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Effectiveness of Adherence Therapy for People With Schizophrenia in Turkey: A Controlled Study

Gul Dikec [a,*], Yasemin Kutlu [b]

[a] Izmir University, School of Health, Nursing Department, Izmir, Turkey
[b] Istanbul University, Florence Nightingale Nursing Faculty, Mental Health and Psychiatric Nursing Department, İstanbul, Turkey

A B S T R A C T

Objective: This study used a quasi-experimental design with a pretest–posttest control group and follow-up to determine the efficacy of adherence therapy in patients with schizophrenia in Turkey.
Methods: The sample of this study consisted of patients with schizophrenia (n = 30). The Questionnaire Form, Medication Adherence Rating Scale, Internalized Stigma of Mental Illness Scale, and Beck Cognitive Insight Scale were used. The patients were assigned to experimental (n = 15) and control (n = 15) groups using the randomization method. The experimental group received adherence therapy in eight sessions.
Results: When the scores of the patients in the experimental and control groups were compared at the pretest, posttest, and 3- and 6-months follow ups, a significant difference was only found in the Medication Adherence Rating Scale posttest scores.
Conclusion: Adherence therapy is effective in improving adherence to treatment but is not effective with regard to insight and internalized stigma in patients with schizophrenia.

Poor adherence to long-term antipsychotic medication results in increased incidences of psychotic symptoms (Kleinman et al., 2011), risk of violence (Rungruangsiripan, Sitthimongkol, Maneesriwongul, Talley, & Vorapongsathorn, 2011; Staring et al., 2010; Zygmunt, Olfson, Boyer, & Mechanic, 2002), relapses, hospital admissions, and higher costs (Barkhof, Meijer, de Sonneville, de Linszen, & de Haan, 2012; Boden, Brandt, Kieler, Andersen, & Reutfors, 2011; Byerly, Nakonezny, & Lescouflair, 2007; Dilbaz, Karamustafalıoğlu, Oral, Önder, & Çetin, 2006; Kasper, Saya, Tekin, & Loze, 2009; Kelleci et al., 2011; Kleinman et al., 2011; Novick et al., 2010; Rungruangsiripan et al., 2011; Sajatovic, Velligan, Weiden, Valenstein, & Ogedegbe, 2010).

Several studies worldwide have investigated poor adherence to treatment in cases of schizophrenia. Olfson et al. (2000) found that 50% of patients with schizophrenia in western countries showed a partial non-adherence within the first 3 months after their discharge from hospital. Roberts & Velligan (2011) established a consensus in the form of a set of guidelines, representing the views of 41 specialists who claim that the rate of non-adherence to treatment in schizophrenia ranges from 51 to 70%. In the Far East, little research has been conducted so far to address the issue of non-adherence in patients with schizophrenia. Pulsiri et al. (1992) found that 54% of Thai people with schizophrenia did not take their anti-psychotic medication as prescribed. Similarly, Karnraiw (1998) suggested that 47% of 131 patients were inconsistent in collecting prescriptions for antipsychotic medication. In Hong Kong, Bressington, Mui, & Gray (2012) showed that 30% of patients diagnosed with schizophrenia had a low treatment adherence. In Turkey, according to Koç (2006), 74% of patients diagnosed with schizophrenia were shown to be non-adherent, while a study by Dilbaz et al. (2006) found the non-adherence rate to be 25% in the long term and 51% during the acute period.

Adherence to treatment for psychiatric disorders is important not only for the patient but also for caregivers and the general public. Patients with schizophrenia, their families, and their communities all bear the burden of the significant social and economic impacts that follow from poor adherence to treatment (Anderson et al., 2010).

The National Institute for Health and Clinical Excellence (NICE) suggested in their clinical guidelines that continuing a therapy for longer periods increases adherence to treatment and prevents patients from undergoing repeated hospitalizations (Nunes et al., 2009). A range of different interventions should therefore be used to ensure that patients diagnosed with schizophrenia follow their treatment plans for longer periods and have a better adherence to treatment. Therefore, the need to find an effective intervention that can help patients with adherence to therapy is important for mental health professionals. One of the most common methods used by psychiatric nurses in managing psychiatric disorders is psycho-educational intervention oriented toward patients and their families. Psycho-educational programs for people with psychotic disorders and their families involve enhancing knowledge about mental illness and its medications and treatments (Cheng &

* Corresponding Author: Gul Dikec, PhD, Izmir University, School of Health, Nursing Department, Zubeyde Hanım Neighborhood Baspehlivan Karaali Street No:379, Ornekkoy, Karsiyaka, Turkey.
E-mail addresses: gul.dikec@izmir.edu.tr (G. Dikec), ykutlu@gmail.com (Y. Kutlu).

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Chan, 2005). However, these programs do not have a significant effect on medication adherence or on promoting positive attitudinal and behavioral changes in these patients (Zygmunt et al., 2002). A controlled trial by Schulz et al. (2013) reported that psycho-educational or behavioral management programs for people with acute psychosis can significantly reduce symptom severity, but no significant effect was found on the patients' adherence, insight into treatments, or functioning. Researches have shown that important factors, such as patients' knowledge, attitude, insight, and perceived stigma toward the illness and treatment effect adherence. Increasing the insight of the patient into the disease and decreasing stigma surrounding the disease are as important as increasing the patient's knowledge about the disease in improving adherence to treatment (Chien, Mui, Cheung, & Gray, 2015; Staring et al., 2010). Also, motivation to adherence to treatment program should be enabled to decrease the number of relapses.

One of the most commonly used techniques in providing motivation is motivational interviewing. Motivational interviewing has been found to be particularly useful for people with addictions or high resistance to treatment (Rubak, Sandback, Lautritzen, & Christensen, 2005). Compliance therapy, one of the first programs developed for adherence to treatment, was derived from the principles and techniques of motivational interviewing and cognitive–behavioral therapy (Haynes, Mcdonald, Garg, & Montague, 2002; Kemp, Kirov, Everitt, Hayward, & David, 1998).

In recent years, one of the psychosocial interventions employed by psychiatric nurses to increase adherence to treatment has been adherence therapy (AT) (Gray, 2012). AT, subsequently developed by Gray et al. (2006), is a brief cognitive–behavioral approach that evolved from compliance therapy (Gray, Wykes, Edmonds, Leese, & Gourney, 2004; Kemp, Hayward, Applewhaite, Everitt, & David, 1996). AT is a collaborative, flexible, structured way of working and draws on both cognitive–behavioral therapy (Kingdon & Turkington, 1994) and motivational interviewing (Miller & Rollnick, 2002) techniques. The AT manual describes a detailed phased approach to promoting adherence to treatment in patients with schizophrenia. The key therapeutic techniques used are exchanging information, developing discrepancy, and effectively dealing with resistance. It consists of eight sessions of therapy (Gray et al., 2004, 2006; Gray, White, Schulz, & Abderhalden, 2010).

Most studies aiming to determine the effectiveness of AT have been conducted in Europe (Gray et al., 2006, 2010; Staring et al., 2010; Schulz et al., 2013), North America (Anderson et al. 2010), and England (Brown, Gray, Jones, & Whitfield, 2013). One was carried out in Taiwan (Maneesakorn, Robson, Gournay, & Gray, 2007), but in general these various studies have produced different results. In some randomized controlled trials, AT has been found to be effective in improving adherence to therapy in patients with psychosis (Gray et al., 2010; Maneesakorn et al., 2007; Staring et al., 2010). However, O'Donnell et al. (2003) and Gray et al. (2006) reported no effect on either symptoms or adherence. With these contrasting results, studies of AT continue to be carried out.

The non-adherence rate of patients with schizophrenia is high in Turkey, and there are cultural, economic, social, and health system differences between Turkey and other countries where trials have been carried out. Although there have been studies relating to the restructuring of psychiatric health services within the last decade in Turkey, the *"Hospital-based psychiatric health model"* still stands. In line with this model, merely exacerbation period of diseases is focused, and interventions relating to the bio-psychological factors predisposing to exacerbations of the disease have not been sufficiently explored. Medication utilization and regular monitoring of patients with schizophrenia of whom treatment incompatibilities particularly are high are at their sole discretions, or sometimes the responsibility is left with the patient's family. As a result, these individuals are left alone with their disease outside the hospital, and they cannot deal with the preparative and accelerating factors for exacerbation. Exacerbation and admission into hospital then become inevitable. With the National Psychiatric Health Action Plan, prepared in 2011, the "*Hospital-Society Balance Model*" was adopted, and community mental health centers came into service throughout the country. Interventions have been applied, particularly in relation to adherence to treatment in patients with schizophrenia, their re-introduction to society, and maintenance of their functionalities. However, these centers cannot function fully due to inadequate staff numbers. Along with that, studies are being performed in foundations related to schizophrenia in this direction, but desired level cannot be reached. Moreover, there are a limited number of programs structured to develop adherence to treatment in patients with schizophrenia, and they are also psycho-education-focused (Yanık, 2007).

As determined in various studies, an increase in disease and treatment knowledge alone is not enough to develop adherence to treatment in patients with schizophrenia. It is also important to develop their motivation toward treatment, which demonstrates the importance of structured programs that use motivational interviewing and cognitive–behavioral techniques to provide behavior change in patients with schizophrenia. As a result, the current consensus in the literature is that AT is a proper program.

In the case of Turkey, although there are studies looking at the role of psycho-education in improving adherence to treatment, no studies have been conducted specifically using AT, which is a cooperative and patient-focused approach that is different from other approaches used to develop adherence to treatment in patients with schizophrenia and that depends on cognitive–behavioral techniques. As there are differences between Turkey and other countries in terms of the culture and health system, determining the efficacy of AT in Turkey will allow the use of a different approach to adherence to treatment in patients with schizophrenia. Furthermore, there are a limited number of studies illustrating the effect of AT on increasing insight and decreasing internalized stigma (Chien et al., 2015; Staring et al., 2010). There is thus a need for studies to evaluate the effect of AT among patients with schizophrenia in Turkey. This study contributes to the literature by determining the effectiveness of AT in a non-western culture. In addition, although primarily targeting the question of using AT to improve treatment adherence, this study also addressed the treatment of the individual in general and focused on the importance of developing patients' insight, examining beliefs and attitudes related to treatment adherence, and issues related to the stigma surrounding mental illness.

The primary objective of this study was to evaluate the effectiveness of AT in increasing adherence in Turkish patients with schizophrenia. The secondary objective was to evaluate the effectiveness of AT with regard to patients' insight about their condition. The third objective was to evaluate the effectiveness of AT with regard to internalized feelings of stigma.

Hypotheses of the study:

1. The treatment adherence score of patients with schizophrenia who have received AT will be higher than that of patients with schizophrenia who have not received AT.
2. The insight score of patients with schizophrenia who have received AT will be higher than that of patients with schizophrenia who have not received AT.
3. The internalized stigma score of patients with schizophrenia who have received AT will be lower than that of patients with schizophrenia who have not received AT.

MATERIALS AND METHODS

Aim and design

This study was conducted using a quasi-experimental study design with a pretest–posttest control group and follow-up in order to determine the effectiveness of AT in a group of patients with schizophrenia in Turkey.