Managing Swallowing Disorders in Adults With Intellectual Disability: A Systematic Review of the Evidence

Beatrice Manduchi, Gina Fainman and Dr. Margaret Walshe
Department of Clinical Speech & Language Studies, Trinity College Dublin

Introduction

- The health condition defined as "Intellectual Disability" (ID) is a developmental disorder characterized by significant deficits in both intellectual functioning and adaptive behavior, with onset before age 18 years.
- Feeding and swallowing difficulties affect approximately 8.1% to 11.5% of adults with ID.
- Difficulties in feeding and swallowing can potentially lead to discomfort, poor nutritional status, dehydration, aspiration and choking. Respiratory infections are a leading cause of death in people with ID.
- Most common interventions for feeding and swallowing difficulties include: diet modification, compensatory strategies, swallowing therapy and, in some cases, enteral feeding.
- These intervention practices are empirically unverified and untested.

Aims

- To establish the safety and effectiveness of interventions for feeding and swallowing disorders in adults with ID;
- To critically appraise the evidence to inform clinical practice;
- To identify key areas for future research on the topic.

Results

- 12,302 records identified through database searching
- 5 additional records identified through other sources

SEARCH METHODS

- 9 electronic databases
- Conference proceedings and unpublished abstracts
- Websites of clinical trials
- ProQuest dissertation database
- Reference list of relevant studies

No date restrictions
From inception April 2018

Included studies

- 4 studies included in qualitative synthesis

DESIGN

- Retrospective observational single-cohort

INTERVENTION

- Enteral feeding initiation

POPULATION

- Sample size: 19 to 93
- USA, Australia, UK, France

SETTING

- Time:
  - Interventions occurred from 1990 to 2012
  - Quality:
    - Poor

Authors, year

- Gray & Kimmel, 2006
- Lee & Macpherson, 2010
- Ayres, et al., 2014
- Davout, et al., 2016

Intervention outcomes

- ↑ Nutritional functions
- ↑ QoL
- ↑ Adverse events
- ↔ Nutritional status
- ↔ Adverse events
- ↑ Respiratory functions
- ↑ QoL
- ↑ Adverse events

Further research

- Prospective, longitudinal, case-control design
- On representative sample (including population > 40 years old)
- Testing the intervention practices most commonly used during mealtimes:
  - Modification of food texture
  - Prompting and pacing
  - Provision of adapted equipment

Clinical relevance

- Sanction to enteral feeding initiation should involve all stakeholders
- Risks and benefits have to be balanced on an individual basis
- Pre-operative radiological screening
- Post-operative strict monitoring
- MDT working for timing referral and high-quality aftercare

Conclusion

- Paucity in quantity and quality of studies retrieved → no firm conclusion on safety and effectiveness of enteral feeding as intervention
- No evidence for any other type of intervention
- Big gap in the evidence-based practice
- Further research needed

Tab. 1 Main outcomes of included studies

Selected references

4. Downs & Black. Epidemiol Community Health 1998, 52(6)
5. Gray & Kimmel. Am J Ment Retard. 2006, 111(2)