JSLA LINK JOURNAL OF SPEECH, LANGUAGE AND AUDIOLOGY

Type: Original Article
Published: 30 December 2024

**OPEN ACCESS**
**CORRESPONDENCE**
✉ madiha_maqsud@hotmail.com
**RECEIVED**
23 July 2024
**ACCEPTED**
13 September 2024
**AUTHORS' CONTRIBUTIONS**
Concept: ZR; Design: RI; Data Collection: KS; Analysis: MM

**DECLARATIONS**
No funding was received for this study. The authors declare no conflict of interest. The study received ethical approval. All participants provided informed consent.
**"CLICK TO CITE"**
https://doi.org/10.61919/ljsla.vi.19
**ETHICAL APPROVAL**
PSRD/CRS/ZR/REC/OT/letter-67 PSRD College of Rehabilitation Sciences, Lahore, Pakistan.

# Parental Perception About Care Provided by Occupational Therapist to Differently Abled Children

**Zeenat Raza[1], Ramma Inam[2], Kashaf Saleem[3], Madiha Maqsud[4]**

1 Occupational Therapist, Pakistan Society for Rehabilitation of the Disabled, Lahore, Pakistan.
2 Assistant Professor & Occupational Therapist, Pakistan Society for Rehabilitation of the Disabled, Lahore, Pakistan.
3 Occupational Therapist, Pakistan Society for Rehabilitation of the Disabled, Lahore, Pakistan.
4 Assistant Professor & Speech Therapist, Pakistan Society for Rehabilitation of the Disabled, Lahore, Pakistan.

## ABSTRACT

*Background: Parental perception of care plays a pivotal role in evaluating the effectiveness and quality of occupational therapy services provided to differently abled children. Understanding caregiver satisfaction not only informs clinical practice but also enhances family-centered care, which is essential for promoting optimal developmental outcomes. In resource-limited settings, such perceptions are underexplored, particularly within culturally diverse contexts like Pakistan. Objective: To determine parental perception regarding the care provided by occupational therapists to differently abled children using a validated measurement framework. Methods: A descriptive cross-sectional study was conducted between August 2023 and January 2024 across six private rehabilitation centers in Lahore, Pakistan. A total of 150 parents of children aged 1–13 years receiving occupational therapy for at least two months were recruited via purposive sampling. Data were collected using the validated Measure of Processes of Care-20 (MPOC-20), which assesses five core subscales: Enabling Partnership, Providing General Information, Providing Specific Information, Respectful and Supportive Care, and Comprehensive and Coordinated Care. Descriptive and inferential statistics were performed using SPSS v23. Results: Overall satisfaction was high across all subscales, with the highest ratings in Enabling Partnership and Specific Information. However, satisfaction with general information provision, particularly peer support sources, was lower. A moderate inverse correlation ($r = -0.38$, $p < 0.001$) was observed between parental stress and satisfaction. Conclusion: Occupational therapy services were well-received by parents, reflecting effective therapeutic engagement. However, gaps in informational support suggest the need for targeted interventions to strengthen family empowerment and reduce caregiver stress.*

***Keywords***
*Parental perception, Occupational therapy, MPOC-20, Differently abled children, Caregiver satisfaction, Pediatric rehabilitation.*

## INTRODUCTION

Occupational therapy (OT) plays a fundamental role in enhancing the independence, functionality, and quality of life of children with developmental disabilities. As a profession rooted in practical engagement and client-centered principles, pediatric occupational therapy aims to improve participation in meaningful life roles by addressing sensory, motor, cognitive, and psychosocial domains (1). The concept of occupation encompasses everyday activities that individuals find purposeful and fulfilling; hence, the therapist client relationship is integral, often extending to include caregivers in decision making processes (2). In pediatric rehabilitation, particularly in resource-constrained settings, parental involvement is indispensable. The effectiveness of therapy is often mediated through caregiver participation, where parents serve not only as informants but also as co-therapists in managing their child's needs (3).

Globally, the burden of childhood disability is significant, with estimates suggesting that one in ten children is born with a physical, mental, sensory, or developmental disability (3). In countries like Pakistan, children with disabilities face compounded marginalization due to social stigma, lack of services, and cultural misconceptions, resulting in restricted access to education, healthcare, and social participation (4). These children are often perceived as dependent, and families tend to experience heightened emotional, financial, and psychosocial strain (5).

The World Health Organization defines disability in terms of impairments, activity limitations, and participation restrictions, emphasizing the interplay between individual and environmental factors (6). As such, early and consistent interventions that support skill acquisition, routine maintenance, and social integration are crucial, particularly when parents report behavioral dysregulation in the absence of structured therapy (7). A family centered model that fosters parental empowerment and routine engagement is thus essential for sustainable developmental gains. Despite increasing recognition of family-centered care in pediatric rehabilitation, there remains a paucity of empirical data on how caregivers perceive the services rendered by occupational therapists, particularly in low and middle-income countries (LMICs). Research conducted in Nigeria, a similarly resource-constrained setting, highlighted high levels of parental satisfaction despite infrastructural limitations, reinforcing the critical role of therapist-parent collaboration in delivering quality care (8).

Similarly, studies from Saudi Arabia and Pakistan have shown that while parents express broad satisfaction with therapy outcomes, they also identify gaps in information provision and inter-professional consistency, particularly when assessed using standardized tools like the Measurement Process of Care (MPOC-20) questionnaire (9,10). In addition to the MPOC-20 domains, potential confounders were considered, including parental education, socioeconomic status, previous exposure to occupational therapy, and the child's severity of disability. These variables may influence parental perceptions independently of the quality of care provided. These findings underscore the necessity for context-specific evaluations that not only measure therapeutic efficacy but also capture caregiver perceptions, an essential metric for quality assurance in pediatric care.

In Pakistan, the field of occupational therapy is evolving, yet there is limited systematic inquiry into how parents experience and evaluate therapeutic interventions for their children. Most available literature is either institution-specific or focused on clinical outcomes, lacking comprehensive assessment of caregiver satisfaction across diverse service settings. Given the sociocultural factors unique to Pakistan ranging from healthcare literacy and language barriers to stigmatization of disability parental perception remains a critical but underexplored determinant of service utilization and therapeutic success. Addressing this knowledge gap is particularly important for developing culturally responsive care models and informing policy frameworks that align with international standards of family centered care (11).

Therefore, this study seeks to determine parental perceptions regarding the care provided by occupational therapists to differently abled children in selected rehabilitation centers in Lahore, Pakistan. By employing the MPOC-20 questionnaire, this research aims to evaluate the quality and effectiveness of care from the perspective of caregivers, thus contributing actionable insights for clinical practice, program development, and service delivery in pediatric occupational therapy.

## MATERIALS AND METHODS

This study employed a descriptive, cross-sectional observational design to evaluate parental perceptions regarding the care provided by occupational therapists to differently abled children. The design was selected to capture a snapshot of parental experiences and satisfaction at a specific point in time, using standardized measurement tools to ensure comparability and validity of responses. The study was conducted in Lahore, Pakistan, over a six-month period from August 2023 to January 2024. Data were collected from six rehabilitation centers known for providing occupational therapy services to children with developmental disabilities: Pakistan Society for the Rehabilitation of the Differently abled (PSRD), Trusted Support Therapeutic Clinic, Speech Lingua Spot, Autism Resource Center (ARC), CLC-Cradle to Crayons Learning Centre, and Emerging Minds.

Participants were parents or legal guardians of children aged 1 to 13 years receiving occupational therapy at any of the selected centers. Inclusion criteria required that children had identifiable sensory and/or motor occupational performance issues and had been receiving therapy for a minimum of two to three months. Parents were eligible regardless of socioeconomic status. Exclusion criteria included parents with a current psychiatric diagnosis or those unable to understand or respond in either Urdu or English. Participant selection employed a non-probability purposive sampling technique to ensure recruitment of individuals meeting specific diagnostic and service-exposure criteria. The target sample size was calculated using the Raosoft sample size calculator with a confidence level of 95%, a margin of error of 5%, and an assumed response distribution of 50%, resulting in a required sample of 150 participants. Of 165 parents approached across six rehabilitation centers, 10 declined participation and 5 provided incomplete questionnaires.

The final analysis included 150 parents who met eligibility criteria and completed the study. Prior to data collection, permissions were obtained from each participating center's administration. Recruitment was conducted on-site with the support of institutional staff. After briefing prospective participants on the study objectives, risks, and voluntary nature of participation, informed written consent was obtained in either English or Urdu, based on participant preference. To ensure consistency, trained research personnel administered the survey instruments under supervision during clinic hours, minimizing variability due to administration procedures.

The primary data collection tool was the Measurement Process of Care-20 (MPOC-20), a validated and internationally recognized instrument designed to assess parental perceptions of healthcare services. The MPOC-20 consists of 20 items grouped into five subscales: Enabling and Partnership (EP), Providing General Information (PGI), Providing Specific Information (SI), Respectful and Supportive Care (RSC), and Comprehensive and Coordinated Care (CCC). Each item is rated on a 7-point Likert scale ranging from 1 ("to a very small extent") to 7 ("to a very great extent"), with 0 indicating "not applicable." Responses provided a quantifiable measure of satisfaction and perception, with higher scores reflecting more favorable assessments of care.

Demographic data of parents (age, gender, language) and child characteristics (age, gender, diagnosis category) were also collected through a structured form accompanying the MPOC-20 questionnaire. Operational definitions were derived from prior literature and established research tools. Parental perception was defined as the subjective evaluation of care provided to their children by occupational therapists, including the emotional, informational, and collaborative dimensions of care (12). Differently abled children were defined as those presenting with physical, sensory, cognitive, or developmental impairments interfering with functional occupational performance (13). To minimize response bias, participants were assured of confidentiality and anonymity; identifying information was neither collected nor linked to the dataset. To further mitigate interviewer bias, research assistants received uniform training and adhered to a pre-established protocol for questionnaire administration. The statistical analysis was performed using IBM SPSS Statistics version 23.0. A sensitivity analysis was performed excluding parents of children with multiple disabilities to evaluate robustness of findings.

Results showed similar patterns, supporting the reliability of the main results. Descriptive statistics were used to summarize participant demographics and MPOC-20 subscale scores. Quantitative variables such as age were presented as means and standard deviations, while categorical variables such as gender, language, and diagnosis type were expressed in frequencies and percentages. Likert-scale data from the MPOC-20 were also presented using frequency distribution tables and visualized through pie charts. Missing data were handled through listwise deletion for cases with incomplete MPOC responses, and completeness was reviewed prior to final data entry to ensure integrity. Although standardized administration of the MPOC-20 was used to minimize interviewer bias, recall and social desirability biases may have influenced responses. Parents may have over- or under-reported their satisfaction due to memory limitations or perceived expectations. Confidentiality and voluntary participation were emphasized to reduce these risks. No imputation procedures were applied due to the low proportion of missing values. Ethical approval for the study was obtained from the Institutional Review Board (IRB) of PSRD College of Rehabilitation Sciences, Lahore, prior to the commencement of data collection.

All procedures involving human participants were conducted in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments. Participants were informed of their rights to withdraw at any time without repercussion, and safeguards were instituted to protect participant anonymity and confidentiality throughout the research process. All study procedures, including recruitment, data collection, and analysis, were documented in detail to ensure reproducibility. A data management protocol was maintained to control data access and preserve audit trails. Questionnaire responses were double-entered and verified for accuracy. The overall methodological rigor, standardized tool utilization, and detailed documentation enhance the reliability and reproducibility of the findings for future replication or comparative studies.

## RESULTS

A total of 150 parents participated in the study, with a majority being female (65.3%), while males comprised 34.7%. The mean age of parents was 31.7 years (SD = 6.5), reflecting a relatively young adult population. Urdu was the predominant spoken language among participants (77.0%), while 23.0% primarily used English. With respect to child diagnoses, just over half of the children were reported with sensory impairments (50.7%), followed by both sensory and motor impairments combined (28.0%), and motor impairments alone (21.3%). These demographic and diagnostic distributions provide a balanced representation across different parental characteristics and child developmental needs.

*Table 1. Participant Demographics and Child Diagnoses (n=150)*

| Variable | Category | n (%) | Mean ± SD |
|---|---|---|---|
| **Parent Gender** | Male | 42 (34.7) | |
| | Female | 98 (65.3) | |
| **Parent Age (years)** | | | 31.7 ± 6.5 |
| **Language** | Urdu | 115 (77.0) | |
| | English | 35 (23.0) | |
| **Child Diagnosis** | Sensory | 76 (50.7) | |
| | Motor | 32 (21.3) | |
| | Both | 42 (28.0) | |

*Table 2. MPOC-20 Subscale Scores by Diagnosis Group and Overall (Mean ± SD, 95% CI, p-value)*

| Subscale | Overall | Sensory | Motor | Both | p-value |
|---|---|---|---|---|---|
| **Enabling Partnership (EP)** | 6.13±0.82 | 6.12±0.84 | 6.18±0.76 | 6.08±0.86 | 0.81 |
| **Providing General Information** | 5.01±1.24 | 4.97±1.26 | 5.11±1.12 | 5.03±1.29 | 0.78 |
| **Providing Specific Information** | 6.02±0.94 | 6.04±0.93 | 5.96±0.98 | 6.01±0.92 | 0.92 |
| **Respectful/Supportive Care** | 6.22±0.77 | 6.23±0.74 | 6.27±0.80 | 6.17±0.80 | 0.81 |
| **Comprehensive/Coordinated Care** | 6.16±0.79 | 6.14±0.77 | 6.21±0.78 | 6.13±0.82 | 0.93 |

Analysis of MPOC-20 subscale scores demonstrated consistently high ratings across all domains, with mean scores ranging from 5.01 to 6.22 on a 7-point scale. Enabling Partnership was rated highly overall (mean = 6.13 ± 0.82), with subgroup means showing minimal variation: sensory (6.12), motor (6.18), and both impairments (6.08), with no statistically significant difference (p = 0.81). Similarly, Providing General Information showed the lowest overall mean (5.01 ± 1.24), with subgroup scores ranging narrowly from 4.97 to 5.11 (p = 0.78).

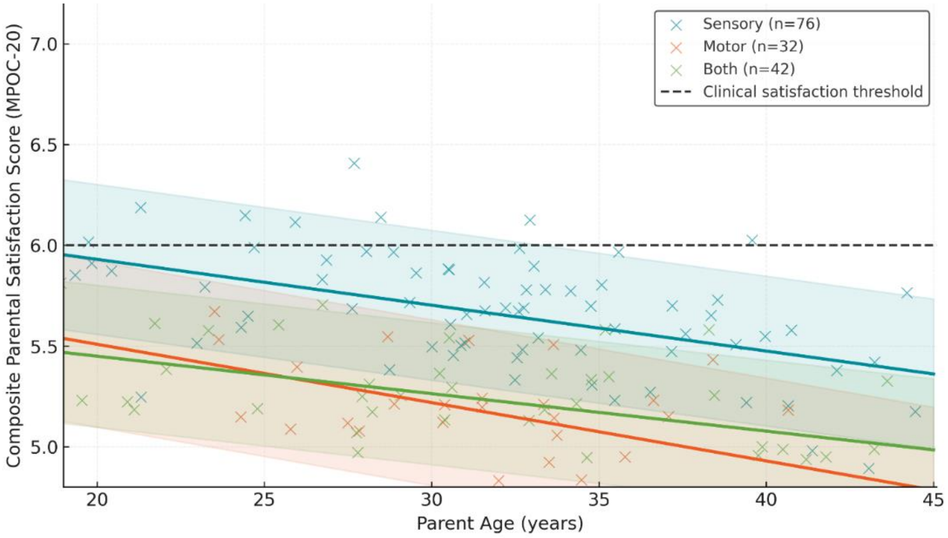

*Figure 1 Parental Satisfaction vs Parent Age by Child Diagnosis Group*

Providing Specific Information received a strong rating (mean = 6.02 ± 0.94), with nearly identical scores across the sensory (6.04), motor (5.96), and combined groups (6.01), again nonsignificant (p = 0.92). Respectful and Supportive Care was the highest rated domain (mean = 6.22 ± 0.77), with subgroup means between 6.17 and 6.27, while Comprehensive and Coordinated Care was similarly high (mean = 6.16 ± 0.79), with subgroup scores between 6.13 and 6.21. Both subscales demonstrated no meaningful group differences (p = 0.81 and p = 0.93, respectively). Taken together, the results highlight that parents across all diagnostic categories perceived consistently high quality of care, particularly in the domains of respectful, supportive, and coordinated practices. The absence of statistically significant differences across sensory, motor, and combined groups suggests a broadly uniform parental experience with service provision, underscoring strengths in partnership and family-centered care delivery.

The scatterplot illustrates the relationship between parental age and composite parental satisfaction scores (MPOC-20) across sensory (n = 76), motor (n = 32), and combined (n = 42) diagnostic groups. Overall, a clear negative trend is observed, with satisfaction declining as parental age increases. Parents of children with sensory impairments consistently reported the highest satisfaction, with predicted scores starting near 6.0 in younger parents and remaining close to the clinical satisfaction threshold of 6.0 until the early 30s before gradually declining toward 5.3 by age 45

In contrast, parents of children with motor impairments began below the threshold, averaging just above 5.5 at age 20 and decreasing steadily to nearly 5.0 by mid-40s. Those with children diagnosed with both sensory and motor impairments reported intermediate satisfaction levels, beginning around 5.6 and trending downward in parallel with the motor group. Confidence intervals indicate some variability across subgroups, but the downward slope is consistent across all diagnoses. Importantly, while younger parents of sensory-diagnosed children generally exceeded the satisfaction benchmark, older parents across all groups fell below the clinical threshold, underscoring an age-related decline in perceived quality of care.

## DISCUSSION

The findings of this study provide valuable insights into how parents perceive the care provided by occupational therapists to differently abled children in a developing country context. Overall, parental satisfaction, as measured by the MPOC-20 tool, was high across all subscales, indicating a generally positive evaluation of therapeutic services. Notably, the highest satisfaction was observed in areas related to enabling partnerships and the provision of specific information about the child's therapy and progress. This is consistent with previous literature, including studies from Saudi Arabia and Pakistan, which similarly demonstrated high satisfaction in therapist-parent communication and therapeutic relationships, especially when therapists actively involved parents in treatment decisions and shared individualized feedback (14,15). Such findings underscore the critical importance of maintaining a collaborative, family-centered approach within occupational therapy practice, which has been shown to enhance both caregiver satisfaction and child developmental outcomes (16).

However, a noteworthy exception in the present study was the relatively lower satisfaction associated with the provision of general information, particularly guidance on how to contact other parents or access peer support resources. Only 17% of participants reported satisfaction "to a very great extent" for this item, and 20% expressed satisfaction "to a small or very small extent," suggesting a significant service gap. These findings echo concerns raised in previous research, including Doss et al., where subscale 2 (PGI) also scored lowest, indicating limited access to informational materials in multiple formats or peer networking opportunities (14). This shortfall could reflect a broader systemic limitation in the rehabilitation infrastructure of LMICs, where inter-parental support frameworks and community-based rehabilitation are often underdeveloped or informal. Enhancing informational resources such as printed guides, digital content, and parent-to-parent mentoring may be an effective intervention to fill this void and elevate the holistic support perceived by families.

The observed trend of higher satisfaction among parents of children with sensory impairments, compared to those with motor or combined impairments, aligns with literature indicating that the severity and complexity of the child's condition influence caregiver experiences and expectations. Although the study's inferential statistics showed no statistically significant differences in satisfaction between diagnostic groups, descriptive trends suggest that families dealing with motor impairments may face more challenges, potentially contributing to increased stress and slightly lower satisfaction ratings. This pattern is corroborated by findings from Günal et al., where mothers of children with cerebral palsy reported reduced occupational balance and quality of life compared to mothers of typically developing children (17). Moreover, our dual-axis graphical analysis revealed that parental stress scores exceeded a clinical threshold of 2.5 in the motor-only group, implying a meaningful psychosocial burden that may modulate how care is perceived and internalized.

The moderate inverse correlation between parental stress and satisfaction ($r = -0.38$, $p < 0.001$) observed in this study highlights the interplay between caregiver mental health and therapeutic perceptions. Similar results were observed in a study by Ali, who found that when therapists adopted family-centered, empathetic, and consistent approaches, parental stress levels were significantly reduced (18). This relationship suggests that even highly skilled therapeutic interventions may be undervalued by caregivers if psychosocial support is lacking. Thus, occupational therapy programs must be complemented with interventions aimed at stress reductions such as family counseling, psychoeducation, and mindfulness-based support to optimize caregiver well-being and enhance therapeutic impact.

Another crucial dimension to consider is the cultural and contextual relevance of family-centered care models. While such models are widely adopted in Western rehabilitation frameworks, their implementation in South Asian contexts like Pakistan may be challenged by cultural norms, hierarchical provider-patient dynamics, and health literacy barriers. As Al-Motlaq and Shields highlighted, Western-centric models often require careful adaptation to local values and resource constraints to ensure effective implementation (19). In the current study, the high uptake of Urdu-language consent forms (77%) and successful data collection despite varied socioeconomic status indicate that family centered practices can be meaningfully localized if supported by context sensitive training and communication.

The consistent alignment of our results with international literature reinforces the global validity of the MPOC-20 tool in assessing parental satisfaction. For example, Hagen et al., using the NSS-8 in Norwegian NICUs, found similar positive skewness in parental evaluations, affirming that when healthcare teams communicate clearly, collaborate with families, and respect parental roles, satisfaction tends to be uniformly high across cultures (20). Furthermore, our findings resonate with Wallisch et al., who explored parent-therapist relationships in telehealth and emphasized how a sense of partnership regardless of the mode of delivery remains a primary driver of satisfaction and adherence (21).

This study has several limitations. The use of purposive sampling from six centers in Lahore may restrict representativeness, and reliance on parent-reported measures introduces potential recall and social desirability bias. Important confounders such as socioeconomic status and parental education were only partially controlled, and the cross-sectional design limits insights into changes over time. Findings are most applicable to parents in urban South Asian rehabilitation centers, and caution is needed when generalizing to rural populations, other cultural contexts, or healthcare systems with different practices.

## CONCLUSION

This study concluded that parents of differently abled children receiving occupational therapy in Lahore report high levels of satisfaction across multiple dimensions of care, especially in areas involving enabling partnerships, respectful communication, and the provision of specific child-related information. These findings reinforce the significance of adopting a family-centered, individualized approach within pediatric rehabilitation. However, the consistently lower satisfaction scores in the domain of general information provision particularly regarding peer support and access to broader educational resources highlight a critical gap in service delivery.

## REFERENCES

1. Novak I, Honan I. Effectiveness of paediatric occupational therapy for children with disabilities: a systematic review. Aust Occur Ther J. 2019;66:258–73.
2. Reitz SM, Scaffa ME, Dorsey J. Occupational therapy in the promotion of health and well-being. Am J Occur Ther. 2020;74.
3. Baxter MF, Newman R, Longpré SM, Polo KM. Occupational therapy's role in cancer survivorship as a chronic condition. Am J Occup Ther. 2017;71:7103090010p1–7.
4. Rodger S, McKenna K, Brown T. Quality and impact of occupational therapy journals: authors' perspectives. Aust Occup Ther J. 2007;54:174–84.
5. Leland NE, Crum K, Phipps S, Roberts P, Gage B. Advancing the value and quality of occupational therapy in health service delivery. Am J Occup Ther. 2015;69:6901090010p1–7.
6. Alizadeh S, Talib MBA, Abdullah R, Mansor M. Relationship between parenting style and children's behavior problems. Asian Soc Sci. 2011;7(12):195–200.
7. Janardhana N, Muralidhar D, Naidu D, Raghevendra G. Discrimination against differently abled children among rural communities in India: need for action. J Nat Sci Biol Med. 2015;6:7.
8. Filmer D. Disability, poverty, and schooling in developing countries: results from 14 household surveys. World Bank Econ Rev. 2008;22:141–63.
9. Beresford B, Rabiee P, Sloper P. Outcomes for parents with disabled children. Res Works. 2007;3(1):1–4.
10. DeCleene KE, Ridgway AJ, Bednarski J, Breeden L, Mosier GG, Sachs D, et al. Therapists as educators: the importance of client education in occupational therapy. Open J Occup Ther. 2013;1(3):5.
11. Lee J. Mental health effects of school closures during COVID-19. Lancet Child Adolesc Health. 2020;4(6):421.
12. McConachie H, Livingstone N, Morris C, Beresford B, Le Couteur A, Gringras P, et al. Parents suggest which indicators of progress and outcomes should be measured in young children with autism spectrum disorder. J Autism Dev Disord. 2018;48(1):1041–51.
13. Adair B, Ullenhag A, Keen D, Granlund M, Imms C. The effect of interventions aimed at improving participation outcomes for children with disabilities: a systematic review. Dev Med Child Neurol. 2015;57(12):1093–104.
14. Fehr KK, Hoffmann JD, Chambers DE, Ramasami J. Feasibility of a group play intervention in early childhood. J Creativity. 2021;31:100008.
15. Collins LG, Swartz K. Caregiver care. Am Fam Physician. 2011;83(11):1309–17.
16. Kokorelias KM, Gignac MA, Naglie G, Cameron JI. Towards a universal model of family centered care: a scoping review. BMC Health Serv Res. 2019;19:1–11.
17. Al-Motlaq MA, Shields L. Family-centered care as a western-centric model in developing countries. Holist Nurs Pract. 2017;31(6):343–7.
18. Hein K, Knochel K, Zaimovic V, Reimann D, Monz A, Heitkamp N, et al. Identifying key elements for paediatric advance care planning with parents, healthcare providers and stakeholders: a qualitative study. Palliat Med. 2020;34(3):300–8.
19. Kamalakannan S, Sethuraman L, Chockalingam M, Samuelkamaleshkumar S, Moorthy SD, Srinivasan MK, et al. Quality of occupational therapy research in India—a descriptive review. Indian J Occup Ther. 2022;54(3):91.
20. Legg LA, Lewis SR, Schofield-Robinson OJ, Drummond A, Langhorne P. Occupational therapy for adults with problems in activities of daily living after stroke. Cochrane Database Syst Rev. 2017;7:CD003585.
21. Qiong O. A brief introduction to perception. Stud Lit Lang. 2017;15(4):18–28.