A New Taxonomy for Describing and Defining Adherence to Medications

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Abstract

Interest in patient adherence has increased in recent years, with a growing literature that shows the pervasiveness of poor adherence to appropriately prescribed medications. However, four decades of adherence research has not resulted in uniformity in the terminology used to describe deviations from prescribed therapies. The aim of this review was to propose a new taxonomy, in which adherence to medications is conceptualized, based on behavioural and pharmacological science, and which will support quantifiable parameters. A systematic literature review was performed using MEDLINE, EMBASE, CINAHL, the Cochrane Library and PsycINFO from database inception to 1 April 2009. The objective was to identify the different conceptual approaches to adherence research. Definitions were analyzed according to time and methodological perspectives. A taxonomic approach was subsequently derived, evaluated and discussed with international experts. More than 10 different terms describing medication-taking behaviour were identified through the literature review, often with differing meanings. The conceptual foundation for a new, transparent taxonomy relies on three elements, which make a clear distinction between processes that describe actions through established routines ('Adherence to medications', 'Management of adherence') and the discipline that studies those processes ('Adherence-related sciences'). 'Adherence to medications' is the process by which patients take their medication as prescribed, further divided into three quantifiable phases: 'Initiation', 'Implementation' and 'Discontinuation'. In response to the proliferation of ambiguous or unquantifiable terms in the literature on medication adherence, this research has resulted in a new conceptual foundation for a transparent taxonomy. The terms and definitions are focused on promoting consistency and quantification in terminology and methods to aid in the conduct, analysis and interpretation of scientific studies of medication adherence.

Taxonomy	Definition
Adherence to medications	The process by which patients take their medications as prescribed, composed of *initiation, implementation* and *discontinuation*. **Initiation** occurs when the patient takes the first dose of a prescribed medication. **Discontinuation** occurs when the patient stops taking the prescribed medication, for whatever reason(s). **Implementation** is the extent to which a patient's actual dosing corresponds to the prescribed dosing regimen, from initiation until the last dose. **Persistence** is the length of time between initiation and the last dose, which immediately precedes discontinuation.
Management of adherence	The process of monitoring and supporting patients' adherence to medications by health care systems, providers, patients, and their social networks.
Adherence-related sciences	The disciplines that seek understanding of the causes or consequences of differences between prescribed (i.e. intended) and actual exposures to medicines.