Effects and implications of self-management for students with autism: a meta-analysis
Lee S H, Simpson R L, Shogren K A

CRD summary
This review assessed self-management techniques for increasing appropriate behaviours in children with autism. The authors concluded that such techniques were effective. However, the review was poorly reported and used a questionable approach to synthesis, which means that the conclusions cannot be regarded as reliable.

Authors' objectives
To assess the efficacy of self-management in increasing appropriate behaviour in children and young people with autism.

Searching
PsycINFO, ERIC and Wilson OmniFile were searched for studies published prior to October 2004; the search terms were reported. The references of retrieved articles were checked, and review articles and book chapters were also scrutinised. Only studies published in peer-reviewed journals were eligible for inclusion.

Study selection
Study designs of evaluations included in the review
Criteria defining eligible study designs were not reported. The included studies used reversal designs, multiple baselines, and a combination of reversal and multiple baselines.

Specific interventions included in the review
Studies that examined self-management used primarily to increase appropriate behaviour were eligible for inclusion in the review. Studies which additionally used self-management to decrease inappropriate behaviour were also eligible for inclusion. The included studies used the following types of intervention: primarily self-monitoring, primarily self-reinforcement, and a combination of self-monitoring, self-reinforcement and prompts.

Participants included in the review
Studies of students (children and youths) with autism were eligible for inclusion. Studies of peers of autistic students were excluded from the review, although studies which included non-autistic co-participants in addition to autistic students were eligible for inclusion. The majority (91%) of the participants in the included studies were boys, with a mean age of 8.6 years. The mean age of the girls in the included studies was 9.7 years.

Outcomes assessed in the review
The primary outcome was change in inappropriate behaviour. Appropriate behaviour was defined as a variety of positive behaviours that students needed to acquire or increase such as social interaction and activities of daily living. Studies that empirically assessed changes in inappropriate behaviour and graphically illustrated results at baseline and at different phases of the intervention were eligible for inclusion.

How were decisions on the relevance of primary studies made?
The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
The authors did not state that they assessed validity.

Data extraction
The authors stated that data were coded on a number of variables, but did not state how many reviewers performed the
Methods of synthesis
How were the studies combined?
The authors stated that the PNDs for studies were combined in a meta-analysis. It appeared that means and standard deviations (SDs) for each participant and each study were calculated as the mean of all the PNDs available for each participant. These means were then pooled.

How were differences between studies investigated?
Mean data were presented for different subgroups of studies according to factors related to the research design and nature of the intervention studied. The effect of each of these variables was examined with separate Kruskal-Wallis one-way analyses of variance. A similar exercise was performed for participant characteristics such as age and gender. The effect of each of these variables was examined using separate Kolmogorov-Smirnov two-sample tests.

Results of the review
Eleven studies with a total of 34 participants were included in the review.

The overall mean PND was 81.9% (SD=30.5%; range: 0 to 100).

Results were also reported for a number of subgroups, based on aspects of the interventions and on participant characteristics. No statistically significant effects or differences were found.

Authors' conclusions
The effectiveness of self-management methods for learners with autism has been scientifically demonstrated.

CRD commentary
The review question and the inclusion criteria were clear. The authors searched some relevant databases; however, the decision to limit the search to published studies might have increased the possibility of publication bias. The authors did not report using measures designed to reduce bias and error in the selection of studies for the review, or in the extraction of data. They also did not report carrying out an assessment of study validity. The studies included in the review contained very small numbers of participants. A decision to statistically combine the means of means is rarely appropriate. The authors' conclusions are consistent with the results of the review but, in the light of the methodological issues highlighted, cannot be regarded as reliable.

Implications of the review for practice and research
Practice: The authors stated that self-management methods should be carefully considered when programmes for autistic students are planned.

Research: The authors stated that further research to ascertain the most effective methods for use of self-management methods with autistic students, and to determine the particular factors associated with their successful use, is required.

Bibliographic details

Indexing Status
Subject indexing assigned by CRD
MeSH
Adolescent; Autistic Disorder /rehabilitation /therapy; Behavior Therapy /methods; Child; Child Behavior Disorders /psychology /therapy; Education, Special; Internal-External Control; Language Development Disorders /psychology /therapy; Mainstreaming (Education); Self Care; Self Stimulation; Social Adjustment; Social Environment; Treatment Outcome

AccessionNumber
12007007091

Date bibliographic record published
31/03/2008

Date abstract record published
31/03/2008

Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.