Frequencies varied across studies, from 3 times per week (Choi et al., 2020) to daily participation (Tabak et al., 2015).

Duration ranged from 15 minutes to 1 hour, with flexibility observed in interviews patients could join sessions according to their readiness and availability of space or staff.

These flexible structures allowed patients to engage without pressure, promoting a patient-centred rhythm.

4.3 Psychological, Social, Cognitive, and Physical Benefits

Participants and literature reported multiple benefits of activity engagement. Psychologically, it reduces stress and depression while boosting emotional well-being (Lu, 2011; Iso-Ahola & Park, 2006). Socially, it enhanced connection and a sense of belonging (Cheung, 2007; Mow et al., 2022).

Cognitive gains included improved memory, attention, and decision-making (Scarmeas & Stern, 2003). Health benefits involve better physical condition and energy (Iwasaki et al., 2014). Self-esteem also increases through mastery and confidence (Hamada, 2019).

4.4 Identified Barriers

Barriers to engagement were linked to both individual factors—such as low motivation, cognitive deficits, stigma, and depression and institutional issues like outdated facilities, staff shortages, and monotonous activities (Nathan & Lewis, 2021; Kvarnström et al., 2021). Interview findings emphasized patient boredom, lack of resources, and low staff morale, highlighting the need for systemic improvements alongside personalised motivational approaches.

4.5 Motivational Elements

This study identified eight core motivational elements that significantly influence engagement in therapeutic programs among individuals with schizophrenia, particularly within institutional settings. These elements are grounded in established psychological theories, such as Self-Determination Theory (SDT), and are supported by empirical findings from prior literature.

Autonomy and Choice emerged as a critical facilitator of intrinsic motivation, as individuals demonstrated higher engagement when granted the freedom to select their preferred activities (Saperstein et al., 2020; Thonon et al., 2020). Such autonomy fosters a sense of ownership and control, which is essential in sustaining internal motivation in long-term psychiatric care.

Clear Structure and Routine were found to reduce uncertainty and anxiety through the establishment of predictable daily schedules. A structured therapeutic environment enhances psychological safety and promotes consistency in participation (Jagtap et al., 2022).

Relatedness, reflected through interpersonal connection and emotional support, plays a pivotal role in sustaining engagement. The presence of empathetic therapists, peer support, and opportunities for social interaction contribute to a sense of belonging and emotional safety (Schlosser et al., 2018; Mow et al., 2022), aligning with the relatedness component of SDT.

Meaningful Activity, defined as engagement in tasks aligned with one's values and personal goals, was consistently associated with increased attention and effort (Thanh et al., 2022). Such activities offer a sense of purpose, thereby enhancing motivation to participate and persist.

Variety and Novelty in therapeutic tasks—such as introducing creative, unfamiliar, or stimulating experiences were found to maintain curiosity and prevent monotony, thus sustaining long-term interest (Tabak et al., 2015).

Positive Reinforcement, through the use of rewards, verbal praise, and small incentives, functioned as an extrinsic motivator that supported ongoing behavioural engagement. These reinforcements are particularly effective when paired with clear expectations and consistent feedback (Alice et al., 2020).

Relevance and Personal Interest underscores the importance of tailoring interventions to individual needs and preferences. When activities resonate with the personal identity and lived experience of participants, it promotes greater satisfaction and sustained effort (Jagtap et al., 2022).

Lastly, Feedback and Open Communication serve as dynamic mechanisms for therapeutic reflection, program modification, and relational strengthening. Opportunities for participants to express thoughts and receive feedback facilitated mutual understanding and foster a responsive therapeutic alliance (Favrod et al., 2015; Nguyen et al., 2015).

Together, these eight motivational elements offer a framework for designing person-centred, theory-driven interventions aimed at improving psychosocial outcomes and active participation in rehabilitation programs among individuals with schizophrenia.

5.0 Discussion

This study identified eight motivational elements that can enhance participation among individuals with schizophrenia in institutional settings. These elements of autonomy and choice, clear structure and routine, relatedness, meaningful activity, variety and novelty, positive reinforcement, relevance and personal interest, and feedback with open communication were consistently supported by both literature and interviews.

Autonomy and choice helped patients feel more in control, which increased motivation and engagement. This supports the SDT theory, where self-directed activities lead to better participation (Saperstein et al., 2020). Patients also responded well to clear routines, which helped reduce confusion and anxiety, especially when combined with some flexibility (Jagtap et al., 2022).

The element of relatedness, or connection with others, was crucial in reducing isolation. Group activities and support from peers and staff created a sense of belonging (Mow et al., 2022). Similarly, meaningful activities linked to personal goals or interests made patients more willing to participate regularly (Thanh et al., 2022).

Variety and novelty were important to avoid boredom. New or creative activities helped sustain interest, especially in long-term care environments (Tabak et al., 2015). Positive reinforcement, such as praise or small rewards, was also effective in encouraging continued participation, especially in patients with low motivation (Alice et al., 2020).

Tailoring activities to patients' interests and preferences increased satisfaction and commitment (Jagtap et al., 2022). Finally, feedback and open communication helped patients reflect, feel heard, and adjust to activities that suited them better, strengthening the therapeutic relationship (Favrod et al., 2015).

These findings show that motivation can be improved through structured and patient-focused strategies. The motivational elements identified are practical and can be adapted to institutional settings. However, not all patients respond the same way. Motivation levels may depend on illness severity, mood, and environmental factors.

This study focused only on institutionalised patients. Future research should explore how these elements work in community settings. Also, while eight elements were found, we did not measure which had the strongest impact. Future studies could compare these elements or explore combinations that work best.

6.0 Conclusion& Recommendations

This study adds to the growing literature on psychiatric rehabilitation by identifying eight key motivational elements that enhance engagement among individuals with schizophrenia. The findings support the development of patient-centred and theory-based interventions to improve participation, treatment outcomes, and quality of life. By integrating Self-Determination Theory (SDT), Cognitive Behavioral Theory (CBT), and Self-Efficacy Theory (SET), the proposed framework is both conceptually strong and practically relevant. Future studies should examine how these elements can be implemented in various settings and evaluate their long-term impact on recovery. Mental health institutions are encouraged to include these motivational components in routine care to support sustained engagement and rehabilitation success. The next phase of research should therefore focus on determining the relative impact and optimal combination of these eight elements, reinforcing the need for rigorous experimental studies to validate and refine this framework.

Acknowledgement

The authors would like to thank the supervisors, practitioners, and patients who participated in this research. Special appreciation is extended to Universiti Teknologi MARA (UiTM) and Klinik Kesihatan Kuala Kangsar for their support and collaboration.

Paper Contribution to Related Field of Study

This article contributes significantly to the field of psychiatric rehabilitation and occupational therapy by presenting a theory-informed, evidence-based framework of motivational elements specifically tailored to individuals with schizophrenia in institutional settings. It bridges theoretical constructions from SDT, CBT, and SET with practical implications, offering clear guidance for clinicians and program developers. By identifying and organizing eight key elements of motivation, this study provides a structured foundation for designing interventions that promote autonomy, engagement, and well-being among psychiatric patients. The approach is adaptable, allowing for integration into various rehabilitation contexts and informing future research and policy development in mental health care.

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