The differential outcomes procedure enhances adherence to treatment: A simulated study with healthy adults

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Memory for medical recommendations is a prerequisite for good adherence to treatment, and therefore to ameliorate the negative effects of the disease, a problem that mainly affects people with memory deficits. We conducted a simulated study to test the utility of a procedure (the differential outcomes procedure, DOP) that may improve adherence to treatment by increasing the patient's learning and retention of medical recommendations regarding medication. The DOP requires the structure of a conditional discriminative learning task in which correct choice responses to specific stimulus-stimulus associations are reinforced with a particular reinforcer or outcome. In two experiments, participants had to learn and retain in their memory the pills that were associated with particular disorders. To assess whether the DOP improved long-term retention of the learned disorder/pill associations, participants were asked to perform two recognition memory tests, 1 h and 1 week after completing the learning phase. The results showed that compared with the standard non-differential outcomes procedure, the DOP produced better learning and long-term retention of the previously learned associations. These findings suggest that the DOP can be used as a useful complementary technique in intervention programs targeted at increasing adherence to clinical recommendations.

Adherence to treatment

Differential outcomes procedure

Discriminative learning

Healthy adults

Long-term memory