

## การรับประทานยาต่อเนื่อง : คำนิยามและปัญหา

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### บทคัดย่อ

การรักษาด้วยยาต้านโรคจิตเป็นวิธีการหลักวิธีหนึ่งในการรักษาโรคจิตเภท แต่หากผู้ป่วยไม่รับประทานยาแล้ว ไม่ว่าจะดีเพียงใด ย่อมไม่เกิดประโยชน์ มีการศึกษาเกี่ยวกับพฤติกรรมการรับประทานยาของผู้ป่วยมาตั้งแต่ ปี คศ.1950 แต่นิยามของคำนี้ยังไม่เป็นที่ตกลงกัน อย่างชัดเจน บทความนี้ได้กล่าวถึงนิยามที่ใช้ในเอกสาร ตำรา และงานวิจัยต่างๆ อัตราการเกิดพฤติกรรมไม่ปฏิบัติตามแผนการรักษา และ ปัญหาของการไม่รับประทานยาตามแผนการรักษาในผู้ป่วยจิตเภท

**คำสำคัญ:** การปฏิบัติตามแผนการรักษา, ยา, นิยาม, อัตรา, โรคจิตเภท

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## Adherence to medication: Definitions and problems

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### Abstract

Antipsychotic medication is the cornerstone of treatment for schizophrenia. However, the best medication is useless unless the patient takes it. Patients' medication-taking behaviour has been investigated since 1950, but there is no agreed upon its term or definition. This article outlines the terms used in literature, rates of non-adherence, and problems of medication non adherence in people with schizophrenia.

**Key words:** adherence, medication, definition, rate, schizophrenia

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## Introduction

“Medicines will not work unless the patients take them”<sup>1</sup>. This message from the World Health Organization (WHO) emphasizes the significance of adherence to medications. Attempts have been made to tackle non-adherence problems, but the rates of adherence in developed and developing countries are around 50%.<sup>1</sup> In psychiatry, non adherence to antipsychotic medication is one of the greatest challenges.<sup>2</sup> Non adherence in psychiatric patients, especially those with schizophrenia not only undermines the effectiveness of treatment,<sup>1</sup> but it also increases the risk of poor clinical outcomes.<sup>3-4</sup> Understanding its definitions and situation would alert health personnel to assess and prevent the problems of non adherence to antipsychotic drugs. Adherence in terms of its various definitions, rates and problems of non-adherence in people with schizophrenia are presented in this paper.

## Definitions of adherence

Patients’ medication-taking behaviour has been investigated since 1950, but there is no agreed upon term for it or definition of it.<sup>5</sup> In the literature, the terms compliance, adherence, and concordance have been used interchangeably.<sup>6</sup>

Compliance is defined as “the extent to which a person’s behaviour (in terms of taking medications, following diets, or executing lifestyle changes) coincides with medical or health advice”.<sup>7</sup> This definition is intended to be non-judgemental. Compliance has been, however, criticised as a paternalistic concept in the clinician-patient relationship.<sup>8</sup> Blackwell<sup>9</sup> commented that this term is coercive and tends to be politically incorrect. It suggests

that the healthcare professional is an “expert” who offers the best advice to a “passive” patient.<sup>10</sup> Compliance leads to patients’ disempowerment or demotivation: those who are non compliant tend to be labelled as “irrational”, “disobedient”, “difficult”, “problematic”, or “resistant”.<sup>9-10</sup> It is the doctor who should comply with the patient’s choice.<sup>11</sup>

Another term, Concordance is defined as “a state of agreement between professional and patient”.<sup>12</sup> This term means agreement and harmony, has been used by the Royal Pharmaceutical Society of Great Britain to emphasise the power and roles of patients to negotiate with professionals about their treatment.<sup>13</sup> Arguably, concordance emphasises the collaborative process.<sup>14</sup> or the level of agreement rather than the patient’s behaviour.

The term adherence is defined as “the extent to which patients follow the instructions they are given for prescribed treatment”.<sup>15</sup> Adherence and compliance may be synonyms that can be used interchangeably.<sup>15</sup> Adherence has been used to include cooperation, partnership, and mutual responsibility between patient and therapist, in the absence of blaming and judgement. Adherence implies that professionals share the responsibility to provide understandable advice, and that patients should play an active role in interpreting the information provided to them and make their own treatment decisions.<sup>16</sup> Thus, adherence emphasises the patient’s choice<sup>17</sup> and does not reflect the same degree of power imbalance and coercion as compliance. Adherence is more neutral than compliance that has a connotation of obedience to authority.<sup>18</sup> In WHO Adherence meeting in 2001, the participants concluded that adherence can be

defined as “the extent to which the patient follows medical instructions”.<sup>1</sup> This meeting group concluded that patients’ behaviours that reflect adherence include:

‘seeking medical attention, filling prescriptions, taking medication appropriately, obtaining immunizations, attending follow-up appointments, and executing behavioural modifications that address personal hygiene, self-management of asthma or diabetes, smoking, contraception, risky sexual behaviours, unhealthy diet and insufficient levels of physical activity’ (WHO, p.17)<sup>1</sup>

This paper has adopted the term ‘Adherence’ following that used in WHO’s adherence project document.<sup>1</sup> The adherence project (WHO, p.17).<sup>1</sup> defines Adherence as ‘the extent to which a person’s behaviour – taking medication, following a diet, and/or executing lifestyle changes, corresponds with agreed recommendations from a health care provider’. Based on literature, there is no agreed upon definition of adherence, therefore accurately estimating adherence is challenging.

## Rates of non-adherence

Adherence is rarely an all-or-nothing phenomenon. It may include errors of purpose, errors in dosage and timing, and the occasional use of inappropriate combinations.<sup>8-9</sup> It can vary from “taking medication irregularly” to “complete discontinuation”. The majority of patients tend to be partially adherent rather than completely or fully non adherent. The rates of non adherence in people with schizophrenia varied from 0% to 100%, with an average of 50%.<sup>7</sup> Suttichaichot, Kulsri, and Piboonarluk<sup>19</sup> reported 56% of non adherence among 4,835 patients in Somdet Chaopraya Institute of Psychiatry due to taking medication irregularly, which was higher than those reported in the US. The rate of non

adherence in psychiatric patients was much higher if compared to 24% in physically ill patients.<sup>20</sup>

Accurately estimating adherence is difficult because there is no agreed upon definition or gold standard for measuring adherence. Some studies treat adherence/non adherence as dichotomous, whereas others define adherence as one point on a continuum, and they may use an ordinal scale to measure it. None of the measures, such as patients’ self-reports, clinicians’ ratings, pill counts, and serum assays, have proven accurate. The duration of observation could also affect adherence rates.

In addition, the duration of observation could affect adherence rates. For example, it has been shown that 50% of psychotic patients remain adherent at one year.<sup>21</sup> Within two years after discharge, the adherence rate can decrease to 25%.<sup>22</sup> Medication adherence is a complex and challenging issue. Partial or non adherence can negatively influence the course of schizophrenia and it can cause personal and socioeconomic problems.

## Problems of medication non adherence

Medication adherence in patients with schizophrenia is complex and multidimensional. Unlike medical illnesses, clinical outcomes in mentally ill patients who are perfectly adherent may improve, but residual symptoms remain, resulting in frustration and discontinuation of medication.<sup>23</sup> Non adherence in people with schizophrenia not only undermines the effectiveness of treatment,<sup>1</sup> but it also seriously impacts the course of the illness in a negative way.<sup>3</sup> In addition, non adherence substantially increases the risk of poor clinical outcomes such as psychopathology, relapse, and suicide.<sup>4</sup>

Even in the first-episode patients, the rate of relapse due to non adherence to medication can be high. Robinson et al.<sup>24</sup> found that among 104 patients who had experienced their first psychotic episode, 82% had at least one relapse and 78% had a second relapse up to five years after treatment. In addition, patients who did not adhere to treatment with antipsychotic medication were five times more likely to relapse than those who were adherent.<sup>25</sup> A five times higher risk of relapse in non adherent patients has also been reported in patients with more than one episode of an illness.<sup>26</sup>

There is strong evidence that relapse can increase the risk of hospitalisation. For example, Valenstein et al.<sup>25</sup> found that among 49,003 veterans with schizophrenia, non adherent patients were 2.4 times more likely than adherent patients to be hospitalised. The number of hospital bed-days in the non adherent patients was also found to be higher than for adherent patients.<sup>27</sup> In addition, an extended duration of partial adherence increases the risk of hospitalisation. In a retrospective review of 4,325 California Medicaid outpatients with schizophrenia, estimated partial adherence gaps as short as 1 to 10 days were associated with a greater risk of hospitalisation.<sup>28</sup> The longer the gaps, the higher the hospitalisation risk in patients with schizophrenia.<sup>28</sup>

Relapse further depletes scarce healthcare resources and causes socioeconomic burdens.<sup>1,16</sup> Wu et al.<sup>27</sup> noted that the costs of schizophrenia in the US include both direct costs (for medication and healthcare services provided for inpatients, outpatients, and long-term care), and indirect costs (for unemployment, reduced productivity at work, suicide, and caregivers). They also cited direct non-healthcare costs (for law enforcement,

research and training, and homeless shelters). The investigators concluded that the overall cost of schizophrenia in the US was approximately \$63 billion in 2002. Another study found that non adherence in people with schizophrenia cost approximately \$33-65 billion per year,<sup>29</sup> which accounted for 40% of the rehospitalisation costs for these patients. In the UK, Knapp et al.<sup>29</sup> reported that non adherence in 658 people with schizophrenia increased the annual cost of total services by approximately £5,000 per patient in 1994. It is obvious that non adherence creates both personal and socioeconomic burdens.

## Summary

Non-adherence is a common problem found in patients with schizophrenia. Non-adherence can cause burdens for the patients, family, and health care system. Understanding its meaning and significance would allow an early detection in order to develop strategies to alleviate this problem.

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