

Irrational Thoughts Associated With Addiction And Drug Abuse And Their Relationship To Logical Thinking Among Jordanian University Students

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Abstract

This study aimed to identify the level of irrational thoughts associated with addiction and drug abuse and their relationship to logical thinking among Jordanian university students. The study selected the target sample by using the simple random approach. The study was conducted during the first semester of the academic year (2021 / 2022) on a study sample of (866) participants. The study results found a high level of irrational thoughts related to (avoidance of problems, anxiety, and intolerance), and a medium level of irrational thoughts related to (lack of responsibility for emotions, and seeking support), in addition to a high level of logical thinking among Jordanian public university students. Also, the results revealed that there were statistically significant differences at the significance level ($\alpha \leq 0.05$) in the level of (intolerance, anxiety, avoiding problems, and irrational thoughts as a whole) due to gender and in favor of males, and it was found that avoiding problems was in favor of females. Moreover, there were differences in the level of (intolerance, lack of responsibility, and irrational ideas as a whole) that are attributed to specialization and in favor of the scientific specialization. Furthermore, there were differences in the level of (intolerance, anxiety, support request, avoiding problems, lack of responsibility, and the total degree) due to the variable of the school year and in favor of the first year. Finally, there were differences in the level of (intolerance, anxiety, support requests, avoidance of problems, and the overall degree of irrational thoughts) attributed to the type of university and in favor of public university students. The study recommended the need to raise awareness among students in Jordanian universities and the need to participate in training courses that raise the level of logical thinking and increase their level of psychological toughness, self-improvement, and self-reliance.

Keywords: irrational thoughts - addiction and drug abuse - logical thinking - Jordanian university students.

Introduction

Substance use disorders are among the newly common disorders, the repeated use of which leads to neurological and mental diseases that destroy the nervous, physical and psychological systems. It begins with trying and experimenting, and leads the individual to become addicted to drugs, making it difficult to give up or dispense of them; as a result, he is called an addict. His thinking is saturated with irrational thoughts, and the inability to think through his life matters in a logical way, which affects his interaction with himself and with

others. The problem of drug abuse is one of the most serious problems facing societies in the whole world, due to its devastating effects (psychological, social and economic) on the individual and society in various fields. It has become a concern for all specialists in society, such as the security services that have direct contact with crimes, as well as sociologists, psychologists, and clerics, in order to reduce and eliminate their dangers (Al-Matlaqa and Al-Mutlaqa, 2020).

In order to justify the behaviors of drug addicts, they are controlled by the irrational way of thinking to create a justification for the actions they do. There is also a debate between scholars in the definitions of this psychological concept, as Albert (Ellis) defined irrational thoughts as “a group of negative and illogical thoughts that do not conform to reality and are characterized by the absence of objectivity. These ideas are generally influenced by the personal whims of individuals, which are often based on incorrect and erroneous expectations and generalizations, these include a mixture of conjecture and probability in addition to exaggeration and exaggeration, which also do not agree with the actual capabilities of individuals (Al-Anzi, 2009: 26). When an individual begins to abuse and then becomes addicted, his mental and cognitive abilities are greatly affected. Users suffer from poor general understanding of the negative consequences that affect health as a result of continuing the behavior of abuse, and the abilities responsible for decision-making and logical thinking abilities are at a low level of maturity that allows decision-making; in other words, the abuser might have a disorder in some cognitive qualities that enable him to think, analyze, and conclude (Muhammad, 2001: 142).

Accordingly, this study aims to identify the level of irrational thoughts that are associated with addiction and substance abuse, and the level of logical thinking among Jordanian university students. Also, it aims to identify the differences in the level of these irrational thoughts and their relationship to addiction and drug abuse and the level of logical thinking among Jordanian university students due to the variables of (gender, specialization, academic level, degree, type of university). In addition to knowing and determining the level and type of relationship between the level of irrational thoughts associated with addiction and drug abuse.

The Study Problem

The problem of addiction and drug abuse is one of the biggest dilemmas that all countries and peoples of the world suffer from, not only because of what is known about its health, economic and social damages, but also because of the security problems it causes and its link to crime. It should be noted that the drug problem is not considered limited to a specific segment of society, especially a certain age or a specific educational and cultural level, but rather a problem that concerns all segments of society at its various levels (Suef, 2007: 16). What makes it more serious is what many studies have indicated, which is that the age at which individuals start abusing drugs is decreasing gradually during the recent period. One study stated that 85% of a total sample consisting of (600) individuals who use drugs began using drugs before the age of fifteen. Also, Adolescents between (12-21) years take addictive drugs, then gradually move towards more dangerous drugs which seriously affect the brain (Michael, 2004).

Studying the damages of addiction on the addict himself is the first interest in psychology and psychological counseling, despite the many negative effects on the family and society. Drug addiction leads to many mental disorders such as hallucinations, inflammation and atrophy in brain cells that lead to dementia, weakness and memory disorder. All these

damages and disorders lead to an imbalance in the level of logical thinking of the addict (Suef, 2004: 25).

As far as the researcher knows, there were no previous studies linking the irrational thoughts of addiction and logical thinking. Moreover, the researcher's observations of some illogical thoughts and concepts among university students, through his field work in humanitarian programs supporting the category of students in primary and university education with non-governmental organizations, has had a profound impact in researching the subject of the current study to identify irrational thoughts associated with addiction and substance abuse and their relationship to logical thinking among university students in Jordan. The problem of the study is illustrated by the following questions:

- What is the level of irrational thoughts associated with addiction and drug abuse among Jordanian university students?
- What is the level of logical thinking among Jordanian university students?
- Are there statistically significant differences at the level of significance ($\alpha = 0.05$) in the level of irrational thoughts associated with addiction and drug abuse among Jordanian university students due to the variables of (gender, specialization, academic level, degree, type of university)?
- Are there statistically significant differences at the level of significance ($\alpha = 0.05$) in the level of logical thinking among Jordanian university students due to the variables of (gender, specialization, academic level, academic degree, type of university)?
- Is there a statistically significant correlation at the level ($\alpha = 0.05$) between the level of irrational thoughts associated with addiction and drug abuse and the level of logical thinking among Jordanian university students?

Theoretical Framework and Previous Studies

In the modern era, many schools of psychology appeared, such as the emergence of the analytical school, which was run by Adler. He spoke about the emotional impulses of people, commenting that they are organically linked to the thoughts and beliefs of the individual. In the late twentieth century, beginning with the thought and interpretation of (Kelly, 1955), the actual interest in cognitive aspects and their role in psychological and behavioral disorders increased. Scientists have differed about the concept of irrational thoughts, as their source is a complex mental and psychological thinking. Among these concepts is what Al-Awaidah (2007: 2) indicated that irrational thinking is one of the long-lived concepts, and its roots extend to the philosophers of the ancient Greek civilization. He defined it as "illogical and unrealistic ideas that frustrate the one who embraces them and weaken his ability to achieve his goals, or even achieve his psychological and social compatibility."

Alice defined rational ideas as "any event or thing that leads individuals to happiness and survival, and a victory for the mind in various areas of life and existence, such as in the field of science and social life" (Hassan and Al Jamali, 2003: 196). ELLIS has explained the role of irrational thought in disordered behaviors through his well-known theory ABC, where he sees that stimulating events and experiences, which are symbolized by the letter A, and the thinking system of individuals, which are symbolized by the symbol B, and the emotional disturbance arising from the event symbolized by the symbol C. He sees that these events that occur do not directly result in emotions, but rather result from the individual's thinking system. If thinking is irrational and illogical, then emotions becomes disordered and confused (Al-Hamidi, 2014: 77).

As David, Lynn, & Ellis, 2009 (David, Lynn, & Ellis, 2009: 33) show, there is a positive and high correlation between irrational thoughts and beliefs and a wide range of life problems, and that rational beliefs and thoughts promote a healthy life, reduce anxiety, problems, and other psychological disorders. ELLIS believes that irrational thinking will inevitably affect emotional and cognitive disturbance, in addition to the individual's beliefs and thinking in general. If the individual adheres to rational beliefs, and reduces his irrational thinking, he may be freed from mental, emotional, and behavioral disturbance. Ellis also had a point of view regarding that people are rational by nature, and they can deal with their problems by improving ideas and perceptions, that is, rational thoughts have a close relationship with logical thinking and the reduction of psychological diseases. The level of anxiety will increase in individuals as a result of irrational thoughts in the absence of logical thinking, which increases the level of neuroticism, and distorts perception (Ellis, 1991).

There are many reasons for the emergence of irrational thoughts, the most important of which were the negative parenting methods, in addition to the cultural, social, and economic level (Goren et al., 2019). For example, negative parenting methods can be in two directions, the first direction is the lack of positive interaction between parents and son, and here the son feels self-defeated and becomes unable to face the problems he is exposed to. The other direction is through exaggerated care methods, as they make the son unable to face problems and deal with them alone. The high-level cultural and social levels also help in the emergence of rational ideas that are conscious and aware of life events in a rational manner. As for the economic level, the low economic level of individuals leads to the emergence of some psychological diseases through which the individual feels inferior, frustrated, anxious, and depressed, which leads to distorted thoughts and a bad view towards members of society with good and prestigious economic centers. As a result, the individual begins to cling to irrational thoughts to escape the bitter reality in which he lives, as he is a person who deserves respect and appreciation, and to have a better social status.

Dhaif (2015: 177) explained that ELLIS addressed six features and characteristics of rational ideas, which are: objectivity, flexibility, ease of achieving and accomplishing goals, reducing internal conflicts within the individual, reducing confrontation with others surrounding the individual, and helping to think in several forms of possibilities. Ellis cited many features related to irrational thoughts (Al-Ghafry, 2013) such as over-generalization: in which the individual generalizes results that depend on careful reasoning, usually based on individual observation only. Self-esteem: The individual resorts to a twisted thinking pattern when estimating personal value. The individual is self-aware of actions and situations, but some pressures have conditions in determining the individual's position towards some events. Claim: Whereby Ellis states that there is a relationship between a person's desires, his numerous and persistent demands, and his emotional disturbance. Atrocity: When a person has illegal (legitimate) and illogical demands, he attempts to achieve them with some level of atrocity, and in a striking and unacceptable way. Mis-attribution of wrong actions: a person often tends to attribute his wrong actions to other people, which affects the nature of his perception of external events and his emotional state, in addition to turbulent behaviors.

The sources of irrational thoughts are many and varied, and among them are the following (Hegazy, 2013): The genetic factor: based on the classification of irrational thoughts as a psychological disorder, scientists have documented that the genetic factor plays a key role in raising the level of irrational thoughts and giving a predisposition for the person who has these genes to have these disorders. Social isolation: Social isolation is one of the main reasons that would significantly increase the level of irrational thoughts, and thus the individual lacks

judgment on his thoughts. People who have irrational thoughts suffer from some symptoms that are represented in (Beal et al., 1996):

Mood symptoms such as: sadness, depression, feelings of unhappiness, low level of morale, anxiety, irritability, loss of pleasure and joy, in addition to dissatisfaction with life in general, all of these have an impact on irrational thinking. There are behavioral symptoms such as: the delay in the psychological reaction, increased crying and social withdrawal, in addition to relying heavily on others, inability to make decisions, and the tendency to commit suicide. Cognitive symptoms: People with irrational thoughts suffer from many cognitive symptoms, such as a loss of interest in what is going on around them, with difficulty concentrating on many important matters, with a decrease in the level of self-motivation, a rise in the level of negative thoughts, hesitation, and guilt, in addition to the occurrence of negative thoughts, indifference, and sometimes murder or suicide (Al-Anzi, 2010).

Theories Explaining Irrational Thoughts

Theory of Rational Emotive Behavior Therapy

This theory focused on Rational Emotive Therapy, which represents the special theory of personality and style in psychotherapy developed by psychologist Albert Ellis, which he originally called (Rational Therapy). Ellis believed that emotions, built thoughts, and behaviors are all interrelated psychological processes. As such, he was criticized for initially naming the treatment method without concern for behavior and emotion. In 1961, he worked on changing it to Rational Emotive Therapy, and then in 1993 he changed the name of therapy to Rational Emotive Behavior Therapy, emphasizing the behavioral and emotional approach in human experiences. The theory of Rational Emotive Behavior Therapy was based on identifying psychological disorders that may arise as a result of different patterns of wrong thinking, where Ellis made three basic assumptions to understand this method which are: (there is a relationship between thinking and emotion, that the degree of relationship between thinking and emotion is strong so each one accompanies the other; in addition, they may influence each other, sometimes it is not possible to distinguish between them, and that each of them may tend to take the form of an internal self-talk which people do not say to each other, but a person says only to himself.

Symbolic Interaction Theory

Herbert Bloomer defined the symbolic interaction as the distinctive and effective way in which people interact with each other. One of the features of this interaction is that people's actions and thoughts towards various things are based on what these things mean to them, that is, it is through symbols, connotations, and meanings related to these actions. These symbols, connotations, and meanings emerged and resulted from the social interaction between people in society, and then people used them among themselves, until these symbols and connotations became agreed upon signs among members of the whole community (Al-Hourani, 2008). As for the founder of the Symbolic Interactive Theory (G. H. Mead), his approach was to start from the social act, and that the interaction process must take place through a symbolic interaction in order to achieve an understanding of operations from two aspects: the first aspect is understanding the processes related to the mind and the self. The second is understanding the processes related to the formation of what is cultural and social (Othman, 2008). "Mead" believes that the means that allows people to communicate and interact with others is language, as this interaction is within certain connotations and symbols and enables the individual to see himself from the outside according to what others see. The most important part in this process is the so-called symbol, i.e. what denotes a specific thing or matter, and since people live in a

world full of symbols, these symbols must govern the process of interaction between members of society (Gadens, 2005).

Based on the foregoing, we find that the self emerges and is built from within the contexts of social life, and that through the interaction of the individual with others, his behaviors and actions acquire meanings. Also, symbols, meanings and, language organize social life, as the development of symbols, semantics and, language increases the social awareness of the individual and gives him the ability to Interaction (Othman and Sari, 2009). However, it is clear that the contribution of symbolic interaction in general, and "Goffman" in particular, is appropriate for this study. Goffman believes that thoughts lead the individual to an important characteristic or a symbol of society, and through these thoughts that the person can become important despite the deficiency that he experienced as a result of some social, psychological, or economic problems, as he acquires his importance from society. Irrational thoughts mediate the relationship between an individual's self-identity (virtual identity) and social identity (real identity) (Shilling, 2012). Each individual within the community has his own beliefs and ideas about his beliefs, the desire to take specific behaviors completely different from the rest of the other behaviors to highlight himself, the desire for individuals to interact with him as a result of the unique ideas he thinks and criticize behind them, and the desire to reach and achieve dreams within the ideals and standards which he set for himself .

Addiction and Drug Abuse

Addiction is defined as the repeated abuse of a psychological substance, as the abuser is preoccupied with the subject of abuse, and expresses weakness or refusal to stop, or to modify the pattern of abuse. He may show symptoms of withdrawal, tolerance, and psychological and intestinal dependence when he stops using drugs; also, the social and professional functions of the addict are clearly affected. (Khalifa and Al-Mashaan, 2003). The causes of addiction are divided into two parts according to what was mentioned by (Al-Demirdash, 1982), one of which is related to the drug itself, and the other is related to the addicted individual: The causes related to the drug include its properties and chemical composition: Each of the substances has its different chemical composition, and based on this composition, the stages that the human body go through differ. When the drug is taken and it reaches the nervous system, it attaches to the receptor part of the nerve cell, so the drug interacts with the cell and affects the body and brain.

As for the reasons related to the addicted individual, they include, for example, genetic factors: The results of a British study conducted in 1980 showed that the rate of alcohol addiction rises in the families of addicts in particular. The personality of the addict and his psychological and biological traits: Some researchers believe that there are certain types of personality traits that characterize addicted individuals. As for (Peters & McMahon, 1996), they divide the factors that cause addiction into social factors, including demographic factors like (gender, age, class, religion). Cultural factors: These include school-related factors like (achievement, university assessment, university environment). Personal factors: These include inappropriate perceptions of alcohol or drug use, parental use, substance prevalence levels, and attitudes toward addiction. Family factors such as: The nature of family communication, parental control, and family attitudes toward drugs or alcohol. In addition to the influence of the media.

Logical Thinking:

Logical thinking is one of the types of thinking through which premises are obtained, in which the result has connections. It is important and necessary for scientific thinking, since it is a type of hypothetical deductive thinking. It is defined as the thought that is used to explain

the causes of things to determine and know the results, and to obtain evidence that proves or denies a point of view (Abdulaziz, 2013: 25). There are numerous logical thinking skills including: The skill of collecting information: This is done through organized and accurate observation, the process of doubt, questioning and reflection. The skill of memorizing information: This is the ability of the thinker to store data or what is called coding, and to also remember and retrieve information when needed. The skill of organizing and analyzing information (Al-Hajahijah and Al-Zaqq, 2015: 372).

Logical thinking depends on perceiving and visualizing the relationships between previous information to reach certain conclusions about new situations that were unknown. Ghanem (2009) defines it as "the thinking that is practiced when trying to explain the causes and causes that lie behind things and trying to know the results of actions, which is more than the identification of causes and effects. It also means obtaining evidence to support, prove, or disprove the point of view". The ability to think logically is gradually developed from a young age until the age of twelve, in which logical thinking focuses on extracting the necessary implications from the premises without paying attention to the content of the premises, because it is subject to the rules of logic (Ababneh, 1996). They also referred to some processes that require deductive thinking. Several studies indicated that the level of logical thinking varies from one individual to another according to their personal and demographic characteristics, and the social and economic level. Studies conducted on public education students showed a decrease in their logical thinking abilities, with differences in the level of abilities of both males and females. The study of (Al-Hadrami, 2011) proved that there are differences in the level of logical thinking between males and females. A study by (Fah, 2009) showed a decrease in the level of logical thinking among students and the presence of differences between males and females.

Previous Studies:

Al-Farah study (2021) entitled "The Level of Prevalence of Irrational Beliefs among Drug Addicts in Jordan". The study aimed to reveal the prevalence of irrational beliefs among drug addicts in Jordan and to know the difference in the level of prevalence of these beliefs among them according to their educational qualifications and their ages. To achieve this, the descriptive survey method was used and the questionnaire was used as a tool for data collection. The study sample consisted of (103) addicts from the city of Amman who were selected using the available sample method, and the data were collected using the Irrational Beliefs Scale prepared by Ellis and translated by (Al-Rihani, 1985). The results showed the spread of irrational beliefs among drug addicts in Jordan at significantly high levels. In general; moreover, the results showed that there were statistically significant differences at the level of ($\alpha \leq 0.05$) on the Irrational Beliefs Scale and the domains of (harsh blame on oneself and others, excessive anxiety, dependency, feeling helpless, and the importance of previous experiences) attributed to the variable of educational qualification. In contrast, there are no statistically significant differences on the Irrational Beliefs Scale and in all areas attributed to the variable of age. The study recommended focusing on the cognitive reconstruction of drug addicts to modify their irrational beliefs.

Al-Sheikh's study (2017) aimed to reveal irrational thoughts and their relationship to depression among addicts in mental health hospitals in Khartoum State in Sudan which are attributed to some variables. The study used the descriptive correlative approach, and the sample consisted of (90) addicts who were selected using the simple random way. The study tools used were the scale of irrational thoughts and the scale of depression. The results showed a high level of irrational thoughts and depression among drug addicts in Khartoum

state, and a direct correlation between irrational thoughts and depression. Furthermore, there were no differences in irrational thoughts among drug addicts in Khartoum state attributed to the variables of economic level, educational level, type of substance that the addict uses, and age group.

The study of Al-Muhaimzi et al. (2012) also aimed to identify irrational thoughts and their relationship to anxiety among drug addicts and non-addicts in Riyadh, Saudi Arabia. The study used the correlative descriptive approach, and the randomly selected study sample consisted of (288) drug addicts in Al-Amal Center for Mental Health in Riyadh and (316) non-addicts from the non-addicted community are from the Saudi community in Riyadh. The study used the scale of rational and irrational thoughts in addition to the scale of anxiety. The results showed a decrease in anxiety levels among non-addicts compared to its increase in cannabis and alcohol addicts, and low levels of irrational thoughts among non-addicts compared to its increase in cannabis and alcohol addicts. They also showed a direct correlation between irrational thoughts and anxiety.

Al-Awaidah study (2007) aimed to reveal the relationship between rational-irrational thoughts and levels of mental health among a sample of students from Al-Ahliyya Amman University in Jordan. The study used the correlative descriptive approach, and it was applied to a sample of (181) male and female students. Two questionnaires were used for the study, which are a questionnaire to measure rational-irrational thoughts, and a questionnaire to measure the level of mental health. The results showed an increase in the prevalence of irrational thoughts among the members of the study sample, and indicated the dominance of the average level of mental health. Also, there were no differences in all irrational thoughts attributed to the variables of gender, nationality, and specialization, and there were no statistically significant differences in levels of psychological health attributed to gender, nationality, and specialization. Finally, they indicated a negative correlation between irrational thoughts and levels of mental health.

The study of (Camatta et al., 1995) entitled “Stress, Depression, Irrational Thoughts, Alcohol Abuse and Problems among a Sample of University Students”. The study sample consisted of (135) university students who abused alcohol, and they filled out a scale about their levels of alcohol use, impulsivity, adventure, moderate to severe problems with alcohol use, depression and trouble scale, life stress scale, and belief susceptibility scale. Impulsivity and adventure were significantly associated with the amount of alcohol intake, while depression, stress, and irrational thoughts were significantly associated with alcohol intake. The results indicated that the effect of stress on alcohol problems was mediated by depression, while the effect of depression, in turn, was mediated by irrational thoughts.

The current study was characterized by its subject, as it is one of the rare studies - as far as the researcher knows - which combined irrational thoughts related to addiction and substance abuse in its various forms and their relationship to logical thinking among Jordanian university students. The current study focused on the relationship of irrational thoughts with mental disorders such as social fear, irrational thoughts and their relationship to psychological stress. The scales used to measure the variables of previous studies also varied, and some studies differed in terms of objectives. The current study was unique in terms of dealing with irrational thoughts related to addiction, substance abuse and abuse, and their relationship to logical thinking.

Method and Procedures

The current study used the descriptive correlative approach due to its relevance to the purposes and objectives of the study. This approach was used because it is based on describing the phenomenon occurring in the variables of the study, in addition to describing the relationship between the independent and dependent variables. The study community consists of all Jordanian university students for the first semester of the academic year 2021/2022 of the first and final academic year, and from all scientific and humanities faculties. The study population is very large, and if the community is large and not specified in detail, and when it is difficult to reach very accurate numbers, then the study sample is selected according to the sampling schedule of (Krejcie & Morgan, 1970; Sekeran & Bougie, 2010) at an error level of (0.035). This corresponds to a percentage of (0.97) approximately, with the possibility of entering the parameters in the sample, which determines the study sample of approximately (800) individuals.

The study sample was chosen randomly, consisting of (900) male and female students from public and private universities inside Jordan, and within the three main regions. Measurement tools were distributed to the study sample members through the Google Survey application due to the repercussions of the Corona virus crisis, which does not allow the researcher to interview the respondents directly to prevent the transmission of the Corona virus infection, and to preserve the health system of students. Responses were very close to the limited sample, since (866) students responded out of (900), which represents (96.2%) of the original sample.

The tool (scale) for irrational thoughts associated with addiction and drug use was developed with reference to the theoretical literature and previous studies (Majli and Blan, 2011; Al-Awaidah, 2007; Yassin and Elshawi, 2015; Davison and Zigelboim, 1987; Khaledian et al., 2013; Camatta, 1995). The scale consisted of two parts: The first part: which included information related to the personal and demographic characteristics of the study sample, such as gender, academic year, specialization, academic degree, and type of university. The second part: Included the items of scales, which consisted of (37) items, all of which are related to irrational thoughts related to addiction and drug abuse; in addition, the tool was designed based on the five-point Likert scale. The validity of the scale was also verified through the apparent validity in terms of the opinions of the arbitrators, in order to express their opinions on the validity of the content and the affiliation of the items to the scale and through the structural validity. The structural validity of the scale was obtained by calculating the correlation of the item's degree with the dimension to which it belongs on an exploratory sample that consisted of (25) male and female students.

The study was used to calculate the reliability coefficient values for the main and sub-indicators and the total score, which ranged between 0.663-0.860. The value of the reliability coefficient of the repetition stability was (0.881). These values of the reliability coefficient are considered appropriate and acceptable for the purposes of this study. In order to identify the consistency of each item of the scale with the dimension to which the item belongs, the correlation coefficients between each item of the scale using the coefficient (Cronbach's alpha) was used. The values of the Cronbach's alpha coefficient for the sub-dimensions of the scale ranged between (0.689 - 0.839). The value of the reliability coefficient using Cronbach's alpha for the total score of the scale was (0.926). All these results are acceptable values for the purposes of the current study (Hair et al., 2010).

Using descriptive statistics methods through the Statistical Package in Social Sciences (SPSS) program to answer the study questions, it applied its most prominent test, such as Cronbach's alpha test, to ensure the reliability of the measurement tools. Multiple Analysis of Analysis (MANOVA test) was used to answer the third question, and Five Way ANOVA was used to answer the fourth question.

The Study Results

To answer the first question of the study, the results indicated that the arithmetic means of (irrational thoughts associated with addiction and drug abuse) ranged between (3.99 and 3.44). The irrational thoughts associated with addiction and drug abuse among Jordanian university students in general scored a total arithmetic average of (3.74), which is in the high level. The dimension of avoiding problems came in first place, and it got the highest arithmetic mean of (3.99) and a standard deviation of (0.66), which is in the high level. The dimension of anxiety came second with an arithmetic mean of (3.77) and a standard deviation of (0.75), which is in the high level. the dimension of intolerance came in the third rank with an arithmetic mean of (3.72) and a standard deviation of (0.70), which is in the high level. The dimension of irresponsibility over emotions came in the fourth rank with an arithmetic mean of (3.65) and a standard deviation of (0.63), which is in the medium level. The dimension of demanding support came in the last place with an arithmetic mean of (3.44) and a standard deviation of (0.82), which is in the medium level. Table 1 illustrates these results.

No.	Dimensions of irrational thoughts associated with addiction and substance abuse	Arithmetic Mean	Standard Deviation	Rank	Level
4	Avoiding Problems	3.99	0.66	1	High
2	Anxiety	3.77	0.75	2	High
1	Intolerance	3.72	0.70	3	High
5	Irresponsibility over Emotions	3.65	0.63	4	Medium
3	Demanding Support	3.44	0.82	5	Medium
	Total	3.74	0.57		High

In order to answer the second question of the study, the results indicated that the arithmetic means of (logical thinking) ranged between (4.64 and 3.24), and it obtained a total mean of (4.12), which is in the high level. It is clear from the results that the arithmetic means of (logical thinking) ranged between (4.64 and 3.24), and it obtained a total arithmetic mean of (4.12), which is in the high level. Item No. (13) received the highest arithmetic mean of (4.64) with a standard deviation of (0.61), which is in the high level, and it stated (I believe that the satisfaction of all people is an unattainable goal). Item No. (16) came in the second place with an arithmetic mean of (4.44) and a standard deviation of (0.64), which is in the high level, and it stated (I believe in the necessity of facing difficulties, whatever their size, and with all my abilities).

To answer the third question of the study, the arithmetic means and standard deviations were extracted and the MANOVA test was used to identify the differences in the level of irrational thoughts associated with addiction and drug abuse among Jordanian university students attributed to the variables of (gender, specialization, academic level, degree, type of universities). The results showed that there were apparent differences between the values of the arithmetic means for the level of irrational thoughts with its dimensions (intolerance, anxiety, demanding support, avoiding problems, and irresponsibility over emotions) associated with addiction and drug abuse among Jordanian university students attributed to demographic variables of (gender, specialization, academic level, degree, type of universities). The MANOVA test was used to identify the significance of the differences. The results showed that

there were statistically significant differences at the level ($\alpha = 0.05$) in the level of intolerance, anxiety, avoiding problems, and irrational thoughts as a whole attributed to gender, as the values of the statistic (F) were (27,238, 5.316, 58.301, 19.213), respectively. By checking the values of the arithmetic means, it was concluded that the source of the differences was in favor of males, while the differences in avoiding problems were in favor of females.

They also showed that there were no statistically significant differences in the level of demanding support and irresponsibility attributed to the variable of gender, as the statistical values (F) were (3.021, 0.061), which are not statistically significant values at the significance level (0.05). Moreover, they showed that there were statistically significant differences at the level ($\alpha = 0.05$) in the level of intolerance, irresponsibility, and irrational thoughts as a whole attributed to the variable of specialization, as the statistical values (F) were (44,820, 73.436, 23,484) and the source of the differences was in favor of Scientific specialization. It was noted that there were no differences in the level of anxiety, demanding support, and avoidance of problems attributed to the variable of specialization, as the (F) values were (0.958, 0.476, 3.102), respectively, which are not statistically significant values; also, the differences between the arithmetic means, if any, did not reach the level of statistical significance. Table 2 illustrates these results.

Table (2): Arithmetic means and standard deviations to identify the level of irrational thoughts related to addiction and drug use for Jordanian university students attributed to the variables of (gender, specialization)

<i>Source of Difference</i>	<i>Gender</i>	<i>No.</i>	<i>Arithmetic Mean</i>	<i>Standard Deviation</i>
Intolerance	Male	342	3.79	0.85
	Female	524	3.68	0.58
Anxiety	Male	342	3.90	0.81
	Female	524	3.69	0.69
Demanding Support	Male	342	3.72	1.01
	Female	524	3.26	0.60
Avoiding Problems	Male	342	3.92	0.89
	Female	524	4.03	0.43
Irresponsibility over Emotions	Male	342	3.82	0.83
	Female	524	3.54	0.41
Irrational Thoughts as a Whole	Male	342	3.84	0.79
	Female	524	3.68	0.34
<i>Source of Difference</i>	<i>Specialization</i>	<i>No.</i>	<i>Arithmetic Mean</i>	<i>Standard Deviation</i>
Intolerance	Scientific	342	4.02	0.73
	Humanities	524	3.53	0.61
Anxiety	Scientific	342	3.96	0.78
	Humanities	524	3.65	0.70
Demanding Support	Scientific	342	3.66	0.95
	Humanities	524	3.30	0.68
Avoiding Problems	Scientific	342	4.12	0.59
	Humanities	524	3.90	0.68
Irresponsibility over Emotions	Scientific	342	3.96	0.72
	Humanities	524	3.46	0.46
Irrational Thoughts as a Whole	Scientific	342	3.97	0.66
	Humanities	524	3.60	0.44

The results showed that there were statistically significant differences in the level of irrational thoughts with its dimensions (intolerance, anxiety, demanding support, avoiding problems, irresponsibility, and the total score) attributed to the variable of the academic year, as the statistical values (F) were (265.560, 224.221, 334.212, 124.445, 245,287, 397,411) in favor of the first year. They also showed that there were no statistically significant differences in the level of irrational thoughts with its dimensions (intolerance, anxiety, demanding support,

avoiding problems, irresponsibility, and the total score) attributed to the academic degree, as the values of (F) were (0.055, 3.218, 1.392, 0.748, 2.700, 0.162).

They showed that there were differences in the level of (intolerance, anxiety, demanding support, avoiding problems, and the total score) attributed to the type of university, as the (F) values were (7.604, 20,990, 28,305, 30.944, 28.952), respectively, which are indicative values at the level of the significance of ($\alpha = 0.05$) in favor of the students of public universities. Also, there were no differences in the level of irresponsibility attributed to the type of university, as the value of (F) was (2.055), which is a non-significant value at the significance level (0.05); furthermore, the differences between the arithmetic means, if any, did not reach the level of statistical significance.

The Hotling Tris values were (0.116, 0.207, 0.613, 0.015, 0.065) for gender, specialization, academic year, degree, and type of university. All of these values are statistically significant at the significance level (0.05), which confirms the existence of statistically significant differences in the level of irrational thoughts attributed to the academic year, degree, and type of university. Table 3 illustrates these results.

Table (3): Arithmetic means and standard deviations to identify the level of irrational thoughts related to addiction and drug abuse for Jordanian university students attributed to the variables of (academic year, degree, type of university)

Source of Difference	Academic Year	No.	Arithmetic Mean	Standard Deviation
Intolerance	First Year	115	4.63	0.67
	Final Year	751	3.58	0.59
Anxiety	First Year	115	4.70	0.79
	Final Year	751	3.63	0.63
Demanding Support	First Year	115	4.66	0.80
	Final Year	751	3.25	0.64
Avoiding Problems	First Year	115	4.51	1.04
	Final Year	751	3.91	0.53
Irresponsibility over Emotions	First Year	115	4.53	0.83
	Final Year	751	3.52	0.46
Irrational Thoughts as a Whole	First Year	115	4.60	0.82
	Final Year	751	3.61	0.37
Source of Difference	Degree	No.	Arithmetic Mean	Standard Deviation
Intolerance	Bachelor's	598	3.75	0.71
	Higher Education	268	3.66	0.68
Anxiety	Bachelor's	598	3.81	0.77
	Higher Education	268	3.68	0.69
Demanding Support	Bachelor's	598	3.44	0.79
	Higher Education	268	3.43	0.87
Avoiding Problems	Bachelor's	598	3.98	0.70
	Higher Education	268	4.01	0.55
Irresponsibility over Emotions	Bachelor's	598	3.67	0.64
	Higher Education	268	3.61	0.59
Irrational Thoughts as a Whole	Bachelor's	598	3.76	0.62
	Higher Education	268	3.71	0.42
Source of Difference	Type of University	No.	Arithmetic Mean	Standard Deviation
Intolerance	Public	683	3.78	0.74
	Private	183	3.51	0.48
Anxiety	Public	683	3.84	0.71
	Private	183	3.52	0.83
Demanding Support	Public	683	3.52	0.84
	Private	183	3.12	0.63
Avoiding Problems	Public	683	4.06	0.57
	Private	183	3.73	0.88
Irresponsibility over Emotions	Public	683	3.70	0.64
	Private	183	3.48	0.56
Irrational Thoughts as a Whole	Public	683	3.81	0.55
	Private	183	3.51	0.57

To answer the fourth question of the study, the arithmetic means and standard deviations were extracted and the five-way test of variance was used to identify the differences in the level of logical thinking among Jordanian university students attributed to the variables of (gender, specialization, academic year, degree, type of university). The results showed that there were apparent differences between the values of the arithmetic means for the level of logical thinking among Jordanian university students attributed to the variables of (gender, specialization, academic year, degree, type of university). The five-way test of variance was used to identify the significance of the differences. They also showed that there were statistically significant differences in the level of logical thinking among Jordanian university students attributed to the variable of gender, academic year, specialization, and degree, as the values of the statistic (F) were (66.312, 583.114, 46.071, 30.888), respectively, which are significant values at the significance level (0.05). In addition, the source of the differences in logical thinking was in favor of male students, in favor of students of scientific specialization, in favor of first-year students, and in favor of higher education students, due to the increase in their arithmetic means. Moreover, there were no differences in the level of logical thinking among Jordanian university students attributed to the type of university, as the statistical value (F) was (2.957), which is a non-significant value at the significance level (0.05); also, the differences between the arithmetic means, if any, did not reach the level of statistical significance. Table 4 illustrates these results.

Table (4): Arithmetic means and standard deviations to identify the differences in the level of logical thinking for Jordanian university students attributed to gender, specialization, academic year, degree, and type of university

Source of Difference	Gender	No.	Arithmetic Mean	Standard Deviation
Logical Thinking	Male	342	4.15	0.56
	Female	524	4.10	0.31
Source of Difference	Specialization	No.	Arithmetic Mean	Standard Deviation
Logical Thinking	Scientific	342	4.28	0.53
	Humanities	524	4.01	0.31
Source of Difference	Academic Year	No.	Arithmetic Mean	Standard Deviation
Logical Thinking	First Year	115	4.80	0.40
	Final Year	751	4.01	0.32
Source of Difference	Degree	No.	Arithmetic Mean	Standard Deviation
Logical Thinking	Bachelor's	598	4.09	0.42
	Higher Education	268	4.17	0.45
Source of Difference	Type of University	No.	Arithmetic Mean	Standard Deviation
Logical Thinking	Public	683	4.14	0.46
	Private	183	4.01	0.30

To answer the fifth question of the study, it calculated correlation coefficients using the Pearson Correlation test in order to determine the relationship between irrational thoughts associated with addiction and drug abuse and the level of logical thinking among Jordanian university students. The results of the study showed a positive, direct, statistically significant correlation at the significance level (0.05) between irrational thoughts with its sub-dimensions (intolerance, anxiety, demanding support, avoiding problems, and irresponsibility over emotions) and logical thinking among Jordanian university students. Table 5 illustrates these results.

Table (5) *Pearson Correlation Test to identify the relationship between irrational thoughts associated with addiction and drug abuse and the level of logical thinking for Jordanian university students*

		Logical Thinking
	Intolerance	.503**
	Statistical Significance	.000
	No.	866
	Pearson Correlation Coefficient	.415**
Anxiety	Statistical Significance	.000
	No.	866
	Pearson Correlation Coefficient	.468**
Demanding Support	Statistical Significance	.000
	No.	866
	Pearson Correlation Coefficient	.567**
Avoiding Problems	Statistical Significance	.000
	No.	866
	Pearson Correlation Coefficient	.587**
Irresponsibility	Statistical Significance	.000
	No.	866
	Pearson Correlation Coefficient	.627**
Irrational Thoughts	Statistical Significance	.000
	No.	866

** : a significance at the level (0).

Discussion of Results, and the Conclusion

The results of the study showed that the irrational thoughts related to addiction and substance abuse of Jordanian university students are at a high level from their point of view. The dimension of avoiding problems received the highest arithmetic mean of (3.99). The dimension of anxiety came in the second rank with an arithmetic mean of (3.77). The dimension of intolerance came in the third rank with an arithmetic mean of (3.72). The dimension of irresponsibility over emotions came in the fourth rank with an arithmetic mean of (3.65). Finally, the dimension of demanding support came in the fifth rank with an arithmetic mean of (3.44). This may be attributed to the frustration of addicts and drug abusers which weakens their ability to achieve their goals in life in addition to feeling of anxiety and fear as a result of irrational and unrealistic thoughts; all this limit the level of psychological and social compatibility, and generates thoughts that increase frustration (Ellis, 1990).

The results of the study showed that intolerance is high as one of the dimensions of the scale of irrational thoughts related to addiction and substance abuse for Jordanian university students. They also showed that “drug and alcohol users find justifications for their mistakes that they commit at a high level”. This result may be attributed to the flawed thinking of drug and alcohol users due to their separation from the real world, since they live in a hypothetical world other than their real world. Furthermore, they see that what they are doing is correct and has multiple reasons from their point of view, they also insist on doing the wrong thing and see it as the correct thing to do, as they are intolerant regarding their opinions.

They also showed that alcoholics and drug addicts question the rules of morality at a high level. This result may be attributed to the false beliefs that they strongly believe in as a result of irrational thinking; also, they see the world from multiple angles as a result of the influence of alcohol and drugs, which have an effect on the mind, thought, and spirit. They also

showed that anxiety was at a high level as one of the dimensions of the scale of irrational thoughts associated with addiction and drug use among Jordanian university students. They showed that addicts and drug abusers deal with clear chaos in life matters. This may be attributed to many reasons, which are represented in the imbalance in thoughts, as well as intense anxiety about the future, which remains unclear due to drug and alcohol abuse. Also, they showed that the demanding support was at a medium level from the point of view of the study sample, and it was noted that the addicts of alcohol and drugs desire the love of others as they consume alcohol and drugs. This result may be attributed to some of the irrational thoughts that alcoholics and drug addicts have, and through which they want to attract people who love them as they are a source of pity and attention.

It was shown that the dimension of avoiding problems was one of the high-level dimensions of the scale of irrational thoughts related to addiction and substance abuse for Jordanian university students. The results showed that alcoholics and drug abusers support incorrect behaviors and may consider them correct. This may be attributed to the weakness of psychological toughness, and distortion of thoughts and beliefs that have become associated with addicts as a result of the effect of intoxicants; all this leads addicts to escape from reality and avoid problems. It was also found from the results that alcoholics and drug abusers postpone making important decisions in life, and this may be due to their unwillingness to confront and avoid situations that require sound thinking to go through life in the right way. They also showed that the dimension of irresponsibility over emotions was at a medium level as one of the dimensions of the scale of irrational thoughts related to addiction and substance abuse for Jordanian university students. It turns out that there are many reasons which make alcoholics and drug abusers sad for a very long time and at a high level. This result may be attributed to the irrational thoughts that control the addict, and to his imbalance in thinking and making decisions; moreover, it has been shown through the results that alcoholics and substance abusers are classified as indifferent and irresponsible individuals. The results of this study agreed with the results of the study of (Al-Ghafry, 2013), the study of (Majli and Balan, 2011), the study of (Abu Shaer, 2007), the study of (Al-Salama, 2011), the study of (Al-Awaidah, 2007), and the study of (Davison and Zighlboim, 1987).

They showed that the logical thinking of Jordanian university students is of a high level among Jordanian university students, and it was found that the students believe that the satisfaction of all people is an unattainable goal and at a high level. This result may be attributed to logical and sound thinking, which is carried out in the light of integrated mental processes that depend on intellectual stability associated with sound and correct beliefs, which have activity, vitality, and a wealth of organized information and experiences. This is one of the most useful modes of thinking (Shanner, 1961).

It was found through the results that it is unfortunate that a person is dependent on others and relies on them to a great extent and to a high degree. This may be attributed to the students being self-reliant in light of practicing logical thinking, which leads to making many right decisions, assuming responsibility, and self-reliance. These results agree with the results of the study of (Al-Mansour, 2012), the study of (Al-Faraji, 2019), and the study of (Al-Zahran, 2019). They showed that there were statistically significant differences at the level ($\alpha = 0.05$) in the level of intolerance, anxiety, avoiding problems, and irrational thoughts as a whole attributed to gender. It was found that the source of the differences was in favor of males. This result may be attributed to the fact that male students have more irrational thoughts than female students, and this may be due to the fact that the psychological pressures of males are more than the psychological pressures faced by females, as male students bear responsibility, and

they have future plans for obtaining work, marriage, and forming a family; this requires many financial obligations that may affect the students' psychology, which leads to their frustration and a feeling that dreams cannot be achieved. As a result, students resort to alcoholism and drug abuse to escape the bad general atmosphere. The results of this study are in agreement with the results of the study of (Majli and Balan, 2011). However, the differences in avoiding problems were in favor of females. This result may be attributed to the fact that female students are keener to stay away from problems in light of the customs and traditions upon which the Jordanian society was built, and that girls tend to avoid problems in order to preserve their reputation and value within the Jordanian society. These results differed with the results of the study of (Majli and Balan, 2011).

The results of the study showed that there were statistically significant differences at the level ($\alpha = 0.05$) in the level of intolerance, irresponsibility, and irrational thoughts as a whole attributed to the variable of specialization, and the source of the differences was in favor of scientific specialization. This result may be attributed to the fact that scientific specializations are more exposed to psychological stress caused by the difficulty of the study materials, and the high prices of academic hours. As a result, the student begins to turn to self-venting, relying on others, and perhaps laying responsibility on family or friends in choosing the scientific specialization, which is considered a difficult decision. As such, the problems that lead to students resorting to drug addiction and drug abuse begin. These results agreed with the results of the study of (Al-Awaidah, 2007), and differed with the results of the study of (Al-Ghafry, 2013).

Also, there were statistically significant differences in the level of irrational thoughts with its dimensions of (intolerance, anxiety, demanding support, avoiding problems, irresponsibility, and the total score) attributed to the variable of the academic year, and in favor of the first year. This result may be attributed to the fact that psychological stresses of the first-year students are higher, because students in the first year have some new issues because they are new to the university, and they are in a transitional stage from school to university, which is new to them with its procedures and nature. Students are sometimes exposed to some emotional shocks that affect them psychologically, which leads them to delinquency, drug abuse, and addiction to alcohol. The results of this study agreed with the results of the study of (Al-Salama, 2011).

Moreover, there were differences in the level of (intolerance, anxiety, demanding support, avoiding problems, and the total score), attributed to the type of university and in favor of public university students. This result may be attributed to the fact that the group of students in public universities is more vulnerable to financial, social, and psychological pressures, noting that most of the students in public universities are of low income, which can affect the financial situation of students on their dismissal from the university, or delay the graduation stage, which puts them between the jaws of the pincers; this results in deviating students and their tendency to abuse alcohol and drugs, which raises the level of anxiety and irrational thoughts that affects their future. The results of this study agreed with the results of the study of (Hegazy, 2013).

The results also showed that there were statistically significant differences in the level of logical thinking among Jordanian university students attributed to the variable of gender, academic year, specialization, and degree, and the source of the differences in logical thinking was in favor of male students. This can be attributed to the fact that most of the male Jordanian university students are exposed to many stressful situations, which force male students to think logically to get out of the stressful situations and problems, as males are more responsible. Also, the results were in favor of students of scientific specialization. This result may also be

attributed to the exposure of this group of students to many stressful situations about the specialization and its difficulty in favor of first-year students, and this applies to the results of the third question, as this group of students is more prone to problems in light of their transition from school to university. The results of this study agreed with the results of a study, and the results of this study agree with the results of the study of (Ismail and Khudair, 2020), and differed with the results of the study of (Al-Faraji, 2019).

They also showed a positive, direct, statistically significant correlation at the significance level (0.05) between irrational thoughts with its sub-dimensions of (intolerance, anxiety, demanding support, avoiding problems, and irresponsibility over emotions) and logical thinking among Jordanian university students. This result may be attributed to the feeling of Jordanian university students that there is no point in submitting to irrational thoughts, since they lead the individual towards destruction and abyss, and falling into many problems, all of which leads the student to failure.

Recommendations

Based on these results, the study recommended the following:

- 1- Holding workshops on the dangers of drug and alcohol addiction, and its impact on irrational thoughts that can lead students to engage in bad actions, leading to delinquency and crime.
- 2- Guiding drug and alcohol addicts, and raising their awareness of the need to go to addiction treatment centers to get rid of addiction and return to normal life.
- 3- Raising awareness among students in Jordanian universities of the need to participate in training courses that raise the level of logical thinking and increase their level of psychological toughness, self-improvement, decision-making ability, and self-reliance.
- 4- Students in Jordanian universities must face the problems they are exposed to, and benefit from experiences, as this enhances students' abilities to raise the level of self-confidence, psychological toughness, and confronting problems.
- 5- Reporting students susceptible to using drugs, and speak with the officials within the university, especially while knowing any of the students who use drugs or are addicted to alcohol.
- 6- Making recent studies related to the subject of the study, enriching the Arabic library with the subject of irrational thoughts and their relationship to logical thinking among university students, as well as using environments other than students, such as employees of companies, banks, or hospitals, and applying study tools to them.

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