



## Self-Efficacy and Perceived Self-Efficacy as Predictors of Medication Adherence in Patients with Mental Disorders: A Literature Review

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### ABSTRACT

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Compliance to treatment is an essential health behavior in chronic ill patients. Self-efficacy refers to a person's belief or beliefs about their ability to successfully perform the required behavior to produce specific outcomes. The purpose of this paper was to investigate through the literature review whether self-efficacy and perceived self-efficacy contribute to medication adherence in people with mental disorders. A systematic review of the literature in the electronic databases, google scholar, pubmed and Scopus was carried out. Studies and articles in Greek and English were studied and selected, on the topic of self-efficacy as a predictive factor in medication compliance of mental patients. The literature review showed that studies on the degree of compliance of mentally ill patients and perceived self-efficacy are significantly associated with both treatment adherence and compliance as well as self-management. The findings also show that self-efficacy, quality of life and social functionality of patients with mental disorders are important self-factors that influence the degree of medication compliance. Our research confirms that self-efficacy is a strong predictor of medication adherence, as well as self-management. The positive correlation with compliance holds for all types of self-efficacy.

### KEYWORDS:

Self-Efficacy, Perceived Self-Efficacy, Mentally Ill, Medication Compliance.

### INTRODUCTION

Patient compliance or non-compliance with medication is a complex and multifactorial phenomenon [1]. The most scientific term of compliance according to Hamrahian (2020), is the process by which patients take their medications based on the instructions given to them, which is quantitatively divided into three phases: (1) initiation, (2) implementation and (3) termination.

Compliance can be thought of as a behavior or attitude. When we consider patient attitudes of compliance or beliefs it is always a reality. However, compliance behavior changes and fluctuates over time and the course of the disease [2].

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Human behavior plays a central role in maintaining health and preventing disease. A person is more likely to be motivated and engage in a behavior if their self-efficacy is high [3].

Social-psychological models of health behavior suggest that four essential elements determine an individual's adherence to treatment: (1) the threat of illness (perceived severity and vulnerability), (2) clues about benefits, (3) the barriers to adopting a behavior (for example, expected disadvantages of treatment), and (4) intention (intention to comply with treatment regimen). They suggest that people make a cost-benefit analysis on whether the need to take medicines in order to maintain their health outweighs their concerns about the potential adverse effects of taking them (Ross & Guggenheim 1983).

Donavan & Blake 1992, argue that although the doctor is the one who recommends a specific treatment, the patient is ultimately the one who decides whether to follow the medical instructions, whether to take the medicines, in what dosage and at what time [4].

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## The Theory of Self-Efficacy

Based on Bandura’s (1999) self-efficacy theory, which was later renamed social cognitive theory, self-efficacy was defined as an individual's perception of his ability to perform specific behaviors through four processes including, cognitive, motivational, emotional and choice procedures [5,6,7]. The stronger their cognitive perception of self-efficacy, the higher they set their goals and their commitment to achieving those goals. Goal-based motivation leads to persistence in achieving one's goals. Perceived self-efficacy determines their level of motivation [8].

People's emotional processes influence the way they control and manage threats such as stress and depression in life and are therefore a powerful source of motivation [9]. Thus, in social theory Bandura believes that self-efficacy plays an important role in self-regulation, appraisal, and exercising control over potential threats.

According to Bandura's theory (1986, 1997), the elements that significantly shape the concept of self-efficacy

are the following: (a) the individual's previous experiences and personal successes (b) indirect experiences through observation of the models (c) social influences along with verbal persuasion and (d) physical and emotional experiences of the individual's physiological stimulation [10,11].

Similar to the concept of self-efficacy is the sense of personal control, that is, the individual's perception of his ability to significantly change the events and achieve desired effects [12]. Perceived self-efficacy is “the belief in one's ability to face difficult or novel tasks and to cope with adversities in specific demanding situations” [13].

Both perceived self-efficacy and sense of control refer to one's belief, ability to influence the reality. However, there is a slight difference between the two concepts [10]. While sense of control refers to the belief that there is a relationship between one's action and the outcome of a given situation, perceived self-efficacy emphasizes one's confidence in his\her ability to act effectively in specific or general circumstances [14].

## RESULTS

**Table 1: Presentation of Research on the Relationship between Perceived Self-Efficacy and Medication Adherence.**

Author, Year	Purpose of Research	Sample	Method	Main Research Results
María José Martos-Méndez, 2016	Exploring the role of social support and self-efficacy in treatment compliance in chronic ill patients.	The sample consisted of 202 chronic patients.	Patients completed the following questionnaires: 1) demographics 2) chronic pain scale; 3) perceived social support scale 4) non-adherence to treatment (Haynes-Sackett test, Taylor 1979)	The results showed that the participants had moderate to high self-efficacy regarding their illness (M = 3.92, SD = .73). Concerning social support, the mean was 3.39 with a standard deviation of 0.72, although satisfaction with social support was higher (M = 4.18, SD = .78). In addition, social resources were found to act as a mediating mechanism explaining the relationship between self-efficacy and treatment compliance behavior.
Chen Jiang, Yun et al., 2023	To investigate the effects of self-efficacy on self-management and medication adherence in patients with chronic complaints.	2047 patients participated in this cross-sectional study.	Patients completed the following questionnaires: 1) demographics 2) NGSES self-efficacy scale;	Self-efficacy was significantly associated with self-management compliance ( $\beta = 0.207$ , 95% CI = 0.064–0.350, P = 0.005), but not with medication compliance (for [moderate/low]: OR = 1.119, 95% CI = 0.828–1.511, P = 0.47; for [high/low]: OR = 1.281, 95% CI = 0.935–1.754, P = 0.12). In subgroup analysis, self-efficacy was positively associated with self-management adherence in patients with multiple chronic complaints ( $\beta = 0.286$ , 95% CI = 0.037–0.535, P = 0.03), but not in those with a single chronic disease (P = 0.12). Self-efficacy was not significantly

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				associated with medication compliance in any of the subgroups.
Sekerdej M & Szwed P., 2021	To examine to what extent personal sense of control and perceived self-efficacy influence the individual to change important life events.	98 people participated in the research, of which 73 were women and 25 were men.	Patients completed the following questionnaires: 1) demographics 2) GSE general self-efficacy scale, Schwarzer, 1992;	The results show that perceived self-efficacy or its experimental equivalent perceived self-efficacy mediated the relationship between sense of control and high stress. The findings suggest that confidence in one's abilities, which is the core of perceived self-efficacy and self-competence, is more important than feelings of control and influence in reality. The confidence in his effectiveness impels the individual to defend his ideas even when they conflict with the group rules.
Wei Yu et al., 2021	The Investigation of compliance to medication and factors affecting it in patients with schizophrenia.	217 inpatients with a diagnosis of the schizophrenia spectrum participated.	Patients completed the following questionnaires: 1) demographics 2) MARS-5 medication adherence scale; 3) PANSS positive and negative syndrome scale; 4) GSES general self-efficacy scale; 5) SQLS schizophrenia quality of life scale; 6) social skills scale for SSPI psychiatric inpatients;	This study found that self-efficacy, quality of life, and social functioning of patients with schizophrenia are important self-factors influencing medication adherence. Medication compliance was positively associated with self-efficacy and activities of daily life and negatively with psychosocial factors and symptoms/side effects.
Zhu G. et al., 2023	Assessment of successive mediating effects between self-efficacy and depressive symptoms.	662 people participated, who were interviewed twice, with one year time length.	Patients completed the following questionnaires: 1) demographics 2) chronic disease self-efficacy scale (SEMCD) 3) depression symptoms scale (PHQ-9) 4) treatment compliance scale (MGLS), Morisky 5) community measurement/management scale (COEN)	Self-efficacy and depressive symptoms were found to have serial mediating effects on the relationship between COEN and medication compliance, as COEN was related to medication compliance by increasing levels of self-efficacy and decreasing depressive symptoms. In addition, it was observed that self-efficacy was statistically associated with medication adherence only in women, whereas depressive symptoms were statistically associated with medication compliance only in men.
Náfrádi L, Nakamoto K, & Schulz PJ, 2017	The aim of this systematic review is to summarize the current state-of-the-art knowledge on the relationship between patient empowerment and	A total of 4903 publications were found. After applying inclusion and exclusion criteria and quality	A systematic review of the relationship between self-efficacy, health locus of control and medication adherence.	High levels of self-efficacy and the locus of internal health control are steadily ascertained that develop medication adherence. Self-efficacy is closely related to the ability dimension of the concept of empowerment.

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	medication compliance across medical conditions.	assessment, 154 articles were deemed relevant.	To fully stamp how dimensions of health control affect medication adherence, the interaction between subdimensions and symmetry of behavior between physician and patient regarding patient control over disease management may offer promising new alternatives.
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[15, 16, 17, 18, 19, 20]

## DISCUSSION

Self-efficacy is based on sociocognitive theory and can be defined as an individual's belief in his or her own ability to perform a specific behavior or set of behaviors [21]. General self-efficacy refers to a consistent sense of personal competence in all situations. It has been shown that a high sense of efficacy can be associated with better health outcomes, greater achievement, and better social accession [22].

Furthermore, self-efficacy has been found to be the cornerstone of medication adherence in chronic mental illness and the most important factor in compliance across conditions within social-cognitive theories and self-regulation [23, 24].

In a review of 66 articles Johnson et al., (2006); Warren-Findlow et al., (2011), 59 found a positive relationship between self-efficacy of medication adherence and compliance.

Perceived self-efficacy had, in most cases, a positive correlation with compliance in research by Corless et al., (2012); Valeberg et al., (2008). Some studies simultaneously applied general measures of self-efficacy as well as specific for diseases or medicines and investigated which were more likely to predict the self-reported medication compliance. Two of the studies reported that the self-efficacy of disease was a more important predictor of compliance than perceived self-efficacy.

The review by McCann et al., (2008), highlighted the importance of self-efficacy in medication compliance in chronic mental illness, as self-efficacy was found to be a significant predictor of compliance in both mental and physical complaints. On the one hand, the effect of self-efficacy on encouraging compliance is so strong that it holds regardless of the type of self-efficacy that applied and across medical conditions. On the other hand, the specific measures of both self-efficacy in medication compliance and self-efficacy on disease management show a positive association with compliance compared to general self-efficacy. [25,26,27,28]

## CONCLUSIONS

Studies on mental patient compliance and perceived self-efficacy have shown that self-efficacy was significantly associated with medication compliance and self-management. The findings show that self-efficacy, quality of

life and social functionality of patients with mental disorders are important self-factors that influence the medication compliance.

Finally, our research confirms that self-efficacy is a strong predictor of medication adherence. The positive correlation with compliance holds for all types of self-efficacy: general, medication compliance, disease management, and other domain-specific measures. [24, 29]

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