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The effect of tele-nursing instructions on mothers' knowledge and practices regarding their children with bell's palsy during COVID-19 lockdown

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***Abstract*---**Background: Bell's palsy is a frequent cranial neuropathy that results in idiopathic, unilateral, or bilateral facial nerve paralysis and acute, lower motor neuron–only facial paralysis on one side of the face. A significant factor in ensuring continuity of care is tele-nursing. Aim: To determine the effect of tele-nursing instructions on mothers' knowledge and practices regarding their children with Bell's Palsy during COVID-19 lockdown. Design: A quasi-experimental research design was used to conduct this study. Setting: The study was conducted at the physical therapy department of Sohag University Hospital. Subject: A convenience sample of all 100 Bell's palsy-affected mothers and their available children. Tools: Two tools were used for data collection, Tool1: A structured interview questionnaire: Included three parts; characteristics of mothers, characteristics of their children, mothers' knowledge about Bell's palsy (pre, post, and follow-up) phases of tele-nursing instructions implementation. Tool 2:

An observational checklist (pre/post and follow-up tests) to evaluate mothers' practices concerning their children with Bell's palsy. Results: Mothers' practices and knowledge before, immediately after, and during the follow-up phases of the application of tele-nursing instructions showed highly statistically significant differences (P<0.0001). According to the findings of the current study, mothers' knowledge and practices about their children who have Bell's palsy were significantly impacted by the tele-nursing instructions. Recommendations: Continuous ongoing tele-nursing instructions to mothers and caregivers are recommended to improve their knowledge and practices and help complications reduction.

***Keywords*---**tele-nursing, mothers' knowledge, bell's palsy.

Introduction

By the end of 2019, COVID-19 had turned into a problem for world health. The epidemic influenced individuals and altered many aspects of their existence, leading to the imposition of a global lockdown (Sharma et al., 2018). On March 25th, Egypt went under lockdown, which lasted for around three months. Closures have a cumulative impact on 25.3 million children, endangering their safety and security (World Health Organization, 2020). There is a chance that the COVID-19 pandemic will increase child domestic violence due to long-term family isolation brought on by lockdown measures to combat the outbreak (The Lancet child adolescent health, 2020 & Lazzerini et al., 2020).

One side of the face has abrupt lower motor neuron facial paralysis as a result of Bell's palsy, a common kind of cranial neuropathy. It is an idiopathic facial weakness or paralysis that is suddenly occurring and has peripheral nerve origins. 20 to 30 people out of every 100,000 are affected by Bell's palsy each year, and 1 in 60 people will experience it at some point in their lives. In youngsters under the age of 18, there are 18.8 cases for every 100.000 people. Some pediatric patients with severe facial dysfunction and decreased quality of life have Bell's palsy as a key contributor to their disability (Cubukcu et al., 2013).

Bell's palsy affects commonly both the right sides of the face and the left (Karaganova and Mindova, 2016). Although the specific origin of high blood pressure is uncertain, vascular reasons, autoimmune diseases, and viral infections have all been proposed as potential pathomechanisms (El-Tallawy, et al., 2016). Herpes simplex virus infection of the facial nerve is thought to be the primary cause of Bell's palsy. This viral infection may cause enlargement of the facial nerve, which could result in nerve compression as it travels through the canal of the temporal bone (John et al., 2014).

Bell's palsy may have a recognized cause or it may be idiopathic. Almost 80% of all occurrences of peripheral facial weakness are primary cases, with the remaining 20% being sequel cases. A total or partial paralysis of movement on one side of the face can be brought on by facial nerve disease, which may first

show manifestations of pain in the mastoid region. The reactivation of the dormant herpes simplex virus type 1 in the cranial nerve ganglia is the main cause of this illness. Moreover, systemic viral infections, trauma, surgery, diabetes, local infections, tumors, immunological diseases, medications, and ailments that impact the central nervous system can cause secondary peripheral facial paralysis (Bai-Kes et al., 2013). Treatments are typically designed to enhance facial function and speed healing. There are numerous Bell's palsy treatment options, some of which are controversial in terms of their efficacy, and different types of care are provided as a result (Baugh et al., 2017).

To minimize disease transmission between people, contemporary technology innovations and procedures are implemented. These include staying at home, restricting access to nursing homes, and forbidding meetings in public locations (Masonbrink & Hurley, 2020). Following the COVID-19 lockdown, residents use social media to spread information, educate the public, and keep track of health-related occurrences (Kamel Boulos, 2019). To improve mothers' knowledge and practices regarding caring for their children and increase Bell's palsy recovery rates in the orientation program, the pediatric nurse's role in telenursing instructions to mothers regarding their children with Bell's palsy is crucial (Raducha et al., 2017).

Furthermore, these tele-nursing instructions guarantee that the mothers who are enrolled in the implementation of the program or care are qualified and skilled to carry out the procedure with the best approach that treats Bell's palsy correctly, improves recovery rates, and reduces complications because most pediatric patients generally have good health and a high percentage of recovery (66-92%) (Cubukcu et al., 2013). To maintain muscle tone and facial palsy, all lesions are initially treated physically with a routine that includes topical heat, warm-water massage, musical activity, and electrical stimulation. Supporting normal development, yoga exercise, pain medication, eye care, follow-up with a doctor, oral hygiene, and surveillance are the major goals of non-operative management (Raducha et al., 2017).

When staff nurses use web-based technologies for information, communication, and nursing care, this is known as tele-nursing, a subset of tele-health. The use of information and telecommunications technology for the delivery, management, and coordination of care and services has been defined as this (Schlachta-Fairchild et al., 2017).

With the use of this technology, it is possible to provide patients with better healthcare more quickly, at a lower cost, and with ease of access to the most relevant specialized capabilities. Additionally, patients and their families can receive full tele-nursing training and remote consultation for patients via email (Massarat et al., 2020). Tele-health is defined as the use of electronic information to support and promote long-distance clinical healthcare, patient and professional health-related education, and public health. and communications technology. The transfer, management, and coordination of care and administrative processes using advancements in telecommunications technology are the focus of the subfield of telehealth known as "telenursing" (Zakeri et al., 2020).

Tele-nursing is a technique for delivering nursing care remotely to increase efficiency and access to healthcare, according to the American Tele-Health Association (2018). All forms of nursing care and services that may be delivered remotely are included in tele-nursing, which uses a wide range of communication tools, including the phone, fax, email, internet, and video calls, to get the job done. Since the majority of individuals in our culture can access the telephone, phone calls are one of these tools that are widely utilized in telenursing. Using a telephone system, medical professionals often call moms of young children to provide advice on their care and provide educational information (Mataxen & Webb, 2019).

The main goals of non-operative management include encouraging normal development, yoga exercises, pain alleviation, care of the eyes, follow-up doctor appointments, oral hygiene, and surveillance. Physical treatment regimens that include superficial heat, warm water massage, and music-enhanced exercise for preserving muscle tone and treating facial palsy are used to treat all lesions. Surgery can be necessary depending on how well you recover functionally (Raducha et al., 2017).

Significance of the study

Bell's palsy in children is typically well-managed with a high rate of recovery (66–92%), so tele-nursing ensures that the staff members enrolled in the implementation of home programs or care are trained and competent to carry out the procedure with a perfect technique that results in the proper care of the condition (Cubukcu et al., 2013).

Tele-nursing frees up time for carers and gives them the chance to receive education from a distance, especially for moms who are restricted in their ability to seek out medical treatment and consultations. As a result, carers who reside in remote areas no longer need to drive great distances which reduces both medical costs and self-referrals to the department. Telenursing is a generally effective method for improving pediatric patient care and illness control (Balenton and Chiappelli, 2017). In Egypt, Bell's palsy affects more than 52% of children (El-Tallawy et al., 2016). Bell's palsy in children is also a problem due to the moms' ignorance and inappropriate behaviors. Therefore, there is a need for mothers to receive health education related to their children with Bell's palsy and to help them practice better health habits.

Research hypothesis

H_1-The mothers' knowledge is expected to improve after the tele-nursing instructions application regarding Bell's palsy than before.
H_2-The mothers' practices are expected to increase after the application of the tele-nursing instructions regarding Bell's palsy than before.

The study aimed to

Determine the effect of tele-nursing instructions on mothers' knowledge and practices regarding their children with Bell's Palsy during COVID -19 lockdown

Subjects and Methods

Research design

A quasi-experimental research design will be used to conduct this study. This method is employed to assess the level of change brought about by interventions or therapies and to compare participant groups.

Setting

The study was carried out at Sohag University Hospital's Physical Therapy Department to better educate mothers during physical therapy sessions about their children who have Bell's palsy. There are two rooms in it: one is used for cases, nursing care, and physical therapy, and the other is for doctor follow-up.

Subjects

A convenience sample of (50) Bell's palsy-affected mothers and their children who were present in the aforementioned setting at the time of the study and were willing to participate in it were chosen. None of the bell's palsy-affected mothers or kids had attended any educational programs about the condition.

Three tools were used

Tool I: A structured interview questionnaire created by the researchers after reviewing the pertinent literature (Bai-Kes et al., 2013; Eviston et al., 2015). It was developed by the researchers and used to assess mothers' knowledge of Bell's palsy (pre, post, and follow-up) phases of tele-nursing instructions implementation as well as the characteristics of mothers and their children. There were the following elements:
Part (A): Children's characteristics, including age, gender, educational attainment, and place of residence, are covered.
Part (B): Mothers' characteristics, including their age, level of education, and employment.
Part (C): mothers' knowledge regarding Bell's palsy Before, after, and at the follow-up visit, was used to evaluate mothers' knowledge of telenursing instructions regarding Bell's palsy in their children. It evaluates the key ideas in Bell's palsy and includes 12 open-ended questions covering the following topics: nursing care, the definition of the facial nerve (1 question), the function of the facial nerve (1 question), the definition of bell's palsy (1 question), types (1 question), causes (1 question), clinical manifestations (1 question), diagnostic tests (1 question), preventative measures (1 question), surgical and medical treatment (2 questions), complications (1 question), and nursing care (1 question) For the same set of moms, this questionnaire was given out three times in the same format: before, after, and at the two-month follow-up.

Scoring system

12 questions with a total of 120 points were separated into three score levels for the knowledge content: They don't know or the incorrect response received a

score of 3, while the complete and/or accurate response received a score of 3, and the incompletely correct response received a score of 2. (1). A satisfactory level (70 percent or more) or an unsatisfactory level (less than 70 percent) of the total score were assigned to the score (36).

II. An observational checklist (pre-, post-, and follow-up testing). according to **Teixeira, Valbuza, and Prado (2012), Karaganova & Mindova (2016), and Baugh et al (2017).** The questionnaire was filled out by the researchers to evaluate how mothers handled pain management, eye care, medical follow-up, mouth, and dental hygiene, and maintaining muscular tone, and facial expression concerning children with Bell's palsy.

Scoring system

Each step received two score levels: "do" received a score of "2," and "not done," received a score of "3." (1). Pain relief (7 items) and a total score of 14, eye care (7 steps), follow-up with the doctor (15 steps), oral hygiene (13 steps), a total score of 26, muscle tone maintaining and exercise for facial palsy yoga (14 steps), the total score of 28, and maintaining overall health (total score of 30). The subsequent categories were developed from the final score: competent (70% and more) or incompetent (less than 70%). The Alpha Cronbach's reliability test result for the checklist is 0.86. The overall practice score is 112.

Validity and reliability of study tools

A team of specialists (5), including three pediatric nurses, one pediatrician, and one physical therapist, determined the validity of the content. The accuracy, usefulness, and competency of the tool's material were confirmed. The tools' entire arsenal has been tested for reliability. Using Cronbach's alpha to evaluate internal consistency and construct validity, the reliability test was devised. R = 0.86 and 0.84 in terms of Cronbach's alpha.

Administrative design

The study's administrators gave their official consent for it to be conducted. The purpose, character, significance, and anticipated results of the investigation were all well explained.

Pilot study

To assess the clarity and applicability of the instruments and the suitability of the environment, a pilot study including five mothers, representing 10% of the total study subjects, was carried out. While there were no changes to the tools, the pilot research sample is then taken out of the larger study sample.

Ethical considerations

The director of the prior setting gave his consent for the study to be conducted. The study's purpose and their rights to participate or not in the study, as permitted by research ethics, were explained to all mothers who decided to participate and met the inclusion criteria. They subsequently agreed to take part in the study.

Fieldwork:

- Starting from June 2021 to the end of August 2021, Three months were spent doing this investigation. The self-administered questionnaire took an average of 30 minutes to complete, whereas the researcher-filled observational checklist took an average of 20 minutes. The researchers visited the aforementioned locations twice a week on Monday and Tuesday from 9:00 a.m. to 2:00 p.m.
- Phases of telehealth instructions:
- The five phases of these telenursing instructions—assessment, planning, execution, evaluation, and follow-up—were completed in succession.
- Phase of assessment: Data from the previously described settings were collected using the self-administered questionnaire for the pre-telenursing instructions assessment. The objective of this phase was to evaluate mothers' beliefs and routines toward their Bell's palsy-affected kids.
- Before each interview, the researchers met and introduced themselves to the mothers who would be participating in the study. Interviewing the study sample was part of this phase's data collection. To learn more about the mother's knowledge and reported behaviors about Bell's Palsy, a pretest interview was conducted.

Phase of preparation: The tele-nursing instructions were created based on actual mothers' needs assessments regarding their children's Bell's palsy.

• The researchers wrote the tele-nursing instructions in plain Arabic in accordance with the relevant literature and the mothers' level of comprehension.

Moms were told to contact the researchers via phone if they needed any assistance and the tele-nursing instructions were delivered in both theoretical and practical sessions.

Implementation phase

The program booklet, which the researchers had written in Arabic, was then immediately given to the moms by the researchers. The mothers' phone numbers were obtained from the researchers, who also informed the moms that they would receive the program booklet via What's App. When the mothers read the pamphlet, the sessions were scheduled according to their availability.

After meeting the moms at the predetermined location, the researchers called them for the first time two days later. Thereafter, sessions were scheduled around the mothers' free time.

• Both theoretical and practical courses were held to present the telenursing instructions.

Instructions for tele-nursing were delivered in four sessions, each session was on each other day and took 45 minutes long as follows:

First, the theoretical sessions, which were divided into two parts, covered the following topics: the definition and functions of the facial nerve, as well as the definition, types, causes, clinical manifestations, diagnostic tests, preventive measures, medical and surgical treatment, complications, and nursing care of Bell's palsy in children.

Second, lectures and discussions were held before the practical portion, which was divided into two sessions and covered the following topics: pain relief, care of

the eyes, doctor follow-up, oral hygiene, muscle tone maintenance, and yoga exercises for those with facial palsy**.**
- By sending theoretical knowledge messages and videos about Bell's palsy practices to each mother via mobile device, the researchers implemented tele-nursing instructions followed by the immediate posttest. The researchers used simple and clear language to be appropriate for all studied mothers' levels of education. Various teaching strategies were employed, including the utilization of videos and pictures via mobile devices, as well as the creation of an illustrated handbook and a WhatsApp group for the distribution of all examined samples through messages.

Phase of evaluation

• Using the previously created tools, the following will be used to assess the impact of the telenursing instructions on the examined mothers:
- A post-test was conducted immediately following the start of the tele-nursing lessons.
- A follow-up test one month later using the same tools to look for changes in mothers' knowledge and practices following tele-nursing instructions relating **to Bell`s palsy**.

Statistical Design

Statistical Program for Social Sciences (SPSS), version 10.0, was used to compile, sort, tabulate, and analyze the data gathered (22). Using numbers, percentages, averages, standard deviations, t-tests, and Chi-square (X2) tests, they were displayed in tables and charts. The significance level was set at $p<0.0001$.

Results

According to Table 1, 62% of the children whose ages were examined were females, with a mean age of 11.8 2.33 years and a range of ages from 13 to 18 years. Children with secondary education make up 46% of the population, and 70% of them live in rural regions. Also, in more than half (54%) of the youngsters that were investigated, the right side of the face was impacted. Among 52% of the children who were the subject of the study, the injured side of the face was on the right.

Table 2 clarifies the demographic details of the mothers who were the subject of the study. Data showed that 38% of them were between the ages of 25 and 30, with a mean age of 29.56 plus 2.79 years. regarding the level of education, slightly less than half (44%) of the mothers had diplomas from technical or secondary schools. As regards the mothers' occupation, 54% were housewives.
Figure 2 shows that the healthcare team (28%) and other families (30%) were the mothers' primary sources of information regarding Bell's palsy.
Table 3 shows that there were highly statistically significant gains in the investigated mothers' understanding of all knowledge items about Bell's palsy among children both immediately following and at follow-up phases compared to pre-tele-nursing instructions implementations.

The total knowledge scores of the moms who participated in the study are shown in Figure (2). Before the introduction of the Tele-nursing instructions, the majority of moms (92%) had an unacceptable level of knowledge; nevertheless, (86%) of them saw an improvement right away. The same graph, however, shows that the majority of the study mothers (82%) had appropriate levels in their overall knowledge scores during the application of tele-nursing instructions, with a highly statistically significant difference (P.<0001).

Table (4) shows that, concerning all knowledge items about Bell's palsy in their children, mothers' practices have improved in a way that was highly statistically significant both immediately following and at follow-up of the implementation of tele-nursing instructions.

Figure (3) it was found that 86% of the examined mothers had incompetent practices before the implementation of the tele-nursing instructions, which improved for most of them (84%) to have competent practices right away after the implementation of the tele-nursing instructions. The same data also demonstrates that, with a highly statistically significant difference (P.0001), the majority of the examined mothers (72%) had a competent level in their overall practice scores throughout the application of tele-nursing instructions.

The application of tele-nursing instructions is shown to have positive significant relationships between knowledge scores and educational level at the post and follow-up phases (Table 5) (P 0.001). Yet, this table demonstrates that the relationships between knowledge and practice, children's age, and educational outcomes are statistically negligible at the pre-tele-nursing instructions implementation phases.

Table (1): Demographic characteristics distribution among the studied children with Bell`s Palsy (n=50)

Demographic characteristics	**No**	**%**
Age/years		
3 -< 8	12	24.0
8 -<13	7	14.0
13 - <18	31	62.0
Mean ±SD	**11.8±** 2.33	
Gender		
Boys	21	42.0
Girls	29	58.0
Educational level		
Primary	16	32.0
Preparatory school	11	22.0
Secondary	23	46.0
Residence		
Urban	15	30.0
Rural	35	70.0

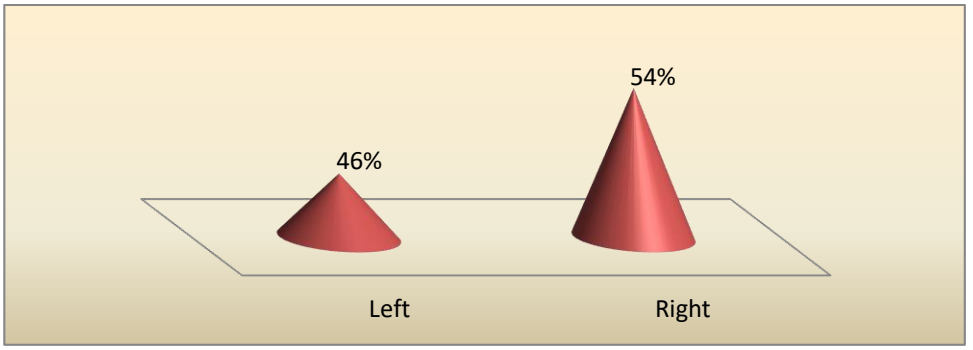

Figure (1): Distribution of the studied children with Bell`s Palsy regarding their affected side of the face (n=50)

Table (2): demographic characteristics distribution among the Mothers of Children with Bell`s Palsy (n=50)

Demographic characteristics	**No**	**%**
Age/year		
<20	6	12.0
20- <25	12	24.0
25- <30	19	38.0
≥30 **Mean±SD 29.56±2.79**	13	26.0
Educational level		
Illiterate & Primary	17	34.0
Secondary &Technical Institute	22	44.0
High education	11	22.0
Mothers' occupation		
Working	23	46.0
Housewives	27	54.0

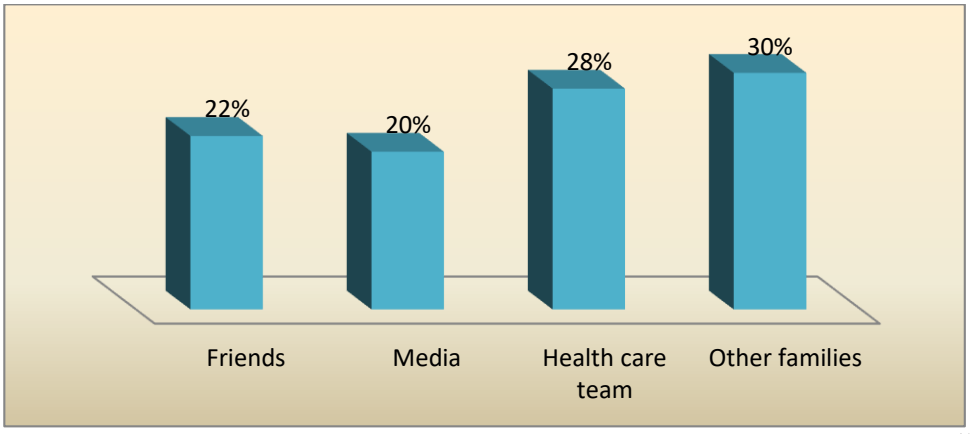

Figure (2): Distributions of Sources of Information about Bell's palsy among the studied mothers

Table (3): the studied Mothers' Percentage Distributions According to Knowledge about Bell's Palsy among Children throughout the Tele-nursing instructions Phases (n = 50).

Knowledge instructions	Pre- tele-nursing		Post- tele-nursing		Follow up	
related to Bell`s Palsy in Children	Satisfactory %	Unsatisfactory %	Satisfactory %	Unsatisfactory %	Satisfactory %	Unsatisfactory %
Definition of Bell`s Palsy	8.0	92.0	88.0	12.0	84.0	16.0
Function of facial nerve	4.0	96.0	96.0	4.0	90.0	10.0
Definition of facial nerve	42.0	58.0	94.0	6.0	90.0	10.0
Types	38.0	64.0	98.0	2.0	94.0	6.0
Causes	3.0	97.0	86.0	14.0	82.0	18.0
Clinical manifestations	32.0	68.0	88.0	12.0	84.0	16.0
Diagnostic tests	8.0	92.0	92.0	8.0	90.0	10.0
Preventing measures	6.0	94.0	84.0	16.0	82.0	18.0
Medical	10.0	90.0	92.0	8.0	84.0	16.0
Surgical	36.0	64.0	94.0	6.0	90.0	10.0
Complications	22.0	78.0	90.0	10.0	86.0	14.0
Nursing care	32.0	68.0	98.0	2.0	94.0	6.0

T-test	**X^2= 19.6 pre-versus post- tele-nursing instruct**	P value
P value	**X^2 = 28.7 pre - tele-nursing instructions versu**	<0.001**
	X^2 = 18.5 post - tele-nursing instructions versu	

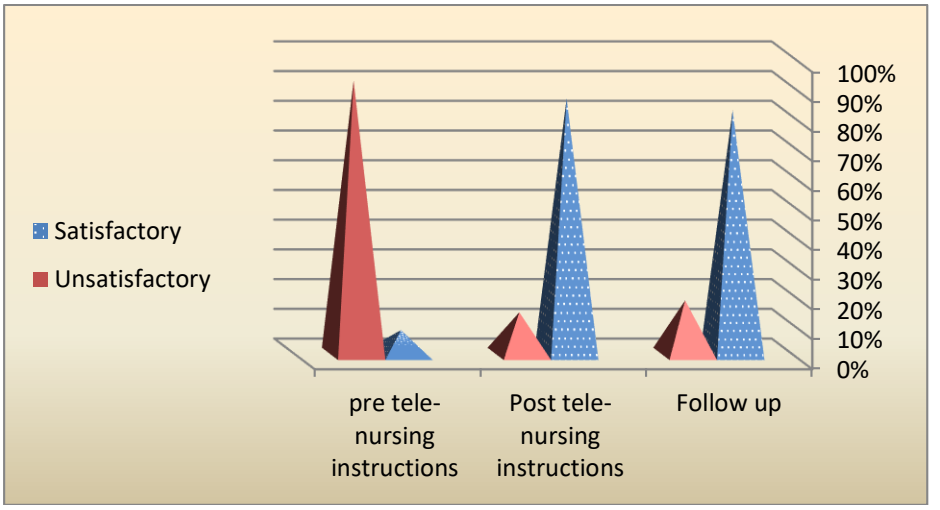

Figure (3): Total Knowledge Scores Percentage Distributions among the Studied Mothers about Bell's Palsy in Children throughout the Tele-nursing instructions Phases (n = 50).

Table (4): The Studied Mothers' Percentage Distributions according to Their Practices about Bell's Palsy in Children throughout the tele-nursing instructions Phases (n = 50)

Practice Follow up	**Pre- tele-nursing instructions**		**Post- tele-nursing instructions**			
Bell`s Palsy	Competent	Incompetent %	Competent %	Incompetent %	Competent %	Incompetent %
Pain relieving	14.0	86.0	82.0	18.0	86.0	24.0
Eye care	12.0	88.0	78.0	22.0	74.0	26.0
Follow up with doctor	70.0	30.0	96.0	4.0	94.0	6.0
Oral hygiene	8.0	92.0	92.0	8.0	84.0	16.0
Maintaining	10.0	90.0	86.0	14.0	80.0	20.0
Muscle Tone Facial palsy yoga exercise	24.0	76.0	96.0	4.0	90.0	10.0

T-test	X^2 =**28.5** **pre- guidelines versus post- tele-nursing instructions**	P value
P value	X^2 = **50.3** **pre - tele-nursing instructions versus follow**	<0.001**
	X^2 = **24.7** **post - tele-nursing instructions versus follov**	

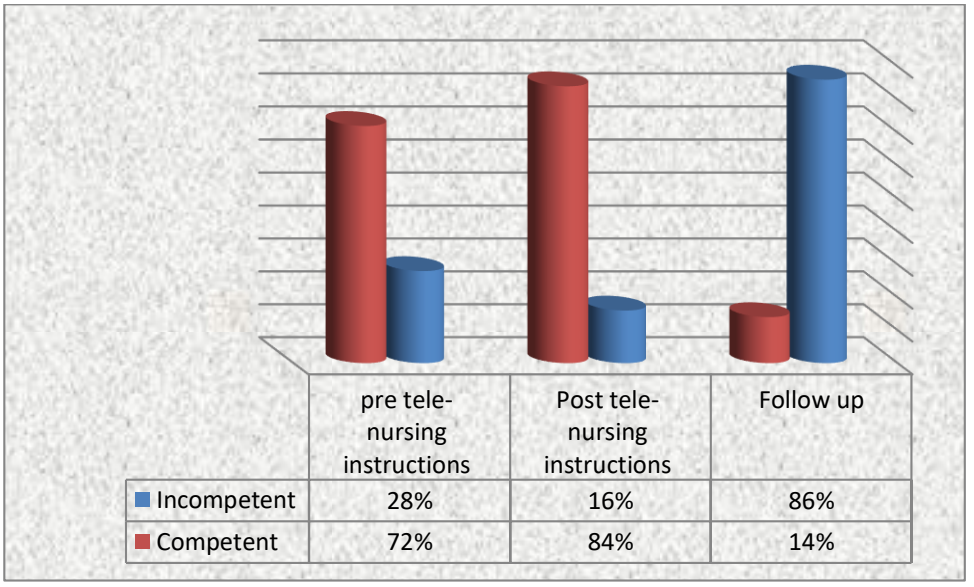

Figure (4): Total Practices Scores Percentage Distributions of the Studied Mothers about Bell's Palsy in Children throughout the Tele-nursing instructions Phases (n = 50)

Table (5): Correlations coefficient between mothers' total knowledge and practices about their children Bell's palsy at (pre, post & follow-up) phases and their children`s demographic characteristics (n=50)

Variables		Age		Educational level		Residence	
R			P	R	P	R	P
Knowledge	Pre	0.74	0.05<	0.247	0.001	0.42	0.05<
Post	0.546		0.001	0.144	<0.05	0.143	0.05<
Follow up	0.453		0.001	0.363	0.001	0.73	0.05<
Practices	Pre	0. 24	0.05<	0.41	0.05<	0.23	0.05<
Post	0.435		0.001	0.403	0.001	0. 65	0.05<
Follow up	0.234		0.001	0.223	0.001	0.26	0.05<

* Statistically insignificant (p< 0.05)
** Highly statistically significant correlations (P< 0.001)

Discussion

A weakening or paralysis of the face that has no known cause is known as Bell's palsy. Bell's palsy is a peripheral facial nerve paralysis that causes muscle weakness on one side of the face. It is a significant cause of childhood disability

that impairs a child's ability to move, feel confident in oneself, and function in daily life.

The current study found that slightly more than three-fifths of the children analyzed were females and that the majority of them were aged between 13 and 18 years, with a mean age of 11.8± 2.33 years. This finding is consistent with that of (Cubukcu, et al., 2013), who reported that of the 186 children with Bell's palsy they reviewed, 79 were males and 107 were females, with a mean age of 9.56± 3.45 years ranging from 0 to 18 years.

Less than seventy-five percent of them live in rural areas, and more than half of the children who participated in the study face the right side. This outcome was comparable to that of Ali et al., 2012). El-Tallawy et al. (2016), who reported a higher prevalence of Bell's palsy in rural residents than in urban ones (281.14 and 156.63/100000, respectively), also provided support for this study. This conclusion contrasts with that of (Prabasheela et al., 2017), who showed that Bell's palsy can strike anyone at any age and affects both sexes equally, it was commonly less before the age of 10 and after the age of 60.

According to the current study's findings, the average age of mothers was 29.56 years and 2.79 days, with the majority of them falling between the ages of 25 and 30. The result is also, matched with, Alosh, (2014); Faheim; and Amer, (2019) discovered that the mean maternal age of moms giving birth to infants with Bell's palsy was 32 years old and that young mothers accounted for the majority of the cases. Early marriage was the primary cause of this younger age prevalence since it often results from the poor economic position of some families, which mostly prohibits girls from continuing their education and forces them into early marriage.

According to the findings of the current study, a large number of mothers reported that their primary sources of knowledge concerning Bell's palsy were other families, followed by the medical staff. This might be because, as a result of isolated communities, many women are afraid to voice questions and are disregarded. This conclusion is reinforced by (Faheim and Amer, 2019), who discovered a dearth of informational resources for parents of young children with impairments, particularly for those who are caring for newborns with Bell's palsy. This recommendation closes this gap by offering carers all-encompassing resources they may use to enhance the standard of living for both themselves and their children. It is important to talk to mothers about this. To significantly enhance mothers' knowledge and practice about Bell's palsy issues, it is crucial to address mothers. As a result, communication with mothers is a necessary component in resolving Bell's palsy demands.

The current study's findings show that all knowledge items about Bell's palsy among the examined mothers proved a highly significant improvement in children immediately following and at follow-up phases compared to pre-tele-nursing instructions implementations. According to the researchers, the reminders and telehealth follow-up stressed the value of care; these initiatives also gave moms the chance to learn more about Bell's palsy, which increased their awareness.

Before tele-nursing instructions were implemented, the majority of the study moms had insufficient knowledge about Bell's palsy. These findings were supported by Lunan and Nagarajan (2018) who emphasized that important knowledge that moms require includes expertise in treating and raising children. 95 percent of cases will be resolved without treatment, according to Fawcett (2013), and that insufficient evidence was found in this age group to make firm statements about the best treatment. (Mohammed and Omer, 2010) asserted that half of the moms had good knowledge of Bell's palsy, contradicting these findings. In the meantime, Alosh (2014) emphasized that brachial palsy is one of the serious issues that exist in every community and can be avoided, increasing prognosis, and preventing complications by appropriate awareness and good knowledge of mothers, community, and professional experience of health services providers.

Early intervention enhances the quality of care outcomes, and mothers of children with Bell's palsy needed support and advice in caring for their children. The primary objective of the current study was to increase moms' knowledge, which will aid in gaining more expertise and assistance (Kieckhefer et al, 2014). Also, though the prognosis for Bell's palsy was positive with a greater recovery rate, mothers needed appropriate experience in dealing with those cases and carrying out program stages. Children who need more care and direct monitoring than typical healthy children. Nonetheless, a physical therapy program appears to be a useful strategy for individuals with a bad prognosis to speed up recovery (Cubukcu et al., 2013).

The majority of the mothers who were studied had unsatisfactory levels of knowledge of Bell's palsy before the implementation of the tele-nursing instructions, but these levels improved after the implementation of the tele-nursing instructions. The evidence for this outcome is (Hays & Rozental, 2013). The knowledge gained following the application of the principles, however, was satisfactory. This discovery supported (Abuaraba, 2016). In addition, according to Alosh (2014), the majority of the neonates portrayed good improvement from Erb's palsy after receiving treatment. Moreover, a patient-centered strategy combining targeted botulinum toxin injection, physiotherapy, and selective surgical intervention has lessened the burden of long-term disability in facial palsy (Eviston et al., 2015). The primary goal of the study, according to the researchers, was to increase mothers' knowledge of how to care for children with Bell's palsy, and the results of this study supported the research hypothesis that this knowledge was acquired as a result of the implementation of tele-nursing instructions.

Concerning mothers' practices, As a result of the installation of tele-nursing instructions about Bell's palsy, mothers' practices significantly improved both immediately after and during follow-up phases, according to the results of the current study. According to Vaz et al. (2010), giving moms practice taking care of their babies during routine activities enhances their quality of life. The necessity of strengthening mothers' practices gives them expertise regarding caring for their children because children with palsy need their moms to help and care for them in their daily living activities. In addition, the study by Abdel-Kafy et al. (2013) revealed that moms received training and exercises to include in their daily

routines to help the afflicted person operate better and aid keep the infant's health while enhancing the function of the damaged extremity. Bell's palsy affects most children to heal on their own and regain close to or all of their usual functions. Even without treatment, many individuals begin to show indications of recovery as soon as 10 days from the commencement. The eye in the afflicted area frequently cannot be closed. To prevent irreversible corneal damage and vision impairment, the injured eye must be kept from drying out. Sometimes, people who wear dentures feel uncomfortable (Balakrishnan, 2015).

As a result, mothers actively participate in assisting and effectively caring for their children. Teaching mothers about Practices connected to Bell's palsy, such as pain management, eye care, follow-up doctor appointments, oral hygiene, muscle tone maintaining, and facial palsy yoga poses that are created to reduce pain management and muscle tone as well as protect and caring for the affected eye, mouth, and dental hygiene is important wherever Bell's palsy is present. Moms encouraged their children to perform the exercises every day and taught them how to do them gently. Also, mothers were given information about typical developmental activities and assisted in performing exercises twice weekly (National Institute of Neurological Disorders and Stroke, 2014). Additionally, in their capacity as educators, parents must be able to identify their child's fundamental characteristics, including interests, temperament, and particular (Ceka and Murati, 2016).

Bell's palsy was one of the difficulties mentioned, so it was crucial to provide moms with an evidence-based educational program to teach children basic abilities. An evidence-based practice intervention program seeking to enhance mothers' expertise and behavior as well as the results for children (Siassakos et al., 2011). According to the researcher, mothers' perceptions and Mothers and their children interact better when they are aware of Bell's palsy-related practices like pain management, care of the eyes, doctor follow-up, mouth hygiene, maintaining muscle tone, and facial palsy yoga exercises. This also gives the mother confidence in her ability to provide effective care. According to the mothers` total practices score, The majority of the mothers in the study had incompetent practices before using tele-nursing instructions, but most of them had competent practices right away after using tele-nursing instructions, as indicated by the mothers' overall practices score. According to the researchers, this improvement in signs and symptoms can be ascribed to the fact that tele-nursing raised mothers' awareness of their children's health and how to achieve better results, which had a favorable effect on the health of their offspring.

Concerning the correlation between mothers' total knowledge and their characteristics, the current results demonstrated a statistically significant positive correlation between mothers' total knowledge and their educational attainment at the pre-and follow-up tele-nursing instructions implementation phases. This confirmed the researchers' findings that it is vital to implement tele-nursing instruction. This outcome is in line with the research. by (Al-Ayed, 2010; Faheim and Amer, 2019) who assessed mothers' knowledge of specific components of child health care and found a link between mothers' education and knowledge levels and their practice of providing for their children. Abuaraba (2016) also highlighted the importance of the educational levels of mothers have

been associated with the lack of knowledge of the mothers' related brachial plexus.

Since raising children was a mother's primary duty, the researcher's point of view advised that women be aware of the knowledge and practice necessary to care for their children with Bell's palsy. This bolsters the research premise for the study even more. As a result of the study's findings, it is clear that education and training programs are essential for enhancing mothers' understanding of and practice concerning Bell's palsy care. In addition, the current study's findings showed that moms' understanding and practice increased This supported the researchers' findings that it was crucial to apply tele-nursing instructions. This could be attributed to the fact that training programs' importance and potency in To provide high-quality care and achieving successful results, moms' knowledge and practices must be improved.

Conclusion

Based on the results of the study, it was concluded that the introduction of tele-nursing instructions indicated highly significant improvements in mothers' knowledge and practices both during the post-implementation and follow-up periods. The tele-nursing instructions had a positive impact on mothers' knowledge of and practices towards their children with Bell's palsy.

Recommendations

The following recommendations are put out in light of the study's findings:

1- Mothers and carers should receive regular telenursing instructions to assist them to learn better practices related to Bell's palsy and help reduce complications.
2- To prevent further Bell's palsy issues, early management is recommended for children with the condition.
3- Further research can be done with a large sample size of children to confirm and generalize the findings and validate clinically how beneficial telenursing instructions are effectiveness to generalize the results of the study.

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