

State of the Science: Health, Wellness and Disability

Presenter Name: Tom Seekins

Institution/Organization: University of Montana

TITLE OF PRESENTATION: Evidence-Based Health Promotion Interventions for People with Disabilities: Results of a Systematic Review of Literature

By one reckoning, marked by the publication of Dr. Michael Marge's seminal article in Health Education Quarterly, the field of disability and health is just turning 20 years old. Yet, the field has already made substantial contributions to the science of disability and rehabilitation, to the lives of people with disabilities, and to public policy. At such an anniversary, it is fitting to take stock of the status of the budding field; what it addresses, how it addresses it, and where gaps may exist. One approach to such an assessment involved conducting a systematic review of its literature.

While there have been reviews of the literature, "systematic reviews" have become the standard. Oregon Health Science University organized a national panel of experts to guide and conduct a systematic review of the literature with the intent of characterizing the status of this growing field, to make recommendations for future developments, and to begin the process of identifying interventions with evidence to support their effectiveness. This presentation reports on the preliminary results based on articles derived from the electronic search component of the review.

Methods

We conducted a systematic review of the literature following the general steps listed in Table 1. The review covered articles published in the 20 year span of 1986, the date of the National Council on Disability's report, Toward Independence, in which health promotion for people with disability was established as a national goal and the year 2006.

Table 1

General Steps in a Systematic Review

- Determine a Broad Area for Analysis
- Recruit an Expert Panel from Diverse Perspectives
- Develop a Shared Conceptual Overview of the Area of Interest
- Specify Critical Questions to Drive the Review
- Define the Key Terms of the Questions
- Develop Exclusion and Inclusion Criteria
- Secure an Independent Technical Search
- Solicit Submission of Seminal Articles for Review
- Train Independent Observers in Applying the Exclusion Criteria
- Review Identified Abstracts to Exclude Studies not Meeting Criteria
- Review Articles not Excluded to Uncover Additional Excluded Articles
- Conduct a Table of Contents Review of Nominated Journals to Identify Relevant New Articles
- Develop a Literature Abstraction Form and Procedures
- Apply the Abstraction form to Articles Included for Review
- Assess Findings to Characterize the Status of the Field

State of the Science: Health, Wellness and Disability

Results

We identified 3,968 articles to review from a search of electronic data bases. Of those, 3,889 have been excluded from review; 3,638 during reviews of the abstracts of the articles and 251 based on detailed readings of the full articles. A total of 63 have passed all criteria for inclusion to date (16 are pending arbitration).

Figure 1 presents a cumulative graph of articles identified for review across the 20 years of the study.

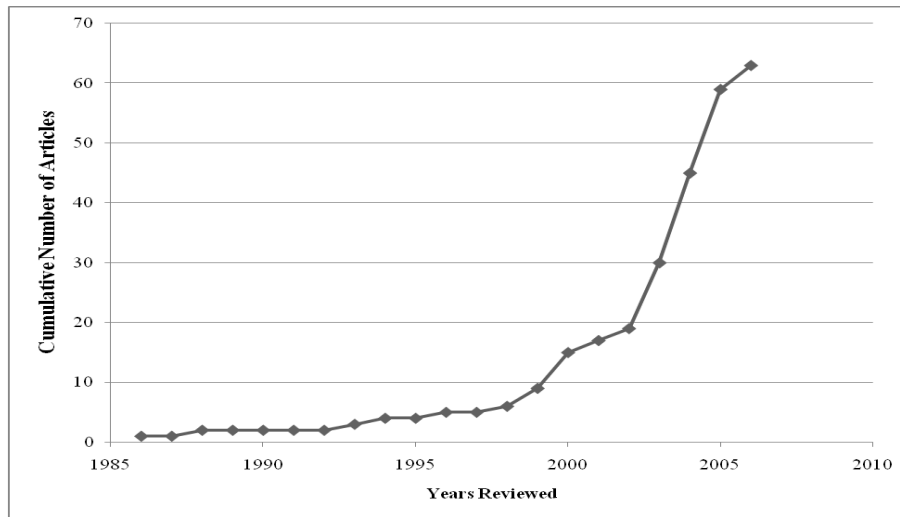


Table 2 presents the frequency of the primary settings reported in the 63 articles extracted to date. The most frequently used setting for delivering health promotion interventions to people with disabilities were in the community. It is interesting to note, however, the coders could not classify 43% of the settings.

State of the Science: Health, Wellness and Disability

Table 2

Settings in which Health Promotion Intervention Evaluations were Delivered

Setting	Frequency	Percent of Studies
Hospital or Clinic	5	8%
Community	13	21%
School	1	2%
Home	6	10%
Work	0	0%
Other	5	8%
Mix	6	10%
Missing	27	43%

The mean number of subjects reported across all studies extracted was 39.83. The range, however, was wide; 2 – 503. Article extractors found only three articles that explicitly described methods of participatory action research or community based participatory research.

Forty-five (72%) of the studies reviewed had a single intervention component. Most often, this involved some type of fitness regime.

Extractors found two studies that that used an intervention that had been proven effective in the general population and was being examined for use by people with disabilities.

Thirty-four (53.97%) of the studies appeared to be delivered in a group format. Table 3 shows the distribution of the methods of delivery of the intervention across studies.

Table 3

Method of Delivery across Extracted Studies

Method of Delivery	Frequency	Percent
In Person non-didactic (e.g., exercise/raining session)	32	52%
In Person didactic (e.g., lecture or counseling)	11	18%
Telephone	1	2%
Other	4	6%
Mixed	13	18%
Online	0	
Written materials only	0	

Finally, we have begun to examine the reports of the effectiveness of the interventions reviewed. Overall, 53 studies (83%) reported detectable effects – significance at the .05 level – on at least one of the measures reported.

State of the Science: Health, Wellness and Disability

Conclusions

The preliminary assessment of the literature on health promotion interventions for people with disabilities reveals a vibrant and growing field. There may be a broader base of health promotion literature and programs for people with disabilities than many in the field anticipated but they are scattered through the literature. There are few replications of studies that meet the highest standards of evidence.

Implications

Researchers have developed and demonstrated the effectiveness of a wide range of interventions for promoting the health of individuals with disabilities. One characteristic of these innovative programs, however, is that there are few established mechanisms to pay for them. In this era of exploding medical costs, a modest investment in providing health promotion services to people with disabilities may pay significant dividends. To improve both our understanding of and the willingness of agencies to pay for such services, more replications of demonstrated programs are needed using higher standards of evidence. Moreover, findings from the more basic studies need to be integrated into delivery models that can be accessed by people with disabilities.