

Internet Journal of Allied Health Sciences and Practice

Volume 21 | Number 1

Article 2

January 2023

Mealtime Experiences of Children with Autism Spectrum Disorder from the Perspectives of Filipino Occupational Therapists in Cebu: Implications for Practice

Blaise Audre V. Barrientos Velez College, bblaiseaudre@gmail.com

Alyanna Freyse T. Badajos Velez College, yannabadajos@gmail.com

Erika Faye M. Bucog Velez College, bucogerikafaye@gmail.com

Rosse Velle C. Mauro Velez College, maurorossevelle@gmail.com

Paolo Miguel P. Bulan Velez College, paolobulan@me.com

Follow this and additional works at: https://nsuworks.nova.edu/ijahsp

Part of the Occupational Therapy Commons

Recommended Citation

Barrientos BV, Badajos AT, Bucog EM, Mauro RC, Bulan PP. Mealtime Experiences of Children with Autism Spectrum Disorder from the Perspectives of Filipino Occupational Therapists in Cebu: Implications for Practice. The Internet Journal of Allied Health Sciences and Practice. 2023 Jan 04;21(1), Article 2.

This Manuscript is brought to you for free and open access by the College of Health Care Sciences at NSUWorks. It has been accepted for inclusion in Internet Journal of Allied Health Sciences and Practice by an authorized editor of NSUWorks. For more information, please contact nsuworks@nova.edu.

Mealtime Experiences of Children with Autism Spectrum Disorder from the Perspectives of Filipino Occupational Therapists in Cebu: Implications for Practice

Abstract

Purpose: Occupational therapists (OTs) handle children diagnosed with autism spectrum disorder (ASD), and a common concern is how their sensory processing issues affect their feeding habits. There is limited information regarding interventions about this issue both locally and internationally. This study aims to know the experiences of OTs providing feeding interventions associated with sensory issues for children with ASD. It will also describe what approaches they used for these interventions. **Method:** Qualitative phenomenology using in-depth interviews with nine OTs in Cebu, Philippines was conducted, and data underwent thematic analysis. **Results:** Five themes emerged: 1) a family that feeds together, stays together, 2) key to mealtime challenges, 3) root of mealtime challenges, 4) highs and lows of a therapist on feeding interventions, and 5) teletherapy as a sign of times. **Conclusion:** OTs and parents look at foundational skill deficits of a child with ASD and relate the said skill deficits to mealtime behaviors and challenges. Results provided in-depth description of what current intervention approaches the selected therapists choose and how they are applied and combined in targeting feeding concerns and sensory issues that relate to feeding. Handling feeding issues is also an opportunity for OTs to work with other healthcare professionals.

Author Bio(s)

Blaise Audre V. Barrientos, BSOT, is a graduate of the Velez College Bachelor of Science in Occupational Therapy program.

Alyanna Freyse T. Badajos, BSOT, is a graduate of the Velez College Bachelor of Science in Occupational Therapy program.

Erika Faye M. Bucog, BSOT, is a graduate of the Velez College Bachelor of Science in Occupational Therapy program.

Rosse Velle C. Mauro, BSOT, is a graduate of the Velez College Bachelor of Science in Occupational Therapy program

Paolo Miguel P. Bulan, OTD(c), MAOT, OTRP is the Department Chairman and Assistant Professor at the Velez College Bachelor of Science in Occupational Therapy program.

Acknowledgements

The authors would like to thank the OTs in Dynamics Pediatric Therapy & Associates, Fundamental Pediatric Therapy Center and GOAL Pediatric and Adult Therapy Center.



The Internet Journal of Allied Health Sciences and Practice Dedicated to allied health professional practice and education Vol. 21 No. 1 ISSN 1540-580X

Mealtime Experiences of Children with Autism Spectrum Disorder from the Perspectives of Filipino Occupational Therapists in Cebu: Implications for Practice

Blaise Audre V. Barrientos Alyanna Freyse T. Badjos Erica Faye M. Bucog Rosse Velle C. Mauro Paola Miguel P. Bulan

Velez College

Philipines

ABSTRACT

Purpose: Occupational therapists (OTs) handle children diagnosed with autism spectrum disorder (ASD), and a common concern is how their sensory processing issues affect their feeding habits. There is limited information regarding interventions about this issue both locally and internationally. This study aims to know the experiences of OTs providing feeding interventions. **Method:** Qualitative phenomenology using in-depth interviews with nine OTs in Cebu, Philippines was conducted, and data underwent thematic analysis. **Results:** Five themes emerged: 1) a family that feeds together, stays together, 2) key to mealtime challenges, 3) root of mealtime challenges, 4) highs and lows of a therapist on feeding interventions, and 5) teletherapy as a sign of times. **Conclusion:** OTs and parents look at foundational skill deficits of a child with ASD and relate the said skill deficits to mealtime behaviors and challenges. Results provided in-depth description of what current intervention approaches the selected therapists choose and how they are applied and combined in targeting feeding concerns and sensory issues that relate to feeding. Handling feeding issues is also an opportunity for OTs to work with other healthcare professionals.

Keywords: feeding; autism spectrum disorder; occupational therapy; sensory processing

INTRODUCTION

In the context of occupational therapy, occupations are the tasks and activities that individuals engage in which promote their health and well-being.^{1,2} These include activities of daily living (ADLs) or daily self-care activities such as bathing, dressing, and feeding among many others. Among the clients of occupational therapists (OTs) are children diagnosed with autism spectrum disorder (ASD).

Sensory processing disorders, or issues in the child's ability to respond accordingly to sensory stimuli, are typical in children who have ASD and often produce maladaptive behaviors that hinder a child to engage in their occupations, and in some cases, their ability to participate during mealtimes.³ This is initially noted during the toddler years when many children are picky eaters and are orally defensive depending on the characteristics of food such as taste, smell, sound, and texture.⁴ Issues in sensory processing such as hypersensitivity to the taste, texture, or smell of food pose problems during mealtimes. Children with sensory issues tend to have tighter food preferences compared to others and may lead to nutrition-related issues as well.^{5,6} When these interfere with a child's ability to engage during mealtimes, OTs are among the healthcare professionals that can address this concern.

Locally in Cebu, Philippines, OTs who provide interventions for children with ASD presenting sensory processing disorders rely on the limited amount of information to support evidence-based interventions related to mealtimes. With this study, the authors focused on the perspectives of OTs handling mealtime-related concerns for children with ASD. Using phenomenology, the authors aimed to advance understanding of the experiences of OTs providing feeding interventions associated with sensory issues for children with ASD. Specifically, this study described the approaches and common interventions done by local OTs in Cebu, Philippines to address sensory processing issues during mealtimes.

BACKGROUND

This section presents an overview of the issues pertaining to mealtime for children with ASD and the common approaches used to handle them. These concepts will be expanded based on the perspectives of occupational therapists managing mealtime issues of children with ASD.

In a systematic review by Scaglioni et al. exploring the different factors that affect a child's feeding behavior, the researchers identified that the context in which the child is brought up, specifically the family, has an active role in shaping how the child will respond to feeding throughout his or her life.⁵ The review also highlighted that a child's feeding behavior is also influenced by the child's early-life experience with the flavors and tastes that he or she was exposed to. The child's experience will shape how the child will respond to similar flavors and tastes in the future and affect his or her food choices. The results of the review indicate a need for parents to expose their children to good food choices during their child's early years.

For many children with ASD, an issue commonly associated with them is food selectivity. The issue pertains to the restriction of their repertoire for accepted food.⁶ This in turn causes a large number of referrals to other health care professionals because of the limited number of foods that children with ASD take that limits their diet. Food selectivity may be attributed to the sensory factors associated with the food, may it be the taste, texture, scent, or temperature.⁶

Children with ASD often present with sensory problems, and this concern has been posited to affect their engagement in occupations, including feeding and eating.⁴ Moreover, this has been noted as well by their caregivers and they exhibit more issues when compared to their typically-developing peers.⁷ This highlights a need for occupational therapists and other healthcare professionals to look into sensory problems to promote engagement during feeding. As such, sensory-based interventions are among those described for feeding.⁸

Interventions for sensory-related feeding problems include oral exploration and gradual adaptation. Oral exploration and gradual adaptation are described as natural processes assisted by oral feeding and associated with comfort and caregiver bonding. These processes create opportunities for gradual oral sensory exploration through play and positive experiences to reduce oral hypersensitivity, introducing new flavors and textures gradually. Another aspect of these processes include providing consistent praise and encouragement for the child's oral exploration and feeding attempts, and creating a treatment program providing enhanced oral sensory input intermittently throughout the day.⁸ These are just among the many approaches to feeding problems related to sensory issues.

Different feeding techniques may result in positive consequences. Among the areas influenced by the feeding techniques are feeding performance, feeding interaction, and feeding competence of the parents and children, hence, their importance.⁹ OTs may appreciate and benefit from using the different approaches to target different kinds of problems, and what is optimal for the service delivery.

Parent-directed and educational interventions are highly effective approaches when the goals are to improve maternal support, parenting skills, mother-child interaction, and the feeding competency of children and mothers. The combination of these interventions makes an interdisciplinary feeding program or intervention very effective and can be done by trained OTs or parents that are trained or supervised by OTs and can be treated in an inpatient or outpatient setting.

In a systematic review by Adolf and Mattern for effective feeding interventions, the use of operant conditioning and systematic desensitization showed reduced difficult mealtime behaviors and increased dietary variety.¹⁰ The use of pager prompts showed to be effective in slowing meal consumption. The review findings indicated that operant condition and systematic desensitization reduced disruptive behaviors while increasing variety of food acceptance. This systematic review showed that despite the focus on OT feeding and eating interventions, there are no interventions specifically labelled as occupational therapy for those with ASD.

A frequent problem for many children with ASD is being selective or being picky eaters. Sensory input is perceived differently in contrast to typically developing children and there is an established relationship between sensory processing and eating problems in these children.¹¹ It is implied that "timely interventions focusing on the sensory components of eating must now be developed."¹¹ With that, feeding in relation to sensory problems has been a growing topic through the years and as a profession that has ADLs under the belt of their scope, OT has been heavily involved in the continuing development and growth of feeding interventions together with other healthcare professionals.

Despite the implication of developing interventions focusing on the sensory components of eating, majority of the feeding and eating interventions are centered around operant conditioning.^{11,12} In a systematic review done by Marshall et al., there was no evidence of interventions that utilized systematic desensitization, which is focused on the sensory components of feeding.¹² There was emphasis on the use of behaviorist approaches such chaining and shaping which highlights the gap in present literature on the area of systematic desensitization. More so, there is no literature available locally in the Philippines about the trends in feeding and eating interventions utilized by occupational therapists for children with ASD.

Locally in the Philippines, there are no certifications for occupational therapists to provide feeding and eating related interventions, more so for those with sensory processing disorders, in contrast to those who practice overseas.^{13,14} Though concepts behind feeding-eating and sensory processing disorders are introduced in the undergraduate years for the entry-level occupational therapist, it would greatly benefit occupational therapists and their clients with mealtime issues due to sensory processing disorders if they pursue certifications and trainings in this area of practice. Both are areas of specializations which entail a higher level of training and ongoing professional development which is characteristic of a specialized practitioner. Additional trainings or certifications may potentially address the gaps wherein there is limited use of standardized tools for assessments and evaluations which can potentially translate to better outcomes for clients.

This study aimed to address the following research questions:

- 1. What are the mealtime experiences of children with ASD through the lens of occupational therapists in Cebu, Philippines?
- 2. What are the approaches and common interventions utilized by occupational therapists in managing feeding and eating problems of children with ASD in Cebu, Philippines?

METHODOLOGY

Design

Using phenomenology, the authors looked into the experiences of OTs in Cebu, Philippines, providing feeding interventions associated with sensory issues for children with ASD which helped in describing the approaches they used.¹⁵ This was used to understand how the OTs handled feeding interventions associated with sensory processing for children with ASD. Interview transcripts served as the qualitative data sets for this study. Moreover, a constructivist worldview was used to aid the authors in understanding the experiences.¹⁵

Participants and Sampling

Pediatric OTs were recruited from three private clinics in Cebu City, Philippines that provided feeding interventions to children with ASD. The study used a purposive sample of OTs with at least a year of practice and at least two months conducting feeding interventions associated with sensory processing disorders for children with ASD. OTs handling feeding interventions focusing on oral-motor issues and other comorbidities were excluded. The demographics and practice details of the nine (n = 9) participants that fit the criteria and agreed to be interviewed are presented in Table 1. Some participants did not disclose number of clients for feeding interventions handled.

Participant	Gender	Duration/Number of Clients for Feeding Interventions	Age Range of Children with ASD with Feeding Concerns Handled
1	Female	6 years	2-6 years old
2	Female	40-50 sessions	6 months-10 years old
3	Female	2 years (5 clients)	3-6 years old
4	Female	1 year and 5 months (5 clients)	1-3 years old
5	Female	3 years (15 clients)	2-5 years old
6	Female	2 years (3 clients)	3-6 years old
7	Female	6 months (resumed during pandemic)	5-7 years old
8	Female	8 months	2-5 years old
9	Female	2 clients; more on co-treating with another OT	2-6 years old

 Table 1. Description of Research Participants (n=9)

Data Collection

Individual in-depth semi-structured interviews with open-ended guestions (See Table 2) was used for data collection. The questions and probes are were chosen to elicit responses from the participants about their experience and discuss more about their experience in providing feeding interventions for children with ASD. These are typical probes that asks about the nature of the OT's practice – approach, frame of reference, and strategy. These were conducted virtually through Google Meet and lasted over an hour. Prior to the scheduled interview, informed consent was sought from the participants and the purpose of the study was explained by the first four authors who conducted the interviews. The interview started with the participant being asked to describe their experience about mealtime concerns of children with ASD. Additional probes were asked about the interventions and approaches they've tried, the means used for assessments and evaluations, the challenges the OTs encountered while handling mealtime concerns for children with ASD, and the recommendations the OTs have for other practitioners. Interviews were recorded, with permission from the participant, to aid in the transcription.

Google Docs was used for storing the transcriptions from the recordings and were cross-checked for accuracy by the authors. Transcripts were stored in individual documents which served as the data sets. De-identification of data was done by only placing numbers on the transcripts. Words in Bisava were transcribed first then translated to English. Data collection was ended when data saturation¹⁶ was achieved by the 7^{th} interview and was confirmed by the 8^{th} and 9^{th} interviews.

	Questions		
Initial Question	What are your experiences when providing interventions for children with autism spectrum disorder specifically when targeting feeding concerns?		
Exploration Probes	1. For how long have you been providing feeding interventions to children with ASD?		
	2. How many children with ASD have you cared for feeding interventions and what are their usual ages?		
	3. What concerns during mealtime were usually present in children with ASD that you have cared for?		
	4. What were the major concerns reported by the parents and/or caregivers during mealtime for children with ASD?		
	5. What methods or assessment tools were used during evaluation?		
	6. What are the different feeding interventions and approaches that you tried during your sessions?		
	7. What were the most effective interventions and approaches used?		
	8. What was the most challenging experience you had in providing those interventions?9. Were you able to provide feeding interventions through teletherapy?		
	 How will you compare providing feeding interventions through teletherapy from face-to face therapy? 		
	11. What advice or recommendations can you give to OTs that are providing feeding interventions?		
Exit Question	Are there any other factors or considerations you would like to discuss before we end the intervention?		

Data Analysis

The authors followed the steps for thematic analysis outlined by Braun and Clarke.¹⁷ Analysis was done manually by the authors. To become familiar with the data, the authors did multiple readings of the transcripts prior to open coding. The process of open coding involved the extraction of meaning from the transcripts and quotations read resulting to a set of codes. A "code" constitutes a word, phrase, or sentences that represent the meanings and interpretations extracted from the quotations embedded within the transcripts. An initial reading was done by the authors after transcription. Another reading for verification was done with the recordings afterwards. A third and final reading was done to ensure familiarization. Codes were extracted from the transcripts and meaningful quotations.

After coding, themes were made based on the patterns across coded data from the participants' responses and their relationship to the research aim. Themes were reviewed by the last author to verify whether they can still be separated or merged as needed. To keep track of what was done throughout the process of data analysis and to document how the themes were formulated, the authors took notes which served as their audit trail. The notes served as a guide for the authors as to which steps were done and how the themes were generated from the different codes.

Rigor and Trustworthiness

When themes were formulated, member checking was done by sending the themes to participants for verification. Dependability of the study was supported using semi-structured interviews and through purposive recruitment of the participants. Creditability of the findings was ensured through peer review done initially by the first four authors then by the last. The authors also made notes during the interviews and during data analysis to serve as audit trail.¹⁸ The notes done by the authors during the interviews aided in keeping them aware of their feelings and not project them to the responses of the participants.

Ethical Considerations

Approval of the study was given by the Velez College Ethics Review Committee (VC-ERC-2021-COT-005). Privacy and confidentiality were kept by de-identifying the data and keeping them in a password protected account on Google Drive accessible only to the authors. Participation was entirely voluntary, and the participants could withdraw at any time. Informed consent was sought by sending the participants a Google Forms link prior to the interviews explaining the purpose of the study and that they consent to participate.

RESULTS

This section summarizes the 5 themes that emerged pertaining to the mealtime experiences of children with ASD receiving occupational therapy services. Each is followed by one or more participant comments.

A Family That Feeds Together, Stays Together

Participants expressed the involvement of the family as the foundation for an enjoyable mealtime for children with ASD since they have a wide range of feeding challenges that can interfere with the overall feeding process and family mealtime. Most parents' concerns are that mealtimes were stressful and challenging and they have emphasized the importance of eating together as a family. Common feeding concerns are typified by the child's limited food repertoire, food avoidance or refusal, single food intake, and poor mealtime routines. Participants highlighted that parents usually report poor mealtime practices if the mealtime routine is not established, and they would not normally sit and eat together as a family.

"Parents also don't follow a certain routine at home. When I asked the parents if they eat together with their child, they usually don't." (Participant 3)

It was described by the participants that most often, parents forgot that they should be the first ones to model good behavior to their child especially in the early years. At this age, children usually follow and imitate what they see from adults around the environment. It was also emphasized by the participants that parents played a vital role in providing feeding intervention to children. Parent's willingness to learn and cooperation during coaching and training were proven effective in improving a child's mealtime experience.

"Parents coaching, in a way, is effective for feeding. Without the parents' help, the progress would be very slow. Very slow." (Participant 4)

Some participants shared that parents' consistency in following through with the home instruction programs (HIPs) and coaching can be effective but at the same time can be a bit challenging for the parents due to many possible factors.

"We can't always expect that our HIPs will be followed all the time ... even hands on moms would sometimes be too busy ..." (Participant 5)

Participants agreed that tough love is a kind of approach when handling not just the kids but the parents as well.

Key to Mealtime Challenges

Participants recounted using the Sequential Oral Sensory (SOS) approach as one of the most effective interventions when targeting mealtime problems in children with ASD. The SOS approach's goal in feeding is to "increase the range and volume of foods the child will eat through a play-based intervention."¹⁹

"... SOS Feeding Approach for sensory. First, the child needs to sit together with the food. Eventually if the child can touch the food using his hands, that's good. Slowly transition from the extraoral and eventually to the insides of the mouth ... So again, food play and sensory play are the interventions that usually work although it takes time." (Participant 7)

It was described by many that interventions should always be child-led. It is also important to go with the child's pace in exploring different types of food for them to explore on what they can and cannot tolerate. When providing therapy for feeding, it should address the child's whole-body and sensory needs which reinforces mealtime as a positive experience for the child.

"Never rush the child. You have to go with his pace. Make feeding and mealtimes fun." (Participant 5)

Participants emphasized that making feeding playful and fun helped reduce the stress and the fear that occurs when the food is present. The use of play, games and child's play interests such as certain toys were always connected with helping the child ease into the mealtime.

Aside from the SOS approach, participants also used a combination of two or three different approaches contributed to the effectiveness of their interventions. Other approaches mentioned were sensory integration (SI) approach and behavioral approach. For the SI approach, all participants described sensory play as one of the best that works well with the SOS approach. Sensory play exposes the child to different types of food and texture to increase tolerance to different sensitivities. It was suggested that using different sensory tools during preparatory activity can be effective for the child. The participants not only targeted the tactile system but all the five systems since it affects the child's overall participation. They made sure to target the vestibular system and proprioceptive system through giving movement-based activities, heavy work activities and fine motor activities to improve motor skills and participation.

For the behavioral approach, participants described giving positive reinforcements such as saying, "Good job," "Wow!" "Amazing," and "Very good" accompanied with gestures and a big smile every time the child showed positive behaviors helped in improving the child's motivation and engagement during mealtimes. It is also important to know when to increase and decrease the use of rewards for the child not to be dependent on it.

Root of Mealtime Challenges

Participants expressed the importance of assessing problem areas through evaluation tools and clinically-based observation. Problems in mealtime can be wide ranging; behavioral and social difficulties that children with ASD have been overtly displayed, but sensory processing issues are tougher to detect.

Participants struggled to recall assessment tools used during the evaluations as there are less standardized assessment tools available that focus on the child's feeding. However, the Sensory Profile was popular among the participants and almost all of them named it as the tool used for evaluations.

Participants described that children with ASD demonstrate over-sensitivities to multiple types of sensory stimuli.

"There are other children who would not eat if [the food] it is too bright or if it is not presentable ... the smell might make them aversive to it." (Participant 5)

It was described by participants that most children with ASD demonstrate extreme discomfort with taste and the texture of the food resulting in avoidance experiences during their mealtimes. Children may prefer to have their food prepared in the same way to

address sensory defensiveness. They will have a strong protective reaction to exposure to certain food or smells. Three participants added that children with ASD prefer dry, crunchy, or crispy food while avoiding those that are sticky, greasy, or wet.

The Highs and Lows of a Therapist on Feeding Interventions

OTs have both fulfilling and challenging experiences when it comes to feeding interventions because of their case-by-case basis and the rewards they reap when the interventions are shown to be effective. The participants each shared their challenges when it came to providing intervention with feeding and its rewards when done right.

Participants expressed that providing feeding interventions are fulfilling despite the challenges. They shared feelings of accomplishment when they saw progress from the child's feeding habits or abilities which improved the child's mealtime experiences.

"... when they first get a piece of food, or they first eat or try something that they've never tried before or first eat something new at home. Those are the little wins that we have despite the challenges." (Participant 1)

Another emphasized that specializing in feeding therapy can be an asset to one's career as an OT:

"It's really a specialized field and it really requires a lot of practice and a lot of continuous education." (Participant 2)

Providing interventions has never been an easy task, more so when it is for feeding as a child would typically have preferences. This is defined by the factors behind preferences and levels of tolerance and the participants share that the process of evaluating and intervention is challenging, especially with preparing the child to explore new sensory stimuli. They shared the rather discouraging feelings they have with feeding interventions highlighting it as a trial-and-error experience and a dual management set-up along with the parents.

There was a handful of wisdom that the participants passed on to other OTs, especially for new ones to practicing the profession. These focused on reading, being a resourceful professional, and seeking mentorship. For some who had the chance to work with other professionals, finding an interprofessional team to work with, such as speech-language pathologists,

"There are a lot of resources out there, but I think feeding is really a specialized field. It's not something that is taught in OT school ... it really requires a lot of practice and a lot of continuous education and learning." (Participant 2)

Teletherapy as a Sign of the Times

Participants also shared how they provided feeding interventions amid the pandemic and mentioned that teletherapy was a useful means for them to do so. It is relevant to understand their perspectives to understand the benefits of teletherapy for the child and the family when it comes to addressing the child's mealtime concerns. While teletherapy presented significant new challenges, all participants expressed that this had presented an opportunity for parents to become more involved with their child's feeding treatment.

There were different views regarding teletherapy and face-to-face treatments for feeding interventions, but for the majority, participants expressed preference for teletherapy especially with the given situation that the pandemic has brought. The use of personal protective equipment during face-to-face sessions were too taxing for both the OT and the child which was avoided if the therapy was done virtually. Teletherapy also afforded the participants to do the feeding intervention at the context of the family's home.

"Telehealth is also nice because the mom is present during the session and she would get more ideas on what she can do at home outside of OT time." (Participant 8)

There were also participants who expressed some disadvantages of teletherapy and some who viewed the face-to-face approach to be better than teletherapy. the major disadvantage would be the absence of quick reactions from a therapist and the challenge in facilitating the parent for quick opportunities like spontaneous attempts of the child to place the food in the mouth. Despite these views, some would also say that having a blended approach of teletherapy and face to face sessions would be better to maximize the advantages and minimize the disadvantages of both.

DISCUSSION

This study presents the experiences of OTs in Cebu, Philippines, providing feeding interventions associated with sensory issues for children with ASD using qualitative inquiry specifically phenomenology. The findings revealed five emergent themes that encapsulated how feeding interventions provided by OTs is a collaborative effort between the occupational therapist and the child's family. The findings of the study also illustrate how local OTs in Cebu, Philippines, see this area of practice as rewarding yet challenging, highlighting opportunities for further studies and for improving practice.

Family dynamics and parent involvement in therapy were highly evident for making sufficient progress towards goals for mealtimes in this study. Similar to existing literature, participants expressed how the common concerns of family members included the dietary and nutritional effect of the child's picky-eating and the child's behavior during mealtime.^{20,21} There is importance in including the family in the intervention process and educating them to improve their compliance.

From the findings, it can be inferred that aside from focusing on the child during feeding interventions, the occupational therapist should also include educating the parents about their children's condition. Most parents can be in denial of the things that their children need and being firm yet accommodating to them during feedback and parent coaching sessions provides them with opportunities to open their minds and be more cooperative and proactive during therapy sessions.

The findings also highlight the importance for the family to be well-informed of the child's sensory issues as a child's sensory issues can also affect other members of the family. Imposing on the child your own preference can be a traumatic experience for the child, making them hesitant to explore food and enjoy mealtimes. A child with ASD's sensory issues was said to affect not only the child's occupations but also those of the family's as well.²²

Often times, mealtimes are noted to be chaotic and this is an area where occupational therapists can provide interventions to help support healthy environments at home and promote the child's engagement during mealtime and minimize all aversive events that make mealtime an unpleasant experience.²³

Tactile defensiveness is one of the most common sensitivities that most likely would affect mealtime and selection of food in children with ASD.⁶ This is when the children have adverse reactions to touching non-noxious tactile stimulation. Due to these sensitivities, the child would have difficulty initiating to eat what has been served during their mealtimes.

The participants had varied responses towards the use of teletherapy as a service delivery model when evaluating and intervening in feeding concerns of children with ASD. This shed light on possible positive and negative perspectives of using teletherapy to help determine specific factors on whether therapists chose to provide service through telehealth. Teletherapy can also be a means to engage in the mealtime experience of children with ASD at home and this notion pushes for teletherapy's effective use.²⁴

The results obtained from the interviews further described the different sensory issues and factors contributing to food aversion behaviors and parental concerns that affect mealtimes. The top two contributing factors that were described during the interviews were generalized sensory defensiveness and oral sensory sensitivity.

A combination of different feeding interventions and approaches can be more successful in seeing improvements or results than using a standalone approach.¹⁰ This resonates with Howe and Wang's statement on providing different feeding techniques that can result in positive consequences for feeding performance, feeding interaction, and feeding competence of the parents and children.⁹

The participants in this study described what they felt were the highs and lows during treatment. Treatment can be challenging as every child has his/her own unique characteristics and set of behaviors, and families have different values, cultures, routines when it comes to mealtimes.

Participants used a range of approaches to feeding including oral motor approaches, behavioral approaches, and systematic desensitization to address the child's needs. While the range of approaches used by each informant varied, some approaches were commonly referred to such as sensory, child-led, and play-based approaches. By understanding the different approaches to treatment, this may help OTs use evidence-based feeding interventions for children with ASD.

The themes in the study resonate with O'Brien and Kuhaneck's need for therapists' familiarity on the basic anatomy and physiology, growth and developmental milestones, nutrition, medical conditions and their impact on feeding, and social and emotional factors that can affect feeding when practicing feeding interventions.⁸ OTs must be cautious not to cause negative experiences to the child

With the emergent themes, it was seen how the selected OTs had a well-defined, unique, and integral role in the assessment and management of feeding disorders.^{8,25} Moreover, this role for OTs can be augmented when working in an interprofessional team to handle the feeding concern; yet, it was expressed as one low point in the practice that there weren't opportunities for collaborations with other disciplines of healthcare when providing feeding interventions. This may be attributed to the limited number of other professionals locally such as speech-language pathologists. OTs can also work with nutritionists and dietitians to help address issues with the child's food selectivity. By partnering with speech-language pathologists, nutritionists, and dietitians, sensory-related feeding issues can be addressed while maintaining a proper healthy diet for the child with ASD. For some who had the experience of working in an interprofessional team, they shared that they have worked with was only speech-language pathologists.¹⁹ This highlights a need to investigate more opportunities interprofessional collaboration when it comes to handling mealtime issues of children with ASD.

Limitations

The limitations include not having a male OT's perspective about feeding. Shields and McDaniel's study shows that family members may elicit different behavior from male versus female therapists because of their own gender-based expectations.²⁶ It would be better to have a comparison between a female OT and a male OT to see the difference on how the child and the parents comply during sessions which would provide a deeper understanding of the experience. The small sample (n=9) would limit the generalizability of the findings to those working in private clinics in Cebu, Philippines. Also, a larger sample may potentially help reveal additional experiences and perspectives, which may further lead into more strategies being uncovered and overall generalizability based on future studies.

Recommendations for Future Research

This study also adds to existing knowledge about OT practice in Cebu, Philippines, for children with ASD on mealtime challenges by providing an in-depth description of what current intervention approaches therapists choose and how they are applied and combined in targeting feeding concerns and sensory issues that relate to feeding. The findings from this study can be used as a basis for future research on OTs and how they provide feeding interventions for children with ASD. There is also a need for future research to investigate if present mealtime routines in the Philippines have an impact on the mealtime experiences of children with ASD. Exploring the Filipino culture about feeding and eating may also provide further insight about mealtime experiences of Filipino children with ASD.

CONCLUSION

This study explored the current perspectives of OTs in Cebu, Philippines, regarding mealtime experiences of children with ASD. The information gathered in this study, through open-ended questions, provided a rich description of the overall mealtime experiences of children with ASD, its relationship with the family, the approaches, and interventions used at present which include the use of teletherapy as a mode of service delivery from an occupational therapy practitioner's perspective. Though limited to a small sample of local OTs in Cebu, Philippines, this study gave us insight about their experiences and how this can aid researcher in future studies pertaining to feeding interventions with a larger sample.

Gaining a better understanding of the perspective of OTs with the mealtime experiences of children with ASD will assist in directing intervention studies. Based on the responses of local OTs, this study concluded that the outcome of any intervention approach to feeding is often dependent on the distinctive characteristics of the individual child, their sensory, motor, and whole-body needs, and the dynamics of the family, the child, and the OTs. The study also showed that using two or more approaches together is more likely to be effective than single-service approaches.

OTs emphasized the importance of parents training and involvement for the intervention to be successful, and that providing the parent training is also one of the challenges that OTs have encountered. The OTs provided best practice to ensure consistency, which supports development of a plan of care, continued progress, and goal attainment. OTs were able to define and express their experiences in providing feeding interventions through teletherapy and face-to-face therapy and it was gathered that in either mode of therapy, there are pros and cons and if possible, the best course would be to adopt a blended mode of virtual and face-to-face therapy.

This study may provide information that could look further into the assessment and treatment of the feeding problems of children with ASD using a larger sample.²⁷ Follow-up analysis of inappropriate mealtime behaviors between children with ASD and typically

developing children can also be done for future treatments and interventions. Future studies could also directly assess the relationship of parent involvement and parent training in feeding interventions of children with ASD.

Overall, the themes formulated in this study suggest that children's food preferences often reflect their sensory-motor needs, and that parents and healthcare professionals should monitor these preferences to determine the deficits and determine the approaches to address them. This study provides OTs and parents a better understanding on how to look at a child with ASD's foundational skill deficits and relate it to their mealtime behaviors and challenges. Mealtime is essentially an overt communication of what is working for a child from a skill viewpoint.

Acknowledgements

The authors would like to thank the OTs in Dynamics Pediatric Therapy & Associates, Fundamental Pediatric Therapy Center, and GOAL Pediatric and Adult Therapy Center.

Disclosure statement

No potential conflict of interest was reported by the author(s).

REFERENCES

- 1. Creek J, Hughes A. Occupation and health: A review of selected literature. *Br J Occup Ther.* 2008;71(11):456-458. doi:10.1177/030802260807101102
- 2. Wilcock AA. An Occupational Perspective of Health. 2nd ed. Thorofare (NJ): SLACK; 2006.
- 3. Case-Smith J, O'Brien JC. Occupational Therapy for Children. 6th ed. Mosby; 2009.
- Ben-Sasson A, Hen L, Fluss R, Cermak SA, Engel-Yeger B, Gal E. A meta-analysis of sensory modulation symptoms in individuals with Autism Spectrum Disorders. *J Autism Dev Disord* 2008 391. 2008;39(1):1-11. doi:10.1007/S10803-008-0593-3
- 5. Scaglioni S, De Cosmi V, Ciappolino V, Parazzini F, Brambilla P, Agostoni C. Factors influencing children's eating behaviours. *Nutrients.* 2018;10(6):1-17. doi:10.3390/nu10060706
- 6. Cermak SA, Curtin C, Bandini LG. Food Selectivity and Sensory Sensitivity in Children with Autism Spectrum Disorders. *J Am Diet Assoc.* 2010;110(2):238-246. doi:10.1016/j.jada.2009.10.032
- 7. Baranek GT, David FJ, Poe MD, Stone WL, Watson LR. Sensory Experiences Questionnaire: discriminating sensory features in young children with autism, developmental delays, and typical development. *J Child Psychol Psychiatry*. 2006;47(6):591-601. doi:10.1111/J.1469-7610.2005.01546.X
- 8. O'Brien JC, Kuhaneck H. Case-Smith's Occupational Therapy for Children and Adolescents. St. Louis: Elsevier Health Sciences; 2019. https://books.google.com.ph/books?id=XNWxDwAAQBAJ.
- 9. Howe T-H, Wang T-N. Systematic review of interventions used in or relevant to occupational therapy for children with feeding difficulties ages birth–5 years. *Am J Occup Ther.* 2013;67(4):405-412. doi:10.5014/AJOT.2013.004564
- 10. Adolf JT, Mattern HM. Occupational therapy feeding and eating interventions for autism spectrum disorders and pervasive developmental disorders: a systematic review. *Occup Ther Capstones*. 2016;4. https://commons.und.edu/ot-grad. Accessed August 15, 2021.
- 11. Nadon G, Feldman DE, Dunn W, Gisel E. Association of sensory processing and eating problems in children with autism spectrum disorders. *Autism Res Treat*. 2011;2011:1-8. doi:10.1155/2011/541926
- 12. Marshall J, Ware R, Ziviani J, Hill RJ, Dodrill P. Efficacy of interventions to improve feeding difficulties in children with autism spectrum disorders: A systematic review and meta-analysis. *Child Care Health Dev.* 2015;41(2):278-302. doi:10.1111/cch.12157
- 13. American Occupational Therapy Association. Frequently asked questions about Ayres Sensory Integration ® What is sensory integration or Ayres Sensory Integration® ? 2008. https://www.aota.org/-/media/Corporate/Files/Practice/Children/Resources/FAQs/SI Fact Sheet 2.pdf. Accessed January 27, 2022.
- American Occupational Therapy Association. Feeding, eating, & swallowing: specialty certified practitioners. https://www.aota.org/Education-Careers/Advance-Career/Board-Specialty-Certifications-Exam/practitioners/specialty-feeding-eating-swallowing.aspx. Published 2022.
- 15. Creswell JW, Creswell JD. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 5th ed. London: SAGE; 2018.
- 16. Saunders B, Sim J, Kingstone T, et al. Saturation in qualitative research: exploring its conceptualization and operationalization. *Qual Quant.* 2018;52(4):1893-1907. doi:10.1007/s11135-017-0574-8
- 17. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol.* 2006;3(2):77-101. doi:10.1191/1478088706qp063oa
- 18. Merriam SB. Qualitative Research: A Guide to Design and Implementation. San Francisco, CA: Jossey-Bass; 2009.

- 19. Toomey KA, Ross ES. SOS approach to feeding. 2011;20(3):82-87. doi:10.1044/SASD20.3.82
- 20. Taylor CM, Emmett PM. Picky eating in children: Causes and consequences. *Proc Nutr Soc*. 2019;78(2):1. doi:10.1017/S0029665118002586
- 21. Franklin L, Rodger S. Parents' perspectives on feeding medically compromised children: Implications for occupational therapy. *Aust Occup Ther J.* 2003;50(3):137-147. doi:10.1046/J.1440-1630.2003.00375.X
- 22. Bagby MS, Dickie VA, Baranek GT. How sensory experiences of children with and without autism affect family occupations. *Am J Occup Ther*. 2012;66(1):78-86. doi:10.5014/AJOT.2012.000604
- Marquenie K, Rodger S, Mangohig K, Cronin A. Dinnertime and bedtime routines and rituals in families with a young child with an autism spectrum disorder. *Aust Occup Ther J*. 2011;58(3):145-154. doi:10.1111/J.1440-1630.2010.00896.X
- 24. Grover V, Velella L, Murthy P. Conducting successful feeding therapy over telehealth: 9 Recommendations. MedBridge. https://www.medbridgeeducation.com/blog/2020/05/conducting-successful-feeding-therapy-overtelehealth-9-recommendations/. Published May 11, 2020. Accessed August 15, 2021.
- 25. Rivas-Argueta S. A child's occupations: feeding. Toronto Children's Therapy Centre. https://www.torontochildrenstherapycentre.ca/a-childs-occupations-feeding/. Published August 9, 2020. Accessed August 15, 2021.
- 26. Shields CG, Mcdaniel SH. Process difference between male and female therapists in a first family interview. *J Marital Fam Ther*. 1992;18:143-151. doi:10.1111/j.1752-0606.1992.tb00925.x
- 27. Volkert VM, Vaz PC. Recent studies on feeding problems in children with autism. *J Appl Behav Anal*. 2010;43(1):155. doi:10.1901/JABA.2010.43-155