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A STUDY ON SATISFACTION LEVEL FOR PHYSIOTHERAPY TREATMENT AMONG CAREGIVERS OF CEREBRAL PALSY CHILDREN IN DEHRADUN CITY

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ABSTRACT

Background:

Cerebral palsy (CP) is a non-progressive neurological disorder that affects movement, posture, and motor function due to damage to the developing brain. Children with cerebral palsy often require long-term rehabilitation, particularly physiotherapy, to improve their functional abilities and quality of life. Caregivers play a crucial role in the rehabilitation process, as they are responsible for supporting and continuing therapeutic activities at home. Therefore, evaluating caregiver satisfaction with physiotherapy services is important for assessing the quality and effectiveness of rehabilitation programs.

Objective:

The aim of this study was to assess the **satisfaction level of caregivers regarding the physiotherapy treatment provided to children with cerebral palsy in rehabilitation centers of Dehradun city**.

Methodology:

A **survey-based study** was conducted among **36 caregivers of children diagnosed with cerebral palsy** who were regularly attending physiotherapy sessions either at rehabilitation centers or at home. Participants were selected using a **convenient sampling technique**. Caregivers who had accompanied their child for rehabilitation for at least one month were included in the study. Data were collected using the **Caregiver Satisfaction Questionnaire for Cerebral Palsy Children (CSQCP)**, a 29-item self-report questionnaire that evaluates satisfaction across six domains: coordinated care, delivery of specific information about the child, respectful and supportive care, providing information, partnership, and treatment response. Each item was scored on a four-point scale, and the total score was converted into percentage values to determine satisfaction levels.

Results:

The findings of the study revealed that **69.44% of caregivers reported satisfaction levels between 80–100%**, indicating satisfaction to a very great extent. Additionally, **27.77% reported satisfaction levels between 60–79%**, while only **2.77% demonstrated satisfaction between 40–59%**. No participants reported satisfaction levels below 40%. The results also showed that caregivers with higher educational levels generally demonstrated higher satisfaction percentages.

Conclusion:

The study concludes that the **majority of caregivers of children with cerebral palsy in Dehradun city reported high satisfaction with physiotherapy services**. These findings highlight the importance of **effective communication, caregiver involvement, and family-centered rehabilitation approaches** in improving caregiver satisfaction and supporting optimal outcomes in pediatric physiotherapy.

INTRODUCTION

Cerebral palsy (CP) is a term used to describe a **group of permanent disorders affecting movement and posture**, resulting in activity limitations that are attributed to **non-progressive disturbances in the developing fetal or infant brain**. Although the brain damage responsible for cerebral palsy is non-progressive, the **clinical manifestations change over time as the child grows and the nervous system develops**. Children with cerebral palsy often present with associated conditions such as **intellectual disability, hearing impairment, and secondary orthopedic deformities**, which can further affect their functional abilities and quality of life.

The birth of a child with cerebral palsy often places the family in a difficult situation. While society generally views parenthood positively, the birth of a child with a disability is often perceived negatively. This contrast may create emotional stress and uncertainty for families.

Awareness of society's attitudes toward disability can further increase the psychological burden experienced by caregivers. Traditionally, rehabilitation interventions for children with disabilities have focused primarily on improving the **functional abilities of the child**, with relatively little attention given to the **needs and experiences of parents and families**.

In developing countries, limited research has been conducted to evaluate the **impact of rehabilitation services and the processes by which these services are delivered to families of children with disabilities**. Furthermore, there is relatively little literature addressing the quality of services provided to children with disabilities and the satisfaction levels of their caregivers.

In most cases, **mothers serve as the primary caregivers of children with cerebral palsy**, and much of the daily care occurs within the home environment. In some families, other members such as fathers, grandparents, or relatives also become actively involved in caring for the child. Routine handling of children with cerebral palsy during **activities of daily living (ADLs)** can sometimes increase spasticity and discomfort. Therefore, it becomes necessary to **educate caregivers in proper therapeutic handling techniques**, which can help manage spasticity and improve the child's comfort and functional abilities.

To classify and evaluate motor function in children with cerebral palsy, **Palisano et al. developed the Gross Motor Function Classification System (GMFCS)**. This system is an **age-related five-level classification tool** used to describe and assess the severity of motor impairment in children with cerebral palsy. Later, **Morris et al. explained that the GMFCS was developed to provide a standardized method for describing and classifying movement disability among children with cerebral palsy**. The system categorizes children into **five functional levels**, ranging from mild to severe limitations in gross motor function.

Socioeconomic factors also play a significant role in caregiving. Studies have shown that **poverty and chronic financial difficulties can significantly influence caregiving practices**. Poverty may be defined as the **lack of adequate financial resources required to meet basic daily living needs**. Additionally, research indicates that caregivers of children with disabilities often demonstrate **varied responses to caregiving situations depending on their personal attitudes, beliefs, and social circumstances**. This highlights the importance of recognizing that **each child with a disability and each family caring for that child is unique**, and therefore requires individualized support and care.

Several studies have reported that **parents of children with disabilities experience higher levels of stress and emotional strain compared to parents of typically developing children**. The increased demands of caregiving, combined with concerns about the child's health, education, and future, can place a considerable burden on caregivers. Furthermore, siblings and other family members may also experience psychological challenges as a result of the family's caregiving responsibilities.

Research suggests that **professional support and rehabilitation services can have a positive impact not only on the child's rehabilitation outcomes but also on the well-being of the caregivers**. Effective rehabilitation programs that involve caregivers in the treatment process can enhance the child's chances of achieving optimal functional improvement while also improving caregiver confidence and satisfaction.

The **Caregiver Satisfaction Questionnaire for Cerebral Palsy Children (CSQCP)** was developed to assess the **level of satisfaction among caregivers regarding the services provided to their children**. This tool allows caregivers to reflect on their experiences with healthcare services and the support provided by rehabilitation professionals.

The questionnaire evaluates caregiver satisfaction across **six important segments**, which include:

1. **Coordinated Care** – This segment evaluates how well the services address the needs of both the child and the family in terms of care coordination and service provision.
2. **Delivery of Specific Information about the Child** – This segment assesses whether caregivers receive clear and relevant information about the child's diagnosis, investigations, treatment, progress, and rehabilitation interventions.
3. **Respectful and Supportive Care** – This segment evaluates whether caregivers are treated with respect, dignity, and understanding by healthcare professionals.
4. **Providing Information** – This segment focuses on the general information provided to caregivers regarding the child's condition and available services.
5. **Partnership** – This segment examines the extent to which caregivers are actively involved in decision-making regarding their child's treatment and rehabilitation.
6. **Treatment Response** – Since cerebral palsy is a **chronic condition with no permanent cure**, children require long-term rehabilitation and continuous support from both healthcare professionals and caregivers. This segment evaluates caregiver perceptions of the child's response to treatment.

In the rehabilitation process, **families and healthcare providers work together to make informed decisions regarding the services and support required by the child**. Caregiver satisfaction is therefore an important factor in evaluating the effectiveness and quality of physiotherapy services.

To the best of the researcher’s knowledge, **very limited studies have been conducted in Indian cities to evaluate caregiver satisfaction with physiotherapy services for children with cerebral palsy**. Therefore, the present study was undertaken to **assess the satisfaction levels among caregivers of children with cerebral palsy who are receiving physiotherapy treatment in Dehradun city**.

METHODOLOGY

Sample

The study included a total of **36 subjects who were caregivers of children diagnosed with cerebral palsy**. These caregivers were regularly accompanying the child for **physiotherapy treatment sessions either at rehabilitation centers or at home-based therapy programs**.

Sampling Method

The subjects were selected using a **convenient sampling technique**, as the participants were recruited based on their availability and willingness to participate in the study.

Inclusion Criteria

- Caregivers of children diagnosed with **cerebral palsy as confirmed by a paediatrician**.
- Caregivers who had been **accompanying their child for physiotherapy rehabilitation for at least one month or more**.

Exclusion Criteria

- Caregivers who had **not attended the rehabilitation center with their child for at least one month**.
- Caregivers of children diagnosed with **conditions other than cerebral palsy**.

Outcome Measure

The **Caregiver Satisfaction Questionnaire for Cerebral Palsy Children (CSQCP)** was used to assess caregiver satisfaction regarding the physiotherapy treatment of their child. This is a **self-report questionnaire** designed to evaluate parents’ perceptions and satisfaction with physiotherapy services provided to children with cerebral palsy.

The CSQCP consists of **29 items** grouped into **six segments**, which include:

- Coordinated care

- Delivery of specific information about the child
- Respectful and supportive care
- Partnership
- Treatment response

These domains represent aspects of care that have been reported in the literature as important determinants of **client satisfaction, adherence to therapy, and caregiver stress management**.

Each item in the questionnaire is scored on a **4-point scale**, where:

- **0** – Not applicable
- **1** – Not at all
- **2** – To some extent
- **3** – To a great extent
- **4** – To a very great extent

The **maximum total score of the questionnaire is 116**. After calculating the total score obtained by the participant, it is converted into a **percentage score** to determine the satisfaction level.

The satisfaction levels were categorized as follows:

Satisfaction Percentage	Interpretation
0–19%	Low satisfaction
20–39%	Satisfaction to a small extent
40–59%	Satisfaction to a good extent
60–79%	Satisfaction to a great extent
80–100%	Satisfaction to a very great extent

The **reliability of the CSQCP questionnaire** was established at the beginning of the study. The **intra-rater reliability was found to be 0.991**, and the **inter-rater reliability was 0.992**, indicating a high level of reliability.

Procedure

Initially, **66 caregivers of children with cerebral palsy were screened** for eligibility. Among them, **47 subjects met the inclusion criteria**. However, **11 subjects declined to participate in the study**, and therefore were excluded.

Finally, **36 subjects who met the inclusion criteria and provided informed consent were recruited for the study through convenient sampling**.

Before participation, **informed consent was obtained from each participant**, and all ethical considerations were maintained throughout the study. Demographic details of the participants were collected, including **education level, family history, and other relevant information** required for the study.

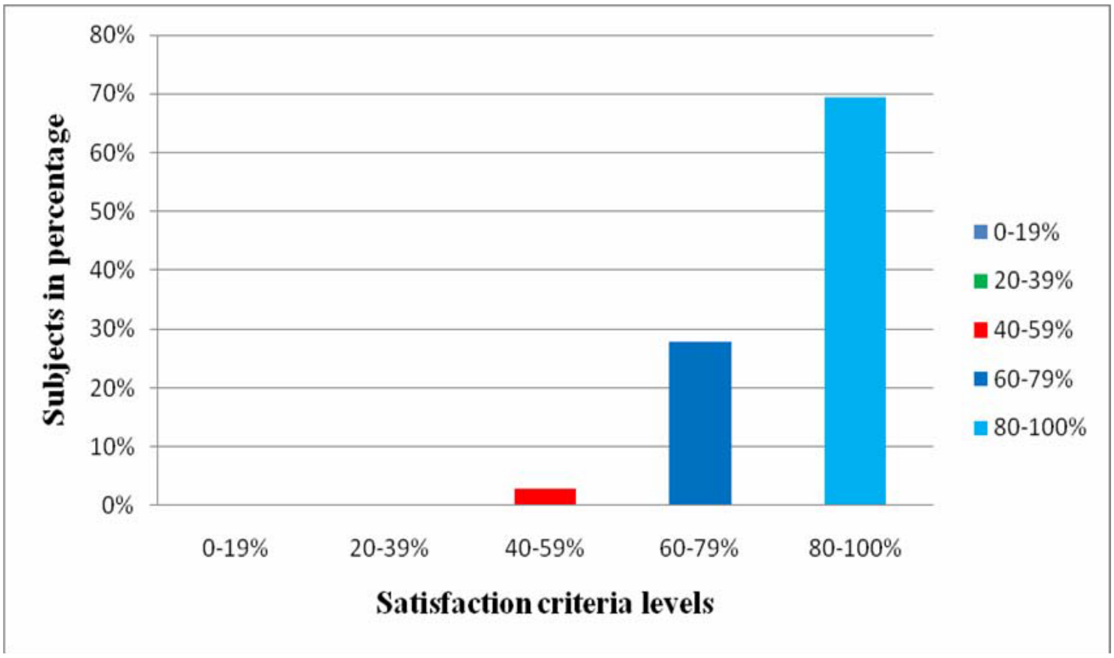
Participants were asked about their **preferred language**, and the questionnaire was explained to them accordingly to ensure proper understanding. After receiving the explanation, the participants were requested to **complete the Caregiver Satisfaction Questionnaire for Cerebral Palsy Children (CSQCP)**.

Once the questionnaires were completed, the collected data were compiled and **statistical analysis was performed to obtain the study results**.

RESULTS

Table 1Percentage of subjects falling under different satisfaction criteria levels of CSQCP.

Satisfaction Criteria Levels	Percentage of Subjects
0–19%	0%
20–39%	0%
40–59%	2.77%
60–79%	27.77%
80–100%	69.44%



Graph 5.1: **Percentage of subjects falling under different satisfaction criteria levels of CSQCP.**

Table 2: Segment wise division of percentage of number of subjects falling under different satisfaction criteria levels of CSQCP.

Satisfaction

Satisfaction Criteria Levels	**S1**	**S2**	**S3**	**S4**	**S5**	**S6**
0–19%	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
20–39%	0 (0%)	1 (2.77%)	1 (2.77%)	0 (0%)	0 (0%)	1 (2.77%)
40–59%	1 (2.77%)	0 (0%)	0 (0%)	2 (5.55%)	2 (5.55%)	6 (16.67%)
60–79%	11 (30.55%)	5 (13.89%)	9 (25%)	6 (16.66%)	9 (25%)	15 (41.67%)
80–100%	24 (66.66%)	30 (83.33%)	26 (72.22%)	28 (77.78%)	25 (69.44%)	14 (38.89%)

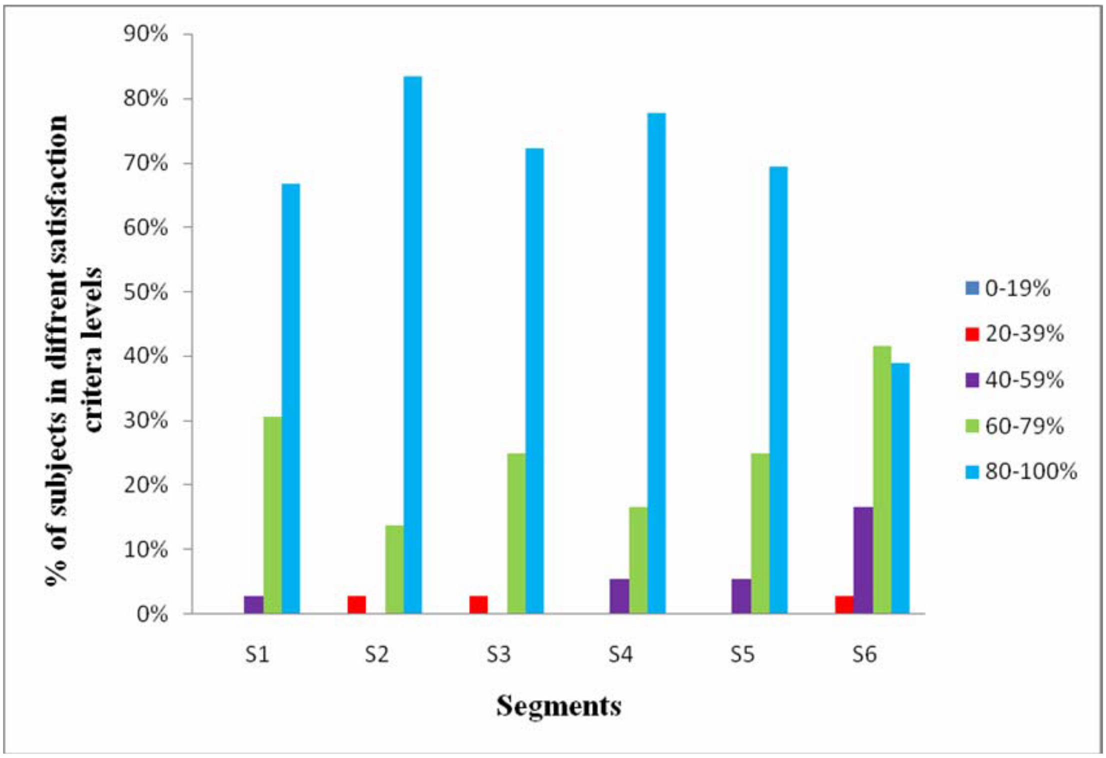


Table 3: **Proportion of subjects under various grades of education. (no. of subjects = 36)**

Grades of Education	**Subjects (%)**
Grade 5	50%
Grade 4	36.11%
Grade 3	2.77%
Grade 2	8.33%
Grade 1	2.77%

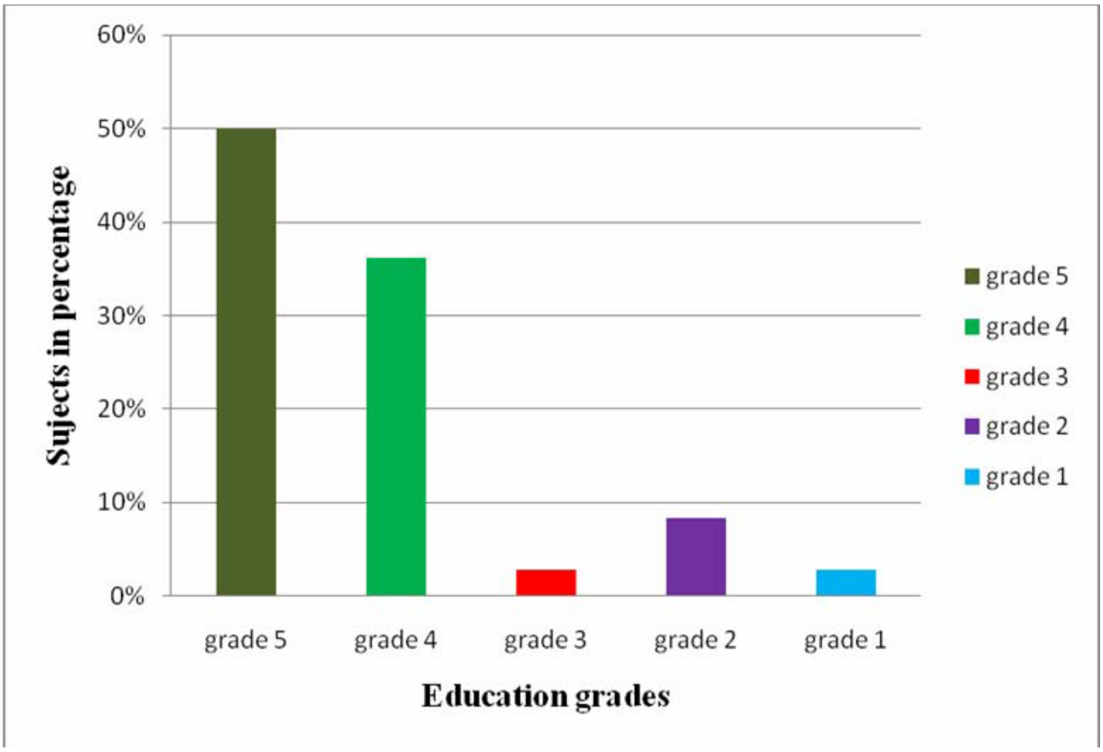
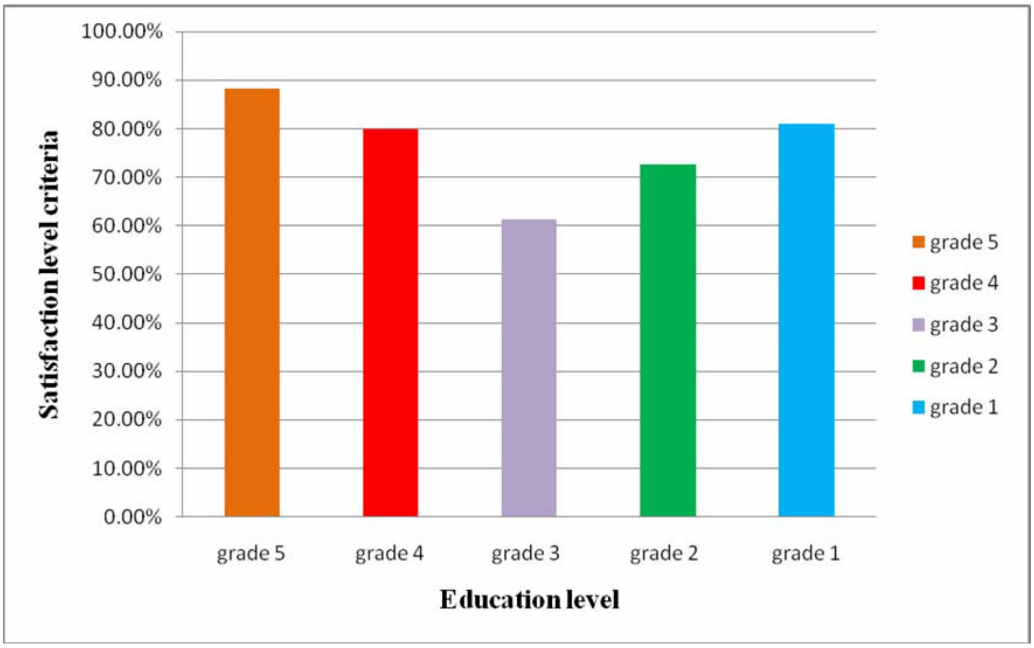


Table 4: Percentage of satisfaction level of subjects in relation to their education grades.

Grades of Education Level	Subjects in this Grade	Satisfaction Level Percentage
Grade 5	18	88.36%
Grade 4	13	79.97%
Grade 3	1	61.20%
Grade 2	3	72.69%
Grade 1	1	81.03%



The above tables collectively present the distribution of subjects based on satisfaction criteria levels, educational grades, and the relationship between education level and satisfaction percentage. The findings indicate that the majority of subjects reported high levels of satisfaction with the intervention.

According to the satisfaction criteria levels, most participants were concentrated in the higher satisfaction categories. A large proportion of subjects (69.44%) reported satisfaction levels between 80–100%, while 27.77% fell within the 60–79% range. Only a very small percentage of subjects (2.77%) reported satisfaction between 40–59%, and none of the participants were observed in the lower satisfaction categories of 0–19% and 20–39%. This suggests that the intervention or service provided to the subjects resulted in generally high satisfaction levels.

The distribution of subjects according to grades of education showed that the majority of participants belonged to higher educational levels. Half of the subjects (50%) were categorized under Grade 5, followed by 36.11% in Grade 4. A smaller proportion of participants belonged to lower educational grades, including 8.33% in Grade 2 and 2.77% each in Grade 3 and Grade 1. This indicates that most participants in the study had relatively higher educational backgrounds.

When examining satisfaction levels in relation to educational grades, it was found that Grade 5 participants demonstrated the highest satisfaction percentage (88.36%), followed by Grade 1 (81.03%) and Grade 4 (79.97%). Participants in Grade 2 reported a satisfaction level of 72.69%, while the lowest satisfaction level was observed in Grade 3 (61.20%). Despite some variation, subjects across all educational levels demonstrated moderate to high satisfaction.

Overall, the results indicate that the majority of participants experienced high satisfaction levels, particularly those belonging to higher educational grades. These findings suggest that the intervention was well accepted by the subjects and produced positive responses among the study population.

DISCUSSION

The present study was conducted to evaluate the **satisfaction level for physiotherapy treatment among caregivers of cerebral palsy children in Dehradun city**. Cerebral palsy (CP) is a non-progressive neurological disorder that affects movement, posture, and functional abilities, and requires long-term rehabilitation. Physiotherapy plays a vital role in improving functional independence and quality of life in children with cerebral palsy. Since caregivers are closely involved in the rehabilitation process, their satisfaction with physiotherapy services is an important indicator of the quality and effectiveness of treatment.

In the present study, a total of **36 caregivers of children with cerebral palsy** who were attending physiotherapy sessions regularly at rehabilitation centers or at home were included. The **Caregiver Satisfaction Questionnaire for Cerebral Palsy Children (CSQCP)** consisting of 29 items across six domains—coordinated care, delivery of specific information about the child, respectful and supportive care, partnership, and treatment response—was used to measure satisfaction levels.

The findings of the present study revealed that **the majority of caregivers reported high levels of satisfaction with physiotherapy services**. According to the satisfaction criteria levels, **69.44% of caregivers demonstrated satisfaction between 80–100%, indicating satisfaction to a very great extent**, while **27.77% reported satisfaction levels between 60–79%, representing satisfaction to a great extent**. Only **2.77% of caregivers showed satisfaction between 40–59%**, and none of the participants reported satisfaction in the lower ranges of 0–39%. These results indicate that the physiotherapy services provided to children with cerebral palsy were well perceived by caregivers and met their expectations to a large extent.

The high satisfaction levels observed in this study may be attributed to several factors such as **effective communication between physiotherapists and caregivers, clear explanation of treatment goals, supportive care, and the active involvement of caregivers in the rehabilitation process**. Physiotherapy management in cerebral palsy often requires continuous interaction between therapists and caregivers, which helps caregivers understand the child’s condition and progress, thereby improving their confidence and satisfaction with the treatment.

The distribution of subjects according to **grades of education** revealed that most caregivers belonged to higher educational levels. In this study, **50% of the participants were categorized under Grade 5, and 36.11% under Grade 4**, while only a small proportion belonged to lower educational levels. This suggests that caregivers with higher education may be more aware of rehabilitation services and more actively involved in the treatment process.

Furthermore, the analysis of satisfaction levels according to educational grades showed that **caregivers with Grade 5 education demonstrated the highest satisfaction level (88.36%)**, followed by **Grade 1 (81.03%) and Grade 4 (79.97%)**. Caregivers belonging to **Grade 2 reported satisfaction of 72.69%**, whereas the **lowest satisfaction level was observed in Grade 3 (61.20%)**, although this category had only one participant. Overall, caregivers across all educational levels demonstrated **moderate to high satisfaction with physiotherapy services**.

The findings of the present study are consistent with previous research which emphasizes the importance of caregiver satisfaction in pediatric rehabilitation. **King et al. (2004)** reported that family-centered care, effective communication, and partnership between therapists and parents significantly influence caregiver satisfaction in pediatric rehabilitation services. Their study highlighted that caregivers value respectful care, clear information, and involvement in treatment decisions.

Similarly, **Rosenbaum et al. (2003)** emphasized that family-centered service delivery is an essential component of rehabilitation for children with disabilities such as cerebral palsy. The authors reported that when caregivers are actively involved in the therapeutic process, their satisfaction and adherence to therapy significantly improve.

Another study by **Davis and Gavidia-Payne (2009)** found that parents of children with developmental disabilities reported higher satisfaction levels when healthcare professionals provided adequate information, emotional support, and guidance regarding the child's condition and treatment options. This supports the findings of the present study, where caregivers reported high satisfaction due to supportive and informative physiotherapy services.

Furthermore, **Law et al. (2003)** reported that caregiver satisfaction is strongly associated with coordinated care and effective communication among healthcare professionals. When caregivers receive clear information regarding the child's progress and treatment plan, they tend to develop greater trust in the rehabilitation process.

The results of the present study also highlight the importance of **caregiver involvement in physiotherapy treatment**. In cerebral palsy management, caregivers play a crucial role in continuing therapeutic exercises at home, monitoring the child's progress, and ensuring adherence to treatment recommendations. Therefore, a positive perception of physiotherapy services among caregivers can significantly contribute to better rehabilitation outcomes for children with cerebral palsy.

Overall, the findings of this study suggest that **physiotherapy services provided to children with cerebral palsy in Dehradun city are associated with a high level of caregiver satisfaction**. The results emphasize the importance of maintaining a **family-centered approach, effective communication, and supportive care** in pediatric physiotherapy practice.

CONCLUSION

The present study was conducted to assess the **satisfaction level for physiotherapy treatment among caregivers of cerebral palsy children in Dehradun city**. A total of **36 caregivers of children with cerebral palsy** who were regularly attending physiotherapy sessions were included in the study using a convenient sampling method. The **Caregiver Satisfaction Questionnaire for Cerebral Palsy Children (CSQCP)** was used to evaluate caregiver satisfaction across multiple domains including coordinated care, delivery of information, respectful and supportive care, partnership, and treatment response.

The results of the study revealed that the **majority of caregivers demonstrated high satisfaction with physiotherapy treatment**. Most participants (69.44%) reported satisfaction levels between **80–100%**, indicating satisfaction to a **very great extent**, while **27.77% reported satisfaction between 60–79%**, representing satisfaction to a **great extent**. Only a very small percentage of caregivers (2.77%) reported moderate satisfaction levels between **40–59%**, and none of the participants reported low satisfaction levels.

The study also showed that most caregivers belonged to **higher educational levels**, with **50% categorized under Grade 5 and 36.11% under Grade 4**. Additionally, caregivers with higher educational grades demonstrated comparatively higher satisfaction levels with physiotherapy treatment.

Overall, the findings of the study suggest that **physiotherapy services provided to children with cerebral palsy were well accepted by caregivers**, and the majority of caregivers expressed a **high level of satisfaction with the rehabilitation services**. The results highlight the importance of **effective communication, family-centered care, and active caregiver involvement** in improving satisfaction with physiotherapy treatment.

LIMITATIONS OF THE STUDY

Despite providing useful insights, the present study has certain limitations:

1. Small Sample Size

The study included only 36 caregivers, which may limit the generalizability of the results to a larger population.

2. Convenient Sampling Method

The use of convenient sampling may introduce sampling bias, as participants were selected based on availability rather than random selection.

3. Limited Geographical Area

The study was conducted only in **Dehradun city**, and therefore the findings may not represent caregivers from other regions.

4. Self-Reported Questionnaire

The caregiver satisfaction questionnaire was based on self-reported responses, which may be influenced by personal perceptions or response bias.

5. Cross-Sectional Study Design

The study assessed satisfaction at a single point in time and did not evaluate changes in satisfaction levels over a longer period.

RECOMMENDATIONS FOR FUTURE RESEARCH

Based on the findings and limitations of the present study, the following recommendations are suggested for future research:

1. Future studies should include **a larger sample size** to improve the generalizability of the results.
2. Studies can be conducted in **multiple cities or regions** to compare caregiver satisfaction levels across different healthcare settings.
3. **Longitudinal studies** may be conducted to evaluate changes in caregiver satisfaction over time during the rehabilitation process.
4. Future research may explore the **relationship between caregiver satisfaction and functional outcomes of children with cerebral palsy**.
5. Additional studies can examine the **impact of caregiver education, socioeconomic status, and awareness about rehabilitation services** on satisfaction levels.
6. Comparative studies may also be conducted to evaluate **caregiver satisfaction across different rehabilitation approaches or physiotherapy interventions**.

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