The Power of Music: Creating a Pleasurable Eating Experience for Adults with Intellectual and Developmental Disabilities

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Abstract

Adults with intellectual disabilities and development disabilities (IDD) tend to have issues with rapid eating, which can ultimately lead to obesity/other chronic conditions (Dhaliwal et al., 2019). Individuals with cognitive and motor impairments can tend to be a bit overwhelmed during mealtimes and may exhibit negative nonverbal cues to express their anxiety. Research also suggests that music is an environmental factor that has direct influence on consumption patterns (Testa et al., 2020). Moreover, musical properties such as tempo and instrumentation can affect both the rate of eating as well as meal duration (Mathiesen et al.,2020). There have been a variety of studies on the effect music has on eating paces, but these studies are rarely conducted on adults with IDD.

Objectives

- To evaluate whether the Community Support Services (CSS) Lunch Clinic can contribute to increased pleasure in eating and a reduction in challenging behavior during mealtimes by adjustments in environmental cues.
- To create a program that aims to modify eating behavior by altering the environment rather than using traditional methods (staff interventions to restrict eating behaviors, etc.)

Program Description

This 8-week pilot program (30-minute sessions weekly) used classical music to alter the eating environment for individuals with histories of rapid eating and disruptive mealtime behaviors. Behavioral changes during mealtimes were assessed via pre-/post-test assessments from support staff.

Selected Songs from Lunch Clinic Playlist

Vladimir Martynov: The Beatitudes

Clair de Lune, L. 32

Gymnopedie No. 1

Ave Maria

Evaluation Methods

In a pre-test format, support staff were interviewed about their clients' current eating habits and mealtime behaviors; the same individuals participated in a post-test activity where they provided information regarding changes in their client's behavior. Staff input included observations of both positive and negative nonverbal cues such as frowning or smiling.

Table A. Nonverbal Behaviors Assessed in Pre and Post Test.

Behavior Tally	Monday	Tuesday	Wednesday	Thursday	Friday
Frowning					
Crossed arms					
Aggression (hitting, throwing, pushing etc.)					
Smiling					
Noises of Content/Joy					
Amusement					
Totals					

Results

The observational data indicates that clients experienced the music as soothing and found the experience pleasurable. An assessment of reported nonverbal cues in the pre and post-test interviews revealed a 50% increase in positive nonverbals cues (e.g. smiling, swaying to music) and a 30% decrease in negative nonverbal cues (e.g. frowning and restlessness) from the baseline. The staff additionally reported in the post-test interviews that the clients responded positively to the Clinics, looked forward to the sessions, and seemed more relaxed during these mealtimes.

Conclusion

The CSS Lunch Clinic shows potential a means for creating a more enjoyable environment for the clients during mealtimes. Limitations included difficulty creating quantitative measurements to assess the eating pace and obtaining feedback from nonverbal clients. Future iterations of this program will continue to use staff observations as a primary research tool, a qualitative alternative to assess eating behavior.

Potential Applications for Individuals with IDD

The CSS Lunch Clinic can be used as a non-invasive behavioral therapy program for individuals with IDD. This program would be a departure from the typical behavioral interventions which involve techniques such as specialized utensils, controlled portions, and timing techniques (Testa et al., 2020). Additionally, the Lunch Clinic could provide a way for individuals with IDD to socialize with their peers in a calming environment. A further expansion of the Clinic could feature live performances during the lunch hour. For example, there could be a collaboration with a local high school band where they come in every Friday and play a set in the communal dining area.

SNEB Nutrition Education Competencies

- 7.1 Describe the biological, psychological, social, cultural, political, and economic determinants of eating behavior, and the associated opportunities and barriers to achieving optimal health and quality of life.
- 7.2 Describe the major psychosocial theories of behavior and behavior change and apply them to eating behavior, and behavior change.
- 8.3 Identify the theory-based mediators and facilitators of behavior change, using a participatory approach, including social and environmental influences.

References

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