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Effectiveness of a Designed Psycho -educational Program on Mothers of Children with Speech and Language Problems

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Abstract: Mothers of children having speech and language problems are susceptible to mounting pressure. Raising a family awareness can be rewarding and demanding even in healthy social and economic climates, **aim,** this study aimed to investigat**e** the effectiveness of a designed psycho -educational program on mothers of children with speech and language problems, **Design,** A quasi- experimental design was utilized in this study**, Setting,** The study was conducted at the out - patient clinic of Psychiatry and Addiction ,at Kasr Al Ainy hospital**,** Cairo University, **Subjects,** A purposive sample consisted of 114 children and their mothers **.Tools for data collection**, personal and medical data sheet that include, data for children and their mothers as child age ,gender, level of education , child ranking, data related to mothers include, age, educational level, occupation , family history and their family size. prenatal and natal history, mother's knowledge questionnaire; and mother's stressors scale .**Results,** showed improvements with highly statistically significant difference between pre and post intervention program for those mothers of children with speech and language problems regarding to their knowledge and alleviated stressors . **recommendation** it was recommended the importance of development a health educational program for parents to update their knowledge and skills about the proper management of their children disorder .This could be delivered through posters, booklets, and individual counseling.

key words : *Psycho -educational , mothers, children, speech and language problems*

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I. Introduction

1.1 Background of the Study

Speech and language are tools that, humans use to communicate and share thoughts, ideas and emotions**.** Speech is the actual behavior of producing a language code by making appropriate vocal sound patterns. It is the most common way to express and communicated of child question, information and feeling are through speech. Speech refers to the phones that come out of the mouth and take shape in the form of the words and the physical act of talking **[1].**Language problems are referred to difficulty in receiving, understanding, and formulating ideas and information**,** it may be receptive, expressive, or both **[2]**

In Egypt 5% of preschool children have speech and language problems, 3% of them have voice disorder, however, the prevalence of stuttering among primary school children in Cairo was 1.1%.This incidence decrease with increase the age of children**. [3],[4]**As well as, speech and language problem is the most common of childhood disabilities and affect about 8% to 9% in preschool children while, 5 % of them have speech problems and 5.95% have language problems in the United States of America. Children with speech and language problems share characteristics and have similar diagnostic criteria. As; an intellectual disability is one in which a child's performance with concurrent shortage in adaptive behavior **[5].**Parents of children having speech and language problem are susceptible to mounting pressure. Raising a family awareness can be rewarding and demanding even in healthy social and economic climates, so stressful times can make things much more challenging, they are exposed to some feelings such as shyness, anger, sadness, depression and fear from the future, however, these stresses can also effect on their children **[6].**Parents play a crucial role in preventing speech and language problems, they have also an effective role to help their children speech and language development, acquire good speech and language abilities, role as diagnosis and early detection of speech and language problems in their children, and also to help in their management **[7].**

Parents play a key role in their child's life, but also because intervention becomes an ongoing process and every interaction with the child becomes a chance to promote their communication development. The parents' role to help their children with speech and language problems through: parent guidance ,appraisal and diagnosis also, through their work with speech and language pathologist, role at home, and sharing information

[8]. Parents must share information about not only techniques, but progress or concerns. Parents should also share information with a speech and language pathologist about upcoming results that are important in the child's life, any life changes or language targets that are important to them. If the family just added a new baby to the family, that baby's name would be pretty important to communicate and might be a good speech therapy target **[9].**

Parents of speech and language problems children are in danger having several trouble in their family life as well as emotional difficulties. The parent stress is determined because it influences their parenting practices as it is characterizing them as malfunctioning. They are at danger for increased for increased level of psychological problems as depression, anxiety, distress, guilt feelings , poor social, and marital adjustment, less satisfaction with life poor parent child interaction and hopelessness **[10].**

The daily stressing experience of parent of children with speech and language problems seems to have an impact and influence on the parenting, psychological function, the behaviors of parents and their child's reaction. From a more interactive perceptive, it seems that the parents' stress is approaching from their inability to adapt to the everyday care demand of their child. This fact through the uncertain courses of time and the unpromising future become the reason why the parents have the sense of losing mastery of the situation and why they suffer from such a great stress **[7]**.

Finally, having a disabled child in the family may affect the contributions of time and financial resources on the part of the family members, the human relationship of those individuals to the core family, and the financial, physical, and emotional well-being of those family members. All of these potential effects on families have implications for the health and well-being of disabled children **[11].**

The nurse has an important role in assessment, diagnosis, evaluation, and management of speech and language problems in children. For the parents the nurse can help by enhancing their knowledge and attitude toward the early identification and referral of children at risk n to speech and language therapist **[12].**According to American Speech –Language –Hearing Association (ASHA), **[13].** rehabilitation nurse work in a variety of roles a cross continuum of care assist patients in achieving optimal outcomes ,maximizing rehabilitation process, minimizing disabilities ,promoting the health ,facilitating of the care ,case manger ,family education ,providing a therapeutic environment for clients and their families ,design and implement treatment strategy that is based on scientific nursing theory ,promote physical, psychosocial and spiritual care

1.2 Significance of study

Speech and language are the tools of child's to express about his own needs and emotions. Speech-language problems are the most commons of childhood disability and affect about 1 in 12 children or 5% to 8% of preschool children. The parent often wonder how well their child's speech and language skills are developing, therefore, the parental psychological stressors are related to the worries that parent have children with Speech and language problems developed, also, had perceived for more stress in their role as parent. Therefore, the nurse can help the parents to cope with their stressors associated with their children with speech and language problems by raising their' awareness regarding early diagnosis of speech and language problems, and their responsibilities to make decisions about whether to bring their children for therapy, and further whether to engage with the intervention offered for achieving the best speech and language development outcome for their children.

In addition, the nurses have an effective role in the prevention of language developmental disorder through providing parents with education about the importance of early and effective prenatal care and apply screening program to identify children who are at risk. So that, expected interventions are instituted before problems such as primary care, counseling roles, providing specific parent advice, provide follow up, facilitate appropriate referral, support parents' problem solving, management problems of the child as early as possible and help a child to increase self-esteem by providing appropriate reassurance **[14].** Therefore, early educational, and emotional support for parents can help them in decreasing their stressors exhibit them .In addition nursing intervention can be effective and empowering mothers for improving quality of care .

1.3. Aim of the study

This study aimed to investigate the effectiveness of a designed psycho -educational program on mothers of children with speech and language problems through:

1- Assessing mother's knowledge regarding their children with Speech and language problems.

2-Assessing level of stressors faced by mothers who have children with speech and language problems.

3- Developing, implementing and evaluating the outcome of the designed program on empowering mothers to early identification of possible speech and language problems and reducing their stressors exhibited by child problems.

1.4.Research Hypothesis:

-An educational program will improve mother's knowledge &care provided for early identification of possible speech and language problems for their children.

- An educational program will decrease level of stressors exhibited by mothers of children with speech and language problems .

II. Subjects and Methods

2.1.Research design

A quasi -experimental research design(pre-test/post test design) was utilized in this study .

2.2.Setting:

The study was carried out at out- patient clinic of Psychiatry and Addiction at , Kasr Al Ainy. hospital**,** Cairo university**.**

2.3.Subjects :

A purposeful sample of (114) children and their mothers who were available throughout a period of data collection and attending the previous mentioned settings .

2.4.Inclusion criteria

-Mothers were able to read and write

-Children age ranged between 3- 5 years old

-Newly diagnosed children suffering from speech impairment at least 3 months ago

- Children accompanied by their mothers.

- Free from organic or physical disorders

2.5.Exclusion criteria

Children suffering from other neurological disorders or congenital anomalies, which could affect on the speech and language development pattern.

2.6.Tools of data collection:

The following tools were utilized in data collection

1-**Structure interviewing questionnaire**:. It was designed and written in Arabic language based on pertinent literature. It included the following parts

a- Demographic characteristics for mothers and their children's such as child coding ,age ,gender , child ranking ,data related to mothers include age, educational level, occupation , family history and their family size.

b-Maternal history, it included prenatal and natal history.

c-The mother's knowledge questionnaire ;

Developed by the researchers .It contains (12) questions designed to assess mothers knowledge regarding speech and language problems which was related to meaning, causes, types, tests ,diagnosis and treatment .Each question score was ranged from 1-2 according to its importance. The total score of questionnaire was 20 grades (100%). It was classified to unsatisfactory <60% (< 12) and satisfactory > 60% (12-20).

2- Mothers' Stressors scale.

It was adapted from ***(El-Pabblawy, 1998)***: the scale contains (56) items designed to assess mothers' stressors toward their children with speech and language problems. it include 6 domains (stressors related to their child behaviors, Psychological stressors, stressors related to their role function, stressors related to the marital relationship, social stressors and physical stressors),stressors related to their child behaviors contains(25) items, Psychological stressors contains (8) items, stressors related to their role function, contains(6)items, stressors related to the marital relationship contains(6)items , social stressors contains (6) items and physical stressors contains(5)items. The scale rated on 3 point- likert scale ranged from (0-2). scored as 0= never, 1= sometimes, and 2 = mostly, scale was ranged from(0-112)it was classified to mild stressors < 33%, moderate stressors >33% -66% and severe stressors > 66% of the total .

2.7.Content validity.

Content validity was done to identify the degree to which the tools measure what was supposed to be measured .The translated tools were examined by a panel of five experts in the field of psychiatry, and pediatric they agreed that it's valid and relevant with the aim of the study.

2.8.Reliability.

Internal consistency was measured to identify the extent to which the items of the tools measure the same concept and the extent to which the items are correlated with each other .Internal consistency estimated reliability by Cronbach's Alpha was 0.862.

2.9.Pilot Study.

A pilot study was conducted on (10%) of the total subjects to check feasibility, objectivity, applicability and clarity of items and estimated the time needed to complete the tool was 20-30 minutes according to the needed explanation. Results of the pilot study illustrated that no modifications were needed ,so the subjects were included to the actual study sample .

2.10.Field work.

- The researchers was attending the outpatient of the pre mentioned setting, by using a time schedule, 3days/week ,during day time, from10 am to 1 pm. Data collection was carried out over a period of eight months starting from February 2017, to September 2017 until the sample size attained.
- The program was designed to improve knowledge &level of stressors exhibited by mother's of children with speech and language problems through application of a simplified sessions presented in Arabic language.
- A program was applied in 12 sessions, (18) hours for total sessions. The sessions were implemented every week in special waiting room in pre mentioned setting, time ranged from (60-90)minutes for each session over a period of four weeks for every group ,the teaching program was conducted (15-20 mothers). Then data were collected twice after 2 month (post test), in order to evaluate the effectiveness of the program .
- The researchers shared the health team, which consists of physician, nurse, psychologist, and sociologist. These sessions were repeated until the sample size was completed. The mothers were encouraged to participate actively in group discussion through listening to each other and providing feedback.

2.11.Ethical consideration:

This study was approved by the research ethical committee of the Faculty of nursing; Cairo university . An official permission was obtained from the director of the out - patient clinic at Psychiatry and Addiction

hospital , Kasr Al Ainy hospital ,Cairo University to conduct the study A meeting was scheduled with the director of out- patient clinic to present the research project. Once all necessary consents were granted, a date was chosen to conduct the study according to the available time of children and their mothers. A detailed description about the study, procedure and questionnaire was given to the mothers. Study participants were informed that they have the right to refrain from participating in the study at any time without experiencing any negative consequences. Informed consents were obtained from all eligible participants who agreed to participate in the study. Data confidentiality and patients privacy were secured. Code numbers were created and kept by the researchers to keep patients' anonymity.

2.12 . Program Description:

Program Objective:

- Improve mothers knowledge for children of speech and language problems

- Reduce stressors exhibited by mother's having children with speech and language problems by changing their negative attitude with more positive one .

- Provide mothers with ways of expression and emotional control ,where they are able to express their emotions through sadness ,joy ,anger and violence .

-Release negative emotions , where the environment of correct thinking is the best way to launch the suppression and internal conflict.

- Encourage social interaction (socialization) which play a role in social maturity ,and learn how to deal with problem .

- Use problem solving methods ,where the mothers help in finding solutions that can take advantage of them outside the session .

Program construction:

The intervention program was carried out in three (3)phases,(preparatory, implementation and evaluation phase)

1-The preparatory phase :

This phase was concerned with obtaining an official permission ,it was sent from the dean of the Faculty of Nursing ,Cairo University to the head of Out Patient clinics ,Psychiatry and Addiction , Kasr Al Ainy hospital, Cairo University to carry out the study ,the researchers conducted visits to the outpatient clinic to explain the aim of the study to subjects and to gain their cooperation and consent to share in the study, The tools were filled by the researcher through an interview with children and their mothers three days/week from 9Am:1Pm the time spent to fill the tools was ranged between 20:30 minutes according to the needed explanation, voluntary participation ,confidentiality and anonymity were assured . They were assessed by using the study tools for their knowledge and stressors about speech and language problems of their children. The assessment was done during the time of speech therapy session for their children .Also the researchers reviewed the related literature and a designed program was developed based on the needs and requirements that were translated to objectives of the program, content validity of the program was checked by three experts in psychiatry .As well ,this phase was concerned with constructing, testing and piloting different tools of data collection .The researcher selected teaching methods which were lectures ,small group discussion ,role play and problem solving situations .Teaching aids such as hand outs that cover all theoretical and practical parts as pen and paper were used .

The content validity of the program was tested by experts in psychiatric nursing & medicine and pediatric nursing .

Program Content:

- General overview of speech and language problems, causes ,signs and symptoms.
- Types ,classification ,different methods for treatment .
- Psychological stress and its negative effect .
- Irrational ideas that cause psychological stress and ways to overcome them
- Feelings and emotion in everyday situations .
- Physical stress and ways to address them.
- Family stress and ways to address them .
- Development of scientific problem solving approach in different position.
- Training of relaxation techniques.
- Evaluation and application of post test tools and termination of the program .

2-Implementation phase :

Data were collected throughout three phases of assessment, the first phase was carried out prior to conducting the program using three tools to have baseline data about mother knowledge and stressors about speech and language problems ,the second phase of assessment was done after two months of the program implementation to evaluate the impact of the program .A pre-test was carried out individually for each subject to assess their level of knowledge and stressors regarding speech and language problems the time taken for pre test was half an hour to fill out the questionnaires.

A booklet containing the component of the program based on literature review and the results of the pre test evaluation was prepared in Arabic language and was supplemented by photos and illustration .

An educational program was carried out for study subjects in educational room in outpatient clinic, at psychiatry and addiction hospital ,the program consisted of 12 sessions every session took approximately (60-90 minutes) for every group .

Session one of the program consisted of explaining the aim of the study, introduction about speech and language problems, causes, predisposing factors and diagnosis , **Session two** consisted of types ,classification ,different methods for treatment and mother's role .During the session mothers were encouraged to ask questions and provide feedback .Communication was kept open between the researcher and the subjects, Teaching methods utilized were lectures ,group discussion and demonstration **session (3,4)** focused on identifying the nature ,causes , the effects of psychological stress and the effect of irrational ideas on the development of stress **Session (5,6)** focused on identifying feelings and emotion in everyday situations and the opportunity of emotional ventilation and collective dialogue through providing the chance to express themselves freely about the stress they facing and discuss their own views in overcoming them. **Session(7**)focused on physical stress and ways to address them through detecting physical stress experienced by the subjects and identify the negative ideas associated with it and work in refuting and disproving this ideas **Session (8**) focused on family stress and ways to address them through identifying the nature of family stress experienced by mothers and working in replacing the negative ideas to positive ones to mitigate the effects of those stress. **Session (9)** was focused on the development of the scientific problem solving approach in different situations through identifying different approaches that facing the guided subjects and train them in solving the problems of their own. **Session (10,11)** focused on training of relaxation techniques and urged the subjects to exercise them when exposed to psychological stress. **Session (12)** focused on revision of all sessions and program termination at the final 10 minutes at each session was for summary, and this summary focused on knowledge and skills that learnt during the sessions evaluation for each session was done through, immediate feedback from participants. and the agreement on the mechanism of post test application and terminate of the program .

3- Evaluation phase: (final session):

This phase was carried out after two months of implementing the program, each subject was reassessed by using the same tools of pre- test and comparison was done to determine the effectiveness of the program.

2.13.Statistical design

The collected data were coded and examined using SPSS version 20. The collected data were summarized and tabulated using descriptive statistics. Qualitative data were described using number and percent. Quantitative data were described using mean, standard deviation. Significance of the obtained results was judged at the 5% level. The used tests were Chi-square test for categorical variables, to compare between different groups.

II. Results

Table (1): Distribution of the studied mothers, according to their personal characteristics (n =114).

Mothers characteristics	No	%
Age		
<30	68	59.7
30-<40	38	33.3
40-<50	8	7.0
Mean + SD	**28.8 + 5.84**	
Educational level		
Read and write	23	20.2
Intermediate education	77	67.5
Higher education	14	12.3
Family history		
Yes	38	33.3
No	76	66.7
Family size		
< 4 members	52	45.6
4 -< 6 members	49	43.0
>6 members	13	11.4
Occupation		
Working	10	8.8
Housewife	104	91.2

Table (1): Concerning the characteristics of the studied mothers, it was found that, more than half of the mothers (59.6%) were in the age group < 30 years, while two third of the mothers (67.5%) had intermediate education. As regards their occupation the majority of them (91.2%) were not working. In relation to family size this table showed that, families with less than four members were found among less than half of them (45.6%). While 33.3% of them had a family history of speech and language problems.

Table (2): Distribution of the studied mothers, according to their prenatal history (n= 114).

Items	No	%
Gestational age		
Pre term	18	15.8
Full term	96	84.2
Exposure to stresses during pregnancy period		
Yes	71	62.3
No	43	37.7
Chronic disease during pregnancy period		
No	89	78.1
Yes	25	21.9
Hypertension	17	68
DM	4	16
Cardiac disease	4	16
Receive medication		
Yes	41	36.0
No	73	64.0
Exposure to passive smoking		
Yes	33	28.9
No	81	71.1
Exposure to X–ray		
Yes	19	16.7
No	95	83.3

***Number is not mutually exclusive**

Table (2): In relation to the prenatal history of the mothers it was found that, almost the majority of them (84.2%) were termed their gestational period, less than two thirds of studied mothers (62.3%) were exposed to several types of stressors during their pregnancy and less than a quarter of them (21.9%) had chronic diseases during their pregnancy period while hypertension was the most chronic diseases. However, less than half of them (36% and 16.2%) were received medications and were exposed to X-Rays during their pregnancy period respectively.

Table (3): Distribution of the studied subjects according to the impact of speech and language problems on children and their mothers (n = 114).

Items	No	%
Impact of speech and language problems with child's behaviors *		
-Shyness	18	15.8
-Nervousness	51	44.7
-Anger	32	28.1
-Psychological stress	15	13.2
Psychological impact of speech and language problems on parents*		
-Psychological stress	45	39.5
- Feeling of guilt	38	33.3
-Shyness	24	21.1
- Anger	14	12.3
- Sadness	10	8.8

***Number is not mutually exclusive**

Table (3): Concerning the impact of speech and language problems on children and their mothers, it was found that, nervousness and anger were mentioned by children at(44.7% and 28.1%) respectively as an impact the problem on children. While,(39.5%, 33.3% and 21.1%)of mothers stated that psychological stressors, guilt and shyness were the impact of this problem on the mothers respectively.

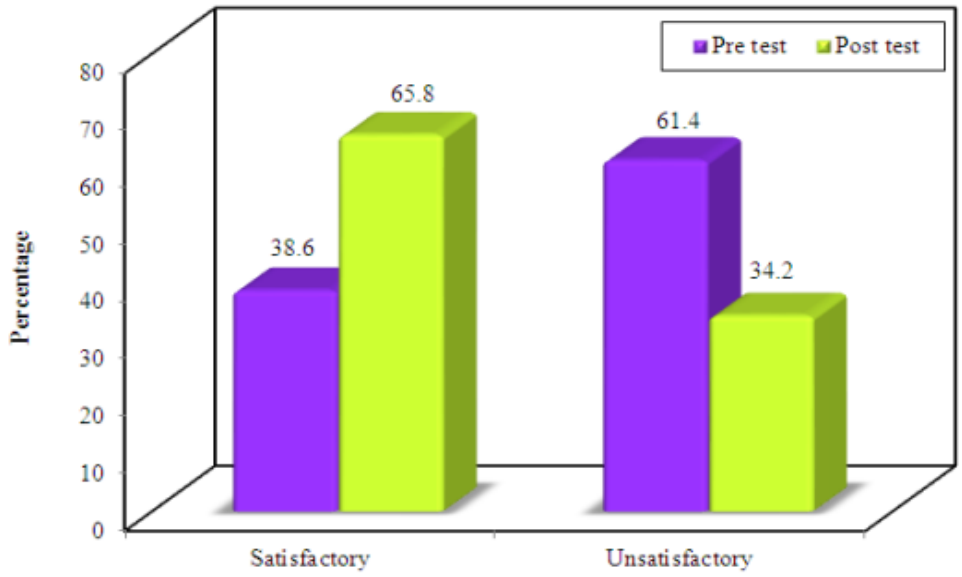
Table (4): Comparison between mothers' knowledge regarding speech problems pre/post program (n = 114).

Items	Pre mothers' Knowledge		Post mothers' Knowledge		χ^2	p
	No	%	No	%		
Definition	40	35.1	64	56.1	10.184*	0.001*

Causes	46	40.4	73	64.0	12.814*	<0.001*
Types	40	35.1	68	59.6	13.793*	<0.001*
Diagnosis	56	49.1	62	54.4	0.632	0.426
Methods of treatment	30	28.3	40	37.1	0.376	0.230

χ^2, p: χ^2 and p values for **Chi square test** for comparing between the two groups
*: Statistically significant at $p \leq 0.05$

Table (4) revealed that, a statistically significant differences was found between mothers knowledge pre /post program implementation in relation to definition ,causes and types of speech disorders at P-(<0.001) while, there was no significance difference between diagnosis and methods of treatment pre /post program implementation .



Figure(1) Relation between mothers' knowledge pre /post program implementation (n=114)
Figure(1) showed that ,there was a statistically significant difference between mother knowledge pre and post program (38.6%,65.8%) respectively

Table (5): Comparison between mothers' total stressors pre /post program (n=114).

Items	Pre Mother stressors						Post Mother stressors						χ^2	p
	Severe		Moderate		Mild		Severe		Moderate		Mild			
	No	%	No	%	No	%	No	%	No	%	No	%		
Stressors concerning child's behaviors	32	28.1	69	60.5	13	11.4	23	20.2	71	62.3	20	17.1	2.986	0.225
Psychological stressors	20	17.5	80	70.2	14	12.3	13	11.4	63	55.3	38	33.3	14.583*	0.001*
Mothers' roles function	8	7.0	70	61.4	36	31.6	4	3.5	63	55.3	47	41.2	3.160	0.206
,Marital relationship stressors	51	44.7	47	41.2	16	14.0	40	35.1	50	43.9	24	21.1	3.022	0.221
Social stressors	30	26.3	50	43.9	34	29.8	26	22.8	57	50.0	31	27.2	0.893	0.640
Physical stressors	39	34.2	37	32.5	38	33.3	25	21.9	29	25.4	60	52.6	8.971*	0.011*
Total	40	35.1	51	44.7	23	20.2	25	21.9	48	42.1	71	62.3	24.912*	<0.001*

χ^2, p: χ^2 and p values for **Chi square test** for comparing between the two groups
*: Statistically significant at $p \leq 0.05$.

Table (5) showed statistically significant differences between total mothers' stressors pre /post program implementation in relation to psychological stressors ,physical stressors and total stressors pre/ post program at

P=<0.001 , while, there were no significant difference between Stressors concerning child's behaviors, Mothers' roles function, Marital relationship stressors ,and Social stressors pre /post program

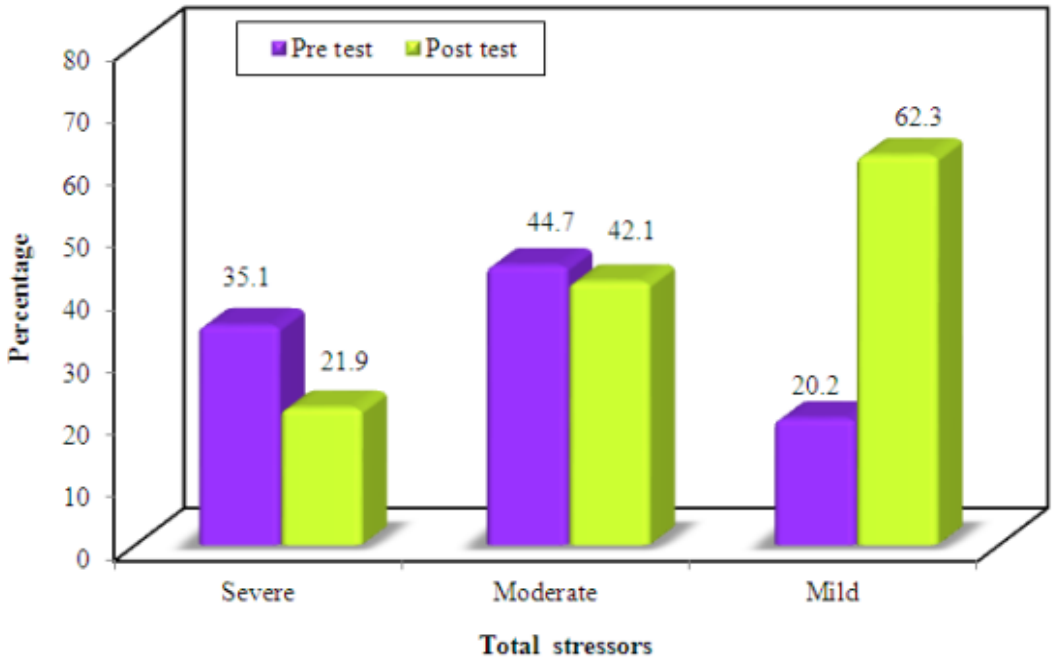


Figure (2) :mothers' total stressors pre /post program implementation (n=114)
As shown in figure (2) there was a statistically significant difference between mothers' total stressors pre /post program .

Table (6): Relation between total mothers' knowledge and their total stressors (n = 114).

Total mothers' knowledge	Total mothers' stressors						Total	X^2	P-value
	Severe (n=44)		Moderate (n=48)		Mild (n=22)				
	No	%	No	%	No	%	No		
Satisfactory	23	52.3	16	36.4	5	11.4	44		
Unsatisfactory	21	30	32	45.7	17	24.3	70	6.371	<0.05*

As noticed in this table ,there was a statistical significant difference between total mothers' knowledge and their total stressors at (X^2 = 6.371 P < 0.05).

Table (7): Relation between mothers' characteristics and their total knowledge (n=114).

Mothers characteristic	Total the mothers' knowledge				Total	X^2	P-value
	Satisfactory (n = 44)		Unsatisfactory (n =70)				
	No	%	No	%	No		
Age in years							
<30	32	47.1	36	52.9	68		
30-< 40	11	28.9	27	71.1	38	5.846	<0.05*
40- ≤ 50	1	12.5	7	87.5	8		
Social status							
Married.	39	36.8	67	63.2	106	2.074	>0.05
Divorce.	5	44	3	37.5	8		
Educational level.							
Read and write	1	6.7	23	93.3	23	21.216	<0.01**
Intermediate education	32	41.69	54	58.4	77		
Higher education	11	78.6	3	21.4	14		
Occupation							
Working	5	50	5	50	10	0.601	>0.05
Housewife	39	37.5	65	62.5	104		

Table (7): demonstrated that, there was a statistical significant difference between age of the studied mothers and their total knowledge scores at(X^2 = 5.846, P <0.05). ,educational level and total knowledge scores .There was a highly statistically significant difference at(X^2 =21.216 , P <0.01). While, no significant difference concerning their social status at (X^2 = 2.074 & 0.601 P >0.05 respectively).

Table (8): Relationship between the mothers' characteristics and their total stressors (n = 114).

Mothers' Characteristics	Total mothers' stressors						Total	X^2	P-value
	Severe (n=44)		Moderate (n=48)		Mild (n=22)				
	No	%	No	%	No	%	No		
Age in years									
<30	28	41.2	29	42.6	11	16.2	68	1.999	>0.05
30- < 40 .	13	34.2	15	39.5	10	26.3	38		
40- ≤ 50	3	37.5	4	50	1	12.5	8		
Social status									
Married.	44	41.5	44	41.5	18	17	106	7.651	<0.01**
Divorced.	0	0	4	50	4	50	8		
Educational level.									
Read and write	7	52.6	9	77.5	7	70	23	9.367	<0.05*
Intermediate education	29	37.7	33	42.9	15	19.5	77		
Higher education	8	57.1	6	42.9	0	0	14		
Occupation									
Working	6	60	4	40	0	0	10	3.428	>0.05
Housewife	38	36.5	44	38.6	22	21.2	104		

Table (8): revealed that, there was a highly statistically significant difference between marital status of the mothers and their total stressors at (X^2 = 7.651 ,P<0.01). Also, there was a statistical significant difference between the mothers' educational level and their total stressors at (X^2 = 9.367, P <0.05). While there were no statistical significant difference observed between mother's age and occupation and their total stressors at (X^2 = 1.999 ,P >0.05).

III. Discussion

The findings of the current study illustrated that, less than half of children were found in family size less than four members, this may indicated that the child's chance of developing communication skills was limited in small families. This finding was contradicted with a study done by **[16].**who found that, less than half of children with speech impairment were found among large families .This might indicate that, increase the family number leads to most of parent might not have been able to spend their quality time with their children and lack of attention to the mental wellbeing of their children.

In relation to prenatal history of the studied mothers the finding of the current study showed that, almost the majority of mothers were full gestation period , this could indicate that, gestational age didn't play an important role in the development of speech and language problems. This finding was in the same line with **[17].** who found that, the majority of mothers had children with speech impairment had completed their gestational age

As regards the exposure of the mothers to tension during pregnancy period, the results of the current study revealed that, slightly less than two thirds of studied mothers were exposed to stressor during their pregnancy. This result was in accordance with **[18],**who found that, less than two thirds of the studied, mothers exposed to depression during pregnancy and their children were affected on their cognitive and spoken language development. Also, these results were congruent with the results of the studies conducted by **[19],**who found that, prenatal stress and anxiety had an effect on child outcomes like hyperactivity and inattention in boys and emotional trouble. Furthermore, **[20],**found that, prenatal high level of stress exposure, particularly early in the pregnancy, may be negatively affect the brain development of the fetus, and reflected in the lower general intellectual and language abilities in the toddlers. This reflected that, if a mother is stressed, anxious or

depressed during pregnancy, her child is at increased risk for having a range of problems, including emotional problems ADHD, conduct disorder and impaired cognitive development.

Concerning the administration of medication during pregnancy period, it was found that, more than one third of mothers were received medication which was not recommended by physician, this result was supported by **[21],**who indicated that, in utero exposure to valproate, as compared with other commonly used antiepileptic drugs, was associated with an elevated risk of impaired cognitive function at 3 years of age.

As regards to the characteristics of the studied children the results in the current study showed that, their mean age was (4.12+.90)years**.** This result was in accordance with the results of study done by **[22],)**who found that, the highest incidence of speech and language problems among children at age less than four years. This result also was supported by **[23],**who found that, highest speech and language problems with age <5 year were half of the studied children. In the same line, a study done by **[24],**who reported in the study that, stuttering affects children of all ages but occurs most frequently in young children between the ages of 2 and 6 who were developing language.

Regarding the impact of speech and language problems on children and their mothers, the results of the current study dedicated that, less than half of the studied children were nervous because they couldn't express their feelings, needs and thought through speaking, while, guilt feeling and psychological stress were mentioned as an impact on their parent. This result was congruent with **[16],** who mentioned that, the children with speech impairment were prone to different psychological problems and most of them were observed as low self-respect, nervousness, psychological and social adjustment. While, their mothers were so worried about them in the future. In the same line ,a study was done by **[25]& [5],**demonstrated that, children with speech problems exhibited marked impairments in communication and social relation ,restricted and repetitive stereotyped patterns of behavior. Although social impairment is a defining feature of autism, communication impairments are similar to those with speech-language impairment ,this reflected that, many children with speech problems may exposed to psychological problems such as stress, fear, depression, and low self esteem. either in their house and school.

Similarly a study done by **[26],**stated that, the parents had children with speech and language impairment should identify their feelings as shyness with the way child during talk, anger, and fear of the future. Children with speech impairment became angry and nervous while they couldn't express their feelings, emotions, and needs, so the parents must be aware about how to react toward these feelings of children with speech impairment.

Regarding the mothers' knowledge for speech and language problems. The current study results indicated that, more than half of mothers had unsatisfactory knowledge before program implementation. This result was similar to a study done by **[27],** found that, most of the mothers having children with special needs had a lack of awareness about their necessary needs and special needs. According to **[28],** stated that, information should be provided for the parents with affected children with speech impairment about causes, characteristics, needs, intervention of speech disorder, and the importance of understanding the process of normal language development to gain insight to language disorder. Also **[29],** mentioned that, the important guidelines to the parents about speech and language millstone to help them to detect their children had a communication disorder or delay and should start to refer their children to early intervention for direction .This could reflect the essential need to conduct session to improve mothers awareness regarding this problem .Parent should also share information with a speech and language pathologist about upcoming events that are important in the child's living, any life changes or language targets that are important to them. Also, this reflected that ,nursing can be effective and empowering parents for caring for their children and acting their parental role**.**

In relation to total mothers' stressors, there was a statistically significant difference between pre and post program implementation at ($\chi^2$24.912,P-0.001).Concerning mother stressors related to their child behaviors, the current study results revealed that, there was no significant difference pre/post program. This finding was supported by **[30]&[38],**who reported that, parenting children with developmental disorders may be a significant source of stress while, the level of parenting stress is greater in parent of children with developmental problems compared to parent of normally developing children. This reflected that ,the behaviors of the studied children sometimes could be stressful among more than half of their studied mothers. This result could be due to the emotional burden of the unhealthy child with their parents and specific the mothers. However, children with special health care needs generally use more health care and related services than do typically developing children, which increases the financial burden placed on the parents. Moreover **[31],**found that, examining the relationship between the functional impairment of children with hyperactivity disorder and parenting stress is important because, the different subtypes result in different problem areas as disturbance of mood, distractibility/hyperactivity, acceptability, the children need for more care, and parents are more stressed.

According to mothers' psychological stressors, there was a statistically significant difference pre and post program implementation at (χ^2 14.583**,** P-0.001) more than half of the mothers sometimes complained from psychological stressors due to their children's problems. This finding was supported by **[32],**who found that, majority of mothers of children suffering from speech problems had feelings of sadness, depression and feeling of guilt when looking for their son. Furthermore, **[33],**demonstrated that, some parents who had children with autism experience helplessness, feelings of inadequacy, anger, shock and guilt feeling ,deep sadness and depression.

Parents experience stress due to the challenging of external realities of raising a child with special needs. They often found themselves juggling the daily needs of their family with medical and therapy appointment. In addition, the financial pressure may develop when parents are unable or choose not to work in order to care for their child, or when families need to pay for services that are not covered by insurance or other agency **[34].**

Concerning the mothers' stressors due to their role function and marital relation, the results of the present study demonstrated that, the majority of mother expressed these stressors due to their children's problems. This result may be indicated that, the children with speech and language problems need more care and interest from their parents, therefore increase parents' responsibilities and marital relation should be affected. This finding supported by **[26],**who found that, the most common mothers who have children with special needs, were exposed to more problems and financial stressors. Also the result of the current study was supported by **[35],**who mentioned that, the time spent in helping the child with chronic disease was the most frequently reported stress, therefore, parents had no times for rest, their recreational activities were reduced, and their marital relation was affected.

Furthermore, social stressors of the studied mothers, the present study showed that, more than half of the mothers mentioned that, their children's problems could be sources of social stress while they had barriers to practice social activities. This could be reflected the lack of time and efforts to achieve these needs which were essential needs of the human beings. This result was similar to **[32],**who reported that, the majority of mothers of child with chronic illness experienced lack of social activity, loss of family relation, and lack of chance to interact with friends. In addition, this result was supported by **[35],**who mentioned that, most social stressors for parent of children with Down Syndrome was consequence of the lack of time. According to **[36],** who found also that, nonetheless, some parent of children with Down Syndrome may still feel stigmatized by the condition of their children and were not willing to give them the opportunity to socialize.

Parenting a child with a developmental disability is an exhausting task, especially for mothers as they were more involved with care giving **[33].**In relation to the study findings concerning physical stressors, the results showed that, the majority of the mothers complained from physical stresses in the form of sleep disturbance, feeling sick and weight loss. This result was supported by **[32],**who reported that, mothers who have children with chronic disease had feeling of headache, inability to sleep, increase blood pressure, anorexia, pain and constipation. Also, **[37],**stated that, physical stress can play a part in problems such as headaches, high blood pressure, heart problems, diabetes, skin conditions, asthma, arthritis, depression, and anxiety.

Regarding the relation between mothers' educational level and their stressors, there was a highly statistically significant difference between a mothers' educational level and their stressors at (P <0.05) .This could be interpreted as , the educational level of mothers provide them to understand their children conditioning. This result supported by **[11],**who found that, more of cases and health conditions of children with cerebral palsy were found among highly educated mothers .

V. Conclusion and Recommendations

Conclusion

Based on the findings of this study ,it was concluded that, application of nursing intervention program for mothers having children with speech and language problems had a positive effect on improving their knowledge, pattern of care and alleviating their stressors related to child illness.

Recommendation

In light of the present study the following recommendations could be suggested:

- Early educational, and emotional support is needed for parents of their children with speech and language problems to alleviate their stressors**.**
- Emphasis on psychological, social, learning and physical care for children with speech impairment and their parents by specialists to help them overcomes their deficits.

- Development of a health educational program for parents to update their knowledge and skills about the proper management .This could be delivered through posters, booklets, MCH centers and individual counseling
- .Additional research ,particularly longitudinal research is needed to better identify the importance determinates of health practice ,adjustment and coping **.**
- Widening the scope of this study by carrying it in a longer time and a larger sample size.

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