Systematic Review of Evidence of Interventions Addressing Disparities in Oral Health for Adults with Intellectual Disabilities: Year 2

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**Background**

Oral health status and treatment for individuals with intellectual or developmental disability (I/DD) is a significant public health disparity. The population with I/DD experience poorer oral hygiene, higher prevalence and greater severity of periodontal disease, as well as a greater incidence of untreated caries. In year 1 of the systematic review, the literature was searched and screened for inclusion in the review and data extraction. The objective of year 2 of the systematic review is to examine the literature in depth.

**Methods**

**Key Questions**

**KQ 1**: What effective interventions/strategies exist to improve access to oral health care for the I/DD population?

**KQ 2**: What effect do interventions that support good oral health behaviors have on improved oral health care for the I/DD population?

**A** robust search of on-line data bases such as PubMed, along with gray literature sites, was conducted. The search included any literature from 1990 to 2013 with an oral health intervention and the population of interest. Title and abstract review excluded over 4,400 articles. Full text review using PICO framework excluded 275. Full text review using PICO framework excluded over 4,400 articles. Data extraction was conducted using an electronic repository, the Systematic Review Data Repository (SRDR). The study team tailored the extraction tool to address specific Key Questions.

Study Quality is being assessed in a 2 phase process, examining external and internal validity: Expert clinicians conducted an assessment of the evidence with a consideration of the execution and relevance to clinical practice. Methodologists are conducting further quality review on design suitability, number of studies available, consistency of findings, effect size, and whether expert opinion was used.

Once inclusion/exclusion criteria were applied, oral health interventions were grouped into four topic areas to facilitate review and structured extraction of data. Interventions and Outcomes varied significantly across topic areas. Less than half received a quality rating of "good" by clinical expert reviewers, emphasizing a need to build the evidence base.

**Summary**

Data extraction was conducted using an electronic repository, the Systematic Review Data Repository (SRDR). The study team tailored the extraction tool to address specific Key Questions. Study Quality is being assessed in a 2 phase process, examining external and internal validity: Expert clinicians conducted an assessment of the evidence with a consideration of the execution and relevance to clinical practice. Methodologists are conducting further quality review on design suitability, number of studies available, consistency of findings, effect size, and whether expert opinion was used.

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**Results**

- Most Frequent Interventions by Topic:
  - Sedation: Parenteral general anesthesia
  - Education/Behavior: Pharmacologic agents
  - Prevention: Tobacco cessation programs

- Most Frequent Outcomes by Topic:
  - Sedation: Intervals, time required for recovery
  - Education/Behavior: Change in beliefs/attitudes, increased knowledge, improved oral health
  - Prevention: Quality Index, General Health Index

- 17% of studies operationalized the definition of I/DD (defined by IQ, standardized test or diagnosis)
- 21% of the study samples were adults only, 34% were adults and children
- 35% of the studies were conducted in the United States, followed by Japan, Brazil and the UK

**Intervention and Study Design Characteristics**

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**Overall 46% of studies were rated as "good."

Quality review was based on a series of questions relating to study and sample design, proper measurement, validity of variables, data analysis, bias and relevance to clinical practice.