

CAHE JC Critically Appraised Article Summary

Journal Club Details

Date of submission 2007
Journal Club location Port Pirie
JC Facilitator Alison Vine

Clinical Scenario

Behavioural interventions to promote increase in non-preferred food intake in children

Review Question/PICO/PACO

P Children aged 0-7 years
I Behavioural interventions
C No intervention
O Increase in non-preferred food intake

Article/Paper

Luiselli JK 2000, 'Cueing, demand fading, and positive reinforcement to establish self-feeding and oral consumption in a child with chronic food refusal', *Behavior Modification*, 24(3), 348-358.

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Article Methodology: Case study

*Please note: Whilst this is a case study, it has been appraised using the CASP Qualitative appraisal tool. According to the CASP system (<http://www.phru.nhs.uk/Pages/PHD/FAQs.htm>), this is the recommended and generally accepted method

Returned JC on: 7 February 2008

By CAHE staff member: Mat Prior





Ques No.	Yes	Can't Tell	No	Comments
1	✓			The aims of the research are defined; however it is most explicitly defined within the Methods section (p352 – “The objective of this experimental methodology was to demonstrate that Sam’s frequency of self-feeding increased concurrently with upward adjustments in the imposed criteria, thereby verifying the controlling effects from intervention.”)
2		✓		A case study methodology is appropriate to report on the effects of the intervention on that specific child; however it does not inform whether that technique is generally effective, or effective in other child populations. Whilst a case study is appropriate, it is not the best methodology to determine the effectiveness of the behavioural strategy described.
3		N/A		As this is a case study, ‘research design’ typically has fewer implications than in other types of study. However, the author has justified the intervention methods used with this subject, and the aims discussed (p352) are specific to the child in question – thus a n=1 case study can address those specific aims.
4	✓			The subject was referred to the author for treatment for food refusal following assessment from an OT and primary care physician. In terms of a case study, this is an acceptable method of recruitment, however when considering the results it should be noted that this was an n=1 study – the results of which may not be applicable to all similar children. Whilst recruitment was appropriate, it would have added to the discussion if it was specified whether all patients presenting similarly were treated in the same way, or whether this represented a novel case in terms of either outcome or treatment method.
5	✓			Data was collected in a way that addressed the research issue. Following a small pilot phase in which the author’s observations were matched with parental observations of self-feeding responses, self-feeding responses, which were clearly defined (p.351) were recorded by 1 parent at each meal-time. The method of data collection, and the setting of the meal, was consistent throughout the study. The use of parental rating self-feeding responses is justified in that it represents a natural home meal-time environment (eg. no research observer present), & that it correlated with the author’s observations in the aforementioned pilot stage.



Ques No.	Yes	Can't Tell	No	Comments
6			✓	The relationship between researcher and participants was seemingly not considered. However, as the researcher was not present at meal-times during the intervention, any relationship with the subject (Sam) could reasonably be considered minimal. The relationship with the parents could be considered to have more of an effect; for example, compliance by the parents to the behavioural intervention strategy (positive reinforcement; toy reward & praise given if imposed criteria satisfied) may be effected by their relationship with the researcher/therapist, and whether they knew beforehand whether they were participating in research (as opposed to the author retrospectively describing the case with parental permission).
7			✓	Following on from the previous point, it is not clear whether this research was planned, or whether the author retrospectively described the case. Similarly, no mention was found within the article about parental permission or consent.
8			✓	Data analysis appears to be somewhat limited. The results listed include the average number of self-feeding responses during lunch & supper meals, however it doesn't determine whether there was a difference between meal & self-feeding responses between lunch & supper meals. This is important, as the timing of the meal may influence feeding response. Also, with reference to the Figure 1, there is little explanation as to the variability of results – note that the child consistently achieved the intended aim of 8 feeding responses, whilst for other intended feeding responses (eg. 1, 2, 4, 10), the actual number of feeding responses varied widely.
9		✓		The findings are discussed in relation to the original research questions, however due to the aforementioned limitations of the data analysis, the validity of these statements are questionable. Consideration was given to the justification of the method (p356-7), however little consideration is given to potential limitations or confounding factors.
10		N/A		<p>The author attempts to discuss the intervention in terms of existing literature (p.354, 356); however such discussion is limited. Moreover, limited supporting (or conflicting) evidence is provided for this, or similar, interventions (p.349-350); yet does not make it clear whether this study represents an addition to a limited pool of available literature, and/or if additional research is justified.</p> <p>The author does discuss how such an intervention could be used in other situations (p.357), however this is done without due consideration of the design of the study (n = 1 case study) – in which the external validity may be limited.</p> <p>Nonetheless, the intervention and outcome are clearly defined & described, & as such the study is valuable as an example of a method to promote food acceptance. This study may also be considered important as the results of the literature search for this clinical question suggest that there is limited available literature pertaining to children aged 0-7 years.</p>