MEASUREMENT OF NON ADHERENCE WITH TREATMENT IN RESEARCH AND CLINICAL PRACTICE

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Non-adherence to treatment is a major challenge in all medical disciplines, including psychiatry. In Medicine, where practitioners are not faced with challenges such as lack of insight, almost half of interventions to improve the treatment adherence seem to fail[1]. As a result, it is estimated that the cost of non-adherence in the United States alone could be up to 300 billion dollars per year[2]. Not surprisingly, it has been claimed that increasing the effectiveness of adherence interventions may have far greater impact on the health of the population than any improvement in specific medical treatments[1].

Most of the literature on non adherence in psychiatry is focussed on psychotic disorders. Based on pharmacy records which measure medication refill, the rates of non adherence varies between 24% and 40%[3]. Valenstein et al, observed that adherence fluctuated over time[3]. While 61% of patients had adherence difficulties at some point over the 4-year period, only about approximately 18% had consistently poor adherence. In a systematic review of 15 cross-sectional, 14 prospective and 10 retrospective studies, Lacro et al found that the non weighted mean frequency of non-adherence was 40.5% (median=40%, range=4-72%)[4]. It is estimated that 20% to 60%, of people suffering from bipolar disorder are non adherent with prescribed medications at any given time; with a mean of 40%[5]. A longitudinal study found that, among patients who started lithium treatment, the median time to discontinuation was only76 days[6]. In depression nearly half of medical outpatients who receive an antidepressant prescription discontinue treatment during the first month[7].

Measurement and estimates of non adherence is fraught with several difficulties. It is important to realize that non adherence is a complex phenomenon and is not unitary concept. There is also no agreement on optimal level of adherence with treatment. Non adherence can be intermittent or continuous, and it can be specific to a single medication, multiple medications or procedures advised by the physician. For example a patient, who is prescribed both antidepressants and ECT may be non adherent with either or both of treatments. The non adherence may be voluntary, such as deliberately not taking medication due to lack of insight can be involuntary, such as forgetting or not following instructions due to poor understanding. Taking medication and reporting this to physician is a voluntary act and can rarely be objectively verified. The measures of adherence with treatment rarely assess all aspects of the adherence.

The problem in defining and measuring the non adherence is illustrated by the situation in clinical trials, where it can be argued that measurement is possible under ideal conditions. Firstly, in controlled trials there is likely to be a selection bias, in that patients recruited in trials are required to undergo consenting procedures, and are therefore likely to be more adherent and to have better cognitive function. Moreover, participation in a controlled trial are also more likely to receive greater attention than those in routine care. This increased attention varies from measurement of adherence to reminders to attend clinical/research assessment sessions, or the provision of free medication[8, 9]. Furthermore, adherence is often measured only among patients who continued in the trial, while patients who are non-adherent might be more likely to drop out of the study. Indeed, patients who drop out from the study because of non-adherence are often reported as “withdrew consent” or “patient decision”, and the underlying reasons are rarely examined in detail.

Methods for monitoring adherence can broadly divided into direct and indirect. Direct methods involve observing patients while swallowing their medication. This has been one of the most studied methods in Medicine. An example is direct observation of treatment used in DOTS (Directly Observed Treatment, Short course) programme which has been used widely in Tuberculosis control and has been translated in schizophrenia9. Other methods include measurement of drug concentration in blood or other bodily fluids or measuring a biologic marker added to the medicine for this purpose.

Indirect methods of monitoring include asking the patient, pill counts (i.e., counting the number of pills remaining in a medication bottle) and electronic monitoring devices, which monitors opening of the lid or tablet strip[10]. Patient account of medication taking is easiest but is often most unreliable method. A simple measure is asking the patients about medication intake over a specified period Adherence is measured at interview by using simple questionnaire such as that used by Herz et al[11], which measures medicine adherence on a 5-point scale (1 = always and 5 = never).

All these methods have their limitations. The technologically advanced methods increase the reliability of assessment but are often too expensive to be used in routine clinical practice. These can also erode the confidence of patients to engage in a more positive wilful way for the management of their disorder.

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The real problem is how the non adherence with treatment is assessed in routine clinical practice. The assessment and management of non adherence with treatment has received little attention in psychiatric training and routine clinical practice. Directly asking patients about the adherence with treatment is the only viable option for a busy clinician. If proper questions are asked in context of a positive therapeutic relationship, this can be sufficient to assess non adherence. In case of antidepressant treatment it is claimed that such simple questions can identify more than 50% of patients with low adherence to therapy with a specificity of 87%[12]. Questioning patients about adherence with treatment is particularly important during the early phase of treatment as adverse effects from psychiatric treatment are common and the important reason for discontinuing medication early in the course of illness[13]. A proper assessment of treatment adherence in routine clinical practice is crucial for the effective management of psychiatric disorders as no treatment will work if it is not used properly.

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