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Title: Effect of A Family Empowerment Program on Caregiving Ability for Patients with Schizophrenia in the Community

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ABSTRACT

Background: Caring for individuals with schizophrenia in the community requires systematic and continuous support, with family members playing a central role in home-based care. Empowering these families is therefore critically important. This study aimed to examine the effectiveness of a family empowerment program on the caregiving ability of family caregivers of patients with schizophrenia living in the community.

Methods This quasi-experimental study, using a pretest–posttest control group design, was conducted from August to November 2025 in Pathum Thani, Thailand. The sample consisted of 60 eligible family caregivers of patients with schizophrenia who were randomly assigned to an experimental group (n = 30) and a control group (n = 30). The experimental group participated in a family empowerment program based on Gibson's framework delivered in five sessions over six weeks, while the control group received routine advice for home care of patients with schizophrenia . Data were collected using a general information form and the Caregiving Ability for Patients with Schizophrenia Scale. Descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics, including independent t-test and paired samples t-test, were used for data analysis using IBM SPSS Statistics version 26, with the level of statistical significance set at $p < 0.05$.

Results: After participation in the family empowerment program, the experimental group showed a statistically significant increase in mean caregiving ability scores compared with baseline (142.50 ± 16.46 vs. 126.40 ± 16.06, $p < 0.001$), and their mean score was also significantly higher than that of the control group ($p = 0.005$).

Conclusion: The family empowerment program was effective in enhancing family caregivers' ability to care for patients with schizophrenia in the community.

Keywords: Schizophrenia, Caregivers, Family, Community Mental Health Services, Empowerment

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Highlights

- An empowerment program based on Gibson's framework significantly improves caregiving ability in schizophrenia.
- Intervention group scores were significantly higher than the usual care group.
- Phone follow-ups in weeks 2 and 4 supported sustainable caregiving practices.
- The program fosters caregivers as active partners in community mental health.

Plain Language Summary

Schizophrenia is a complex mental health condition that affects how a person thinks, feels, and behaves. When patients return to their homes in the community, their family members usually become the primary caregivers. While family support is essential for recovery, this role can be incredibly demanding and stressful. Many families struggle because they feel they lack the specific skills and confidence needed to manage the illness, handle medications, or deal with difficult behaviors.

Our study focused on testing a "Family Empowerment Program" to help these caregivers in Pathum Thani, Thailand. We worked with 60 family members, dividing them into two groups. One group participated in our 6-week program, which included small-group meetings and regular support through phone calls. The program was designed to help caregivers discover the real problems they face, reflect on their experiences, and take charge of their caregiving duties more effectively. The other group received the usual health advice from the hospital.

The results showed a significant positive change. Caregivers who participated in the empowerment program became much more capable and confident in their roles compared to those who received only routine advice. They reported being better at managing the patient's medications, reducing stress in the home, and recognizing early warning signs of a relapse. Importantly, they also learned how to take better care of their own mental health.

This research matters to the public because it demonstrates that with the right support, families can become powerful partners in mental health care. Instead of struggling alone, caregivers can be trained to provide high-quality care that keeps patients stable and out of the hospital. By strengthening families, we can build a more supportive and effective community-based health system that benefits both patients and their loved ones in the long term.

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Introduction

Schizophrenia is a prevalent and severe psychiatric disorder that continuously impacts a patient's cognition, affect, perception, and behavior. The relapse rate among patients with schizophrenia remains as high as 50% within 2–6 months post-discharge, highlighting the critical importance of continuous care within the community (Department of Mental Health, 2022). Factors contributing to relapse are partly patient-centered, such as neurotransmitter imbalances, ineffective coping strategies, and low self-esteem. Additionally, factors related to the family and caregivers play a significant role; these include inappropriate caregiving, a lack of caregiving knowledge and skills, poor communication, strained family relationships, and insufficient support (Tothong & Kiatsinsa, 2021; Bunserm, 2016; Pothimas et al., 2020; Fan et al., 2021). Several studies have further indicated that families play a crucial role in recovery by attending to patients' basic needs, serving as a source of emotional support, understanding and accepting the illness, and promoting medication adherence and appropriate ongoing care (Gandhi & Jones, 2020; Ferliana et al., 2020).

Caregiving ability is significantly predicted by empathy, communication skills, low expressed emotion, and adequate knowledge (Siriphun & Nawsuwan, 2020). Similarly, caregiving readiness is fostered through positive attitudes, constructive appraisals, and formal training (Tassanatanachai et al., 2020). Furthermore, since caregiver burden is primarily driven by caregiving attitudes and social support, healthcare professionals should prioritize these factors when designing supportive interventions (Kongnirundon et al., 2018).

Empowerment programs have consistently proven effective in reducing caregiver burden and fostering proficient caregiving behaviors among families of individuals with schizophrenia (Thanikkul & Dangdomyut, 2012; Anantariyavej et al., 2013). Specifically, self-help empowerment initiatives have been shown to significantly alleviate emotional and lifestyle-related burdens (Thanikkul & Dangdomyut, 2012), while interventions focusing on problem

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identification and social support for caregivers of patients experiencing auditory hallucinations yield superior caregiving outcomes (Anantariyavej et al., 2013). By integrating Gibson's (1995) empowerment framework with family-centered or family systems theories, interventions have successfully enhanced medication adherence and bolstered caregivers' capacity for psychosocial rehabilitation (Phuengnam et al., 2017; Deelee et al., 2018). According to Gibson (1995), empowerment is a dynamic, participatory process comprising four essential stages: discovering reality, critical reflection, taking charge, and holding on. This framework focuses on facilitating caregivers to recognize their own potential, mobilize resources, and develop sustainable problem-solving skills to gain mastery over their caregiving challenges.

These findings are further corroborated by international evidence demonstrating that psychoeducation, crisis management, and communication skills training significantly improve family dynamics and caregiving proficiency (Zhou, 2020; Shetty et al., 2021). Furthermore, intensive empowerment programs emphasizing psychological resilience and role awareness have been shown to enhance support for activities of daily living and significantly reduce relapse among patients with schizophrenia (Iswanti, 2024).

However, most existing studies have focused on specific outcomes such as caregiver burden, medication adherence, or psychosocial rehabilitation, rather than comprehensively evaluating the overall caregiving ability of family caregivers of people with schizophrenia in community settings. Therefore, the present study was designed to develop a Family Empowerment Program to strengthen caregivers' capacity across five key domains: (1) promoting patient self-care, (2) reducing stressors, (3) medication management, (4) monitoring and managing relapse, and (5) caregiver self-care. The objective was to compare caregiving ability among family caregivers of people with schizophrenia before and after participation in the program, as well as between the intervention group and those receiving routine advice for

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home care of patients with schizophrenia, in order to generate empirical evidence to inform community psychiatric nursing practice.

Materials and Methods

Design, setting, and sample

This quasi-experimental study employed a pretest–posttest control group design and was conducted in a community setting in Pathum Thani Province, Thailand. The study population comprised family caregivers of patients with schizophrenia, and data were collected between August to November 2025.

Eligible participants were family members aged 18–59 years who were related to the patient (e.g. parent, spouse, child, or sibling), lived with the patient or in close proximity, and had at least 6 months of experience in caring for the person with schizophrenia. Exclusion criteria were inability to participate in at least 80% of the intervention sessions, relocation from the study area, or withdrawal before completion of the program.

The required sample size was calculated using G*Power version 3.1.9.4 (Faul et al., 2007) with the following parameters: test family = t-test, statistical test = difference between two independent means (two groups), one-tailed, significance level = 0.05, power = 0.70 (Cohen 1988), and effect size = 0.70. The minimum total sample size required for both groups was 52 participants. To account for a potential 10% attrition rate, the sample size was increased based on nursing research design recommendations (Grove et al., 2013), yielding a final sample of 60 caregivers, who were then randomly assigned to an experimental group (n = 30) and a control group (n = 30).

Instruments

Data were collected using: (1) a general information form for caregivers and patients with schizophrenia (including gender, age, educational level, income adequacy, underlying

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disease, relationship to patient, and duration of caregiving) and patients with schizophrenia (including gender, duration of illness, and hospitalization in the past year), and (2) the Caregiving Ability for Patients with Schizophrenia Questionnaire. The Caregiving Ability for Patients with Schizophrenia Questionnaire was developed in the Thai language by the researchers for this specific study, based on a comprehensive literature review. The scoring categorization was adapted from Bloom's taxonomy (Bloom, 1971). The content validity of the questionnaire was evaluated by three experts in psychiatric nursing and mental health, yielding a Content Validity Index (CVI) of 0.87. The caregiving ability questionnaire consists of 40 items covering five domains: (1) promotion and support of patient self-care (8 items), (2) reduction of stressors for the patient (10 items), (3) medication-taking and attending appointments for medication refills (5 items), (4) observation and management of abnormal or relapsing symptoms, including sleep problems and irritability or aggression (10 items), and (5) caregivers' self-care to reduce their own stress (7 items). Items are rated on a 5-point rating scale, yielding a total score ranging from 40 to 200, with higher scores indicating greater caregiving ability. The content validity of both the caregiving ability questionnaire and the Family Empowerment Program was evaluated by three experts in psychiatric nursing and mental health. The questionnaire was pilot-tested (try-out) in a group of 15 caregivers similar to the study sample, and its internal consistency reliability was confirmed with a Cronbach's alpha coefficient of 0.81. Caregiving ability was assessed in both the experimental and control groups at two time points: at baseline (pretest) and at week 7 (posttest), exactly one week following the completion of the 6-week Family Empowerment Program.

Intervention

Participants in the control group (n=30) received routine advice for home care of patients with schizophrenia, including taking medication daily, observing abnormal symptoms, and attending scheduled follow-up visits. The experimental group (n=30) participated in the

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Family Empowerment Program, which was adapted from Gibson's (1995) empowerment framework. This program was designed to strengthen the caregivers' internal processes and problem-solving abilities through four distinct stages: (1) discovering reality, (2) critical reflection, (3) taking charge, and (4) holding on. The intervention was conducted as small-group activities in the community over a 6-week period. It consisted of five sessions, including three community-based group meetings and two individual follow-up phone calls to provide ongoing support and problem-solving guidance. The program sessions were delivered by the principal investigator, who is a nursing lecturer specializing in family and community nursing. A brief description of the educational content and key activities for each session, mapped to Gibson's empowerment steps, is summarized in Table 1.

Data analysis

Data were analyzed using the IBM SPSS Statistics version 26. Descriptive statistics were used to summarize demographic characteristics. The normal distribution of the caregiving ability scores was examined using the Kolmogorov-Smirnov test, which indicated that the data were normally distributed ($p > 0.05$). Baseline differences in general demographic and other categorical variables between the experimental and control groups were examined using the chi-square test, whereas within-group and between-group differences in caregiving ability scores were analyzed using paired and independent t-tests, respectively, with a significance level of $p < 0.05$.

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Table 1. Overview of the Family Empowerment Program sessions and stages.

Session	Gibson's empowerment step (s)	Content and Activities
Session 1 (Week 1, Day 1) Community Hall	1. Discovering reality 2. Critical reflection	1) Establishing rapport through ice-breaking activities. 2) Providing psychoeducation on schizophrenia and home-based care. 3) Identifying the "actual situation" and engaging in critical reflection using the "Expectations vs. Reality" and "Problem Review" worksheets. 4) Assigning homework: "Ways to solve caregiving problems" worksheet.
Session 2 (Week 1, Day 2) Community Hall	2. Critical reflection 3. Taking Charge	1) Encouraging activity to enhance motivation and group support 2) Developing critical reflection via role-playing games based on real-life caregiving scenarios. 3) Practicing "Taking Charge" by reviewing homework and role-play outcomes to implement problem-solving skills. 4) Group discussion and feedback on coping strategies 5) Recording significant caregiving events in a caregiver handbook
Sessions 3 & 4 (Weeks 2 & 4) Telephone Follow-up	4. Holding on	1) Monitoring caregiving practices via telephone to ensure continuity (Holding on). 2) Exploration of problems and obstacles encountered at home - Individualized suggestions and problem-solving guidance. 3) Providing emotional support and encouragement to sustain caregiving performance.
Session 5 (Week 6) Community Hall	4. Holding on	1) Final evaluation and monitoring of caregiving practices to promote sustainability (Holding on). 2) Group discussion to evaluate and reflect on caregiving changes. 3) Facilitator feedback and reinforcement of effective practices and closure/farewell activity

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Results

The general characteristics of the family caregivers and the patients are shown in Table 2. There were no statistically significant differences in caregivers' general characteristics between the two groups. The general characteristics of patients with schizophrenia also did not differ significantly between the groups (Table 2).

When comparing the mean caregiving ability scores of caregivers in the experimental group before and after the intervention, the posttest score was significantly higher than the pretest score (142.50 ± 16.46 vs. 126.40 ± 16.06; $p < 0.001$) (Table 3).

Regarding the comparison between groups, there was no statistically significant difference in mean caregiving ability scores between the experimental and control groups at baseline (126.40 ± 16.06 vs. 129.17 ± 17.23; $p = 0.523$). However, after the intervention, caregivers in the experimental group had significantly higher mean caregiving ability scores than those in the control group (142.50 ± 16.46 vs. 130.33 ± 16.08; $p = 0.005$) (Table 3).

Table 2. Demographic and Clinical Characteristics of Family Caregivers and Patients with Schizophrenia.

Characteristics	No. (%)		*p-value*
	Intervention Group (*n*=30)	Control Group (*n*=30)	
Family Caregivers			
Gender			0.500[a]
Male	4 (13.33)	3 (10.00)	
Female	26 (86.67)	27 (90.00)	
Age (years), Mean ± SD	45.60 ± 8.54	47.13 ± 6.87	0.447[b]
Educational level			
High school	16 (53.34)	10 (33.33)	0.192[a]
Diploma or higher	14 (46.66)	20 (66.67)	
Income Adequacy			0.601[a]
Sufficient	16 (53.33)	19 (63.33)	
Insufficient	14 (46.67)	11 (36.67)	
Underlying Disease			0.260[a]
None	19 (63.33)	23 (76.67)	0.399[a]
Yes	11 (36.67)	7 (23.33)	
Relationship with Patient			0.631[a]
Parents	8 (26.67)	7 (23.33)	
Spouse	9 (30.00)	6 (20.00)	
Siblings/Others	13 (43.33)	17 (56.67)	

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Duration of Caregiving (years), Mean ± SD	10.93 (5.82)	11.84 (5.27)	0.529[b]
Patient Characteristics			
Gender			
Male	14 (46.67)	13 (43.33)	0.795[a]
Female	16 (53.33)	17 (56.67)	
Duration of illness (years), Mean ± SD	10.83 ± 6.04	12.30 ± 4.96	0.308[b]
Hospitalization (past year)			0.360[a]
None	21 (70.00)	25 (83.33)	
≥ 1 time	9 (30.00)	5 (16.67)	

a= Chi-square test, b= Independent-sample *t-test*, SD = Standard deviation.

Table 3. Comparison of Caregiving Ability scores in the experimental and control groups before and after the intervention.

Caregiving Ability	**Mean**	**SD**	***t***	***p-value***
Within-group (experimental) (*n*= 30)				
Before intervention	126.40	16.06	16.202	< 0.001
After intervention	142.50	16.46		
Between groups (pre-test)				
Experimental group (*n*= 30)	126.40	16.06	- 0.643	0.523
Control groups (*n*= 30)	129.17	17.23		
Between groups (post-test)				
Experimental group (*n*= 30)	142.50	16.46	2.896	0.005
Control groups (*n*= 30)	130.33	16.08		

SD = Standard deviation

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Discussion

The results of this study demonstrated significant improvements in caregiving ability scores within the intervention group from pretest to posttest, as well as significant differences when compared with the control group, confirming the effectiveness of the family empowerment program grounded in Gibson's (1995) empowerment framework. These changes can be explained by the processes of discovering reality and critical reflection, which enabled caregivers to review their own experiences, challenges, feelings, and beliefs regarding schizophrenia care, leading to a clearer understanding of both the illness and their caregiving roles as the foundational stage of empowerment.

Caregivers were provided with essential information and decision-making support during the taking charge phase, where they practiced problem-solving through role-playing, peer learning, and the use of a structured caregiving manual, thereby fostering the confidence needed to implement appropriate caregiving strategies in daily life. Furthermore, the holding on phase, reinforced through scheduled telephone follow-ups, encouraged caregivers to sustain these caregiving practices over time; this close monitoring allowed emerging problems to be identified and addressed promptly, helping caregivers maintain motivation and appropriate behaviors despite real-world challenges, and resulting in a tangible enhancement in their overall caregiving ability.

Several studies employing empowerment concepts support these findings. Deelee et al. (2018) found that after participating in a program based on Gibson's four-stage process, caregivers showed significantly higher abilities in psychosocial rehabilitation for patients with schizophrenia. This is consistent with the current study's significant increase in within-group caregiving ability scores. Similarly, Iswanti et al. (2024) reported that integrating family empowerment for relapse prevention led to higher caregiving skills and improved patient daily living activities. Studies by Zhou (2020) and Shetty et al. (2021) also indicated that educational

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interventions covering caregiving skills, crisis management, and self-care resulted in improved family relationships and knowledge. These studies corroborate our first hypothesis, emphasizing that repeated cycles of discovering reality, reflection, and taking action significantly bolster caregiving capacity.

When comparing the intervention and control groups, the results highlight the specific efficacy of the empowerment program over usual care alone. Standard care, which typically focuses on medication adherence and general advice, may be insufficient for developing the complex skills and confidence required for schizophrenia care. The Family Empowerment Program stands out due to its emphasis on continuity and active participation through Gibson's framework. The group process facilitated social support, allowing caregivers with shared experiences to exchange knowledge and reduce feelings of isolation. A pivotal component of this program was the close monitoring during the holding on stage. Telephone follow-ups in weeks 2 and 4 allowed researchers to address real-time obstacles and provide immediate encouragement. This prevented caregivers from abandoning their efforts when faced with practical challenges. In contrast, while the usual care received by the control group is essential for medical management, it often lacks the depth needed to enhance the personal potential of family caregivers.

These results align with Thanikkul and Dangdomyut (2012), who found that empowerment- based self-help groups significantly reduced caregiver burden compared to usual care. Furthermore, Anantariyavej et al. (2013) demonstrated that empowerment programs tailored for managing specific symptoms, such as auditory hallucinations, led to significantly better caregiving behaviors by fostering problem awareness and utilizing social support networks. Ultimately, this research confirms that empowering caregivers to recognize problems, understand their roles, and connect with support systems leads to effective behavioral changes. As evidenced by Deelee et al. (2018), Zhou (2020), Shetty et al. (2021),

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and Iswanti (2024), such programs consistently yield better outcomes in psychosocial readiness, family relationships, and daily caregiving compared to routine health services.

Ultimately, the positive outcomes observed demonstrate the strength of the Family Empowerment Program in fostering resilient and capable caregivers, providing a robust framework for community-based intervention.

However, this study has some limitations. First, the participants were limited to family caregivers of patients with schizophrenia in a single setting (Pathum Thani Province), which may restrict the generalizability of the findings to other regions or different patient populations. Second, data collection relied on self-reported questionnaires, which may be subject to subjective reporting bias.

Conclusion

This study showed that a family empowerment program based on Gibson's framework significantly improved caregiving ability among family caregivers of patients with schizophrenia compared with usual care. These findings support incorporating empowerment-based interventions into community mental health services to strengthen caregivers' capacity. For future research, it is recommended to conduct multi-site randomized controlled trials with larger sample sizes to enhance the generalizability of the results. Additionally, future studies should investigate the long-term sustainability of the Family Empowerment Program and evaluate its secondary effects on patient clinical outcomes, such as rates of relapse or rehospitalization.

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Ethical Considerations

Compliance with ethical guidelines

This study was approved by the Ethics Committee of the Shinawatra University, PathumThani, Thailand with the Institutional Review Board Code: IRB 24/07. It was

performed following the ethical standards of the Declaration of Helsinki (2013 version) and its later amendments or comparable standards of ethics. All participants were initially informed completely about the study goals and methods and then signed an informed written consent form.

Authors' contributions: Conceptualization, methodology, and study design: Patcharin Namuangrak; Investigation and data collection: Siriporn Nantasenee; Data analysis: Nittaya Sareekit and Worasita Punnaut; Writing original draft: Patcharin Namuangrak; Writing review and editing: Patcharin Namuangrak and Siriporn Nantasenee; Final approval: All authors.

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