Parent Satisfaction of Occupational Therapy Interventions for Pediatrics

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Purpose: This review seeks to identify the tools used to determine parent satisfaction with OT interventions for a variety of pediatric conditions. The purpose of this review was to explore whether the research on the effectiveness of OT interventions for children has addressed the important concept of parent satisfaction. There is limited OT research that evaluates parent satisfaction in pediatrics. Greater parent satisfaction with OT services results in better treatment adherence for pediatric care.

Design: A scoping review.

Methods: Five studies met the inclusion criteria. In total, there were 139 participants within the five studies that were examined. Five studies explored parent satisfaction as an outcome measure of OT interventions for pediatric populations. Assessment methods and findings were extracted from the selected studies. Information regarding the assessment tools used to determine parent satisfaction was extracted. Also extracted were the results of the satisfaction assessments used by the studies.

Results: The study designs included four qualitative studies and one randomized control trial. Tools used to measure parent satisfaction, included the MPOC-20, MPOC-56, COPM, GAS and the CSQ. Best practice for OT’s include, facilitating goal setting with clients and communicating efficiently with parents, allowing them to ask questions for comprehension of the clinical aspects, explaining the child’s procedures and providing follow up time to discuss improvements or setbacks.

Conclusion: The studies reviewed suggest there may be value in understanding parent consideration and working as a cohesive, interdisciplinary team for the overall benefit of a child.

Discussion: To provide optimal holistic care to pediatric patients, cooperation with the parents can be an asset to the therapeutic process. Parents can be OTs advocates regarding health care for their children.

Keywords: Occupational therapy; Parent satisfaction; Pediatrics; Outcome measures; Therapist-parent relationships; Parent preferences

Abbreviations
OT: Occupational Therapy; MeSH: Medical Subject Headings; MPOC: Measure of Process of Care; COPM: Canadian Occupational Performance Model; GAS: Goal Attainment Scale; CSQ: Client Satisfaction Questionnaire; SOTQ: School-based Occupational Therapy Questionnaire; ASD: Autism Spectrum Disorder

Introduction
Parent satisfaction has considered as vital component in the evaluation of healthcare interventions in the pediatric population [1,2]. Pediatric occupational therapists promote independence, personal growth and development to improve quality of life for children who have disabilities, diseases or face daily life limitations [3].

It is important that parents recognize and understand the improvements their children make during OT. McCall and Schneck report that parents’ perceptions of OT interventions may be affected by poor therapist communication and this could limit the beneficial effect of service provision for children if the parent’s needs and expectations are not met [4]. Carrigan et al. states that determinants of parent satisfaction with OT interventions have been identified as seeing an overall improvement, enjoyment of therapy sessions, opportunities for group as well as individual sessions, provisions of home programs and school visits by the therapist [5]. Mulligan states, a holistic and family centered approach is highly effective in OT practices for the pediatric population [6].

Parent satisfaction in therapy clinics has generated little attention in the scientific literature. Green indicates there is a lack of high quality research that evaluates parent’s perception of the quality of pediatric care their child receives. Green indicated that in recent years, the interest in parental satisfaction with healthcare providers who treat children with different disabilities has increased [7]. Carrigan et al. suggests that parent satisfaction positively correlates with increased partnership and participation between OT health care providers and parents [5]. Lee and Korczak suggests that parent satisfaction positively correlated with the amount of time between referral and consultation, the degree of attention from therapist and the volume of information
obtained in concluding consultations [8]. Improvement in parent's satisfaction with health care is associated with reduction of symptoms and improved adherence to the therapeutic regimen and understanding medical information [9].

The value of addressing parental satisfaction has become a growing necessity due to hospital requirements by the state and private sector to document quality improvement measures [10]. Carrigan, Rodger and Copley identified the scarcity of OT research that has focused on evaluating parent satisfaction with pediatric services, indicating further research is needed when addressing parent satisfaction and views about the family-centered nature of therapy [5].

This scoping review is intended to discover if the importance of determining parental satisfaction is present in literature. The primary purpose of this scoping review is to explore whether the research on the effectiveness of OT for children has addressed the important concept of parent satisfaction. The secondary purpose is to explore the outcome methods that were used to assess parent satisfaction. Our tertiary purpose is to understand how the results of these assessments can influence the relationship between therapist and parents.

Methods

Databases

Data collection occurred between the dates of February 2016 to May 2017. Databases searched included PubMed, CINAHL, ProQuest Dissertations, OT Search, PsychINFO, ERIC, MeSH, Cochrane library, MEDLINE, EMBASE and Google Scholar. Studies of existing data and other relevant information obtained were from studies identified through the databases searched. The researchers examined the reference sections of each study for additional studies and the selected journals were hand searched to ensure that all appropriate research was included.

Search terms

The search terms included OT, parent satisfaction, interventions, Pediatrics, parent preference, health, outcomes and children. Appendix A illustrates one full electronic search strategy using CINAHL database.

Study selection

XX and XX examined each article and eliminated references on the basis of citations and abstracts. XX and XX independently reviewed articles and decided if inclusion and exclusion criteria were met. XX and XX first reviewed the abstracts of each article and then collaborated and discussed each chosen article. The articles that were deemed eligible were included in the study and when necessary, a third party settled disagreements and discrepancies through discussion with both researchers.

Inclusion/exclusion

Inclusion criteria consisted of full text studies that assessed parent satisfaction, OT and pediatrics. Exclusion criteria consisted of studies with children older than 18 years of age, studies written in a language other than English and published prior to ten years ago.

Data extraction

Data was extracted from the selected studies to identify commonalities, themes and gaps in the literature. Information extracted included authors, year of publication, intervention type, length and time of treatment, study population, rating scales, satisfaction measurements, outcome measures and tools used to determine parent's satisfaction. Demographic extraction comprised of the child's age, pre and post diagnosis, parent gender, child's gender, ethnicity, disability, diagnosis and comorbid symptoms. The methods used for assessing risk of bias of individual articles are not included in this study because it is a scoping review.

Results

Study selection

The search strategy identified 586 studies. Following the removal of duplicates and the scanning of titles and abstracts, 76 potentially relevant studies remained. After these studies were reviewed, the inclusion and exclusion criteria were considered, 5 articles remained. The final five studies included four qualitative studies [11-14] and one randomized control trial [15]. Five studies addressed parent satisfaction regarding pediatric OT interventions (Table 1).

Participants

The number of parents in the studies ranged from 11 [14] parents in one study to 41 [13] parents in another. The selected studies included parents of children whose ages ranged from nine months [12] to 12 years old [15]. The parents involved in the studies had children with diagnoses of fine motor difficulties [11], coordination problems, combinations of neurological and behavioral difficulties [13], autism, cerebral palsy, developmental delay [14], motor delays and Down syndrome [12]. All studies included assessment of satisfaction in parents, caregivers or family members (Table 1).

Aim of studies

Two studies included primary aims that related to the assessment of parent satisfaction [13,14]. Three studies addressed parent satisfaction as a secondary or tertiary aim [11,12,15]. Primary purposes of the studies varied in context, intervention and severity (Table 1).

Methods to assess satisfaction

Five studies used a variety of methods to address parent satisfaction [11-15]. Two studies used non-standardized, qualitative, interview based assessments [11,13]. Three studies utilized standardized assessments [12,14,15]. Of the three standardized assessments, one study applied both the COPM and GAS [14]. The remaining two studies utilized variations of the MPOC [12,14] (Table 1).

Assessment tools

The COPM and GAS were used as assessments in one study [15], the MPOC-56 was used in other study [12]. Shorter MPOC-20 [14], CSQ and SOTQ questionnaires were combined in another study [11] and the unpublished informal assessment was specifically created for a study which interpreted parent satisfaction using a semi-structured interview [13] (Table 2).
Table 2 provides information regarding the purpose of each assessment. Two out of five studies assessed family centered services [12,14]. Novak et al. addressed occupational performance goal setting [15]. A final study looked at consumer satisfaction with health and human services [11] (Table 2).

The clinical utility of the assessments was also extracted from the literature. Scoring used a Likert Scale ranging from four points [11] to ten points [15]. The cost per assessment varied from 0.55 cents [11] to 225.45 dollars for the first 500 uses to the combined manual and 100 worksheets [15]. The average time to administer the assessments ranged from three minutes [11] to sixty minutes [15] (Table 2).

### Table 2: Characteristics of studies that addressed parent satisfaction regarding pediatric OT interventions.

<table>
<thead>
<tr>
<th>Author</th>
<th>Study Designs</th>
<th>Participants</th>
<th>Subjects</th>
<th>Aim of Study</th>
<th>Method to Assess Parent Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayona et al. [11]</td>
<td>Qualitative</td>
<td>Parents of children 5 and 8 years old.</td>
<td>n=12</td>
<td>Primary: Whether written communication and fine motor skills of 23 based children with fine motor difficulties improved after receiving school-based occupational therapy.</td>
<td>Client Satisfaction Questionnaire (CSQ), School-Based Occupational Therapy Questionnaire (SOTQ).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Secondary: Parents satisfaction with services received.</td>
<td></td>
</tr>
<tr>
<td>Broggi et al. [12]</td>
<td>Qualitative</td>
<td>Parents of children 9 months old to 4 years old with an identified motor delay.</td>
<td>n=39</td>
<td>Primary: Relationship that develops between therapists and parent’s during early intervention.</td>
<td>Measure of Process of Care (MPOC)-56 and Satisfaction and Control Questionnaire.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Secondary: Parent satisfaction related to early intervention outcomes.</td>
<td></td>
</tr>
<tr>
<td>Kolehmainen et al. [13]</td>
<td>Qualitative</td>
<td>Parents of children part of therapy processes.</td>
<td>n=41</td>
<td>Primary: Explore parent’s views of the management of their children’s occupational therapy.</td>
<td>Semi-Structured interviews lasting 30-60 minutes, tape recorded and transcribed.</td>
</tr>
<tr>
<td>Novak et al. [15]</td>
<td>Randomized Control Trial</td>
<td>Parents of children ages 4 to 12 enrolled in school and receiving occupational therapy.</td>
<td>Parents of 36 children</td>
<td>Primary: Effectiveness of an occupational therapy home program (OTPH), compared to no OTHP.</td>
<td>Canadian Occupational Performance Measure-Satisfaction (COPM-S) and Goal Attainment Scale (GAS).</td>
</tr>
<tr>
<td>Schreiber et al. [14]</td>
<td>Qualitative</td>
<td>Parents of Children receiving outpatient rehabilitation services.</td>
<td>n=11</td>
<td>Primary: Describe parent perceptions of the extent to which family-centered care behaviors occurred in an outpatient pediatric rehabilitation facility</td>
<td>Measure of Process of Care (MPOC)-20.</td>
</tr>
</tbody>
</table>

n: number of participants identified in each study.

### Table 1: Assessment Characteristics

<table>
<thead>
<tr>
<th>Method to Assess Parent Satisfaction</th>
<th>Assessment Developer</th>
<th>Assessment Purpose</th>
<th>Scoring</th>
<th>Cost</th>
<th>Average Time to Administer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure of Process of Care (MPOC -20)</td>
<td>King et al. [16]</td>
<td>Assesses family centered services: Designed to capture the essential features of family centered services through (i) enabling and partnership (3 items) (ii) providing general information (5 items) (iii) providing specific information about the child (3 items) (iv) coordinated and</td>
<td>7-point Likert scale</td>
<td>Virtual/hard copy: $99.00. Available as a downloadable PDF or an electronically online survey</td>
<td>15-20 minutes</td>
</tr>
<tr>
<td>Measure of Process of Care (MPOC-56)</td>
<td>King et al. [16]</td>
<td>Assessment of the extent to which these services are family centered in five domains: enabling and partnership; providing general information; providing specific information about the child; coordinate and comprehensive care; and respectful and supportive care.</td>
<td>7-point Likert scale</td>
<td>Virtual/hard copy: $99.00 Available as a downloadable PDF or an electronically online survey</td>
<td>15-20 minutes</td>
</tr>
<tr>
<td>Canadian Occupational Performance Measure (COPM)</td>
<td>Law et al. [17]</td>
<td>Assesses individuals perceived occupational performance in the areas of self-care, productivity, and leisure.</td>
<td>10-point Likert scale</td>
<td>Hard copy: Workbook with manual and 100 Forms is $225.45. Manual/Form Kit for $52.45.</td>
<td>10-20 minutes</td>
</tr>
<tr>
<td>Goal Attainment Scale (GAS)</td>
<td>Kiresuk et al. [18]</td>
<td>Individualized outcome measures involving goal selection and goal scaling that is standardized in order to calculate the extent to which a patient's goals are met.</td>
<td>5-point Likert scale</td>
<td>Hard copy: $115.00</td>
<td>20-60 minutes</td>
</tr>
<tr>
<td>Client-Satisfaction Questionnaire (CSQ)</td>
<td>Larsen et al. [19]</td>
<td>To measure and assess consumer satisfaction with health and human services.</td>
<td>4-point Likert scale</td>
<td>Hard Copy: $0.55 each for first 500 uses, $0.45 each use thereafter</td>
<td>3-8 minutes</td>
</tr>
</tbody>
</table>

Table 2: Features of identified assessment tools measuring parent satisfaction.

<table>
<thead>
<tr>
<th>Author</th>
<th>Parents</th>
<th>Scoring of Assessment Tool</th>
<th>Assessment Tool</th>
<th>Parent Considerations</th>
</tr>
</thead>
</table>
| Bayona et al. [11] | n=12 | The SOTQ is scored on a scale ranging from 1 to 7 with 7 representing highest satisfaction. | School Based Occupational Therapy Questionnaire (SOTQ) | Ranking of Intervention Components:  
- Home suggestions were communicated clearly=6.0  
- They appreciate explanation of consultation services=5.7  
- Therapist written report was useful to educate parents=5.5  
- The usefulness of therapist recommendation for home/school=5.3  
- Amount of contact with occupational therapist=5.2  
- Parents were satisfied by their child receiving adequate follow-up=5.2 |
| Bayona et al. [11] | n=12 | Summing all item responses produces the overall score of the CSQ. Scores range from 8 to 32, with higher values indicating higher satisfaction. | Client Satisfaction Questionnaire (CSQ) | Positive (most frequent) aspect reported of services:  
- Parents want an opportunity to share information and communicate with the therapist.  
- Parents want an opportunity to share information and communicate with the therapist. |
| Kolehmainen et al. [13] | n=41 | No standardized scoring available | Unpublished Informal Assessment | Positive (most frequent) aspect reported of services:  
- Parents had an issue with the amount of therapist, child, and educational staff interaction.  
- Parents stopped therapy due to the overwhelming negative feedback by therapist.  
- Parents felt powerless to assist in child's therapy and wanted the opportunity to actively "do things" to support and care for their child. |
<table>
<thead>
<tr>
<th>Study</th>
<th>Participants</th>
<th>Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schreiber et al. [14]</td>
<td>n=11</td>
<td>7 Point Likert scale: 7 indicated satisfaction &quot;to a very great extent&quot; 6=great extent 5=fairly great extent 4=moderate extent 3=small extent 2=very small extent 1=not at all 0=item was not applicable</td>
<td>Measure of Process of Care (MPOC)20</td>
</tr>
<tr>
<td>Broggi et al. [12]</td>
<td>n=39</td>
<td>5 Point Likert Scale from 1 (not true of you and/or your experience) to 5 (very true of you/and your experience)</td>
<td>Satisfaction and Control Questionnaire (SCQ)</td>
</tr>
<tr>
<td>Novak et al. [15]</td>
<td>Parents of 35 children were interviewed</td>
<td>10 Point Likert Scale on the importance of each area in productivity, selfcare and leisure, with 10 being most important. The total score is the total performance of satisfaction divided by the number of problems.</td>
<td>Canadian Occupational Performance Measure (COPM)</td>
</tr>
<tr>
<td>Novak et al. [15]</td>
<td>Parents of 35 children were interviewed</td>
<td>Five levels of attainment, represented by scores ranging from -2 to +2. -2: Much less than expected outcome -1: Less than expected outcome 0: Expected outcome after intervention +1: Greater than expected outcome +2: Much greater than expected outcome</td>
<td>Goal Attainment Scale (GAS)</td>
</tr>
</tbody>
</table>

n: number of participants identified in each study

Table 3: Parent considerations identified.

Parent's considerations related to satisfaction

Bayona et al. [11] used the SOTQ which scored parents satisfaction with school-based OT services using a 7-point Likert scale, with seven representing highest satisfaction. Mean scores of the six intervention components equaled a score of five point five. The SOTQ scores revealed that parents ranked communication and home based suggestions as most important with a score of six. Researchers reported the second highest ranking that parents identified was for therapist to give clear explanations of the consultation services. The lowest ranked items included the usefulness of therapist recommendations for home and school and the amount of contact with occupational therapists. Findings indicated a moderate to high level of satisfaction for parents related to the OT services that their child received [11] (Table 3).

The researcher collected data from twelve parents that participated in the CSQ where both positive and negative aspects of services were identified [11]. Attkisson and Greenfield stated that summing all item responses produces the CSQ overall score. Scores range from eight to 32, with higher values indicating higher satisfaction [20]. The researchers reported the most frequent positive aspect parents identified included having an opportunity to share ideas and communicate with their child’s therapist. The most frequent negative aspect experienced by parents included inconsistency and inadequate follow-up visits. The CSQ combined with the SOTQ helped to identify the utility of OT services for children with fine motor difficulties [11] (Table 3).
Kolehamainen et al. utilized an informal assessment to explore parent's views of management of their child's OT services. Semi-structured interviews identified parent considerations. Parents identified the interactions between their child and therapist, along with themselves as key components to successful therapy. Parents have discontinued the therapy when they were in lack of shared understanding of child's problems, they received negative feedback from therapist and they were lacking the opportunity to actively participate in their child's interventions [13]. Due to this assessment being an unpublished and informal semi-structured interview style, no standardized scoring was available (Table 3).

Researchers used the MPOC-20 to assist therapists in identifying important features of parent satisfaction and dissatisfaction within their child's OT sessions. Scores were dependent on a 7-Point Likert Scale, with one representing no satisfaction and seven representing a very great extent of satisfaction [21]. The identified high scoring satisfaction components included: The ability to connect with other parents whose children were receiving similar services and when parents and their child form personal relationships with the therapist. Parents reported dissatisfaction with OT services for their child when they experienced staff turnover, lapses in services and lack of availability of the therapist time [14].

Researchers developed and utilized the satisfaction and control questionnaire to rate parent's perceptions of satisfaction within the parent-therapist relationship. A 5-Point Likert scale rated thirty-nine parents who scores ranged from five, high satisfaction and one, low satisfaction, to address how involved parents felt during their child's evaluation and intervention [12] (Table 3).

Researchers utilized the COPM to identify 115 goals for productivity, self-care and leisure. A 10-Point Likert Scale scored the importance of each area in productivity, self-care and leisure, with 10 being most important. The total score can be evaluated by taking the total performance of satisfaction and dividing it by the number of problems [22]. Thirty-five parents identified improved handwriting and fine motor tasks as the most commonly ranked school productivity goals [15] (Table 3).

The goals identified in the COPM helped produce 86 GAS goals [15]. Researchers reported that interventions were created and implemented based on the 86 GAS goals as identified by the parents. Scores are recorded within five levels of attainment, ranging from -2 to +2, with -2 being much less than an expected outcome and +2 being much greater than an expected outcome [23]. Some identified interventions included goal directed training, recommendations for adaptive equipment, constraint induced movement therapy and parent education [15] (Table 3).

**Discussion**

The primary purpose of this review was to explore whether the research on the effectiveness of OT interventions for children addresses the important concept of parent satisfaction. All five studies reviewed used a variety of satisfaction assessments, which can be used in clinical practice.

**Assessment of satisfaction**

Parent satisfaction results identified and reported by Iverson et al. [24] that, a decrease in parent satisfaction when the parents were asked to independently set goals verse collaborating with the therapist to help their child and learn how to develop strategies to discipline and set behavior limits. These findings differ from our results as parents rank home suggestions when communicated clearly from the OT as the highest component of satisfaction [11].

Comparing the research of Rodger et al. [25] to the findings of our study, we found that parents satisfaction related to OT services were similar. In our study, parents stopped therapy when the parent felt powerless to assist in the child's therapy and when therapists provided overwhelming negative feedback. Similarly, Rodger et al. [25] stated that a mother of a child receiving OT services did not feel valued nor did she receive much feedback from the OT, making her feel incompetent, ultimately leading to low satisfaction with her child's therapy services.

Rodger et al. [25] stated that families were more satisfied when the OT validated their observation, listened empathically and created an individualized plan that was unique to their family and was not text book in approach. We found that parents found it important to have a personal sustainable relationship with the OT; connection with their child's therapist and for the OT to have awareness and respect family attributes [12,14].

Understanding parent satisfaction can help therapists promote a better relationship with parents and possibly affect adherence [16]. The MPOC was the most frequently used tool to determine parent satisfaction in this review [12,14]. In addition, there were other standardized assessment tools used to determine how satisfied parents were with their OT services including the COPM, GAS and the CSQ [17-19].

Throughout our research, we identified common characteristics indicative of parent satisfaction. These characteristics include, usefulness of therapy, appropriate explanations and suggestions from the therapist, a connected relationship between all parties and collaboration with parents when creating occupational goals for their children [11,12,14,15].

Other important characteristics pertaining to parent satisfaction include: providing additional written information about the child, his/her diagnosis and the overall program and progress for the child. Konstantina et al. identified additional parental satisfaction characteristics within four domains: Program and staff responsiveness, knowledge and skills in helping the child, understanding normal behavior and problems and utilizing community resources in intervention programs [26].

**Clinical relevance**

Parent satisfaction constitutes a key factor of any OT intervention. It reveals important information about components of service and relationship qualities that need to be maintained or improved in order to fit into parent's empowerment and expectations [27-30].

**Implications for best practice suggestions for OT's:**

- Communicate clearly and explain the consultation services with parents and caregivers [11].
- Provide adequate follow up time to discuss improvements or setbacks with the child [11].
- Continually reassure parents and form relationships by using therapeutic use of self [14].
• Allow parents to ask questions to help comprehension of the clinical aspects and procedures their child endures during therapy [14].
• Take time to understand the parent's needs, frustrations and anxious thoughts [13].
• Incorporate parent's opinions into interventions [15].

Study Limitations

There are significant limitations and gaps in the available literature in relation to parent satisfaction, which is why this is a scoping review. Rodger et al. stated that there has been limited research measuring parent's satisfaction with early intervention programs particularly for children with ASD [25]. These results in this study need to be looked at in view of the fact that children's age and type of disease could have affected parent satisfaction. Parent satisfaction in pediatric OT interventions should be widely researched to add to the body of knowledge for OT practitioners to utilize in everyday practice.

Additionally, we may not have found every study that addresses this important concept of parent satisfaction because parent satisfaction was not included as a keyword in the title or abstract. Even after an extensive literature search, only five studies were deemed applicable to this review. Small sample sizes were also an issue for the five studies included [11-15].

Future Research Opportunities

Additional research is recommended to understand the important implications that parent satisfaction has on the field of OT. We propose survey research be conducted to assess parent satisfaction directly for pediatric OT interventions. Due to parent's extensive involvement in a child's treatment services, parents satisfaction should be recognized as a topic of significant importance in future research endeavors. Further research is needed involving a larger sample size of parents whose children are receiving OT services. This will help to shed more light on the factors that affect parent satisfaction within pediatric OT interventions.

Conclusion

This specific scoping review aspired to gather evidence regarding the effectiveness of addressing parent satisfaction within pediatric OT interventions. The literature acknowledges the importance of available information given to parents and that their presence during interventions can reduce anxiety and increase parents' satisfaction with their child's therapeutic care. The studies reviewed suggest there may be value in understanding parent consideration and working as a cohesive interdisciplinary team for the overall benefit of a child.

References


