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ESSD format:

An Updated Systematic Literature Review of Mealtime Recommendation Interventions provided to Carers of School-aged Children who have Neurodisability and Oropharyngeal Dysphagia

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Introduction

Children with neurodisability and oropharyngeal dysphagia have an increased risk of premature death[1,2]. Speech & Language Therapists provide recommendations to optimise safe, efficient and enjoyable mealtimes, which carers may find hard to implement. Guidance is limited regarding which mealtime recommendations to select and how to support carer implementation. This systematic review identifies and evaluates current evidence on mealtime recommendations and implementation strategies.

Methods

We searched 11 databases alongside manual searches in August 2021 and January 2024. Two reviewers independently screened records against inclusion/exclusion criteria using Covidence software. Eligible studies reported on school-aged children with neurodisability and oropharyngeal dysphagia carer mealtime recommendation interventions against any comparator. They were quality assessed using the NIH, PEDro and RoBiN-T quality assessment/critical appraisal tools. Following data extraction descriptive statistics were used to describe child and family/paid-carer study participants and other key aspects including quality assessment of intervention reporting using the TIDieR framework. A meta-analysis was planned, however an ESRC and SwiM guidelines narrative synthesis, was anticipated due to study heterogeneity. The synthesis will report on intervention details including behaviour change techniques used, intervention effectiveness, safe, efficient and enjoyable-focused outcomes and tools used for measurement.

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Results

Database searches found 9672 records. After de-duplication 5084 records were screened with 127 progressing to full text review, plus an additional 38 via citation checking. Twenty-nine studies (34 records) met inclusion criteria. The studies had 1158 child and 490 carer participants. Studies demonstrated much heterogeneity including study design (RCT (n=1), non-randomised controlled trials with a control group approach (n=9), before and after studies (n=10), retrospective pre-post studies (n=9) and single case study designs (n=5). In addition, study country (high income (n=21) vs. middle-low-income countries (n=8)) and study setting (intensive in/day patient (n=7), outpatients (n=9), school or residential (n=10) community (n=3) differed. They all targeted children and carers but differed in participant type (child only (n=17), child-family/paid carer (n=10) or family/paid carer only (n=2)), intervention target(s) (n=1 change to multiple individualised targets) and intervention approach. Study outcomes were multiple, n=190, (n=81 safety, n=61 efficiency, n=39 enjoyable), with n=168 different outcome measures used. The same outcome was frequently only used by the same author within different studies, rather than within multiple studies and teams. Twenty-four studies met quality criteria for synthesis. As anticipated the data was too heterogeneous for a meta-analysis and so a qualitative synthesis will be presented. This will include details of effect sizes for all

studies that can be calculated, intervention effectiveness and an assessment of intervention quality reporting, including behaviour change techniques reported.

Conclusions

This work will present valuable clinical information on content and effectiveness of the under-researched area of school-aged dysphagia mealtime interventions. Current findings indicate the need for a core outcome set within this population and that a 'reverse innovation' approach taking low-middle income country interventions to high-income contexts may be beneficial. Findings are part of a wider project aiming to create a mealtime recommendation toolkit for families of children who need assistance with eating and drinking.

Refs

Heslop, P. et al., 2013. Confidential Inquiry into premature deaths of people with learning disabilities.

Perez, C.M. et al.2015. The incidence of healthcare use, ill health and mortality in adults with intellectual disabilities and mealtime support needs. *J. of Int. Dis. Research*, *59*(7), pp.638-652.