A systematic review of the effects of curricular interventions on the acquisition of functional life skills by youth with disabilities

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CRD summary
The authors concluded that there was tentative support for the efficacy of using functional/life skills curricular interventions across educational environments, disability types, ages and gender in promoting positive transition-related outcomes in youths with disabilities. The authors’ cautious conclusions represented the evidence presented, but given the predominance of single participant studies and inappropriate pooling of studies, their reliability is unclear.

Authors’ objectives
To evaluate the effectiveness of curricular interventions on the acquisition of functional life skills in secondary school aged youths with disabilities.

Searching
ERIC, PsycINFO and MEDLINE were searched. Searched terms were reported. A random sample of 104 of 520 issues dated 1990 to 1st January 2004 of ten unspecified journals were also handsearched.

Study selection
Eligible for inclusion in the review were studies of any design including youths with disabilities (aged 12 to 22 years) that had direct or indirect outcomes of the acquisition, maintenance and generalisation of functional life skills relating to community, domestic and leisure life. Studies had to have sufficient data with which to calculate effect size for youths.

Three quarters of the included studies were conducted before 1996. Where reported, the mean age of participants ranged from 13.4 years to 21.8 years. The majority of participants were labelled as experiencing moderate to severe cognitive disabilities. Life skills interventions included: money and purchasing skills; other community-based instruction skills; self-protection curricula; leisure skills; domestic or home-keeping skills; personal self-care skills. The intensity and duration of interventions varied widely (single session to many sessions per week over several months). Study designs included between-group, within-subjects, and single participant designs.

The authors did not state how the papers were selected for the review.

Assessment of study quality
Study quality was assessed using an adapted version of the Device Implementation Assessment Device (DIAD) version 1.0. DAID assessed: internal validity in terms of the intervention, outcome measures, fairness of comparison and lack of contamination; and external validity in terms of ecological validity, important subgroup analyses, statistical reporting and testing of assumptions (where appropriate).

The authors did not state how study quality assessment was performed.

Data extraction
Data were extracted in order to calculate effect sizes.

Two reviewers performed data extraction with any disagreements resolved by consensus.

Methods of synthesis
For each intervention, where deemed appropriate by the authors, effect sizes from studies of the same design were combined in a fixed effects model. Statistical heterogeneity was assessed using the Cochran Q statistic. Where meta-
analysis was deemed inappropriate by the authors, a narrative synthesis was used.

Results of the review
Fifty studies (482 participants) meet the inclusion criteria of the review, 49 of which were quantitative and included in the analysis.

Single participant studies (38 studies): There was a statistically significant mean effect size (g=6.13, 95% CI 5.96 to 6.30). However, there was evidence of statistically significant heterogeneity (p<0.001).

Between-group studies (eight studies): There was a statistically significant mean effect size (g=0.90, 95% CI 0.63 to 1.18). Although there was no evidence of statistically significant heterogeneity, the eight studies varied widely in terms of the intervention, method of instruction, and outcome measure used.

Within-subject design (three studies): These studies were not combined in a meta-analysis. Two studies, which both focused on community participation skills, had differing effect size (g=0.78 and g=0.16).

Authors' conclusions
There was tentative support for the efficacy of using functional/life skills curricular interventions across educational environments, disability types, ages and gender in promoting positive transition-related outcomes.

CRD commentary
The review addressed a clear research question and was supported by adequate inclusion criteria. However, there were no apparent attempts to locate unpublished material, which meant that relevant studies may have been missed. The authors did not state how many reviewers performed study selection or study quality assessment, so it was unclear as to whether these two review processes were subject to reviewer error or bias.

Adequate details of the included studies were provided. The pooling of all studies, regardless of the intervention but according to study design, seemed inappropriate.

The authors’ cautious conclusions represented the evidence presented, but given the predominance of single participant studies in the review and inappropriate pooling of studies, their reliability is unclear.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated that more research is needed, in terms of balance belonging and membership with skill acquisition, in determining what are the optimal settings and methods for teaching life skills to secondary youth with disabilities; in how life skills can be taught in general education settings, or whether they should be; and what are the optimal methods for increasing life skills acquisition by youth with mild disabilities.

Funding
US Department of Education, Office of Special Education Programs, grant number H324W010005.

Bibliographic details

Original Paper URL
http://www.nsttac.org/pdf/life_skills.pdf

Additional Data URL
http://cde.sagepub.com/content/32/2/82.abstract
Other publications of related interest

Indexing Status
Subject indexing assigned by CRD

MeSH
Adolescent; Communication; Curriculum; Disabled Persons; Education; Education, Special; Humans; Interpersonal Relations; Planning Techniques; Schools; Social Behavior; Students; Young Adult

AccessionNumber
12010001364

Date bibliographic record published
10/03/2010

Date abstract record published
27/10/2010

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.