



## Psychological Stress of Mothers of Children with Cochlear Implants

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The family is considered the first environment that receives the child and affects his personality, and its shortcomings negatively affect him, whether in his perceptual and cognitive abilities or life and social skills. Every family has hopes for their child before his birth, as the parents arrange their wishes and what each of them hopes for in their child, but the family members are shocked as a result of the birth. The child with a disability, then the shock moves to denial and then to acceptance of the reality and then search for services that help the child to get out of this crisis safely.

The family faces many obstacles depending on the nature of the services that the child needs, according to the nature of the disability that he suffers from. These obstacles and the extent of their ability to overcome or adapt to them affect the ways they communicate with their child and the extent of his compatibility with his society, as the nature of these pressures varies according to the type and nature of the disability that he suffers including their children.

The pressures that each family is exposed to vary depending on their circumstances, and our focus is on the working and non-working mother, who is considered the primary caregiver for the child, and the psychological and emotional pressures she is exposed to due to receiving the news that her child suffers from a specific disability, in addition to the pressures she is exposed to as a wife who carries out her domestic duties and caretaker for her children, in addition to being a strong woman. A worker in society. Therefore, the study investigated the pressures faced by working mothers and non-working mothers who have a child suffering from hearing loss and who underwent a cochlear implant surgery.

### **The study Problem:**

The sense of hearing is one of the most important senses for humans because it is the first means of communicating with those around us, as we hear first, then we perceive and respond. The ear works to receive sound and transform it into electrical impulses that the brain interprets as sounds with meaning. If damage occurs in the form or function of one of its parts, this leads to varying degrees of hearing disability. In this way, we resort to assistive devices, whether hearing aids or cochlear implants, each of which requires a different method of dealing to help the child interact with the surrounding community.

The mother bears many pressures, as she is the primary caregiver for her child and must face society's view of the child, in addition to the child's need for rehabilitation and specialized training in partnership with the mother. The study problem is defined as follows:

- What is the nature of the psychological pressures that mothers of children with cochlear implants are exposed to?
- Are there fundamental differences between working and non-working mothers of children with cochlear implants in the psychological pressures they are exposed to?

### **Aims of Research:**

1. Identifying psychological stress among mothers of children with cochlear implants
2. Identifying the impact of work for mothers of children with cochlear implants on their level of psychological stress.

### **Importance of Research:**

1. Identifying the psychological pressures that mothers of children are exposed to.
2. Helping children to adapt to society through the mother, as she is the first and most important influence on the child's life.
3. Creating guidance programs for mothers to reduce the pressures they are exposed to.
4. Finding solutions to the obstacles that mothers face that increase psychological pressures
5. Providing psychological support to mothers during the various stages of the child's rehabilitation
6. Providing psychological and moral support to working mothers, whether at work or at home

### **Operational definition of search terms:**

#### **1.Psychological stress:**

The degree obtained by the mother on the items of the psychological stress scale for mothers of children with special needs.

#### **2.Mothers of cochlear implant children ( workers) :**

Mothers of children who suffer from severe hearing loss and have undergone a cochlear implant, where the mother performs a job in addition to her domestic role.

### **3. Non-working mothers of children:**

Mothers of children with severe hearing loss who underwent cochlear implant surgery, and the mother does nothing other than being a housewife.

#### **The limits of the study**

##### **Place:**

The sample was selected from the Speech, Hearing and Cochlear Implant Center at King Abdullah Medical City in Makkah Al-Mukarramah.

##### **Sample specifications:**

It consisted of 10 working mothers of children with cochlear implants, 10 non-working mothers of children with cochlear implants.

##### **Theoretical framework:**

##### **First: cochlear implant**

The scientific beginnings of cochlear implantation were in 1957, and its goal was to stimulate the auditory nerve with an electrical device, resulting in auditory stimulation for the patient. This observation is considered the first seed that paved the way for cochlear implantation, as many operations were performed around the world in 2006, as the cochlear implant is considered the first. A real sensory organ placed in the human body. It is a replacement for a damaged cochlea and is not a treatment for the auditory nerve. Therefore, the fibers of the auditory nerve must be intact when a cochlear implant is performed.

( Zayed, 2012)

##### **Cochlear implant components:**

The device consists of five elements, some inside the skull and some outside it, as follows:

1. A microphone that picks up signals with a small wire from which it receives the signals
2. A speech processor is located behind the ear next to the microphone and receives signals transmitted through the wire

3. A battery charges the processor and makes the signals appropriate for sense by the nervous system
4. The radiofrequency transducer that receives the signals processed by the wire
5. The receiver is implanted under the skin above or behind the ear, which receives signals and the transducer sends them through the skin
6. Electrode implanted in the inner ear or cochlea
7. A group of thin wires that receive signals and transmit them to the auditory nerve

(Wilson & Dorman , 2008 )

### **Beneficiaries of cochlear implants:**

They are people with severe to profound sensorineural hearing loss with a weak ability to distinguish speech and cannot benefit from hearing aids, as very severe deafness results in a loss of function of the hair cells in the cochlea, which affects the generation of nerve impulses and electrical activity in the auditory nerve. The transplant is based on Some conditions are as follows:

1. Sensorineural hearing loss in one or both ears
2. The patient has a damaged cochlea
- 3.The auditory nerve cells must be healthy
4. Not benefiting from hearing aids and trying them for a period of 6 months
5. There is no health contraindication for general anesthesia
6. for him are committed to training in using the cochlear implant device before and after the operation
7. The patient passed intelligence and speech tests

(Issa, 2010)

### **Second: Psychological pressures**

Psychological stress is considered one of the important topics and has been addressed by many theories explaining it due to its importance to the health of the individual and society. Both (Kawafheh and Youssef 2007) defined it as a state of imbalance that leads its owner to make undesirable mental and emotional

reactions, which exposes him to tension, distress, and anxiety.

As for (Khalifa and Issa 2008), they indicated that it is a series of external events that the individual faces as a result of dealing with the environment and its requirements, which requires him to quickly adapt in the face of events to avoid negative psychological and social effects and achieve balance.

Stress is the process of interaction between the individual and stressful situations to confront the events and disturbances he is experiencing, which cause him some type of behavioral and physical changes.

(Semin&fielder1996)

### **Causes of psychological stress:**

The causes of psychological stress vary and vary and can be classified into internal, related to the functions of the organs, or internal psychological, such as the personal nature of the individual. There are also external causes, which are the circumstances that surround the individual and affect him, such as poverty, unemployment, lack of luxury and available services, as well as the nature of the events that the individual faces, personality types, family disputes, and painful experiences, all of which contribute to Causing psychological stress in individuals.

(Al-Aziz and Abu Al-Saud 2009)

### **Effects of psychological stress:**

1. Physiological effects: include loss of appetite, high blood pressure, headache, allergies, digestive disturbance, and physical exhaustion.
2. Psychological effects: include fatigue, exhaustion, boredom, decreased inclination to work, depression, insomnia, anxiety, and low self-esteem
3. Social effects: include isolation, withdrawal, inability to assume responsibility, and failure to perform usual daily duties
4. Behavioral effects: such as trembling, stuttering speech, changes in facial expressions, disturbed sleep habits, and lack of inclinations and enthusiasm.
5. Cognitive effects: include disturbance and deterioration of attention, concentration, and memory, increased

errors, and poor planning and organization.

(Ahmed 2014)

### **Study hypotheses:**

•There are statistically significant differences between the average ranks of scores of working mothers of children with cochlear implants and the average ranks of scores of non-working mothers of children with cochlear implants on the psychological stress scale in the direction of working mothers .

### **The study sample :**

The sample consisted of 10 working mothers of children with cochlear implants, 10 non-working mothers of children with cochlear implants.

### **Study tools**

#### **Psychological stress measurement battery :**

The battery consists of two scales: the Psychological Stress Scale, which consists of 80 statements that measure seven stress factors: (psychological and psychosomatic symptoms - feelings of despair and frustration - psychological and cognitive problems of the child - family problems - anxiety about the child's future - problems of the child's independent performance - inability to bear burdens). The child is financially and morally) and the coping methods scale consists of 30 phrases divided into five dimensions: (affective and ideological practices - general cognitive practices - specialized cognitive practices - avoidance practices - mixed practices)

### **Statistical processing methods used:**

Mann-Whitney , Wallis-Krusk

## **Results:**

- There are statistically significant differences between the average scores of working mothers of children with cochlear implants and non-working mothers of children with cochlear implants.

## **Presentation and interpretation of results:**

It became clear from the statistical operations that were carried out that there were statistically significant differences between the average scores of working mothers of children with cochlear implants and non-working mothers of children with cochlear implants on the dimensions of the psychological stress scale (psychological and organic symptoms, feelings of despair and frustration, family problems, and problems of independent functioning) in the direction Working mothers.

As the working mother bears the pressures related to her child, in addition to the pressures at home, as well as the pressures of work and its responsibilities, especially if the return from work is their source of income, with the increased cost of cochlear implantation and long-term rehabilitation sessions that precede the implantation process and also after the implantation.

While there are no significant differences on the dimensions of the scale (the child's cognitive and psychological problems, anxiety about the child's future, and inability to bear the child's burdens).

