

The Level of Irrational Thoughts and Their Relationship to The Degree of Depression in A Sample of People with Burns of The First Degree

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Abstract

This study sought to identify the level of irrational thoughts and their relationship to the degree of depression in a sample of people with burns of the first degree. The researcher used the descriptive correlational method. The study population consisted of all the thirty-seven patients suffering from first degree burns who are treated at outpatient clinics in private hospitals (Jordan Hospital, Specialty Hospital). Where the study sample consisted of (11) patients including 6 females who were selected using the convenience sampling method. The findings demonstrated that: The sample of patients with first-degree burns exhibited high level of irrational thoughts. No statistically significant differences were found on the scale of irrational thoughts attributed to gender and age variables. The sample of patients with first-degree burns had a high level of depression. The results also revealed that there were no statistically significant differences on the scale of depression attributed to the gender and age variable, while there is a statistically significant positive relationship between the level of irrational thoughts and the degree of depression in a sample of first-degree burns. The study came up with a set of recommendations, the most important of which are: conducting further studies related to irrational thoughts and depression and linking them to other variables such as personality traits or level of consciousness.

Keywords: Irrational Thoughts, Depression, people with first-degree burns.

Introduction

Numerous studies in the psychological field have focused on the cognitive aspect associated with the interpretation of an individual's emotions. The findings of this research provided significant proof that external events are not the only ones responsible for what an individual suffers from; rather, how he perceives things impacts his response to them as well. And that the issues that people face are nothing more than a jumble of personal implications and ideas that play a part in producing emotional and social disorders. Ellis (1994) claims that individuals' beliefs are intimately tied to emotional responses and psychological diseases, which may lead to suffering from various mental health difficulties, particularly when they fail to suit the individual's needs. This may indicate unrealistic and irrational thinking that causes bad feelings through self-talk and their strong ability to amplify their desires into beliefs. Indeed, ineffective behaviour results in sadness, anxiety, anger, and a negative sense of self-worth.

People who have suffered burn injuries that have resulted in visible and permanent scars

and deformities are vulnerable to abrupt shocks that can cause physical and psychological distress, such as anxiety and sadness. The extent of the influence of this matter on the injured may only be predicted by determining how he deals with himself after the accident. After his recovery, the patient begins to experience physical discomfort accompanied by painful feelings, and the problem of deformity develops, which may result in changes to his visible look as well as numerous psychological changes. In a study, Bin al-Dhib (2019) found that a person who has been burned and has deformities in his body might sometimes express sadness, despair, and self-contempt. This exposes him to psychological disorders such as anxiety, shame, or loss of self-confidence, as well as avoiding social interaction, which leads to depression. The experience of physical and psychological pain as a result of trauma plays a significant part in the reduction of psychological energy derived from natural innate impulses, as a motivating feeling of joy, extroversion, and optimism. The perception of pain may be strongly linked to the failure of any of these motives. Rather, the experience of

injury influences the formation of the superego and, as a result, the amount of self-esteem. This is what (Elis, 1994) called irrational thoughts about self, others, and environmental conditions.

On the level of (the self) and according to irrational thoughts, the burn victim should consider himself as lovely and free of deformities. It is expected that the injured person will experience panic and depression as a result of these ideas. As for others, they must accept his appearance and not feel sorrow for him, and they must fully consider his sentiments to be friendly; otherwise, they are not good people and do not deserve respect. It is expected that the patient will experience bouts of rage, hatred, and isolation as a result of these feelings. In terms of environmental conditions, all conditions must be created to ensure the burn victim's safety and comfort. He must also obtain whatever he desires, or else life will become unfair and cruel. These erroneous beliefs can lead to oppression, despair, and frustration, and they are one of the symptoms of depression (Alvi, 2019). Behaviouralists also see that depression results from a lack of positive reinforcement for behaviour, and learning incorrect (wrong) behaviours (Abdel Hamid, 2020; Najati, 2001). On the other hand, epistemologists believe that depression results from negative, non-positive thoughts about the self, or in other words, non-rationality, while theorists in the field of physical illness and injury believe that depression results from the individual feeling that he is different from others and that he is a source of pity and is not truly loved (David 2003; Diab, 2020).

Problem Statement

Several studies have found that certain types of burns have a significant psychological impact, especially if they are accompanied by scars that result in lifelong deformities. Where the injured person is subjected to psychological disorders such as anxiety, depression, shame or loss of confidence, and a lack of social interaction, which may lead to depression. This may be due to the negative or unreasonable thoughts this person holds. Through the researcher's work in the field of psychological counselling in various medical clinics for psychological rehabilitation of persons with chronic diseases and physical traumas such as burns and amputations, she

noticed a disparity between these individuals' acceptance of their injuries, their level of self-satisfaction and the irrational thought they hold. Therefore, this study sought to reveal the level of irrational thoughts among people with first-degree burns and its relationship to their degree of depression through answering the following question:

- What is the level of irrational thoughts among a sample of people with first degree burns, and what is their relationship to their degree of depression?

The study also sought to answer the following sub-questions:

1. What is the level of irrational thoughts among a sample of people with first degree burns?
2. Are there statistically significant differences at the level of statistical significance ($\alpha = 0.05$) in the responses of the participants of the level of their irrational thoughts due to the study variables (gender, age)?
3. What is the degree of depression among a sample of people with first degree burns?
4. Are there statistically significant differences at the level of statistical significance $\alpha = 0.05$ in the participants' responses to the degree of depression they have due to the study variables (gender, age)?
5. Is there a statistically significant correlation at the level ($\alpha \leq 0.05$) between the level of irrational thoughts and the degree of depression among a sample of people with first-degree burns?

Study Goals:

The current study aims to:

1. Identify the level of irrational thoughts among a sample of people with first degree burns.
2. Detecting whether there are statistically significant differences at the level of statistical significance ($\alpha = 0.05$) in the participants' responses of the level of irrational thoughts they have due to the study variables (gender, age).
3. Identify the degree of depression among a sample of people with first degree burns.
4. Detect whether there are statistically significant differences at the level of statistical significance ($\alpha = 0.05$) in the participants' responses of the degree of depression they have due to the study variables (gender, age).
5. Detect whether there is a statistically significant relationship between the level of irrational thoughts and the degree of

depression among a sample of people with first-degree burns.

Study Importance:

The importance of the study is highlighted in its quest to provide useful scientific information for those in charge of psychological support programs dedicated to supporting people with burns. This study was distinguished in its variables, society, and sample, namely those with burns. It is hoped that this study will provide additional measures that the researcher will develop related to the scale of “irrational thoughts” by (Al-Rihani et al, 1989). Where this tool was developed in line with the objective of the current study. The researcher also used Beck's Depression Inventory. The results of this study may enrich Arabic literature. The results of this study may benefit researchers in the field of psychological counselling and other fields related to psychology.

Study Terminology

The study included the following terminological and operational definitions:

Irrational Thoughts: All thoughts hindering the happiness and survival of individuals (Ellis, 1994). Operationally, it is a way of thinking practised by some people with first-degree burns, which affects their lifestyle and their level of acceptance of the challenges they face, as it seemed, according to the total score obtained by the study sample on the scale of irrational thoughts that was specially prepared for that.

Depression: It is defined as a mood disorder characterized by a persistent sense of sadness, loss of pleasure, interest in routine activities, and a lack of focus. It is often accompanied by feelings of remorse, carelessness, and low self-esteem. The disease affects feelings, thoughts, and behaviour, resulting in a slew of emotional and physical disorders that impair daily functioning (Beck, 1995). Operationally, it is the extent to which those with first-degree burns felt as a result of irrational thoughts, which in turn causes individuals to lose pleasure, lack of happiness in life, and permanent sadness. It is measured the total score obtained by the participants on the depression scale prepared specifically for that.

Study Limitation:

The study included the following limits:

- **Objective limits:** They are “the level of irrational thoughts and their relationship to the

degree of depression among a sample of people with first-degree burns.”

- **Human limits:** All the (37) patients with burns were treated at many outpatient clinics in private hospitals (Jordan Hospital, Specialized Hospital), which numbered 37.
- **Spatial limits:** They include the outpatient clinics in private hospitals (Jordan Hospital, Specialty Hospital).
- **Temporal limits:** This study was applied in the second semester of the 2021-2022 academic year.

Previous Studies:

In a systematic review of the literature, Wiechman et al. (2016) tried to detect evidence to support the use of measures of depression for adults with burn injuries. The researchers sought to identify the most valid, reliable and effective means of identifying adults with symptoms of depression, including major depressive disorder by reviewing some psychometric properties. Findings demonstrated that there were no measures precisely developed to gauge depression in people with burn injuries and that more understanding of depression can be obtained after burn injury by evaluating the existing general measures of depression and how they are implemented in the field of burn injury rehabilitation.

Bin al-Dhib (2019) conducted a study aimed to identify the self-image of burn victims at the Al-Zahrawi Hospital Public Institution, given that burns lead to psychological exhaustion for the injured that affects him negatively. And that the individual who suffers burns in apparent areas such as (the face, hands, legs) experiences sadness and self-contempt. The injured self-image worsens more in the stage of adulthood, which is a highly sensitive stage in which his personality is formed and his searching for a life partner begins. The tools of the study (observation, interview and self-image test of Cooper Smith) were applied to three cases of the adult with burn injury. The study concluded that the self-image is low in adults with burns. The self-image differs between individuals and is affected by several factors, including those related to the injury itself in terms of the time of injury and the affected body part. In addition to the psychological and personal factors and what is related to the surrounding environment of the injured such as family, social and economic

factors, as well as to psychological support he gained. Zahani (2019) also performed a study in which she raised various questions to assess the sense of shame among a sample of female teenagers with skin burns. These questions include Is there a relationship between skin burns and shame? How do skin burns affect their self-esteem? What is the degree of body image distortion in females with skin burns? The study applied the clinical technique to a sample of three female teenagers with skin burns from Al-Zahrawi Hospital Institution, Msila. The researcher used the "feeling of shame" scale and the semi-directed clinical interview. The study found a relationship between the feeling of shame and having skin burns. And a high degree of shame among the sample. In a study entitled "Anxiety and depression in burn patients," Alvi (2009) sought to assess the socio-demographic distribution of patients developing anxiety and depression and to identify the effects of burn-related factors on the development of anxiety and depression. The study population consisted of hospitalized patients (1% - 50%), selected through non-probable sampling technique who were assessed for Anxiety and Depression fifteen days after burn injury. Two measures were applied "Beck Depression Inventory & Beck Anxiety Inventory". The finding revealed that 50 patients participated in the study, 30 of which (60%) were male and 20 (40%) were females. The mean age of subjects was 33.64 \pm 19 years. The majority of participants, 38 (76%) had sustained burn injuries up to 25%. The most common factor of burn injuries affecting 19 (38%) patients was flame. Depression was found amongst 29 (58%) patients. Thirteen (26 %) patients had mild, 7 (14%) had moderate and 9 (18%) had severe depressive symptoms. Anxiety was also observed among 41 (82%) participants, thirteen (26%) patients had mild, 11 (22%) had moderate and 17 (34%) had severe anxiety. Wiechman (2021) conducted a study titled "Measurement of depression in adults with burns". Bin al-Dhib (2019) conducted a study to reveal the "self-image of those with burns". Zahani (2019) conducted a study that sought to investigate the "feeling of shame among a sample of female teenagers with skin burns." While Alvi (2009) conducted a study entitled "Anxiety and Depression in Burn

Patients". Reviewing many prior studies, the researcher discovered a scarcity of literature dealing with the effect of irrational thoughts on the condition of depression in many persons with first-degree burns. This is what sets this study apart. Where the researcher feels that it is vital to investigate the role of the thoughts that originate in the affected individual's imagination in creating his perception of himself, others, and life. This suggests that this study may help to shed light on a critical issue: the cognitive reconstruction of individuals with burns for them to live a better and more accepting life.

Literature review

First: Irrational thoughts

Thoughts are one of the concepts that have provoked widespread debate among thinkers, philosophers, and psychologists. It is rooted back in the beliefs of philosophers in the ancient Greek civilisation. However, as a scientific concept, it has a very brief history. It has meaning and scientific value. Albert Ellis is regarded as one of the first to introduce it to the psychological culture. Ellis defines this concept as one of the basic components of personality, as this definition appeared clearly in his theory, which is called "The Theory of Rational Emotive Behavioral Therapy" (Ellis, 1957). This theory expresses a guiding method aimed at assisting the individual in modifying his irrational thoughts that cause emotional disturbances to rational thoughts that achieve an appropriate level of mental health. In this context, Ellis (1962) identified the cognitive basis of behaviour in an equation called (ABC), where rational emotive behavioural therapy is based on persuading the individual that the undesirable emotional consequences (Emotional Consequence) are not an inevitable result of the event (ACT), but rather the product of thoughts or Misconceptions held by the individual.

According to Ellis and Harper, mentioned in (Amanda, 2018), rationality is anything that contributes to individuals' pleasure and survival, whereas irrationality is anything that prevents individuals' happiness and survival. Ellis (1957) points out that the individual's belief system consists of two parts: rational thoughts and irrational thoughts. Rational thoughts are characterized by several characteristics, including that they are logical, realistic, and life ideas, that is, consistent with

reality, and help the individual to achieve his goals and psychological compatibility, freedom from emotional disturbances, and lead the individual to creativity, positivity and social interaction with others. They are not absolute thoughts, and they increase feelings of pleasure and happiness, and goals become more attainable.

In terms of the second style of belief, it differs from the first in those irrational thoughts are accountable for producing emotional disturbances. It is the source of the majority of the individual's stress-related symptoms since it regulates his thinking and drives his conduct, as well as thoughts that are unrealistic, irrational, empirical, rigid, dogmatic in nature, absolute, and unsuitable (Chase, 1987). It causes negative emotional effects, which are communicated vocally by the individual in the form of obligations, such as (must be, should be, it is vital to...), and leads to self-defeat. It is often the result of natural qualities and the learning process (Grammar, 1993).

Ellis' theory is based on a set of assumptions (Al-Rihani et al, 1989), which are:

- Rationality - irrationality has a congenital basis, meaning that an individual is born with a willingness to be self-representing rational, or irrational in his behaviour and self-defeating. When the individual thinks and behaves rationally, he becomes effective and feels happy and efficient.
- There is an integrated relationship between cognition, thinking, emotion, and behaviour, and understanding self-destructive behaviour necessitates understanding how an individual perceives, thinks, reacts, and behaves. Irrational thinking is the source of all psychological disorders.
- Originating irrational thinking is rooted in the irrational early learning that an individual acquires from the outskirts of the socialization process.
- Man is a logical, perceptive, thinking, passive, and communicative being. Thinking and language go hand in hand because thinking is done via the use of verbal symbols, and as long as thinking is accompanied by emotion and emotional disturbance, and emotional disturbance will continue to fuel irrational thinking. This describes a disturbed individual as continuing to engage in irrational conduct as a result of inner or self-talk, which usually

comprises of irrational thinking.

The persistence of emotional disturbance caused by self-expression is governed not only by external events, but also by the individual's perceptions, thoughts, and attitudes toward the events that cause this disturbance.

Self-destructive negative thoughts and emotions should be addressed by rearranging the individual's beliefs and attitudes about these events to the point where the individual is reasonable and rational.

Eleven irrational thoughts as identified by Ellis:

Through Ellis' studies of irrational thoughts, he categorises them in eleven irrational thoughts or values that were considered, according to his theory, irrational, superstitious, common in Western culture and lead to psychological disturbance. These ideas are:

1. "It is a dire necessity for adult humans to be loved or approved by virtually every significant other people in their society." This idea is irrational. It is an unattainable goal because pleasing people is an unattainable goal. If the individual pursues this end, he will lose his autonomy, become more vulnerable to frustration and less sense of security. It is natural for an individual to have a desire to be loved, but a rational individual does not sacrifice his interests and desires to achieve this end (Ellis, 1962).
2. "One absolutely must be competent, adequate and achieving in all important respects or else one is an inadequate, worthless person." This idea is irrational because it is difficult to achieve. The individual's rush to achieve it leads to his stress and the emergence of psychosomatic disorders. It leads to a loss of self-confidence, a feeling of both helplessness and deficiency in the individual, and a feeling of constant fear of failure, which results in depriving him of enjoying his life. As for the rational person, he tries to achieve within his capabilities and enjoys his activity and life (Ellis, 1962).
3. "People absolutely must act considerately and fairly, and they are damnable villains if they do not. They are their bad acts." This idea is irrational because man is not infallible. There is no absolute standard of right and wrong. At the same time, a person is prone to committing a mistake as a result of his ignorance of this mistake, or because he is psychologically disturbed. Blame, punishment,

and violence do not necessarily lead to improvement but may lead to worse behaviour or emotional disturbance. A rational person is unconcerned with blaming himself or herself or others. If he makes a mistake, he confesses it and strives to remedy it, and if others make mistakes, he works to understand and direct them, just as his or others' faults are not regarded as disasters, and there is no need to address them with severe punishment or blame (Ellis 2001).

4. "It is awful and terrible when things are not the way one would very much like them to be." This is an irrational thought since, as previously stated, man does not attain all of his heart's desires because the winds do not blow as the vessels wish. Sadness and stress will not improve the problem and may possibly worsen it at times. And that events will remain as they are in reality, and if the individual is unable to change the circumstance, he must accept it. The experience may also bother the individual, but it should not be catastrophic unless he views and interprets it in this manner. The reasonable person does not exaggerate the repercussions of unpleasant experiences but instead strives to ameliorate and mitigate their impact as much as possible. And if he is not able to do so, he accepts them (Ellis, 1994).

5. "Emotional disturbance is mainly externally caused, and people have little or no ability to increase or decrease their dysfunctional feelings and behaviours." This idea is irrational, because looking at the external factors as harmful and destructive, may not be so, given that this depends on the individual's influence, interpretation and attitudes towards them, which causes him emotional disturbance and makes him work to amplify the results of external events. The rational person is fully aware that unhappiness or happiness is endogenous or intrinsic in origin, he may be bothered by external events, but he realizes that he can change his view and attitudes towards them (Ellis, 2001).

6. "If something is or may be dangerous or fearsome, then one should be constantly and excessively concerned about it and should keep dwelling on the possibility of it occurring." This idea is unreasonable since anticipating disasters generates anxiety, preoccupation with the mind, and anxiety, which leads to a referral without an objective

evaluation of the potential of dangerous events and renders coping with and addressing events if they occur inefficiently. This method of thinking may also contribute to the occurrence of the accident because illogical thinking does not prevent events from occurring if they must occur and makes events and their repercussions appear larger than their true magnitude or more dangerous than they truly are. Worry and anxiety, the sensible person recognizes, do not prevent the occurrence of dangerous events, but rather increase the degree of their impact on oneself. Which makes anxiety more effective than the events themselves and realizes that he must encourage and train himself to face events that he believes are frightening (Ellis, 1994).

7. "One cannot and must not face life's responsibilities and difficulties and it is easier to avoid them." This is an irrational thought, because avoiding problems and failing to solve them may lead to their accumulation or unfavourable outcomes. Furthermore, avoiding responsibilities is more unpleasant for the self than performing them, and avoiding responsibilities cause the individual to feel dissatisfied and lose self-confidence, just as a happy life is not always simple. The rational person fulfils his responsibilities without complaining, avoids unnecessary painful things, and if he fails to fulfil some of his responsibilities, he analyzes the causes objectively, works on alerting and directing himself, and finds the joy of life in shouldering its responsibilities and solving its problems (Ellis, 2001).

8. "One must be quite dependent on others and need them and you cannot mainly run one's own life." This is an irrational thought, while we all depend on each other, it is not a reason to exaggerate dependence because it leads to the following difficulties: more dependence and failure to learn, loss of freedom and independence, loss of self-realization and loss of security because the individual becomes at the mercy of those who depend on him. The rational person works to be independent and self-fulfilling, and he does not refuse help if he needs it, asks for it if he has to, and teaches himself to take risks in some things if it is worth it (Ellis, 2001).

9. One's history is an all-important determiner of one's present behaviour and because something once strongly affected

one's life, it should indefinitely have a similar effect. This view is irrational; because the lesson is not in past events, but in the individual's comprehension and awareness of them, just as past solutions may not be fit and appropriate for the present moment, because they began from reasons that may no longer exist. Behaviour that was thought necessary in the past under certain conditions may no longer be required in the present. It is also possible for an individual to learn from his prior experiences, but this does not have to be pushed upon him. A reasonable individual understands that the past is significant and that the present can be altered by evaluating the irrational thoughts he has acquired from the past that cause his current conduct (Ellis, 2001).

10. Other people's disturbances are horrible, and one must feel upset about them. This idea is irrational, because an individual's involvement in the issues of others may lead to significant neglect of his difficulties. As a result, the concerns of others are not always a cause of constant concern for the person. And if the behaviour of others has an impact on him, it is his interpretation of that impact that troubles and grieves him. A logical person understands when and how to help others, and if he is unable to do so, he understands how to accept the circumstance and mitigate its bad implications (Ellis, 1994).

11. "There is invariably a right, precise and perfect solution to human problems and it is awful if this perfect solution is not found." This idea is irrational; This is because there is no complete, correct and single solution to every problem. Insisting on reaching this complete and correct solution may lead to failure or to reaching solutions that are weaker than possible. The rational person seeks to find many and varied solutions to the problem, and then chooses the most appropriate, best, and most applicable, as he is fully aware that there are no perfect and absolute correct solutions (Ellis, 2001).

Al-Rihani et al. (1989), added two ideas to the aforementioned Ellis ideas, namely: A person should be formal and serious in dealing with people to have a value or a respectable position. There is no doubt that a man's position is the most significant in his relationship with a woman.

Second: Depression

In everyday life, depression can refer to a variety of various things, making it difficult to comprehend this phenomenon. Because the term depression refers to a mood or a mental illness. It also alludes to the transitory negative sensation that comes with disappointment, as well as the exhaustion, depression, and sadness that comes with everyday existence. As a result, these feelings naturally aid in the development and change of individuals, and there is no need for treatment to address these feelings (Al-Qahtani, 2021). It also refers to a temporary condition of mental depression that may last a few days or months but does not contain symptoms that make life more difficult. Feeling bad for a short time as a result of life's frustrations or a sad mental state, for example, is not a mental disorder because such sentiments are not proof of sickness and are not treated as depression. The distinction between sadness and depression is that sadness usually has a subject and a cause, such as losing a job or a loved one. By definition, a person in mourning processes feelings and memories associated with the departed within his human mind, although depression rarely has a clear reason. Depression, as a sort of mental condition, involves a persistent poor mood as well as other symptoms such as thoughts, feelings, behaviour, and the entire body, and depression can be effectively treated once it is identified (Rencken, 2021).

Depression as defined by (Grammar, 1993) is defined as a mood disorder characterized by a prolonged feeling of melancholy, loss of pleasure, interest in routine activities, and a lack of attention. It is often accompanied by feelings of guilt, carelessness, and low self-esteem. The condition affects feelings, thoughts, and behaviour, resulting in a slew of emotional and physical issues that impair daily functioning. It can lead to feelings of despair in life, as well as suicidal ideation and, in severe cases, suicide. Beck (1995) also defines depression as a common mental illness, an acute or chronic mood disorder that leads to a continuous feeling of sadness, loss of interest, and affects the person's ability to live in a normal way. Symptoms of depression often include all aspects of an individual's life, as depression affects the patient's mental health in general, and the way he thinks and acts.

Depression may also affect a person's appetite for food, the number of hours they sleep, and their feelings about themselves and others. During a depressive episode, a depressed person feels unpleasant (sad, irritable, or empty) or loses pleasure or interest in activities almost every day for at least two weeks. He may also exhibit a variety of additional symptoms, such as poor attention, excessive guilt or low self-esteem, future despair, thoughts of death or suicide, sleep difficulty, food or weight fluctuations, feeling weary or lacking in energy, and so on. Some people's mood changes may manifest more easily in the form of physical symptoms in some cultural contexts (eg pain, fatigue, weakness). These physical symptoms, however, are not caused by another condition. During a depressive episode, a person has severe difficulties functioning in personal, familial, social, educational, occupational, or other vital domains (Shoaib, 2021).

An episode of depression can be classified as mild, moderate, or severe depending on the number and severity of symptoms and their impact on an individual's functioning (Beck, 1995). Various types of mood disorders include:

- A single episode of major depression, the first one that strikes a person.
- Depressive disorder frequency indicates that the individual has had at least two depressive episodes in the past.

- Bipolar disorder, in which episodes of depression alternate with times of manic symptoms such as euphoria or irritability, increased activity or energy, and other symptoms such as increased talkativeness, racing thoughts, higher self-esteem, decreased need for sleep, and easy loss of focus.

Methods and Procedures

This section provides the study's technique, processes, and methodology, as well as a description of the community members and study sample, the tools utilized and methods for validating their validity and reliability, and the appropriate statistical treatment for data analysis.

Study approach:

To achieve the goals of the study, the descriptive correlational approach was used. As it is most appropriate for this study to describe, analyze and interpret the results of the responses of the study subjects.

Population and Sample:

The study population consisted of all those patients (37) suffering from first-degree burns who attended many outpatient clinics in private hospitals (Jordan Hospital, Specialty Hospital), where the study sample consisted of (11) individuals. The questionnaires were administered to a random sample from the study population who were selected using the convenience sampling method as indicated in Table (1).

Table(1) Frequencies and percentages according to the study variables

	Categories	Frequencies	Percentage
Gender	Male	5	45.5
	Female	6	54.5
Age	10-22	4	36.4
	>22	7	63.6
	Total	11	100.0

Study Tools:

To achieve the goals of the study, theoretical literature, and previous studies such as the study of (Al-Rihani et al,1989) and (Beck, 1995) were reviewed. The study tool was developed by the researcher based on the scale of irrational thoughts designed by (Al-Rihani, 1989) which consisted of (20) items, and the Beck Depression Inventory, which consisted of (19) items.

Tools validity

1. Indications of validity

To verify the face validity of the tools, they were presented in their initial form to a committee of specialized and experienced arbitrators in official universities. They were requested to check the quality and clarity of the content of the tools' statements and to

express their opinion on the linguistic formulation and its integrity, and the appropriateness of the statements to their fields. In addition, to suggest any other recommendations they consider appropriate to modify, add or delete. All the required modifications were considered.

2. Tool reliability

To verify the tool's reliability, the internal consistency coefficient was calculated on a pilot sample of (4) individuals with first-degree burns using Cronbach's alpha equation. Table (2) shows the percentage of Cronbach alpha internal consistency coefficient for fields and total score. These percentages are considered appropriate for the study objectives.

Table (2) Cronbach's internal consistency coefficient alpha for domains and total score

Fields	Internal consistency
Irrational Thoughts Scale	0.81
Beck Depression Inventory	0.86

Study Variables:

The study variables include:

A. The main variables:

- Independent variable: Patients with first degree burns.
- Dependent variable: level of irrational thoughts, degree of depression.

B. Secondary variables:

1. Gender, and it has two categories: (male and female).
2. Age has two categories: (10-22 years old, over 22 years old).

Statistical Analysis

Statistical analysis of the study data was obtained using the Statistical Package for Social Sciences (SPSS), as follows:

- To answer the first question, the arithmetic means and standard deviations of the level of irrational thoughts among a sample of people with first degree burns were extracted.
- To answer the second question, the Mann-Whitney- U test was used to find the significance of differences in the level of irrational thoughts among a sample of people with first degree burns according to the variables (gender and age).
- To answer the third question, the arithmetic means and standard deviations of the degree of depression among a sample of people with first degree burns were obtained.

- To answer the fourth question, Mann-Whitney- U Test was used to find the significance of differences in the degree of depression among a sample of people with first degree burns according to the variables (gender and age).

- To answer the fifth question: Spearman's correlation coefficient was extracted between the level of irrational thoughts and the degree of depression among a sample of people with first-degree burns.

- Frequencies and percentages were calculated to determine the distribution of the study sample according to the variables.

- The Cronbach- Alpha equation was used to verify the reliability of the study tool.

- The degree of irrational Thoughts and the depression level were determined at three levels. Through the following equation:

Category length = (the maximum length- the minimum length) / number of scores.

$$= (5-1) / 3 = 1.33$$

Accordingly, the scores (1-2.33) represent low, (2.34-3.67) medium, and (3.68-5.00) high.

Results

To achieve the goals of the study, the study sought to answer the following questions:

Results of the first question: "What is the level of irrational thoughts among a sample of people with first degree burns?"

To answer this question, descriptive analysis was calculated (means and standard deviations) of the level of irrational thoughts of the participants as shown in Table (3).

Table (3) Descriptive analysis of the level of irrational thoughts among the participants

Rank	N.	Statements	Mean	SD	Level
1	1	Others do not think I am pretty.	4.18	.603	high
2	11	I can't do what I want to achieve in life.	4.18	.751	high
3	15	Everything from the past affects me in the present and the future.	4.18	.751	high
4	2	I think others avoid sitting with me	4.09	.539	high
6	12	External factors are working against my will and happiness.	4.09	.944	high
7	14	I'd rather avoid problems than have to deal with them.	4.09	.539	high
8	3	Others are sympathetic to my situation.	4.00	1.183	high
9	4	I can't marry because I won't be accepted by the other gender.	4.00	1.183	high
10	13	Someone, I believe, is the reason for who I am now.	4.00	.894	high
11	16	One cannot get rid of the influence of the past on	4.00	.894	high

Rank	N.	Statements	Mean	SD	Level
		him			
12	6	I continually wonder, "Why did I only get burns?"	3.91	1.221	high
13	7	I believe that if I had a regular body, I would be successful in anything I do.	3.91	.944	high
14	17	I believe that there is only one solution to the situation.	3.91	1.044	high
15	18	I try not to talk or express myself in front of others.	3.91	1.044	high
16	8	Luck plays a significant role in life	3.82	1.079	high
17	9	I anticipate failure in both my personal and professional lives	3.73	.905	high
18	10	I suspect that those around me avoid dealing with me	3.73	.905	high
19	19	I anticipate that something unpleasant will occur at any time.	3.73	1.009	high
20	20	When I plan something, I encounter barriers.	3.73	1.009	high
		Irrational Thought Scale	3.96	.454	high

Table (3) shows that the arithmetic means ranged between (3.73-4.18), which indicates that it is a high degree. Statement (1) which reads "Others do not think I am pretty." came in the first place with a mean of (4.18), while statement (20) which states, "When I plan something, I encounter barriers" came last, with a mean of (3.73). The overall mean of the level of irrational thoughts among a sample of people with first degree burns was (3.73). The researcher noted that this outcome is to be expected for persons with burns, particularly those who are unable to control their ideas, as Rogers stated that thoughts, like architecture, require engineering. Individuals who suffer from irrational thoughts are unaware of their positive self-image and adhere to their negative self-image. Man is not simply a response to the stimuli to which he is subjected; he analyses and interprets them into

new kinds of knowledge. People who have undergone burns are prone to irrational thinking as a result of their rejection of the distortions they have endured. This result is consistent with the results of the study of (Zahani, 2019; Alvi, 2009).

Results of the second question:

Are there statistically significant differences at the level of statistical significance ($\alpha = 0.05$) in the responses of the participants of the level of irrational thoughts among people with burn injuries of first degree attributed to the study variables (gender, age)?

To answer this question, the Mann - Whitney U test was used to find the significance of the differences in the level of irrational thoughts among a sample of people with first degree burns according to the variables of gender, age as shown in Table (4).

Table (4) The results of the "Mann-Whitney" test to find the significance of the differences in the level of irrational thoughts among the sample according to the variables of gender and age

Scale	Variable	N	Mean rank	Sum of ranks	Mean	Mann-Whitney U	Wilcoxon W	Calculated Z value	Sig
Irrational Thought	Male	5	6.40	32.00	4.05	13.000	34.000	-.366	.714
	Female	6	5.67	34.00	3.88				
Irrational Thought	10-22	4	3.63	14.50	3.67	4.500	14.500	-1.799	.072
	> 22	7	7.36	51.50	4.12				

Data in Table (4) illustrates that:

- There are no statistically significant differences ($\alpha = 0.05$) attributed to gender.

- There are no statistically significant differences ($\alpha = 0.05$) attributed to age.

The researcher attributes this result to the fact that no one, whether male or female like to suffer from deformities resulting from burns or even other things, as this is an issue that the soul always rejects, therefore no significant differences were found between both male and female participants.

Results of the third question: “What is the degree of depression among a sample of people with first degree burns?” Descriptive analysis was obtained to answer this question as shown in Table (5).

Table (5) Descriptive analysis of the degree of depression among participants

Rank	Items n	Statements	Mean	SD	Level
1	26	I don't feel that there is anything that can please me in life	4.18	.751	High
2	25	I'm frustrated and desperate	4.09	.539	High
3	27	I could be cursing everything that happens to the people I love	4.00	.775	High
4	28	I'm not perfect and an unreliable person	3.91	.701	High
6	29	I hate looking at myself in women	3.91	1.044	High
7	30	I wish to die, and I have thoughts to end my life	3.73	.786	High
8	31	I cry a lot for the least of the reasons	3.73	1.272	High
9	32	I am very hesitant and hard to decide	3.73	1.009	High
10	33	I lack energy for routine chores	3.73	1.009	High
11	34	I don't feel passionate about anything in life	3.73	.905	High
12	35	I get excited very quickly and cry or scream	3.73	1.009	High
13	36	I don't feel like I have an appetite	3.73	1.009	High
14	37	I am constantly losing weight and my skin feels pale	3.73	1.104	High
15	21	I feel sad most of the time	3.64	1.027	Medium
16	23	I feel that the future is bleak and hopeless	3.64	1.027	Medium
17	24	I feel like a failure in everything	3.64	.924	Medium
18	38	I don't fall asleep quickly despite always feeling exhausted	3.64	.809	Medium
19	39	I wonder when other people laugh, why do they laugh	3.64	1.286	Medium
Beck Depression Inventory			3.78	.527	High

The arithmetic mean of this scale ranged between (3.64-4.18), which is a high degree. Statement (26) which reads “I don't feel that there is anything that can please me in life” ranked first with a mean (4.18), while statement (39) which reads “I wonder when other people laugh, why do they laugh” came in the last place, with a mean (3.64). Where the overall mean degree of depression among a sample of people with first-degree burns was (3.78). The researcher attributes this result to rational thinking people practice, meaning that a person who suffers from irrational thoughts is highly expected to suffer a state of

depression. Ellis (1962) reported that the nature of human thinking and his cognitive construction about the things that happen with him and in the environment are directly reflected on his mood and that if this mood is bad and the situation persists for a long time, the individual enters into a state of depression that he described as sad but persistent.

Results of the fourth question: “Are there statistically significant differences at the level of statistical significance ($\alpha = 0.05$) in the responses of the participants of the degree of depression among a sample of people with first-degree burns attributed to the study

variables (gender, age)?” The Mann - Whitney U test was used to answer this question as

indicated in Table (6).

Table (6) The Mann - Whitney U test for the degree of depression among people with first-degree burns by gender and age

Scale	Variable	N	Mean rank	Sum of rank	Mean	Mann-Whitney U	Wilcoxon W	Calculated Z value	Sig
Beck Depression Inventory	Male	5	6.80	34.00	3.84	11.000	32.000	-.732	.464
	Female	6	5.33	32.00	3.73				
Beck Depression Inventory	10-22	4	3.63	14.50	3.49	4.500	14.500	-1.799	.072
	>22	7	7.36	51.50	3.95				

Table (6) shows that:

- There are no statistically significant differences ($\alpha = 0.05$) due to gender.
- There are no statistically significant differences ($\alpha = 0.05$) due to age.

The researcher attributes this result to the fact that when irrational thoughts replace rational thoughts, the individual becomes vulnerable to depression, and this, in turn, may affect both males and females as well, because the cognitive structure itself is what predicts the

form of an individual's response, not his gender.

Results of the fifth question: “Is there a statistically significant correlation at the level ($\alpha \leq 0.05$) between the level of irrational thoughts and the degree of depression among a sample of people with first-degree burns?”

Spearman's correlation coefficient was extracted between the level of irrational thoughts and the degree of depression among a sample of people with first-degree burns to answer this question (see Table.7).

Table (7) Spearman's correlation coefficient of the relationship between the level of irrational thoughts and the degree of depression among a sample of people with first-degree burns

		Beck Depression Inventory
Irrational thought scale	correlation coefficient	.906(**)
	Statistical significance	.000
	N	11

* Statistically significant at (0.05).

** Statistically significant at (0.01).

Table (7) shows that there is a positive, statistically significant relationship between the level of irrational thoughts and the degree of depression among a sample of people with first-degree burns. The researcher relates this to the fact that a positive association between the variables of the study is highly anticipated, as the larger the percentage of irrational thoughts, the greater the likelihood of an individual suffering from depression. According to Beck (1995), an individual's irrational thinking hinders the patient's capacity to lead a normal life. It contains depressive symptoms, where

depression affects the patient's mental health in general, as well as the way he thinks and behaves. Depression can also have an impact on a person's nutrition, sleep duration, and sentiments about themselves and others. Irrational thoughts influence how an individual interacts with himself and his surroundings. This conclusion is completely consistent with the study of (Wiechman, 2021), which found that patients with burn injuries are more prone to suffer from depression, and it is also consistent with the findings of (Bin al-Dhib, 2019).

Recommendations

Based on the results of the current study; The researcher suggests the following:

- 1- Conducting more studies related to irrational thoughts and depression and linking them to other variables such as personality traits or level of consciousness.
- 2- Encourage the hosting of counselling sessions in private clinics aimed at boosting awareness of burn sufferers and directing them on how to deal with stresses and problems that may lead to depression or irrational thinking.

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