Section A -Research paper

Effect of Nursing Guidelines for Mother on Improving Self-Care Activities among Mentally Disabled Children

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Abstract:

Background: Mental disabilities is characterized by below average intelligence or mental ability and lack of skills necessary for day to day living. Mental disabilities children had self-care deficiency. Self-care required for meeting activity daily living. **Aim of study:** The aim of this study is to evaluate the effect of nursing guidelines for mother on improving self-care activities among mentally disabled children. **Design:** A quasi-experimental design was utilized in this study. **Setting:** Data was collected from the School of Intellectual Education in Shibin- Elkome, Menoufia Governorate. **Subjects:** The study was conducted on purposive samples of 150 MD children and their caregiver who attend for each child. **Tools of data collection:** Three tools were used for collection of data, first tool, structured interview questionnaire children and their caregiver. Second tool was Activities of daily life (ADL): (Pre and Post format). Third tool, an observational checklist based on Orem's Self-care. **Results:** 50% were in age group from 9-12 years old, followed by 28.5% from 6-9 years old and 62.7% were male. It was found that 49.3% of the studied children before implementation nursing guidelines has partially depended self-care. While, 56.0% of them after implementation nursing guidelines can learn and perform self-care activities by themselves and adapted supportive educative self-care. There were highly statistical significant differences of the studied caregiver knowledge before and after implementation of nursing guidelines at P value (0.000). Moreover there were a highly statistical significance positive correlation between total self-care score and children characteristics after implementation nursing guidelines P value (0.000).**Conclusion:** It could be concluded that the intervention guidelines significantly improved self-care activities among mentally disabled children. **Recommendations:** It is recommended that periodic evaluation and validation of the training given and training programs should be included both theoretical and practical.

Keywords: Nursing Guidelines, Self-Care Activities, Mentally Disabled.

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Introduction:

Mental disabilities is defined as health conditions involving change in emotional thinking or behavior or combination of these. Mental illnesses are association with distress and problem functioning in social, work, or family activities. Mental disabilities is characterized by below average intelligence or mental ability and lack of skills necessary for day to day living. Children with mental disabilities can and do learn new skills, but more slowly. There are varying degrees if mental disability from mild to profound **(Wouters et al., 2019).**

Children with mental disability require more attention because they are unable to maintain their own activities due to delayed development, which restricts simple everyday self-care tasks including getting dressed, brushing one's teeth, walking and communicating. According to the researchers'

views, it is crucial to teach parents, especially mothers, positive coping skills by giving encouragement, which will assist to ensure that children grow up with a strong sense of self-worth and confidence to enhance quality of life ability **(Chafouleas et al., 2020).**

Mentally disabled children had self-care deficiency. Self-care is required to meet daily activity living. Self-care deficit is specifies when the children are needed to meet their needs. So, caregiver should be provide support for their children that required to help when incapable or limited in the provision of preform self-care. Self-care activities, there are different methods of helping. Such as; guiding, supporting, providing an environment promoting personal development in relation to meet their demands and teaching other **(Whelan, 2019).**

The physical condition of a children with mental disabilities are usually dependent on others. Caregivers of mentally disabled children are very close to them, and they must have the ability to assist and teach these children to do self-care activities. Children with mental disabilities always show difficulty in performing daily activities. This is related to their difficulty moving and positioning their body similar to the limitations in other neurological damage. Difficulties are often faced by children in routine activities include bathing, morning activities (using cutlery at breakfast, wearing clothes and school supplies, or leaving for school on their own), afternoon activities (changing clothes and doing school work), meal time, play, leaving the house, gathering with family, physical activity and recreation **(Hartweg & Donna 2019).**

According to WHO, disability is a limitation or inability to perform an activity in a way that is within the range considered normal for humans, largely due to decreased ability. Globally, WHO estimates the number of children with disabilities as about 7-10% of the total child population. According to 2020 National Statistics Agency data, there are 10.3 million children with disabilities among a child population of nearly 83 million, or about 10%. Based on Social Protection Program Data Collection (Pendataan Program Perlindungan Sosial/PPLS), in 2020 there were 130,572 children with disabilities from poor families, including physically disabled children (32,990 children); children with hearing impairment, speech disorder and physically disabled **(Winsett , 2020).**

Many of the actions of daily activities performed in everyday life have been learned informally and can be performed without close attention. Often only they become aware of the intricacy of movement when they are deprived of the skill. A child with mental disability cannot often acquire even the simplest motor skill without help. Being unable to fasten buttons, use a knife and fork or ride a bike to school may seem trivial but such failures can have far reaching effects on the educational progress of children, social relationships and self-esteem **(Colombo-Dougovito, & Block, 2019).**

Self-care describes how the children self-care needs will be met by the caregiver, the children, or both. And identifies three classifications of nursing system to meet the self-care requisites of the children: wholly compensatory system, partially compensatory system and supportive educative system. So, the design and elements of nursing system should be defined **(Tomey & Alligood, 2019)**.

Aim of the study: Was to evaluate the effect of nursing guidelines for mother on improving self-care activities among mentally disabled children at School of Intellectual Education in Shibin- Elkome, Menoufia Governorate.

Research Hypothesis:

- Caregiver knowledge post intervention guidelines will be improved than pre intervention guidelines.
- Children regarding self-care will be improved post intervention guidelines than pre intervention guidelines.
- Children outcome will be improved after intervention guidelines implementation.

Research design: A quasi- experimental design was conducted to achieve the aim of the study.

Setting: The study was conducted at the School of Intellectual Education in Shibin- Elkome, Menoufia Governorate.

Subjects: Purposive sample was 150 MD children and their caregivers who attended the previously mentioned settings.

Tools of data collection:

Tool I: Questionnaire interview sheet (pre and post format).

The questionnaire interview sheet was designed and written in a simple Arabic language. It consists of the following data:

Part (I): Characteristics of both caregiver and children composed of two sub parts as the following:

1) Personal characteristics of the studied children such as age, gender, residence, school grade, family number, Kinship between parents and level of education of child.
2) Personal characteristics of the studied caregivers such as age, gender, level of education, relation to child and his or her job.

Part (2):

1)Medical history of the studied children included; history of disabilities, onset and duration, risk factor, signs and symptoms of the disabilities, family history, taking any medication and side effect of this medication and family history of liver disease.
2) Characteristics of the child's life style such as; diet before and after disabilities, exercise, allowed fluids, elimination habits, urination habits and medications.

Part (3): Caregivers' Knowledge about mental disabilities (MD) (pre and post format).

The three parts were concerned with caregivers' knowledge about mental disabilities (pre and post format)

The score totaled (36) marks distributed as follows:

Definition of mental disabilities	(3 marks)
Risk factor for mental disabilities	(3 marks)
Causes of mental disabilities	(9 marks)
Signs and symptoms of mental disabilities	(6 marks)
Classification of mental disabilities	(4 marks)
Health method for maintain health body	(7 marks)
Sources of information about mental disabilities	(4 marks)

Scoring system for each knowledge item:

Scoring items	**Score**
Correct complete answer	2
Correct incomplete answer	1
Wrong or don't know answer	0

Scoring system:

The obtained total knowledge from caregivers were categorized as good, average and poor. The responses were evaluated using the model answer sheet prepared by the researcher. Accordingly, the total scores were calculated: for caregivers as; less than 50% considered poor, from 50% to 75% considered average and more than 75% considered good. According to the answers obtained from caregivers about knowledge, zero mark was given to each wrong or don't know answer, one mark was given to each correct incomplete answer and two marks were given to each correct complete answer.

Scoring for level of total knowledge for caregivers:

Scoring items	Score
More than 75%	Good
50% to 75%	Average

Less than 50% Poor

Tool II: Activities of daily life (ADL): (Pre and Post format)

The tool was concerned with assessment of child dependency. It was developed to assess the activities of nutrition, mobilization, walking, clothing, bathing, elimination, and communication. The responses were on a three-point Liker scale: dependent, partially dependent, and independent. (Pre and post format) it included 7 items:

The total score was (14) marks and distributed as follows:

Nutrition	(2 marks)
Mobilization	(2 marks)
Walking	(2marks)
Clothing	(2marks)
Bathing	(2marks)
Elimination	(2marks)
Communication	(2marks)

Scoring system for activities of daily life:

Scoring: Items scored 2, 1 and zero for fully independent, partially independent, and fully dependent respectively. For each area, the scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into a percentage score. The child was considered independent if the percent score was 75% or more, partially dependent if less 50-<75%, and dependent if<50%.

Tool III: An observational checklist: This tool was developed guided by Orem's Self-care:

This tool assessed basic self-care needs of the studied children. It contained questions about children's nutrition, fluids intake, elimination habits, hygienic care, activity and exercise, rest and sleep time, exposure to health hazards, and social interaction with others. The score of self-care guidelines about mental disabilities totaled 42 marks.

Scoring system:

Each item is rated on three levels Likert scale. Each step in the checklist was scored according to its ability to meet therapeutic demand by wholly compensatory, or partially compensatory and or supportive educative. The total evaluation was either: wholly compensatory, or partially compensatory and or supportive educative (depended or in depended).

For children:

Scoring items	**Score**
Supportive-educative	3
Partial compensatory	2
Wholly compensatory	1

Development of guidelines program:

A proposed guideline sessions was developed by the researcher. It included 4 phases:

General objectives of the guideline sessions:

Guideline sessions aim to improve the knowledge and practice for caregiver about how to take care of their mentally disabled children.

Specific objective of the guideline's sessions:

- At the end of the guideline's sessions, caregiver would be able to acquire good knowledge, definition, risk factor, causes, signs and symptoms, and classification of mental disabilities. Also, they will acquire health methods for maintaining a healthy body as well as daily care activities which should be given for these children.
- Improving self-care according to child needs for caring for their children.
- They will be able to apply good practice regarding their care provided. The guideline sessions were developed through four phases as follow:

Assessment phase:

- The nursing guidelines were constructed for the assessment of caregiver's knowledge and reported practice.
- The assessment was performed before the implementation of nursing guidelines by

interviewing each caregiver individually to assess their knowledge and reported practice (pretest) after explaining the aim of the study and had their approval to participate in the study.

Planning phase:

- Based on the results obtained from the interview sheet and from the pilot study and assessment phase as well as reviewing the related literature, the nursing guidelines were developed by the researcher.
- Detected needs, requirements and deficiencies were translated into the aim and objectives of nursing guidelines. The contents of the nursing guidelines were selected on the basis of identified needs.
- Teaching methods were selected to suit teaching in small groups in the form of lectures, group discussion, and demonstration and re demonstration. Teaching material was prepared as PowerPoint and handouts that covered theoretical and practical information.
- Guidelines contents: It included: dependence of daily life activity as; nutrition & fluid intake, mobilization & rest, walking & activity, clothing & sleeping time, bathing & hygiene care, elimination habits, communication & social interaction and health problem & exposure to hazards. A handout was developed for the parent of MD children as a suggested plan to help them caring for their children. It covered the required needs and dependency related to MD children.

Implementation phase:

- The nursing guidelines of the study were carried out at the study settings.
- The total number of sessions was six sessions to cover the content of the guidelines.
- They were divided as follows; Session one: guidelines of nutrition & fluid intake. Session two: guidelines of mobilization & rest. Session three: guidelines of walking & activity. Session four: general appearance and appropriate clothes. Session five: guidelines of bathing & hygiene care. Session six: guidelines of elimination habits.
- Each group was subdivided into groups, with 5-7 parents in each group according to their children's condition and age.
- The duration of each session was around 30 to 40 minutes including periods for discussions.
- The researcher was available in the study settings two days per week, in the morning. The researcher started by introducing herself to each parent accompanying the MD child, the researcher gave them a brief idea about the study and its purpose and asked for their participation. Upon agreement, they were interviewed using the designed questionnaire form. Each caregiver interview depended upon readiness and level of education.
- In the first session, the researcher welcomed the attending caregiver and thanking them, gave information about definition of mental disabilities, risk factor for mental disabilities causes of mental disabilities, signs and symptoms of mental disabilities classification of mental disabilities. A booklet and a CD about MD were provided at the beginning to the first counseling session. The second session included health method for maintain healthy body as well as daily care activities which should be given for those children and guidelines of good nutrition. The third session included information regarding guidelines of walking and guidelines of mobilization. The fourth session was about guidelines of clothing and dressing training. The fifth session was about guidelines of bathing and hygiene training. The sixth session was about guidelines of elimination and toilet training.

- The researcher started each session with a summary for the previous one.
- Session was explained in Arabic simple language.

Evaluation phase:

- In this phase, every caregiver of the studied sample were interviewed individually and immediately after implementation of nursing guidelines to assess their knowledge using a post test.
- After completion of the guideline's contents, the post-test was done using the same form of the pretest to assess the change in caregiver's knowledge, awareness of needs, and practice regarding care of their children.
- The study was carried out for eight months during the period from September 2021 to April 2022.

Pilot study:

A pilot study was conducted on 15 children and caregivers (10% of the sample) after developing the instruments and before starting the data collection to assess the study tools for the applicability, consistency, clarity and the feasibility of the study tools to estimate the needed time to complete the tool. The results of the data obtained from the pilot study helped in modification of the tools, items were then corrected or added as needed. Children and caregivers who shared in the pilot study were excluded from the main study sample.

Field work:

After identifying the caregiver, who fulfilled the criteria of the study, they were requested to participate in the study. The aim of the study was explained briefly to all caregivers who agreed to participate. They met the researcher at their available time.

The study was carried out for eight months during the period from September 2021 to April 2022.

Statistical analysis:

All collected data were organized, categorized, tabulated, entered, and analyzed by using SPSS (Statistical Package for Social Sciences); a soft-ware program version 20, which was applied to frequency tables and statistical significance. Associations were assessed by using the arithmetic mean, standard deviation (SD), chi-square, t-test, Z test, and coefficient correlation (r) to detect the relations between variables.

Non-significant (NS) $p > 0.05$

Significant (S) $p \leq 0.05$

Highly significant (HS) $P < 0.001$

Extremely high $P < 0.0001$

After data was collected it was revised, coded and the given graphs were constructed using Microsoft excel software.

All statistical analysis was done using two tailed tests and alpha error of 0.05. P value less than or equal to 0.05 was statistically significant.

Results:

Table (1): Characteristics of the Studied Children (N=15)

Characteristics	No.(150)	%
Age / years		
6-	42	28.0
9-	75	50.0
12-	18	12.0
15-18 years	15	10.0
Min –Max	6-18	
Mean ±SD	10.92±2.58	
Gender		
Male	94	62.7
Female	56	37.3
Residence		
Rural	79	52.7
Urban	71	47.3
Number of family members		
Three	26	17.3
Four to six	62	41.3
Seven to more	62	41.3
Kinship between parents		
Yes	66	44.0

No	84	56.0
In cases of yes what is the degree (n=66)		
First degree	66	100.0
School grades		
Primary	60	40.0
Preparatory	90	60.0
Regular attendance to school		
Yes	75	50.0
No	75	50.0
Causes of Absenteeism from school (n=75)		
The effect the disabilities	40	53.3
Loss desire for learning	22	29.3
Inability to achieve school activities	53	70.7

Table (1) showed characteristics of studied children. As indicated in the table, 50% were in age group from 9-12 years old, followed by 28.5% from 6-9 years old; with mean age 10.92 ± 2.58 years and 62.7% were males. Also, 52.7% of studied children lived in rural areas and 41.3% had family members of four and more and 56% had no kinship relation between parents. Meanwhile, 60% of the studied children were in preparatory school. Regarding attendance to school, the same table showed that 50.0% were not attending because of their inability to achieve school activities as reported by 70.7% among causes for not attending to school.

Table (2): Characteristics of the Studied Caregivers (N=150)

Items	**No. (150)**	**%**
Accompanying the children for school		
Father	68	45.3
Mother	82	54.7
Age / years		
30-35	66	44.0
≥ 35	84	56.0
Mean ±SD	34.25±6.17	
Level of education		
Able to read and write	34	22.7
Primary education	47	31.3
Secondary education	14	9.3
University education	55	36.7
Job		
Working	125	83.3
Not working	25	16.7
Family income		
Sufficient	125	83.3
Insufficient	25	16.7

Characteristics of the studied caregivers was reported in table 2. It was found that 54.7% of mothers accompany their children for school. Whereas the mean age of them was 34.25±6.17 years. According to education, it was found that 36.7% had university education and 83.3% was working. As regards family income it was revealed that 83.3% of studied caregivers had sufficient income.

Table (3): Medical History of the Studied Children (N=150)

Items	**No. (150)**	**%**
Onset of the disease		
Since birth	106	70.7
After one year from birth	11	7.3
After five year from birth	33	22.0
Risk factors of disease		
Hereditary factor	114	76.0
Viral infection	30	20.0
Congenital defect	6	4.0
Signs and symptoms		
Delay talking	31	20.7
Change of mental status	4	2.7
Late of academic achievement	13	8.7
Dizziness, Drowsiness and Fever	1	0.7
All the above	101	67.3
Family history		
Yes	29	19.3
No	121	80.7
Take any other type of medication		
Yes	126	84.0
No	24	16.0
Drugs		
For nerves system disease	27	18.0
For sensory system disease	123	82.0
Side effect of drugs		
No	150	100.0

Table (3) Illustrated medical history of the studied children. It was found that 70.7% suffered from mental disabilities since birth among which 76.0% had hereditary risk factors of disabilities. The same table showed that children who had delayed talking only constituted 20.7%, 2.7% had change of mental status, 8.7% had late academic achievement and 0.7% had dizziness, drowsiness and fever. Overall, 67.3 % of the studied children had all the signs and symptoms of disabilities mentioned above. In addition, 80.7% had no family history for disabilities. Rregarding medication administration, it was found that 84.0% took medications for sensory system disease.

Table (4): Daily Habits of the Studied Children (N=150)

Items	No. (150)	%
Favorite food		
Good balanced diet	97	64.7
Moderate balanced diet	21	14.0
Mild balanced diet	34	22.7
Mea1 l number		
Three meals	61	40.7
Three meals + snack	89	59.3
Special diet		
Yes	150	100.0
Allowed activities		
Simple activities	109	72.7
Moderate activities	41	27.3
Allowed fluid		
Drinking water	94	62.7
Drinking juice	56	37.3
Elimination pattern		
Normal	144	96.0
Constipation	6	4.0
Urination pattern		
Normal	150	100.0
Take any medication for another disease		
Yes	14	9.3
No	136	90.7

Daily habits of the studied children were reported in table (4). It was found that 64.7% of the studied children followed a good balanced diet and 50% received three meals with a snack per day but followed special diet. Also, 72.7% followed simple limited activities. It was also revealed that 96.0% had normal urination elimination pattern.

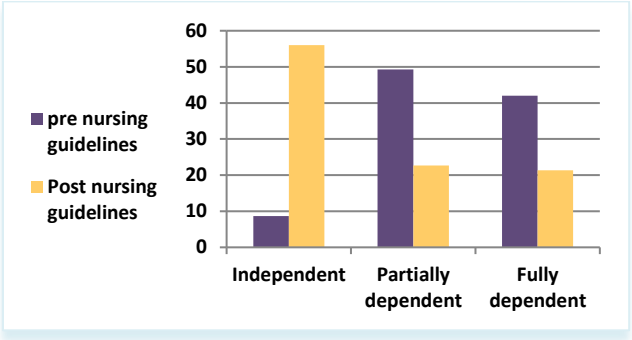

Figure 1: Total Self-Care Scale of Studied Children Pre and Post Nursing Guidelines (N=150)

Figure (1) Illustrated total self-care scale of the studied children pre and post nursing guidelines. It was found that 49.3% of the studied children before implementation nursing guidelines has partially depended self-care. While after implementation of nursing guidelines, 56.0% were able to learn and perform self-care activities by themselves and they adapted supportive educative self-care.

Table 5: Correlation between Total Self-Care Score and Children Characteristics (N=150)

Items	Total self-care			
	Pre		Post	
	R	p-value	R	p-value
Age	0.294	0.721	0.841	0.041*
Sex	0.433	0.599	0.723	0.008*
Residence	0.271	0.001**	0.422	0.000**
Family member	-0.361	0.000**	0.484	0.000**

**** Highly statistical significant at P value =0.000**

Table (5) Clarified the correlation between total self-care score and children characteristics. There was a highly statistical significance positive correlation between total self-care score and children characteristics after implementation nursing guidelines at P value (0.000).

Table 6: Correlation between Total Self-Care Score and Children Scholastic Grading (N=150)

Items	Total self-care			
	Pre		Post	
	R	p-value	R	p-value
Scholastic grading	0.680	0.408	0.838	0.003*

**** Highly statistically significant at P value ≤0.001**

Tables (6) Represented correlation between total self-care score and children scholastic grading. It was clarified that there was a statistical significant correlation between total self-care score and children scholastic grading after implementation nursing guidelines at P value (0.003).

Discussion:

Regarding characteristics of the studied children, the current study revealed that more than two thirds suffered from mental disabilities since birth. This result was supported by **Fakhry et al., (2018)** who conducted a study entitled **"Parental Patterns of Care for their Children with Mental Disability"** and found that the most studied children were diagnosed after birth. This may be related to early detection during ante-natal period or discovery of symptoms during post-partum examination of the child.

In contrast, **Wakimizu et al., (2018)** who carried out a study about **"Family empowerment and associated factors in Japanese families raising a child with severe motor and intellectual disabilities"** reported that most of the studied children were diagnosed during preschool period.

Also, the present study results showed that more than three quarters of the studied children had hereditary risk factors. These results were against **Li, (2020)** who conducted a study about **"The Cross-Sectional Study of Quality of Life of Caregivers of Mentally Retarded Children in District of Chongqing China"** and mentioned that less than one-fifth of the studied children had hereditary risk factors. This discrepancy may be related to the difference between both studied subjects' socio-demographic characteristics and different settings.

Daily Habits of the Studied Children

Pertaining to the studied children daily habits, the current study demonstrated that almost two thirds followed good balanced diet and half of them took three meals and a snack per day, but followed by special diet food. This result was congruent with **Fewster eta al., (2019),** who carried out a study entitled **"Quality of life interventions for primary caregivers of children with autism spectrum disorder"** and declared that most of the studied children had balanced diet. Also, this result agreed with **Ashori et al., (2019)** who studied **"The effect of positive parenting program on mental health in mothers of children with intellectual disability"** and reported that more than half of the studied children had special balanced diet. The result of the present study may be due to that diet was directly linked to brain structure and function, and thus affects the working of the brain. So, some children need a special diet to be adequately nourished. They may have difficulty eating or drinking, had food allergies or dislikes, or had secondary conditions health problem.

The present study results showed that, nearly three quarters of the studied children had limited activities, followed by simple activities and the majority had normal elimination and urination pattern. This result was consistent with **Vilaseca et al., (2020)** who conducted a study to investigate **"Parenting behaviors of mothers and fathers of young children with intellectual disability evaluated in a natural context"** and they highlighted that most of the studied children practiced simple activities and normal elimination. The result of the present study may be due to the nature of mental disabilities that affected by poor physical health and movement.

On the contrary, **Dias et al., (2019)** who studied **"Challenges of family caregivers of children with special needs of multiple, complex and continuing care at home"** declared that more than half of the studied children had incontinence. This difference may be attributed to the study subject's intellectual and motor capacity,

bladder capacity, detrusor over activity and fluid intake.

Knowledge of the Studied Caregiver about Mental Disabilities

Related to knowledge of the studied caregiver about mental disabilities pre and post nursing guidelines intervention, the current study reflected that there were a highly statistically significant differences of the studied caregiver knowledge before and after nursing guidelines intervention about definition of mental disabilities, risk factor, causes, signs and symptoms, classification and health method for maintaining healthy body. This was attributed to the effectiveness of nursing guidelines that improve caregivers' knowledge about mental disability.

This result was in accordance with **Mohammed et al., (2023)** who carried out a study about **"Effectiveness of Intervention Guidelines on Mothers of Children with Attention Deficit Hyperactivity Disorders (ADHD)" and** reported that there was a highly statistically significant difference regarding mothers' knowledge before, immediately after, and at follow-up phases of guidelines' intervention on children having ADHD.

This result agreed with a study carried out by **Faheim et al., (2022)** to assess **"Effect of Educational Program on Parents' Caring for their Children with Attention Deficit Hyperactivity Disorder"** and found that there was a highly statistically significant difference, regarding their knowledge before, immediately after, and at follow-up guideline intervention towards children with attention deficit hyperactivity disorder.

Self-Care Practices of Studied caregiver

As regards self-care practices of studied caregivers regarding pre and post nursing guidelines, the current study indicated that there was a highly statistical significant differences in all items of self-care practices. Consistently, **Mai & Chaimongkol, (2022)** whose study was conducted to evaluate **"Testing the Feasibility of a Nursing Intervention Focusing on Family Management for Caregivers of Children with Autism"** stated that a significant positive changes in the care practices of the caregivers was found among the participants after receiving the intervention.

In the same context, this result was consistent with **Bassam & Tork, (2019)** who carried out a study entitled **"Education Program for Mothers of Children with Autism Spectrum Disorder: Mothers and Child Outcomes"** after intervention of the nursing guidelines, the majority of mothers had a satisfactory level of practice with a statistical significant difference. Also, the result in present study may be due to nursing guidelines intervention raising awareness, improving knowledge and attitude of community towards the mental disabilities of children.

Consistently, **Sidig et al., (2022)** who conducted a study to evaluate **"The impact of health counseling education program among Sudanese mothers on coping with autistic children"** reported that less than one third of mothers had a good score in care skills before the intervention and half after the intervention with a statistically significant difference. The results of the present study may be due to various reasons, it is necessary to be able to cope with worries about future, grief and to be able to find and acquire proper services.

Daily Living Activities of Studied Children

According to daily living activities of studied children pre and post nursing guidelines, the present study revealed that there was a partial depended self-care before nursing guidelines intervention, while after nursing guidelines they could learn and perform self-care activities by themselves and adapted supportive educative self-care with a highly statistically significant difference. The result of the present study may be because of supportive therapy on improving self-care in self-care deficit abilities.

This finding was in harmony with a study conducted by **Nofi, (2022)**, entitled **"Effectiveness of Supportive Therapy and Economic Token Therapy in Reducing the Symptoms of Self-Care Deficit, Based on The Peplau Nursing Model"** and it was reported that there was an increase in self-care after intervention in the study group with a statistical significant difference between before and after intervention. Also, a study carried out by **Kilincaslan, (2019)** about **"Daily living skills in children with autism spectrum disorder (ASD) and intellectual disability"** found that the ASD group scored lower than the comparison group in the total daily living skills score.

In terms of total self-care scale of the studied children pre and post nursing guidelines, the present study illustrated that almost half of the studied children before nursing guidelines intervention had partially depended self-care. While, more than half of them after nursing guidelines intervention could learn and they performed self-care activities by themselves and adapted supportive educative self-care.

Similarly, these results were supported by **Chi & Lin, (2022)** who carried out a study about **"Using the Assessment of Motor and Process Skills and the Pediatric Evaluation of Disability Inventory to Assess Self-Care Performance among Preschool Children with Autism Spectrum Disorder"** and reported that the average self-care normative standard scores were moderately low, indicating poor self-care performance.

Besides, the study results was congruent with **Lavanya, (2019)** who studied **"Effectiveness of Token Economy on Development of Self Care Skills among Mentally Retarded Children in Selected Mental Retardation Centers at Tirunelveli District"** and clarified that less than half of the studied children had low level of self-care skills pre intervention, while the largest proportion had high level post intervention.

Regarding correlation between total self-care score and children characteristics, the present study displayed that there was a highly statistical significance positive correlation between total self-care score and children characteristics after nursing guidelines intervention. This result was parallel with ***Nofi, (2022)***: who found that there was a statistical significance positive correlation between self-care and children demographic data after intervention.

Pertaining to correlation between total caregiver adjustment score and child characteristics, the present study displayed that there was a highly statistical significance positive correlation between total caregiver adjustment score and child characteristics after nursing guidelines intervention. Similarly, **Abd El Moneam et al., (2021)** who studied **"Evaluation of Psycho Educational Intervention for Children Having Attention Deficit Hyperactivity**

Disorder and Their Parents" mentioned that there was a statistically significant positive correlation between total parents' adjustment score and child demographic characteristics after applying the guidelines protocol. The result of the present study may be due to the effectiveness of nursing guidelines.

According to correlation between total child self-care score and onset of the disability, the present study declared that there was a statistically significant correlation between total child self-care score and onset of the disability after nursing guidelines intervention. The result of the present study may be due to early supportive self-care teaching. This result was in harmony with **Boutain, (2021)**, who carried out a study entitled **"Evaluation of a telehealth parent training program in teaching self-care skills to children with autism"** and reported that there was a statistical correlation between the level of child self-care and onset of the disability post nursing guidelines intervention. The results of the present study may be due to the success of teaching parents which affected the children behavior.

Conclusion:

Based upon the findings of the present study, it could be concluded that, the caregiver who had children with mental disabilities before implementation of nursing guidelines had partial depended self-care. After implementation of nursing guidelines they learned and performed self-care activities by themselves and adapted supportive educative self-care with a highly statistically significant difference.

Recommendations:

Upon the findings of the present study, the following recommendations can be suggested:

Recommendation for children:

1-Emphasizing the importance of assessment of self-care activities for children with mental disabilities.

2-Designing educational training program for children with mental disabilities to improve their knowledge and self-care practice to be able to meet their demands.

3-Designing booklets regarding mental disabilities self-care to be available for children in their schools about nutrition, fluid, exercise, and activities which are allowed for children with mental disabilities and self-care.

Recommendation for caregivers:

1-Designing educational training programs for caregivers who had children with mental disabilities to improve their knowledge and practice of self-care to educate their children to meet their demands by themselves.

2-Teaching the caregiver the nature of disabilities and how to meet the needs of their children.

Recommendation for school:

1-Increasing teacher awareness of these children's illnesses and disabilities to support them, improve academic level to compensate for the frequent days of absenteeism. Also, to give them more attention to enhance achievement.

2-Provide exercise programs and recreational activities suitable for their health conditions to improve children’s psychological state and quality of life.

3-Teach teachers how to encourage caregiver of these children to interact well with them, which improve their quality of life.

Recommendation for research:

1-Replication of the study on a large sample size and in different settings to assess self-care activities for children with mental disabilities.

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