Family-centered care (FCC) has been described as a partnership approach to health care decision-making and has been recognized by multiple medical societies and health care systems. Family-centered care is considered the standard of pediatric health care by many clinical practices, hospitals, and health care groups. A family-centered approach accepts parents as experts on the needs of their children, encourages partnerships between parents and health service providers, and supports the role of parents in making decisions about the services for their children. Such an approach is accepted globally as one of the best practices when providing health care services to children with disabilities or chronic conditions.

The concept of the family-centred approach is also quite compliant with the International Classification of Functioning, Disability and Health (ICF). The ICF states that adaptation of the family to rehabilitation is extremely important as the family is the common point of all components. Rosenbaum clearly emphasized that no aspect of the ‘environment’ of a child is more central than the family when investigating the child’s environment. It is therefore essential for pediatric health care services to be conducted with a family-centred approach to ensure successful and high-quality rehabilitation. There is evidence indicating significant benefits from a family-centred...
approach during pediatric rehabilitation and health care services, both for the children and the families.\textsuperscript{1,4} The benefits for children include developmental gains and skill development as well as better psychological adjustment, while the parents benefit from increased knowledge of the child’s development, increased participation in home therapy programs, feeling more competent as a parent, and improved psychosocial well-being.\textsuperscript{2,9-12}

Evaluating whether the families feel the services provided are family-centred and obtaining feedback on the relevant changes in their perceptions over time, seems to be a critical requirement to provide partnership to health care decision-making between the family and health care provider. This helps in functional goal setting and coordination of a child’s transition between programs which are important concepts for rehabilitation and health care services.\textsuperscript{13} Scales have been developed to assess Family Centered Services (FCS) and to evaluate the value of adopting family-centred principles in clinical practice.

The Measure of Processes of Care (MPOC) is one of the first and most widely used instruments to assess parents’ self-reported experiences of family-centred behaviors.\textsuperscript{14} The MPOC has been developed to evaluate family-centered care both in rehabilitation centers, inpatient or ambulant care\textsuperscript{1} in pediatric settings including children’s treatment or rehabilitation centers, children’s hospitals, large urban hospitals, university hospitals, and community development programmes.\textsuperscript{12,15} Additionally, the MPOC has been used with different disabilities or chronic health conditions such as cerebral palsy, neonatal intensive care patients, epilepsy, pediatric oncology, hospitalized for head injury, pediatric bowel problems, speech and language pathologies, hearing loss, and autism spectrum disorders.\textsuperscript{4,16-23}

The MPOC questionnaire has two versions in order to evaluate the opinions of parents with children with disability regarding the institution where their children receive services and how the services they receive affect their psychosocial status. MPOC-56 contains 56 questions evaluating the parents’ perceptions of the services and institutions from which the child received service and the employees such as medical doctors, therapists, psychologists, social workers and teachers of these institutions. MPOC-20 is the shortened version of MPOC-56 and consists of 20 selected questions.\textsuperscript{9,14,24} The MPOC-56 and MPOC-20 has been translated into many languages and its cross-cultural validity has been demonstrated in various cultures and different countries around the world.\textsuperscript{12,25-27}

Integration of family-centered practices into the health care system can be challenging especially in non-Western countries and FCS has been less studied in non-Western countries.\textsuperscript{28} This current study is important as it assessed the reliability and validity of the scale, the most commonly used one for these purposes worldwide, by adapting it to Turkish for clinical use in Türkiye as well as Turkish speaking countries and communities, where a family-centered approach is used in the rehabilitation of children with disabilities. Therefore, the aim of this study was (1) to translate the MPOC-56 and -20 into Turkish and (2) assess its construct validity, test-retest reliability and internal consistency reliability in children with various disabilities.

**Material and Methods**

**Study design**

This study was designed as a psychometric evaluation study and consisted of two parts: The first part consisted of the translation of MPOC-20 and MPOC-56 into Turkish and the second part was to determine the reliability and validity of the Turkish version. The ethics committee approval necessary for the study was obtained from the University of Health Sciences Gülhane Non-Interventional Studies Ethics Committee (no: 2018/3-18/58). The clinical trial registration number is NCT03508583.
Translation process

In order to adapt MPOC-56 and MPOC-20 to Turkish, written permission was obtained from CanChild Centre that holds the publication rights of the original scale. Based on previous studies and guidelines, advanced and repeated translation methods were used to ensure intercultural adaptation. Two independent physiotherapists with a minimum of ten years experience in pediatric rehabilitation translated the MPOC-56 and MPOC-20 into Turkish (Stage 1). Once the translated versions were harmonized as first version (Stage 2), they were back translated into English by a professional translator (Stage 3). After the final versions of scales were approved by the original developers, the pre-final Turkish versions of MPOC-56 and MPOC-20 were assessed by an expert panel including researchers experienced in the field of children with disabilities and clinical professionals (Stage 4). This panel evaluated the translations in terms of suitability and comprehensibility. They decided that no cultural adaptation was required and approved the translations. Finally (Stage 5), a pilot administration of the Turkish version of MPOC-56 and MPOC-20 was conducted with 20 families of children with disability in order to make sure that all elements were clear and appropriate for Turkish parents; the feedback indicated that the questions were clear and understandable. Thus, the Turkish version of the questionnaire was created.

Participants

The study was conducted with 334 parents of children with disability who were receiving rehabilitation services in Türkiye. The sample size was calculated as general guidelines requiring 5–10 subjects per item in order to

Fig. 1. Flow chart of participants
conduct the planned analyses. The median time interval for test-retest reliability was two weeks, and the ratio of sample size for test-retest reliability to the number of items in each measure ranged between 1-4.

Since MPOC has 56 items, a sample of between 280 and 560 subjects was appropriate and finally 290 subjects participated. Inclusion criteria were identified as: 1) accepting to participate to the study, 2) the parents being literate, 3) native speaker of Turkish, 4) having children with a disability aged 5-17 years old, and 5) the child with a disability was receiving rehabilitation services in Türkiye. Parents meeting the study inclusion criteria were asked to complete the Turkish version of both the MPOC-56 and MPOC-20. We excluded 44 parents because their forms were incomplete. For randomization every fourth parent was invited to participate in the test-retest procedure in order to evaluate the test-retest reliability of the Turkish MPOC-56 and MPOC-20. The test-retest procedure concluded with 73 parents who accepted to complete the scales two weeks later (Fig. 1). The socio-demographic characteristics (age, educational level, diagnosis) of the parents and the children were recorded before the scales were completed. Written approval was obtained from all parents based on the principles of the Helsinki Declaration.

The scales

MPOC is a scale published in two versions to evaluate the opinions of parents with children with disability regarding the institution where their children receives services and how the services they receive affect their psychosocial status. The scales examine through factor analysis the main characteristics of family-centered services in five sub-scales: (i) enabling and partnership; (ii) providing general information; (iii) providing specific information about the child; (iv) coordinated and comprehensive care for the child and the family; and (v) respectful and supportive care. The scales are easy to administer and low in cost. All questions refer to behaviors occurring during the past year. Each item in the questionnaire starts “In the past year, to what extent do the people who work with your child...” followed by a description of a specific attitude or behavior of the health care professional in the organization or center.

The MPOC-56 consists of 56 questions evaluating the institutions where the child receives rehabilitation service and the employees of these institutions. The MPOC-56 includes 16 items addressing Enabling and Partnership, nine items on Providing General Information, five items on Providing Specific Information about the Child, 17 items on Coordinated and Comprehensive Care, and nine items on Respectful and Supportive Care. The MPOC-20 is a shorter version that was developed eight years later using conceptual and empirical approaches to improve the utility and the discriminative ability of the MPOC-56 to compare different service delivery models. MPOC-20 includes three items addressing Enabling and Partnership, five items on Providing General Information, three items on Providing Specific Information about the Child, four items on Coordinated and Comprehensive Care, and five items on Respectful and Supportive Care.

The MPOC-20 and 56 scorings are based on the same system. The scoring consists of a Likert-type scale between 1 (Not at all) and 7 (To a very great extent). A score of 0 is also included to indicate ‘non-applicable’ items. An MPOC subscales score is calculated as mean of the ratings for the items in each sub-scale. As items are not weighted, a scale score can range from 1.00 to 7.00. A higher score reflects higher levels of satisfaction with the institution or people who provide rehabilitation services.

Statistical analysis

The reliability (internal consistency, test-retest reliability) and validity (structural) of MPOC-56 and MPOC-20 were evaluated.
The Intraclass Correlation Coefficient (ICC) value was used to evaluate test-retest reliability. ICC varies between 0.00 and 1.00 and values of 0.60-0.80 indicate good reliability while values over 0.80 indicate excellent reliability. Internal consistency is related to whether the measurement of a result is homogeneous. We evaluated internal consistency using the “Cronbach’s alpha” value, and an alpha value over 0.80 indicates high internal consistency.\textsuperscript{33}

Construct validity was measured with Spearman’s correlation coefficient. Validity coefficients were graded as follows: \( r \geq 0.81-1.0 \) excellent, 0.61-0.80 very good, 0.41-0.60 good, 0.21-0.40 moderate, 0-0.21 poor.\textsuperscript{31}

Confirmatory factor analysis was applied to confirm the factor structure. We expected a best-fit model with the following indices: a Satorra–Bentler scaled chi-square (S-B\( \chi^2 \))/degrees of freedom ratio (CMIN/DF) \( \leq 3.0 \); a Trucker Lewis index (TLI) \( \geq 0.90 \); a normed fit index (NFI) \( \geq 0.90 \); a goodness-of-fit index (GFI) \( \geq 0.90 \); an incremental fit index (IFI) \( \geq 0.90 \) an adjusted goodness of fit index (AGFI) \( \geq 0.90 \), and a low root mean square error of approximation (RMSEA) \( \leq 0.08 \).\textsuperscript{34}

Results

We included 290 parents of children with a disability due to various disorders aged 5-17 years old in the study. The children included 214 diagnosed with cerebral palsy, 23 with developmental delay, 22 with metabolic/genetic disease, 11 with autism, eight with neuromuscular disease, six with Down syndrome, and six with myelomeningocele. The parents consisted of 224 mothers and 54 fathers, in addition to 12 other family members providing care. Table I presents the descriptive characteristics of the children and parents including the age, gender, diagnosis, and the rehabilitation centers providing the services.

<table>
<thead>
<tr>
<th>Table I. Descriptive characteristics of participants.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (%)</td>
</tr>
<tr>
<td>Age (years)</td>
</tr>
<tr>
<td>Sex</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Main Diagnoses</td>
</tr>
<tr>
<td>Cerebral Palsy</td>
</tr>
<tr>
<td>Developmental Delay</td>
</tr>
<tr>
<td>Metabolic / Genetic Disease</td>
</tr>
<tr>
<td>Autism</td>
</tr>
<tr>
<td>Neuromuscular Disease</td>
</tr>
<tr>
<td>Down Syndrome</td>
</tr>
<tr>
<td>Myelomeningocele</td>
</tr>
<tr>
<td>Type of Centre</td>
</tr>
<tr>
<td>Special Education and Rehabilitation Centre</td>
</tr>
<tr>
<td>Public Hospital</td>
</tr>
<tr>
<td>Private Medical Centre</td>
</tr>
</tbody>
</table>

Reliability

Internal consistency

When the descriptive statistics of the five subscales of MPOC-56 and MPOC-20 were investigated, the enabling and partnership subscale obtained the highest score in both scales whereas the providing specific information about the child subscale obtained lowest scores. Cronbach’s Alpha coefficient for the internal consistency of the five subscales of MPOC-20 and MPOC-56 varied between 0.84 and 0.97, indicating excellent internal consistency for each subscale (Table II).

Test-retest reliability

Seventy-three parents agreed to complete the scales two weeks later for test-retest reliability. The test-retest reliability was found to be excellent for both MPOC-56 and MPOC-20. The ICC values were 0.96-0.99 for MPOC-56 and 0.94-0.98 for MPOC-20 (Table III).
Validity

Construct validity

Spearman’s Correlation coefficient between each evaluated subscale of MPOC-56 varied between 0.72 and 0.93. The strongest correlation between MPOC-56 subscales was between Enabling and Partnership and Coordinated and Comprehensive Care for the Child and the Family ($r=0.93$) while the weakest was between Enabling and Partnership and Providing General Information ($r=0.72$). The correlation coefficient between the subscales of MPOC-20 varied 0.60 and 0.86; with the strongest between Coordinated and Comprehensive Care for the Child and the Family and Respectful and Supportive Care ($r=0.86$); and the weakest between Providing General Information and Providing Specific Information About the Child ($r=0.60$) (Table IV).

As a result of confirmatory factor analysis, index values were calculated for MPOC-56 as CMIN/DF: 2.83, RMSEA: 0.08, GFI: 0.59, CFI: 0.87, AGFI: 0.55, NFI: 0.80 and TLI: 0.85. For MPOC-20, these values were found as CMIN/DF: 2.98, RMSEA: 0.08, GFI: 0.84, CFI: 0.95, AGFI: 0.79, NFI: 0.91 and TLI: 0.93. According to these results factor structure of the scales were found to be acceptable (Table V).

Construct validity of the MPOC-56 was found to be acceptable in the subdomains of Enabling and Partnership (RMSEA: 0.09 / GFI: 0.85), Table II. Descriptive statistics and internal consistency measurements of Cronbach’s alpha for MPOC-56 and MPOC-20.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Version</th>
<th>NI</th>
<th>NS</th>
<th>M (SD)</th>
<th>Range</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabling and Partnership</td>
<td>MPOC-56</td>
<td>16</td>
<td>290</td>
<td>5.25 (SD=1.03)</td>
<td>2.25-7.00</td>
<td>0.972</td>
</tr>
<tr>
<td></td>
<td>MPOC-20</td>
<td>3</td>
<td>290</td>
<td>5.45 (SD=1.05)</td>
<td>2.00-7.00</td>
<td>0.883</td>
</tr>
<tr>
<td>Providing General Information</td>
<td>MPOC-56</td>
<td>9</td>
<td>290</td>
<td>4.46 (SD=0.93)</td>
<td>2.00-7.00</td>
<td>0.912</td>
</tr>
<tr>
<td></td>
<td>MPOC-20</td>
<td>5</td>
<td>290</td>
<td>4.99 (SD=0.93)</td>
<td>2.20-7.00</td>
<td>0.882</td>
</tr>
<tr>
<td>Providing Specific Information About the Child</td>
<td>MPOC-56</td>
<td>5</td>
<td>290</td>
<td>3.83 (SD=1.15)</td>
<td>1.40-7.00</td>
<td>0.848</td>
</tr>
<tr>
<td></td>
<td>MPOC-20</td>
<td>3</td>
<td>290</td>
<td>3.71 (SD=1.32)</td>
<td>1.33-7.00</td>
<td>0.878</td>
</tr>
<tr>
<td>Coordinated and Comprehensive Care</td>
<td>MPOC-56</td>
<td>17</td>
<td>290</td>
<td>4.90 (SD=1.12)</td>
<td>1.94-7.00</td>
<td>0.972</td>
</tr>
<tr>
<td></td>
<td>MPOC-20</td>
<td>4</td>
<td>290</td>
<td>5.05 (SD=1.08)</td>
<td>1.75-7.00</td>
<td>0.881</td>
</tr>
<tr>
<td>Respectful and Supportive Care</td>
<td>MPOC-56</td>
<td>9</td>
<td>290</td>
<td>4.90 (SD=1.08)</td>
<td>2.00-7.00</td>
<td>0.942</td>
</tr>
<tr>
<td></td>
<td>MPOC-20</td>
<td>5</td>
<td>290</td>
<td>4.51 (SD=1.20)</td>
<td>1.60-7.00</td>
<td>0.920</td>
</tr>
</tbody>
</table>

α: Cronbach’s alpha, M: mean scale score, MPOC: measure of process of care, NI: number of items, NS: number of subjects, SD: standard deviation.

Table III. Results of test-retest analysis for MPOC (n=73).

<table>
<thead>
<tr>
<th>Scale</th>
<th>Version</th>
<th>ICC</th>
<th>95% CI</th>
<th>First rating</th>
<th>Second rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabling and Partnership</td>
<td>MPOC-56</td>
<td>0.982</td>
<td>-0.03-0.03</td>
<td>5.73 (SD=0.87)</td>
<td>5.73 (SD=0.84)</td>
</tr>
<tr>
<td></td>
<td>MPOC-20</td>
<td>0.949</td>
<td>-0.07-0.06</td>
<td>5.79 (SD=0.97)</td>
<td>5.79 (SD=0.92)</td>
</tr>
<tr>
<td>Providing General Information</td>
<td>MPOC-56</td>
<td>0.982</td>
<td>0.00-0.08</td>
<td>4.74 (SD=0.92)</td>
<td>4.69 (SD=0.93)</td>
</tr>
<tr>
<td></td>
<td>MPOC-20</td>
<td>0.975</td>
<td>-0.03-0.06</td>
<td>5.28 (SD=0.93)</td>
<td>5.27 (SD=0.95)</td>
</tr>
<tr>
<td>Providing Specific Information About the Child</td>
<td>MPOC-56</td>
<td>0.962</td>
<td>-0.00-0.13</td>
<td>4.41 (SD=1.09)</td>
<td>4.35 (SD=1.05)</td>
</tr>
<tr>
<td></td>
<td>MPOC-20</td>
<td>0.951</td>
<td>-0.00-0.17</td>
<td>4.47 (SD=1.25)</td>
<td>4.38 (SD=1.24)</td>
</tr>
<tr>
<td>Coordinated and Comprehensive Care</td>
<td>MPOC-56</td>
<td>0.992</td>
<td>-0.07-0.01</td>
<td>5.34 (SD=1.05)</td>
<td>5.39 (SD=1.02)</td>
</tr>
<tr>
<td></td>
<td>MPOC-20</td>
<td>0.982</td>
<td>-0.11-0.01</td>
<td>5.43 (SD=1.02)</td>
<td>5.49 (SD=0.99)</td>
</tr>
<tr>
<td>Respectful and Supportive Care</td>
<td>MPOC-56</td>
<td>0.979</td>
<td>-0.02-0.06</td>
<td>5.62 (SD=0.91)</td>
<td>5.60 (SD=0.88)</td>
</tr>
<tr>
<td></td>
<td>MPOC-20</td>
<td>0.975</td>
<td>-0.02-0.07</td>
<td>5.34 (SD=1.03)</td>
<td>5.31 (SD=1.03)</td>
</tr>
</tbody>
</table>

Providing General Information (RMSEA: 0.12 / GFI: 0.90), Providing Specific Information About the Child (RMSEA: 0.12 / GFI:0.97), Coordinated and Comprehensive Care (RMSEA: 0.09 / GFI:0.86), and Respectful and Supportive Care (RMSEA: 0.11 / GFI: 0.97). These results show that both MPOC-56 and MPOC-20 fitted well according to the confirmatory factor analysis, on the other hand MPOC-20 was better fitted than MPOC-56 (Table V).

Discussion

The aim of this study was to investigate the validity and reliability of the Turkish versions of MPOC-56 and MPOC-20, in children with disability aged 5-17 years. In this study, we investigated the validity and reliability of the
MPOC-56 and -20 in children with disability and both scales showed an acceptable construct validity and high test–retest reliability and acceptable factor distribution.

The findings of this study show that the Turkish versions of MPOC-56 and MPOC-20 are strong in terms of psychometric characteristics and are reliable and valid similar to the original Canadian version of the scale.9

Both the descriptive statistics of the Turkish MPOC-56 and MPOC-20 coincided with the original scale, they were also similar to the versions from Sweden, Japan, Korea and Jordan.27,35-37 Although the mean scores of the descriptive statistics are in line with the original Canada study, there were some differences in the patterns of the high and low scale scores.9 In the original Canadian study, the highest mean among subscales both in MPOC-56 and MPOC-20 was Respectful and Supportive Care, and the lowest mean among subscales was Providing General Information; whereas in current study the highest mean among subscales was Enabling and Partnership, and the lowest mean among subscales was Providing General Information both in MPOC-56 and MPOC-20. Therefore, unlike other cultural adaptations, reliability and validity studies27,35-37, it can be considered that service providers in Turkish population contribute more in terms of enabling and partnership, rather than providing specific information to parents of children with disabilities during their care processes.

The mean values of the subscales were between 3.83-5.25 for MPOC-56 and 3.71-5.45 for MPOC-20. These values are similar with studies of Dutch, Korea and Iceland.26,36,38 The mean score range was 1.40-7.00 for MPOC-56 and 1.33-7.00 for MPOC-20. These findings show that the entire range of item levels were used by the parents in their responses.

Cronbach’s alpha was used in the current study to evaluate the internal consistency of the questionnaire items. The Cronbach alpha coefficient was calculated for each subscale as a measure of internal consistency. Reliability was found to be comparable with other versions. The present study shows that the Turkish versions of the MPOC-56 and MPOC-20 have high internal consistency for all subscales as in the Sloven, Norwegian, Dutch, Malaysian and Icelandic versions that had subscale internal consistencies ranging between 0.70 and 0.97.25,26,38,40

According to the test-retest reliability results in this study, the ICC of the total score was 0.9, which indicates high reliability of this questionnaire. ICCs were also reported in the Canadian, Japanese and Korean versions for test-retest reliability.9,35,36 For MPOC-56 ICCs ranged from 0.78-0.88 in the Canadian version, 0.83 to 0.96 in the Korean version, and from 0.80-0.89 in the Japanese version. In the Korean version ICCs ranged between 0.86-0.97, and between 0.76-0.87 in the Japanese version for MPOC-20.9,35,36 In the present study, however, ICCs ranged between 0.97 to 0.99 for MPOC-56 and 0.94-0.98 for MPOC-20. Compared to other versions, the Turkish versions of the MPOC-56 and MPOC-20 had better test-retest reliability according to ICC findings.

The correlation coefficients of subscales within each scale and between the five subscales were found to be very good to excellent in the Turkish version of the MPOC. These findings therefore show that the items are highly related to their own scales and the five subscales are related to each other. For this reason, the Turkish version of the MPOC-56 and MPOC-20 have high construct validity like the Japanese and Korean versions.35,36

The most frequently used method to determine the validity of a scale used in a different culture is by using confirmatory factor analysis.41 As a result of the confirmatory factor analysis conducted in this study, the factors in the Turkish version of MPOC-56 were different from the original Canadian factors. The reasons for analysing the factor distribution in the Turkish and Canadian versions were different. In the Canadian study the factor analysis was performed to determine the final
version of the scale and as a result 92 items were reduced to 56 items and the MPOC-56 was created, whereas the factor analysis in the Turkish version was carried out to confirm the factor structure. Similarly, in factor analysis for the Dutch and Japanese versions of MPOC, there are both differences and similarities in the distribution of factor structures. 

In this study, all other analyses strongly validated the original Canadian factor structure. Therefore, in this case it was decided that it was unnecessary to adapt another factor structure. The factor structure of the MPOC-20 is largely similar to the Canadian version.

In Türkiye, children may get rehabilitation and care services from three main centres such as public hospitals, private medical centers or special education and rehabilitation centers. Since this current study includes these centers, it covers the rehabilitation landscape of Türkiye. It also indicates that these results can be generalized. The presence of subjects within a wide age range and with various diagnoses is also important in terms of reflecting the general population. The main limitation of the study was, the small numbers of children with different kinds of disabilities or chronic health conditions beside children with cerebral palsy, and it is therefore recommended to investigate findings with larger samples of different kinds of disabilities. One other limitation was the lack of concurrent validity. Although we showed construct validity by confirmatory factor analysis, due to the lack of a valid and reliable gold standard measure to evaluate family-centered care and services in Turkish, no other additional tests parallel to the MPOC-56 and MPOC-20 were used.

In order to plan and deliver health services effectively it is essential to understand the processes of care from children and their parents’ perspectives. Researchers and policymakers look for reliable measures that will make it possible to capture the extent to which children with disability as well as their families’ wishes, and needs are addressed.

The present study shows that the Turkish version of MPOC is an important instrument that can increase the evaluation of quality of care provided by service providers. It can be used as an evaluation tool to shed light on the understanding and assessment of rehabilitation services received from service providers for politicians and researchers in our country.

Our findings indicate that the Turkish versions of MPOC-56 and MPOC-20 are reliable and valid. Since the values in the confirmatory factor analysis of MPOC-20 better fitted than MPOC-56, we believe that MPOC-20 is a more suitable scale for clinical studies and research on Turkish population. The Turkish version of MPOC-56 and MPOC-20 is an important instrument that can increase the evaluation of quality of care provided by service providers and health care organizations and enables the integration of families into care processes.

Acknowledgements

We thank Professor Peter Rosenbaum from Canada Research Chair in Childhood Disability Co-Founder, CanChild Centre for Childhood Disability Research for his great support in all the steps of the study process.

Ethical approval

The ethics committee approval necessary for the study was obtained from the University of Health Sciences Gülhane Non-Interventional Studies Ethics Committee (no: 2018/3-18/58).

Author contribution

The authors confirm contribution to the paper as follows: study conception and design: DT, CÖ, MKG Author; data collection: DT, CÖ, Author; analysis and interpretation of results: SK; draft manuscript preparation: DT, CÖ, MKG, SK Author. All authors reviewed the results and approved the final version of the manuscript.
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Conflict of interest
The authors declare that there is no conflict of interest.

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