Measuring non-adherence

Lesson 5.2.2 | Health psychology

Core ideas

Non-adherence can be measured using self-reports, interviews, pill counts, prescription records, electronic monitoring and biological tests.

Self-report methods are quick and can reveal reasons for non-adherence, but patients may forget, misunderstand or give socially desirable answers.

Pill counts compare the number of doses left with the number expected, but they cannot prove when or whether the medicine was actually taken.

Pharmacy or prescription records show whether treatment was collected or refilled, but they do not prove correct use at home.

Electronic monitoring can record when a container is opened, giving detailed timing data, but opening a container is not the same as swallowing a dose.

Biological tests can detect medicine or health markers in the body, but they may be costly, invasive and affected by individual biology.

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Key terms

Self-report: A patient's own account of whether and how they followed advice.

Social desirability: Giving an answer that seems acceptable rather than fully accurate.

Pill count: Counting remaining tablets to estimate how many doses were taken.

Prescription record: A record showing whether medicine was collected or refilled.

Electronic monitoring: Using a device to record behaviour such as opening a medication container.

Biological test: A test of bodily evidence, such as drug levels or health markers.

Objective measure: A measure based on observable records or tests rather than only personal report.

Measurement validity: How well a method measures the behaviour it claims to measure.

Further detail and evidence

Subjective measures include clinician impressions, patient questionnaires and semi-structured interviews. They can explain reasons and timing, but depend on memory, honesty and judgement. Riekert and Drotar (1999) compared participation groups in adolescent diabetes adherence research: selection/nonresponse can affect whose adherence is represented.

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Continued

Objective measures include pill counts, electronic dispensers and biological tests. Chung and Naya (2000) followed 57 asthma patients for 12 weeks using TrackCap bottle-opening records alongside tablet counts. The electronic record added dose-timing information that a final pill count could miss.

Blood/urine assays detect a drug, metabolite or relevant biological marker. Results depend on metabolism, timing and the marker's relationship to the regimen. Taking treatment just before a visit can produce a misleading picture of the usual pattern.

Applying the ideas

The expected number of tablets missing could reflect correct use, discarded pills or several doses removed together. A cap opening could occur without ingestion. An interview may reveal a change in working hours that explains timing. Combine evidence rather than treating one indicator as perfect proof.

Evaluation and connections

Electronic devices supply detailed, relatively objective records but are costly and can alter behaviour through monitoring. Biological tests may be invasive and give only a time-limited snapshot. Interviews offer rich context but interviewer expectations matter. Reliability and validity should be assessed for the behaviour actually measured.