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Psychological distress in mothers of teenagers with cancer: Clinical study

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Abstract--The current study aims to determine the level of psychological stress experienced by mothers of teenagers with cancer, as well as their coping strategies in dealing with this challenging situation. To test the hypothesis, we applied a semi-structured clinical interview guide developed by the researcher and tested the Perceived Stress Scale for Feinstein et al. with the case. After analysing and discussing the results, it was found that the case experienced a high level of perceived psychological stress.

Keywords--Cancer, teenager with cancer, adolescence, maternal psychological distress.

Introduction

Diseases pose a threat to human societies, such as cancer, which affects thousands of people every year. Statistics have shown that it caused the death of 7.9 million people, accounting for approximately 13% of total deaths in 2008 (Mazlouk, 2014). Cancer is the second leading cause of premature death after cardiovascular and cerebrovascular diseases. (Government du Canada, 2017, p.12).

Data from the World Health Organization, as mentioned in Masoud Al-Samai's study (2011), shows that more than two-thirds of these new cases and cancer-related deaths will occur in developing countries. Cancer incidence rates continue to rise at an alarming rate, but it is possible to save two million lives by 2020 through the combined efforts of the World Health Organization and the International Union Against Cancer (Irving Selikoff, 2005, p.15).

In Algeria, for example, statistics from the National Cancer Registry indicate that 50,000 new cases of cancer are registered each year (Bekhoush, 2022). Cancer does not discriminate between different age groups; it affects all age groups, especially adolescents, who experience physiological and emotional changes that affect their ability to adapt and maintain balance due to the conflicts they face. According to researcher Stanley Hall, "adolescence is a period of turmoil and pressure that creates new characteristics in individuals, resulting in changes and pressures that make adolescents confused, short-tempered, emotionally unstable and difficult to control due to their emotional fluctuations" (Al-Zaghbi, 2001, p.420).

In fact, cancer is a disease that robs individuals of their enjoyment of life and affects their ability to move, work or engage in normal activities. The impact of this disease extends beyond the young person to those around them, especially their parents. One HIV-positive patient expressed that time really stood still when he was told that his child had cancer, although time did not stand still when he was told of his own HIV diagnosis. This statement may be closest to the truth, as time does seem to freeze for parents when they are told of their child's illness. They go on with their daily lives, with their ongoing concerns and worries, and suddenly, without warning, their lives are turned upside down as a doctor confidently informs them of their child's cancer diagnosis - a word that carries frightening and disturbing connotations, synonymous with death. In fact, being told of their child's cancer diagnosis is even more intense than being told of their child's sudden death - it is shock and disbelief. The family becomes disoriented and its affairs become chaotic. Spouses are in crisis. According to the researcher Hamed Zahran, family members develop a sense of anxiety, which he describes as "a state of continuous and comprehensive tension resulting from the anticipation of a real or symbolic danger, accompanied by a mysterious fear and psychological and physical symptoms". (Taha Abdelazim, 2007, p.14).

In addition to feelings of guilt, many people perceive the sick child as a symbol of fatigue and suffering, especially the mother, because she and her child form a social psychological group in the language of social psychology. She has the responsibility of caring for him. When a mother learns the nature of her child's illness, it becomes a painful event for her, accompanied by feelings of confusion, perplexity, regret and grief. During this time, the mother is implicitly trying to find treatment options and ways to cure her child, while fearing for his or her future. She is also burdened with the pressures of family harmony, social pressure and responsibility for the cost of treatment. (Kaffafi, 2006).

All of these burdens and responsibilities may be risk factors for the mother experiencing high levels of psychological distress. A study by Singer and Kathleen (1989), similar to our study, found that "mothers of children with disabilities experience high levels of psychological distress from a variety of sources, including financial strain, feelings of fatigue and exhaustion from meeting the needs and raising the disabled child, the mother's need to devote herself entirely to the care of her son, a sense of instability due to the circumstances of the disabled child, and anxiety about the child's future". (Khalifa & Morad, 2008, p. 264).

Another study by Sloper (2000) also found that most mothers of children with cancer reported high levels of stress and psychological distress. It is estimated that 51% of these mothers experience symptoms of post-traumatic stress, pessimism, depression, anxiety and psychological distress. Overseeing the health of a child with cancer and the responsibilities that come with this role place a significant burden on the mother, requiring her to interact with multiple parties, including the sick child directly, the treating medical team, and other family members. This inevitably leads to physical exhaustion for the mother due to the pressures of prolonged hospitalisation and prolonged treatment, as well as the adverse effects experienced by the child. On the other hand, the mother is also affected by the situation of other siblings and the overall family situation. All this can have physical and psychological effects on the mother (Abdel Nour, 2006).

Based on the above, we will study the case of a mother of a teenage son with cancer to achieve our scientific goal and understand the mother's psychological suffering and how she copes with this stressful situation. Therefore, we will answer the following research question, which is the aim of our study What is the perceived psychological distress of the mother of a teenager with cancer?

1- Aim of the study

Our study aims to determine the level of psychological stress perceived by the mother of a teenager with cancer.

2- Significance of the study

Many studies have focused directly on cancer patients, but in our study we wanted to focus on the patient's environment (family members), especially the mother, as she represents a close social-psychological unit (mother-child relationship). We wanted to look closely at the mother's psychological distress and how she copes with this stressful situation. In addition to the need to provide psychological support to the patient's family for what they have experienced, this study also contributes to the Algerian scientific library from which further studies can be launched. The research findings can be used to develop specialized counselling programs for the families of patients, enabling them to support their children.

3- Conceptual definitions

3-1 Cancer: It is a disease characterized by continuous and uncontrolled cell division. This pathological condition involves cell division that does not conform to the natural laws of division. Cancer can result from a malfunction in the genetic material (DNA) responsible for controlling cell growth and reproduction in human cells. In cancer, there is a disruption in the genetic material (DNA) that leads to accelerated growth and spread. Unlike other cells in the body, cancer cells do not benefit the body, but rather drain its energy and resources. (Shelly, 2008, p. 811).

3-2 Child with cancer: This refers to a child who has unusual symptoms or whose laboratory tests indicate an abnormal health condition that requires medical intervention and confirms a diagnosis of cancer. The child's medical record is then sent to the cancer treatment unit. (Abdul Razzaq, 2013, p. 94).

3-3 Adolescence: It is a stage of life that occurs between childhood and adulthood, coinciding with middle and high school education. It is characterised by multiple changes in different aspects of growth, including physical, mental, emotional, ethical and social aspects. The main characteristic of this stage is the stage of behavioral contradictions (love-hate, activity-laziness, acceptance-rejection) and the stage of conflicts between internal needs and social norms and determinants. (Saadi & Ghanifa, 2020, p. 17). Stanley Hall also defines it as a stage characterized by intense emotions, strong feelings and violent tensions. (In Al-Zughbi, 2001, p. 31).

3-4 Psychological stress: Lazarus and Folkman define stress as "the relationship between an individual and his or her environment, where the individual perceives the limits of the relationship as exceeding his or her capabilities and qualifications and disturbing his or her comfort and tranquility". (In Bou Hatem, 2001, p. 15).

Selye pointed out that stress is a set of symptoms that coincide with exposure to a stressful situation. It is a non-specific response of the body to environmental demands, such as family changes, job loss or relocation, which put the individual under psychological pressure. (Faissal, 2008, p. 20).

According to the Encyclopedia of Psychology and Psychoanalytic Analysis, psychological stress is a state experienced by an individual when he or she is faced with a demand that exceeds his or her capabilities, or when he or she is in a situation of intense conflict or serious danger that leads to feelings of tension or distortion in personality integration. As the intensity of these pressures increases, they can disrupt the individual's equilibrium and alter their behavioral patterns. In our study, this is indicated by the scores obtained in the test measuring the perception of psychological stress using the Feinstein indicator, adapted to the Algerian context by the researcher Ait Hamouda Hakima.

4- Methodology of the study

The choice of methodology used in our research is determined by the nature of our research problem and the hypothesis to be investigated. We therefore decided to use the clinical-eclectic approach, which focuses on case studies. It allows for detailed observation and is based on the examination of several patients, studying them one by one in order to derive general principles based on the observation of their effectiveness and limitations (Abdel-Moaty, 2003, p. 31).

5- Study sample

We conducted a single field case study of a teenage mother of a cancer patient. Among the criteria adopted for our field study, we relied on certain criteria:

- The affected child should be a teenager.
- The case should be present in the hospital with her child to facilitate the research process (scientific interview).

6- Study tools: We used the following tools

6-1- Interview: The clinical interview technique, known in the field of scientific research as a conversation between the interviewer and the respondent with the aim of obtaining data from the respondent (Maurice, 2004, p. 197). Specifically, in

our research we relied on the semi-structured clinical interview for research purposes, which is defined as a face-to-face conversation between the client and the clinical psychologist. It is a widely used technique in clinical psychology as it allows sufficient information to be gathered and the respondent to respond freely to the questions posed (Chiland, 1989, p. 119). Based on the theoretical foundations and the aforementioned research objective, we used the proposed interview guide for the teenage mother of a cancer patient, which consists of six axes:

- **Axis 1:** Personal information: This axis aims to collect data about the research participant. Questions were asked about her age, social status, level of education and occupation.

- **Axis 2:** History of the child's illness: The questions in this axis aim to understand the mother's situation within the family before the onset of her child's illness. It explores her relationship with her husband and her currently ill child, as well as her approach to parenting before the onset of the illness.

- **Axis 3:** Coping with the reality of the teenager's cancer (psychological well-being of the mother): The aim of this axis is to identify the psychological impact of the child's illness. It explores the mother's reaction to the news of her child's diagnosis, examines the nature of her relationship with her currently ill child compared to her other children, investigates the impact of the child's illness on her personal, family and professional life, and assesses whether the husband is supporting the mother and affected child in coping with the crisis

- **Axis 4:** Psychological well-being of the mother during the treatment period: This axis aims to understand the psychological state of the mother and her child in hospital and the relationship between them.

- **Axis 5:** Social life: The aim of this axis is to assess the impact of the child's illness on the mother's social life and the level of interaction of family members with the affected child, in particular the support the mother receives while in hospital. Understanding the availability of support is crucial to the mother's ability to cope and provide support and care for her child.

- **Axis 6:** Future prospects: This axis aims to explore the future plans of the mother and her child, including goals and future projects, and whether these have changed as a result of the child's illness or whether they are still aspiring to achieve them.

6-2 Psychological Stress Perception Test: This test, developed by Feinstein (1993), measures the perception of psychological stress. It consists of 30 items, including both direct and indirect statements.

Direct items: The direct items consist of 22 statements represented by the numbers 2, 3, 4, 5, 6, 8, 9, 11, 12, 14, 15, 16, 18, 19, 20, 22, 23, 24, 26, 27, 28, 30. These statements indicate high perceived stress if the respondent answers with acceptance of the situation and low perceived stress if the respondent answers with rejection.

Indirect items: The indirect items consist of 8 statements represented by the numbers 1, 7, 10, 13, 17, 21, 25, 29. These statements indicate a high perception of stress if the respondent answers with rejection and a low perception of stress if the respondent answers with acceptance

There are four choices for each statement in the test, which are Almost never, Sometimes, Often, Most of the time. The scoring and grading of the test items is done gradually from 1 to 4 points. The scoring varies according to the type of

item. For direct items, they are scored from 1 to 4 from the right (almost never) to the left (usually). For indirect items, they are scored from 4 to 1 from right (almost never) to left (usually), as shown in Table 1. After each item has been scored, the scores obtained are added together to give the total score for the test.

Table 1: Scoring of the Stress Perception Test

Choices	Direct items	Indirect items
1- Almost Never	One point	Four points
2- Sometimes	Two points	Three points
3- Very Often	Three points	Two points
4- Usually	Four points	One point

(Ait Hammouda, 2006, p. 225)

Perception of Stress Index (PSI) = (Raw Score Total - 30)/90

Explains that the raw scores of all items, both direct and indirect, in the test are summed. The perceived stress index is then calculated using the above equation. The score for the perceived stress index ranges from 0, indicating the lowest level of stress, to 1, indicating the highest possible level of stress.

The psychometric properties of the test have been studied by Ait Hammouda. The researcher adapted the test to the Algerian context and assessed its validity through face validity after translating the test. The validity of the test was also assessed through concurrent validity, which involved comparing the Stress Perception Test with other stress measures. The results showed a strong correlation with the Trait Anxiety Measure (0.73) and Cohen's Perceived Stress Scale (0.73). There was a moderate correlation with the measure of depression (0.56) and a weak correlation with the measure of state anxiety (0.35). The researcher also assessed the reliability of the test by measuring its internal consistency using Cronbach's alpha coefficient, which indicated strong internal consistency (0.90). The test-retest reliability was also measured by administering and re-administering the test after an interval of eight days, resulting in a reliability coefficient of 0.82, indicating high stability. (Ait Hammouda, 2006, p. 225)

7- The field study was conducted at the "Balwa" hospital in Tizi Ouzou, commonly known as the "Sanatorium", located in the municipality of Ardjouna.

8- Research methodology

The clinical interview was conducted with the case using a semi-structured clinical interview guide, which included questions to collect information about the case. The Perceived Psychological Stress Test by Fenster and others was then administered to determine whether the mother was experiencing psychological stress due to her circumstances.

9- Presentation, analysis and discussion of the case

9-1 Case presentation:

Mrs Louiza, a 42-year-old mother, has a teenage son who has been diagnosed with cancer. She lives with her nuclear family, consisting of her husband and three children, a daughter and two sons (the son with cancer is the middle child). The economic status of the family is very poor. Mrs Louiza completed the sixth grade of primary school and, after leaving school, worked occasionally as a cleaner in schools and hospitals. She was at the hospital with her son, who has cancer.

9-2 Presentation of the content of the interview:

I received Mrs. Louiza's case in the office of the supervising psychologist at the Oncology Department of Balwa Hospital, where she accompanied her son for chemotherapy. I explained to her that everything she told me would be used for scientific purposes and research.

External description of the case: She was dressed in an organized way, spoke fluently and without pauses, showing clear emotional expressions.

Before her son's illness, Mrs Louiza lived a normal life, despite having many responsibilities. She said: "We lived normally, taking care of everything at home and outside. Even I used to buy things for the household... I took care of everything; every responsibility was on my shoulders".

She described her relationship with her husband as not good, as he had a bad temper and an unstable mood, not only towards her, but also towards their children and his own family. In addition, he was unemployed, as she mentioned: "My husband doesn't work, he just insults me and the children, even his own family every day without any reason.

Regarding Mrs Louiza's relationship with her 14-year-old son before his illness, she said that it was a normal relationship and that she treated him like her other children. He excelled in his studies and achieved top rankings. He also pursued his favourite hobbies, such as imitating artists and comedians. Mrs Louiza said: "We had a normal relationship with him, just like with his siblings. He went to school, came home, watched TV, joined the Boy Scouts, played with balloons, practised karate and was the first to learn to read. He even wore a traditional Kabyle tribal robe and imitated it, making us laugh. He used to make funny videos at home.

The story of Mrs Louiza's son's illness began with the appearance of symptoms that directly affected his behaviour and interpersonal skills. The sudden onset of cancer symptoms. His teacher at school was the first to notice these symptoms and contacted his mother, informing her about the changes in her son's behaviour and his weakness and fatigue, considering that he used to be active and energetic. She said: "The teacher, told me that your son is always tired and not the same as before. She advised me to take him to the doctor to see what's wrong with him.

Mrs Louiza took her son to the hospital, where he was immediately admitted to the rheumatology department. After five visits to the department, Mrs Louiza mistakenly believed that her son had made a full recovery and only had anaemia, which would go away. She said: "He didn't have enough red blood cells and he felt very weak in the ward and sometimes fainted. The food there was not good, especially considering the circumstances in which we lived. You know the situation with his father, who doesn't take responsibility. But I didn't want to deprive my children of anything. The most important thing is that they study and excel in their studies.

On one occasion, just before the winter break, Mrs Louiza noticed that her son's leg was swollen. She said, "It started to swell and his leg looked swollen. I took him to the doctor and he told me there was nothing wrong. He even said, 'I don't need anything. I'm fine. But I knew that at that time they only treat VIPs so that they can be heard'".

After a short time, she had her son undergo more X-rays and tests, as the doctor had requested, to confirm the diagnosis. It was then that the doctor told her that her son had cancer, specifically osteosarcoma of the knee. She said: "I will never forget the day they told me that my son had this disease in his leg bone. It shocked me. They told me that if it was in the early stages they would remove the bone, but if it had progressed they would have to amputate his leg. It was very difficult.

The mother was deeply affected by this news and the only thing that went through her mind at that time was the idea of suicide. She felt that this would be a way to end the suffering she was feeling and all the pressure she was under. She said: "The moment the doctor told me it was over, I lost hope. I thought, 'I can't bear to throw myself off a car and be relieved of all this and not see my son suffering in front of me.

After a period of time since her son's illness, the mother came to accept her fate, and being overly protective of her son became her trademark. She would go to great lengths to protect him, as if she were afraid of losing him. She would look after him, give him constant attention and care. Her words and her eyes were filled with tears as she said, "Even if they told me that my son would recover in the desert, I would go as long as he would recover. I wish they would tell me what I can do to ensure my son's safety so that I can come to him and not have to worry about him".

As for Louiza's relationship with her husband after their son's illness, it remained unchanged. He remained the same, unemployed and showed no concern for their sick son. This led Mrs Louiza to make great efforts to provide for her son's needs. She tried to focus more on her son's emotional well-being to compensate for his father's lack of care. She said: "If my husband stays outside, the problems don't change. Even if our son is sick, he doesn't care. I have to rely on myself to take care of my son and make sure he gets what he needs. I would go to the hospital, bring him food he likes and take care of everything. Whatever my son needs, I do it. I even called my husband from the hospital for the test results, but he didn't

bother to come. It was in the evening and there was no transport. I took care of everything myself. I pray for my son's recovery. I am exhausted".

The mother's constant efforts, both at home and with her son in hospital, especially during chemotherapy, have taken a toll on her self-care. She does not have enough time for herself. Her main concern is her son's health and recovery. She said: "I wish I could take care of myself properly. My hair is unkempt and I used to take care of my appearance. Now I don't have enough time or peace of mind. The most important thing is to concentrate on my son's health and his recovery.

The son's illness has also affected the mother's physical well-being. She experiences extreme fatigue and constant exhaustion due to loss of appetite and insomnia. Dark circles have also appeared under her eyes as a result of everything she is going through.

In addition to all this, from a psychological point of view, the mother has become irritable and prone to anger. She is experiencing a high level of anxiety, as evidenced by several of the indicators she mentioned. These include shortness of breath, a feeling of tightness in the chest, trembling, excessive sweating and a rise in body temperature to the point of fainting. Her blood pressure was also rising. She said: "I wish I didn't worry so much. I get very anxious and the fever comes over me. I even start shaking. I have to do the tests; my blood pressure goes up every time. God is great. What am I going to do? The most important thing is that my son doesn't feel it and that he gets better.

The son's illness has brought changes to the mother's daily activities and family responsibilities. However, she is working hard to get through this period in the hope that her son will recover. Before her son's illness, she used to carry out her household chores or work outside the home normally, as she explained, "I used to work and manage everything even though I had a lot on my mind. But now I cannot rely on you. I do everything myself. I wash everything by myself, including my daughter and my little son, who are only 7 years old, and they exhaust me a lot".

Despite the constant worry that engulfs the mother during this phase, she tries to carry out her duties mechanically and routinely, concentrating on getting them done while feeling that she's in a hurry. She also has a constant fear that something will happen to her son. She has become overly preoccupied, forgetful and experiences a lack of concentration and attention. She said: "I wish I could work and feel at ease like I used to. I still have to smile. I wish I could go to work without worrying about chairs falling on me because I am in a hurry and scared. I'm always tired because I have to walk a lot from home to the hospital. I wish I could walk and feel relaxed, even if it means cleaning the car a lot. I wish I could forget, especially when I go to the supermarket and forget what I came for. I even forget why I went there in the first place.

Mrs Louiza accompanies her son to the hospital, as mentioned above. In her conversations we often find her blaming her husband and sister-in-law for her son's current condition. She says: "I wish I wasn't so worried and scared all the time. Allah, please protect my son. Honestly, if it wasn't for his father and sister,

my son wouldn't be in this situation. They told me to delay his treatment, saying there was nothing wrong with him. Now you see me here alone in the hospital.

After her son's illness, Mrs Louiza feels under constant pressure and is unable to relax. She experiences mental exhaustion, physical fatigue and extreme fear for her son. She says: "I feel like I'm under deadly pressure, everything is weighing on me. I can't function properly. My son's illness has added to the pressure and, by Allah, I'm exhausted. I can't rest completely. My mind is busy. Even though I feel tired, my focus is on my son. If only things were better, I would have some relief. But it seems impossible. I'm trapped and I'm tired.

Mrs Louiza told her family about her son's illness while he was in hospital, because she believes it is a matter ordained by God. She saw no harm in keeping it a secret, but when they heard the news, everyone was surprised by the situation. She says: "My poor father heard the news in the middle of the night, took a taxi and came to the hospital. He told me not to worry, that I should just concentrate on my son because he was sick".

Her family and neighbours have tried to provide social support in various ways to ease her burden. But what makes her feel even more alone is her husband, who never comes to the hospital to see her son. When relatives and neighbours come to visit her, she feels comforted. But as soon as they leave, her anxiety increases and her sense of loneliness grows. She said, "I have told all my relatives that this is a matter for Allah. Thank God they are coming to the hospital and supporting me. Even my neighbours bring me some relief with their kind words. But my husband hardly ever comes. It was the same with his mother before she died. She was in hospital and he never visited her. When they come to see me, I feel a little bit of comfort, but as soon as they leave, I feel very worried and alone.

Before her son's illness, Mrs Louiza had a good relationship with her relatives and friends. She tried to take part in their celebrations and share their joys and sorrows. But after her son's illness, her life changed completely. She no longer has time to spend with her family and relatives because of the pressure she is under. Moreover, her mental state does not allow her to do so. She said: "We used to visit our family, attend their weddings and be with them at funerals. Now I only worry about my son".

Mrs Louiza received emotional support from her relatives and neighbours, as she mentioned. However, she received limited financial support, given the financial circumstances that every family goes through. She said: "Thank Allah, they were able to help me. May Allah bless them with wealth and health. You know, times are hard".

Mrs Louiza also mentioned that her only purpose in life is her children. Now she is working hard to keep her son healthy. Her only hope is that he will recover from this serious illness, and she is willing to do anything for him. With tears in her eyes, she said, "I see one thing clearly, my son's well-being is all that matters to me. They can take my eyes and give them to my son as long as he gets better. What matters is that he gets well".

The interview ended with a prayer for her son's recovery.

9-3 Presentation of the results of the Psychological Stress Perception Index test

Table (02) shows the results of the Psychological Stress Perception Test for Mrs Louiza's case

The test items	Almost Never	Sometimes	Very Often	Usually
1. You feel comfortable.		X 3		
2. You feel like you have demands.			X 3	
3. You get angry or irritated easily.			X 3	
4. You have a lot of things to do			X 3	
5. You feel lonely.			X 3	
6. You find yourself in conflict situations.	X 1			
7. You feel you are doing things you really love				X 1
8. You feel tired.			X 3	
9. You fear that you will not be able to achieve your goals				X 1
10. You feel calm		X 3		
11. You have to make several decisions.			X 3	
12. You feel frustrated			X 3	
13. You are full of vitality	X 4			
14. You feel energetic	X 1			
15. Your problems seem to pile up			X 3	
16. You feel you're in a hurry or under pressure			X 3	
17. You feel safe and healthy	X 4			
18. You have several worries			X 3	
19. You feel more under pressure than other people			X 3	
20. You feel a loss of motivation				
21. You take care of yourself	X 4			
22. You are afraid of the future				
23. You feel obliged to do certain things				
24. You feel in need of rescue or guidance	X 1			
25. You are a carefree person	X 4			
26. You feel exhausted or mentally tired			X 3	
27. You have difficulty relaxing			X 3	
28. You feel a burden of responsibility			X 3	
29. You have enough time for yourself	X 4			
30. You feel like you're under deadly pressure			X 3	

Stress Perception Index: 58.0 = 90/ 83-30

The raw score obtained from completing the test items in Table 02 was 83 points. By applying the Psychological Stress Perception Index equation, the perceived

stress index was calculated as 0.58. This score indicates a high level of psychological stress in the mother.

9-4 Discussion and analysis of the case

The interview with the subject lasted more than an hour. She kept talking about the lack of support from her husband and how her only concern in life was her son's health. Due to the specificity of the case, we could not strictly follow the interview guide, but we tried to steer the conversation towards our topic whenever possible.

Mrs Louiza's life was normal before her son's illness. As she mentioned, she was busy with daily tasks such as cleaning the house, cooking and working outside the home. She had many responsibilities due to her strained relationship with her husband. This is consistent with the findings of Farbar (1995) in a study conducted in Chicago involving 240 families, including a child with cancer. The study found that the bond between spouses can either be strengthened or strained, leading to conflict. (Al-Sayyid, 2008, p. 102)

Regarding her relationship with her son before his illness, as mentioned earlier, it was a normal relationship in which she tried to provide for all his needs. However, when she found out about his illness, the news affected her greatly and her responsibilities increased. During this time, the only thought in her mind was the idea of suicide as a solution to all that she was going through. This is in line with Sandali's (2011) study, which states that the stressful events experienced by individuals can push them into action, especially if they do not have a strong personality.

This was also evident in her responses to the items of the Psychological Stress Perception Index, particularly item 30, where she expressed that she felt under mortal pressure following her son's illness. She confirmed this in her responses to the semi-structured interview guide, saying: "I feel like I'm under so much pressure, everything is weighing on me since my son got sick. I'm exhausted, really exhausted". Her responses to the direct questions in items 02 and 03 of the Psychological Stress Perception Index were also 'a lot'.

After her son's illness, Mrs Louiza's relationship with him became overly protective compared to her other children. She worked hard to take care of him, give him attention and provide various forms of support, especially emotional support, so that he wouldn't feel that his illness was serious. This is in line with the findings of Lopez Martinez et al (2008) that those who provide social support help the patient to use more effective strategies to cope with pain. (Bakhoush, 2022, p. 69).

However, it was clear from Mrs Louiza's words that there was a complete lack of support from her husband, especially after her son's illness. Research by Schweitzer and Dantzer (2003) in this regard indicates that a low level of support in a person's life is considered a weakness factor, while a high level of social support enables an individual to cope and reduces stress levels. (Sandali, 2011, p. 191).

On the other hand, her son's illness had a major impact on the mother's physical and psychological health, as she was the main carer and responsible for his care. This was evident in her responses to the semi-structured interview guide and to the items of the Psychological Stress Perception Index, particularly items 08 and 27, where she expressed feeling 'very' affected. Caring for a child with cancer is not an easy task for a mother. She is trying to cope with additional caring responsibilities, both at home and in the hospital. Therefore, we can say that the child's illness can cause a crisis within the family, where the mother's social roles may change or she may be forced to reduce her social activities.

This was evident in Mrs Louiza's feelings of high psychological pressure, calculated as 0.58, resulting from this stressful situation. This is in line with Arthur's (2003) findings that a cancer diagnosis has many psychological, social and professional effects on the patient. People around the patient focus their efforts on caring for their health and monitoring the progression of the disease, often ignoring the suffering caused by the deterioration of social, psychological and professional activities, as well as the loss of activity and enjoyment. (Sabry, 2020, p. 65).

The results of our study are consistent with previous studies conducted on mothers of children with cancer, which aimed to identify the psychosocial well-being of mothers. Studies such as Al-Baghdadi (2013), Tawawzah (2020), and Bosna and Bougrio (2022) found that mothers of children with cancer experience high psychological pressure and feelings of exhaustion regarding their child's condition. However, they try to use different coping strategies to cope with the current situation.

Furthermore, our findings are consistent with a similar study by Hassal Ros and McDonald (2005), which found high levels of stress among mothers of children with intellectual disabilities and highlighted that mothers with high levels of social support experienced less psychological distress. (Bosna and Bougrio, 2022). The results of Bruce's (2001) study also support our findings, indicating that parents of children with disabilities, illnesses or specific disorders experience accompanying experiences, emotions and physical and psychological symptoms associated with sadness and increased stress.

In addition, our findings are consistent with a study by Khaled Mohammed Al-Hubayshi (2003) in Jeddah, which found that mothers of disabled children experienced high levels of stress compared to fathers. (Bosna and Bougrio, 2022). The results of several studies, such as those conducted by Walfe (1988), Bohlet et al. (1989), Eric et al. (1991, 1997) and Morphy et al. indicate that children with disabilities place high levels of pressure and anxiety on their mothers. These mothers are more prone to depression, emotional problems and experience high levels of psychological distress. The child's disability has a negative impact on mothers due to the continuous demands of the disability and concerns about the child's future. (Belaweenat, 2015, p. 245).

Our study is also consistent with the findings of a similar study conducted by Shin et al. (2006), which indicates that mothers of children with intellectual disabilities experience high levels of psychological distress compared to fathers.

The mother bears the full burden of being the primary caregiver for the child, which exposes her to multiple pressures, including caring for the child, financial pressures related to medical care, family pressures, shattered dreams of having a "normal" child, embarrassment in social situations, meeting the child's constant needs, reactions of relatives and acquaintances towards the family, limited knowledge of child rearing, and loss of communicative relationship with the child. (Al-Sayed Khalifa, 2008, p. 264)

Therefore, having a child with a disability such as Down syndrome can be a source of stress for parents, particularly mothers. This is supported by the findings of Meadow Orland (1995) that parents of children with disabilities experience higher psychological stress than parents of typical children, with mothers of children with disabilities experiencing more pressure than fathers (Jabali, 2012, p. 31). The emotional support received by Mrs Louiza from her relatives and neighbours will help her adapt and cope with the situation she is facing, as social support leads to a reduction in the perceived stress experienced by families, especially mothers. This is consistent with studies by Cutrona et al. (1986), Cohen (1996), Grasse et al. (1998), Buton et al, and Moskovitz et al. (2000), Savetina et Nastran (2012), Tel, Sari, & Aydin (2013), Salonen et al. (2013), Sick-Eom et al. (2013), Ozolat et al. (2014), Morsi (2000), and Shahata (2015), which emphasize the importance of social support in coping with various pressures, including illness and serious diseases such as cancer, chronic diseases such as heart disease, diabetes, kidney failure, digestive disorders, stomach and intestinal inflammation, and even AIDS. (Belaweenat, 2021).

In summary, the above studies of mothers of children with special needs, cancer patients and those with specific disorders consistently show that mothers experience higher levels of psychological distress and may suffer from anxiety, depression, emotional problems and varying levels of stress.

However, their responses to these challenging situations may vary depending on their personality, their perception of the situation and the social support they receive. Contrary to our initial expectations, our study found that as the child reaches adolescence, when they become more aware of their illness, unlike younger children who may not understand the severity of their condition, the level of psychological stress on the mothers does not decrease.

Despite all the pressures Mrs Louiza faces, she is full of optimism and hope for her son's recovery. She is ready to do anything as long as her son gets better. In addition, Mrs Louiza stated that she resorts to religious strategies such as prayers and supplications. This at least helps her to relieve some of the high psychological pressure she feels.

Conclusion

Our current study aimed to explore the level of psychological distress experienced by mothers of adolescent cancer patients and how the mother copes with this challenging situation. The study also examined the mother's efforts to support her son in adapting to and coping with his illness, considering that the mother is the closest person to her son and, of course, the one most affected. This is what we

found in our study, confirming the hypothesis proposed at the beginning of the study. The mother made great efforts to meet her son's specific needs, as the treatment had an impact on both his physical and psychological well-being, which could affect his normal life. She had a lot of responsibility for her son's health, numerous demands from her husband and extended family, and the difficulty of balancing all these tasks. In particular, she suffered from a lack of social support from her husband, as mentioned above. All of these factors contributed to the mother's high level of psychological distress.

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