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Mothers' Knowledge Regarding Cerebral Palsy of their Children in Sulaimani City

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Abstract

Background: Cerebral palsy (CP) is a non-progressive syndrome of motor function and posture disturbance caused by abnormalities or damage to the brain during its development.

Aim: To assess mothers' knowledge regarding cerebral palsy of their children
Methods: A quantitative design descriptive study was conducted on 111 mothers of their children with Cerebral Palsy attending the chronic unit of Dr. Jamal Ahmad Rashid Pediatric Teaching Hospital in Sulaimani City from January to March 2023. A non-probability convenience sampling method was used to select the sample. The data was collected through face-to-face interviews, and a questionnaire was designed for this study after obtaining participants' consent. The data were analyzed using the Statistical Package for the Social Sciences (SPSS) version (23.0).

Results: The findings of the study revealed that more than half (59.5%) of mothers aged between (30-39) years with a mean was (38.1 ± 5.5), (32.4%) of mothers had primary education, unemployed (86.5%), from urban areas (67.6%) and (62.2%) of mothers were barely sufficient. More than half (54.1%) of mothers had fair knowledge, (24.3%) had good knowledge, and (21.6%) had poor knowledge regarding Cerebral Palsy.

Conclusion: The results of the present study conclude that more than half of mothers had fair knowledge regarding their children's cerebral palsy. There was a significant association between the mothers' level of Knowledge and age, level of education, and financial status, while there was no significant association between the mothers' level of Knowledge and residency.

What is already known about the topic? It is known that mothers' knowledge of cerebral palsy significantly impacts the care and support they provide to their children. In many regions, including Sulaimani City, awareness about the causes, symptoms, and management of cerebral palsy may be limited, leading to challenges in caregiving. Educating mothers about cerebral palsy is crucial for improving the quality of life and long-term outcomes for affected children.

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INTRODUCTION

Cerebral palsy is the most common disability of childhood that affects motor function as a result of injury to the developing brain. Damage to the developing brain before, during, or after delivery affects neurological and musculoskeletal systems (Paul et al., 2022).

A child with CP suffers from several conditions, ranging from spastic paralysis, cognitive, speech and visual impairment, chronic pain and gastrointestinal problems. As a result, the child will experience several limitations in life and may need to be cared for by the parent or caretaker. Moreover, such a child may require assistance in almost all of the activities of daily living, such as bathing and feeding, as well as assistance with turning and lifting the child whenever one wants to go out. One of the major problems faced by parents is attending to chronic health conditions that the child might be suffering from (Sankombo, 2022).

Therefore, the family, especially mothers as caregivers, plays a crucial role in CP development milestones. Poor knowledge will affect parents' attitudes and daily behaviour, leading to failure in their children's development. Good knowledge develops a supportive and cooperative attitude, which leads to appropriate daily behaviour and indirectly supports children's development (Moenardi et al., 2020). Thus, this study was carried out to assess mothers' knowledge of their child's cerebral palsy.

AIM OF THE STUDY

The study aimed to assess mothers' knowledge regarding cerebral palsy of their children attending the chronic disease unit of Dr Jamal Ahmad Rashid

Pediatric Teaching Hospital in Sulaimani City.

METHOD

A quantitative design descriptive study was conducted on 111 mothers of their children with cerebral palsy attending the chronic unit of Dr Jamal Ahmad Rashid Pediatric Teaching Hospital in Sulaimani City to assess mothers' knowledge regarding cerebral palsy. The non-probability convenience sampling method was used to select the sample. The data was collected by face-to-face interview and through a questionnaire, which included the child and mothers' socio-demographic data, including the child's age, gender, mother's age, level of education, occupation, marital status, and financial status. Medical information included family history, place of delivery, delivery method, feeding history, and occurrence of seizures. Data related to assessment of mothers' knowledge about their child's cerebral palsy. This section includes 15 questions about cerebral palsy. To calculate the total knowledge score, each correct answer receives one point, and each incorrect answer receives 0 points. Participants who selected the correct answer for a given item were considered to know that item. Participants who chose the wrong answer for a given item were considered not to know that item. The data were analysed using the Statistical Package for the Social Sciences (SPSS) version (23.0). Different statistical tests were used to achieve the objectives of the study as follows: Descriptive statistics were used, starting with exploratory data analysis, frequencies and percentages were used to show the participant's socio-demographic and medical information, as well as mothers' knowledge about their child's cerebral palsy. The inferential statistical method, chi-square, was used to determine the association

between socio-demographic characteristics and levels of knowledge. (P value ≤ 0.05) was considered the level of significance.

RESULTS

One hundred and eleven mothers and their children with cerebral palsy participated in this study, conducted at the chronic disease unit of Dr Jamal Ahmad Rashid Pediatric Teaching Hospital in Sulaimani City. Table 1 shows that (62.2%) of children aged between (6- and 12) years with a mean of (9.1 ± 3.4), more than half (56.8%) of children were male, and more than one-third (37.9%) of children were first birth order. More than half (59.5%) of mothers aged between (30-39) years with a mean was (38.1 ± 5.5), (32.4%) of mothers were in primary education, unemployed (86.5%), from urban areas (67.6%) and (62.2%) of mothers were barely sufficient.

According to medical information, as shown in Table 2, less than two-thirds (64.9%) had no family history of cerebral palsy, (67.6%) were born in public hospitals, (64.9%) were delivered with cesarean section, more than half (51.4%) had a history of mixed feeding, and the majority of participants (86.5%) had seizures.

Regarding mother's knowledge, Figure 1 shows that more than half (54.1%) had fair knowledge, (24.3%) had good knowledge, and (21.6%) had poor knowledge.

Table (3) shows the association between mothers' Knowledge and socio-demographic characteristics. A result shows that there was a statistically significant association between mothers' knowledge and their age (P value=0.01), levels of education (P value=0.000), and financial status (P value=0.000) because the result of the p-value was less than the typical alpha of 0.05. There was no

statistically significant association between mothers' knowledge and residency (P value= 0.7) because the result of the p-value was more than the typical alpha of 0.05.

Table (1) Distribution of participants' socio-demographic characteristics

Socio-demographic characteristics	F	%
Child age		
1-6	24	21.6
6-12	69	62.2
>12	18	16.2
Mean \pm STD=9.1\pm3.4		
Gender		
Female	48	43.2
Male	63	56.8
Birth order		
First	42	37.9
Second	30	27
Third	21	18.9
Fourth+	18	16.2
Age of mother		
20-29	6	5.4
30-39	66	59.5
≥ 40	39	35.1
Mean \pm STD 38.1\pm5.5		
Education		
Illiterate	9	8.1
Primary	36	32.4
Secondary	33	29.7
Institute or university	33	29.7
Occupation		
Employed	15	13.5
Unemployed	96	86.5
Residency		
Urban	75	67.6
Suburban	27	24.3
Rural	9	8.1
Financial status		
Sufficient	30	27.0
Barley sufficient	69	62.2
Insufficient	12	10.8
Total	111	100

Table (2) Distribution of participants' medical information

Medical information	F	%
Family history of similar condition		
Yes	39	35.1
No	72	64.9
Place of birth		
Public hospital	75	67.6
Private hospital	36	32.4
Delivery method		
Caesarean section	72	64.9
Natural childbirth	39	35.1
Feeding history		
Breastfeeding	36	32.4
Bottle feeding	18	16.2
Mixed	56	51.4
Occurrence of convulsions		
Yes	96	86.5
No	15	13.5
Total	111	100

DISCUSSION

Regarding the socio-demographic characteristics of children, (62.2%) of children aged between (6-12) years with a mean was (5.6 ± 3.5). This result agreed with a previous study, which reported that (65.2%) of children with CP were school-age (Faqi-Rahid & Hasan, 2022). Current results show that more than half (56.8) of the children were males while (43.2%) were females; this result was confirmed by Hamed et al. (2023), who found that (60%) were male and (40%) were female. More than half (59.5%) of mothers aged between (30-39) years old, and (32.4%) of mothers were in primary education. A similar study conducted by Perveen et al. (2023) in Pakistan found

that most mothers were between 30 and 40 years old, and (27%) were in primary education.

According to the occupation, (86.5%) of mothers were unemployed; this result is consistent with a study conducted at King Saud Medical City, Riyadh, Saudi Arabia, which indicated that most of the study sample was unemployed and taking care of their children (Alruwaished et al.,2020). Considering the study mothers' residences, the study findings illustrated that most of them are from an urban area; the finding was confirmed by Haberfehlner et al. (2020) in their study and found that most are from urban areas.

Regarding the financial status of the family (62.2%), their income is barely sufficient; Alruwaished et al. (2020) their study concluded that the majority (79.3%) had a moderate level of income.

Regarding medical information, as shown in Table 2, less than two-thirds (64.9%) did not have a family history of a similar condition, (67.6%) were born in a public hospital, (64.9%) were delivered with cesarean section, more than half (51.4%) had a mixed feeding history, and the majority of participants (86.5%) had seizures. This result parallels Faqi-Rahid and Hasan's (2022) study found that (80%) have no family history of the same condition. In contrast to our findings, a study conducted in Babylon Province found (that 56.1%) of the study sample place of delivery was in non-governmental hospitals, (70.9%) of childbirth was average, and (41.2%) had artificial feeding (Baiee et al., 2019).

Regarding mothers' knowledge, Figure 1 shows that more than half (54.1%) of mothers had fair knowledge, (24.3%) had good knowledge and (21.6%) had poor knowledge. This result was lower than the previous study conducted in King

Table (3) Association between the Knowledge of mothers and socio-demographic characteristics

Socio-demographic characteristics		Levels of knowledge				χ^2 -Square (P- value)
		Poor	Fair	Good	Total	
		F (%)	F (%)	F (%)	F	
Mother age	20-29	0(0)	6(100)	0(0)	6	13.5(0.01)
	30-39	18(27.3)	27(40.9)	21(31.8)	66	
	≥ 40	6(15.4)	27(69.2)	6(15.4)	39	
level of education	Illiterate	0 (0)	6(66.7)	3(33.3)	9	56.3 (0.000)
	Primary	3 (8.3)	18 (50)	15(41.7)	36	
	Secondary	0 (0)	27 (81.8)	6(18.2)	33	
	Institute or university	21 (63.6)	9 (27.3)	3 (9.1)	33	
Residency	Rural	3(33.3)	3(33.3)	3(33.3)	9	1.7(0.7)
	Suburban	6(22.2)	15(55.6)	6(22.2)	27	
	Urban	15(20)	42(56)	18(24)	75	
Financial Status	Sufficient	0(0)	24(80)	6(20)	30	22.4(0.000)
	Barley sufficient	24(34.8)	27(39.1)	18(26.1)	69	
	Insufficient	0(0)	9(75)	3(25)	12	

Saud Medical City, Riyadh, Saudi Arabia, by Alruwaished et al. (2020), which found that good knowledge was (50%) and (51.6%) respectively. This can be explained by the fact that the number of college and academy graduates in our study group was smaller, and the majority of mothers have primary school education or are illiterate. Another cause could be the difference in the research population or the study area, which may lead to a difference in population awareness. The current study revealed a significant association between age, level of education and economic status with mothers' knowledge, while there was no significant association between mothers' knowledge and residency. This result agrees with a study conducted in Erbil City, which found an association between age, education level and caregiver's knowledge (Faqi-Rahid & Hasan, 2022). In contrast to our findings, a study conducted in Saudi Arabia revealed no association between financial status and

caregiver knowledge (Alruwaished et al., 2020).

CONCLUSIONS

The results of the present study conclude that more than half of mothers had fair knowledge regarding the Cerebral Palsy of their children. There was a significant association between the mothers' knowledge level and age, education level, and financial status. At the same time, there was no significant association between the level of Knowledge of the mothers and residency.

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Study the concept, and write and review the final edition by all authors.

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The authors report no conflict of interest

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