

**Cognitive Distortions and Their Relationship with Psychological  
Flow Among Secondary School Teachers in Kuwait (Male and  
Female)**

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The study aims to identify cognitive distortions and their relationship with psychological flow among secondary school teachers in Kuwait, from both genders. The sample consisted of 200 participants, divided into 100 males and 100 females. The research used the following tools: a cognitive distortions scale and a psychological flow scale. The study used a descriptive approach and reached the following results: There is a statistically significant positive correlation between cognitive distortions (dimensions and total score) and psychological flow (dimensions and total score) among the teachers of the study sample. There are no statistically significant differences in cognitive distortions attributed to the level of psychological flow among the teachers of the study sample. There are no statistically significant differences in the level of cognitive distortions among the teachers of the study sample between males and females. There are no statistically significant differences in the level of psychological flow in the study sample between males and females. It is possible to predict the cognitive distortions among the teachers of the study sample in light of their psychological flow and their teachers'.

## **Keywords:**

- Cognitive Distortions
- Psychological Flow
- Secondary Education in Kuwait

## Introduction

Cognitive distortions appear when an individual's schemas about themselves are negative, resulting in illogical ideas and biases. Individuals interpret and recall their experiences of external events versus the decline in positive schemas that have become less dominant than negative schemas. This causes individuals with cognitive distortions to notice the negative aspects of events and makes it difficult for them to notice the positive aspects. Also, their ability to remember negative events is better than their ability to remember positive events. The negative framing of one's experiences is related to cognitive distortions and can significantly affect an individual's self-perception, feelings, and patterns of interactions among individuals.

Common cognitive distortions include self-deprecation, tendency to self-blame for negative external events beyond the individual's control, a general feeling of helplessness towards undesirable events in one's life, and the belief that the future is bleak

Cognitive distortions, often called distorted thinking patterns, involve an exaggeration in estimating danger and hardships in the world (Hamidah Abdul Muti, 2018, 87).

Psychological flow is a modern psychological concept initiated by Mihaly Csikszentmihalyi in the late 1980s. He observed people undertaking activities where the activity itself was the goal, such as artists, painters, football players, and mountain climbers. Those involved in these activities felt pleasure and joy (Mohammed Siddiq, 2009, 314).

Flow falls within the framework of the psychology of optimal experience, a new branch of psychology whose roots extend to Abraham Maslow's hierarchical classification of needs, and from which Mihaly Csikszentmihalyi borrowed. He noted that when a person practices an activity for a long time, making that activity a goal in itself, the person is said to be in a state of flow.

Some classify flow as a state of emotional intelligence. Flow represents the maximum state or final degree in employing emotions to serve performance and learning. In flow, emotions are not only absorbed and scheduled, but actively and positively employed in coordination with the work that the individual is practicing (Mohammed Siddiq, 2009, 315).

Research Problem and Questions: From the above, it is clear that there are many studies and research that have addressed cognitive distortions in various

environments. They have revealed different levels of cognitive distortions according to different societies, such as the studies by Odaci (2013), Celik, Liu (2012), Zhang (2008), Lamia Salah El Din (2015), Tariq Badr (2015), and Hamida Al-Salmi (2018).

Cognitive distortions do not only occur in a specific category or gender of people, but they can affect teachers as well. Some of them may suffer from a defect in their perception of reality and distortion of their ideas, adopting distorted thoughts due to what they witness of changes in our current era, such as the tremendous and accelerating scientific progress in all fields of cultural, social, and economic life, the communications and information technology revolution, and global issues and problems. This can lead them to suffer from many psychological disorders that sometimes result in some cognitive distortions (Marcotte, 2006, 17).

**From the above, the research problem** is represented in the following question: **What is the relationship between cognitive distortions (and their dimensions) and psychological flow among secondary school teachers?**

This main question gives rise to the following subsidiary questions:

1. What is the relationship between cognitive distortions (dimensions and total score) and the psychological flow (dimensions and total score) of the teachers in the study sample?
2. What are the differences between teachers in cognitive distortions attributed to the level of psychological flow among the teachers in the study sample?
3. What are the differences between teachers (males - females) in the level of cognitive distortions?
4. What are the differences between teachers (males - females) in the level of psychological flow?
5. What is the possibility of predicting cognitive distortions among the teachers in the study sample in light of psychological flow?

### **Study Objectives:**

#### **The current study aimed to:**

- Identify the relationship between cognitive distortions and psychological flow among secondary school teachers.

- Identify the differences between teachers in cognitive distortions attributed to the level of psychological flow in the study sample.
- Identify the differences between teachers (males - females) in the level of cognitive distortions.
- Identify the differences between teachers (males - females) in the level of psychological flow.
- Predict cognitive distortions among the teachers in the study sample in light of psychological flow.

### **Importance of the Study:**

The importance of the current study crystallizes in two main aspects: A.

Theoretical Importance:

This study enriches the Arabic library as a complementary source for the series of scientific studies in this field by:

- Providing a theoretical framework about the concept of cognitive distortions, and psychological flow.
- Identifying the relationship between cognitive distortions and psychological flow among secondary school teachers so that specialists can establish principles and strategies to prevent cognitive distortions.
- The scarcity of Arabic research in the field of psychology in general, and in the field of thinking in particular, that are interested in studying cognitive distortions and their relationship with psychological flow, within the limits of the researcher's knowledge.

### **B. Practical Importance:**

- Supplying the Arabic library in general, and the educational field in particular, with some measurement tools, such as the cognitive distortions scale.
- Guiding those in charge of the educational process and psychological counselors to the importance of overcoming the causes of cognitive distortions among secondary school teachers so that the teacher can confront cognitive distortions, leading to success in many practical and social fields.
- Expanding interest in cognitive distortions, their causes, results, how to overcome them, and stimulating related studies.
- Assisting many researchers in developing various programs to mitigate the causes of cognitive distortions, which may contribute to improving practical and academic performance.

- Shining a light on the study of cognitive distortions in the field of psychology.

## **Theoretical Framework:**

### **First Axis: Psychological Flow.**

#### **Concept of Flow:**

- A state among emotional intelligence states in one of its manifestations contributes to employing emotions in a positive way and coordinating them with the work that the individual is doing. (Safaa Al-Easar; Alaeddin Kifafi, 2012, 281)
- The state in which people are completely absorbed in what they are doing, directing the highest levels of undistributed attention to work, while consciousness is accompanying the work. (Mohammad Abd Hussein, 2017, 144,145)
- An ideal experience that occurs to the individual from time to time when performing tasks at the highest levels of performance. This flow is determined through total preoccupation with performance, decreased awareness of time and place during performance, forgetting self-needs, and the automatic pleasure accompanied by joy and real pleasure in work. (Sayed Al-Bahas, 2018, 117,118)
- A state of positive experience that occurs when the performing individual is fully associated with the performance in a situation where personal skills and the challenges required for the situation are equal. (Habib Taher, Ayed Al-Kanani, 2019, 51)
- A sophisticated experience that makes the individual feel happiness, joy, and immersion in the activity to the extent of forgetting the self. (Amal Abaza, 2012, 149)
- The optimal human experience embodying the highest manifestations of positive mental health and quality of life in general as a state that means the individual's integration into tasks and works and forgets himself, the environment, and time associated with a state of jubilation. (Mohammed Abdul-Jawad, 2013, 7)
- A state in which the individual is occupied in an activity, so that there seems to be nothing else important at that time. The experience is very enjoyable, where the individual does it no matter the cost. (Afrah Khalil, 2016, 198)
- A state of ideal experience that occurs when an individual does a certain task or skill and forgets himself and the time with the feeling of pleasure and happiness to finally reach a unique type of human creativity. (Badeea Yenhan, 2016, 326)

Looking at these definitions, it is observed that they look at flow as an ideal, sophisticated, and positive human experience. Some see it as a state of preoccupation, immersion, and absorption in tasks or activities, and some define it as an emotional state manifested in an individual's emotional intelligence. Whether flow is an experience, emotional intelligence, or a state of immersion and absorption, it is associated with many determinants represented in the positive use of emotions, performing tasks and activities with total preoccupation along with decreased awareness of time and place when performing. Avoiding feelings of depression and boredom, in addition to happiness and joy during the activity as it gives meaning and value to life.

Many definitions can also be presented for flow, which are found in foreign literatures, such as:

- A latent psychological state behind peak performance, including concentrated energy that involves spirituality and feelings of joy and the essence of moments of ecstasy. (Schindehutte, Et, al., 2016, 352)
- A state of complete absorption in an inherently interesting activity with no psychological energy deviations. (Shernoff & Vandell, 2017, 891)
- A self-state involving individuals reporting that they are fully immersed in something to the extent of forgetting time and fatigue and everything else except the activity itself. (Schuler & Brunner, 2019, 168)
- A state of concentration and decreased self-awareness and enjoyment that usually occurs during activities that are challenging but match in difficulty with a person's skill level. (Ullen & Et al., 2012, 169)
- A state of optimal experience when individuals decide to participate intensively in doing something with the pleasure of doing it. (Sinnott, J.D., 2013, 43)

By analyzing the previous definitions, it is observed that they consider flow as a state of optimal experience, or concentration, or complete absorption in the activity, or a psychological feeling. In all of them, this state is linked to the individual's skill and equates it with the difficulties he faces, emphasizing pleasure, joy, happiness, and forgetting time and fatigue while practicing the activity. This, in turn, reflects on the individual's life and his immersion in life in a natural and positive way.

**Indicators of the occurrence of psychological flow: -**

When the individual reaches a state of psychological flow, there are many indicators and manifestations through which one can judge the extent to which the individual has reached this state of positivity, immersion, and enjoyment. In this context, (Mohammed Siddiq, 2009, 328, Fawzi Jabal, 2000, p77) indicates that there are basic indicators of the flow state that include:

- **Efficiency:** refers to the individual's ability to identify ineffective attempts and obstacles that cannot be overcome, so he avoids them.
- **Compatibility:** means the compatibility of thoughts, feelings, and behaviors, so that the individual does not issue a behavior that contradicts his thinking methods, all his conclusions are derived from suitable information.
- **Benefiting from experiences:** the situations that the individual goes through represent experiences that he benefits from in future situations.
- **Self-confidence:** means the individual's appreciation of himself, his recognition of its value, and his reassurance to his abilities.

**In this context, Slade (2020, 26)** points to flow indicators in several elements that are clarified as follows:

- **Positivity:** means the individual's ability to overcome the state of stress and pressures that the individual may be exposed to and transform it into a state of psychological flexibility that enables him to continue immersing in the task entrusted to him.
- **Optimism:** means that the individual has strong probability expectations that in the end, things will end up in enjoyment and happiness, despite the difficulties and obstacles he may face, and it gives the individual the strength and flowing ability to accomplish more work, which stimulates his motivation for achievement.
- **Emotional balance:** which means the individual's ability to control his various emotions and express them according to what circumstances require, and in a manner that is compatible with the situations that require these emotions.
- **Psychological comfort:** one of the manifestations that indicates the individual's arrival to the state of flow is his ability to withstand situations and problems that lead to his maladjustment, and therefore whenever we felt that the individual has



achieved psychological comfort for himself, this was an indication of his adaptation and compatibility.

- **Feeling of satisfying psychological needs:** One of the indicators is to feel that his needs are saturated, and this is manifested in his feeling of security, and the ability to accomplish, enjoy and immerse in the task happily.

### **Factors contributing to the occurrence of flow: -**

It is very important to mention that the state of flow involves many factors that contribute to forming that state in the individual within a framework of family, school, and community support for the individual's aspirations and needs, which can affect his positivity and motivation towards achieving his goals and satisfying his desires, and these flow-related factors will be clarified.

The individual's knowledge of the circumstances of events and the experience that he will go through in a certain field and knowledge of the consequences associated with it contribute to his success in the flow experience, noting that there is difficulty for the individual to stay in a suitable absorption state unless he gets the appropriate time and direct information related to the activity he is currently doing. In this context, the individual can develop his internal motives to enable him to succeed in engaging in the flow experience; which helps him to rely on his abilities and not need the opinions of others to judge whether the task has been accomplished or not. He has the ability to give feedback to himself towards the desired goal to achieve it. (Moneta, 2014, 117))

In this context, (Inkson & Carr, 2014, 26) believes that the family is tasked with an important and vital role in providing opportunities for their children and reinforcing their confidence in themselves to face bigger challenges as they advance in age, in addition to providing socialization experiences that allow individuals to develop personal characteristics that make it easy for them to form flow experiences, as well as providing them with clear and specific goals and providing immediate feedback on their responses in different situations.

The family has a vital role in increasing the individual's desire for positive development, which is a basic element of sound psychology, and to have this desire, a person must have an affiliation to the family that produces a desire to develop and consolidate it.

The community is also considered one of the most influential factors in the state of psychological flow among its members. From an emotional point of view, the individual develops his emotions and acquires certain behaviors from the society in which he lives, including controlling emotions and preparing the appropriate psychological state to achieve happiness and well-being in life. The individual in his relations with his society finds himself in a direct relationship with the members of his society and shares them in various behaviors, and because behavior is acquired from society, it translates.

And it is not hereditary, the individual acquires the ability to make decisions in various psychological situations in a sense of consistency and unity. (Inkson & Carr, 2014, p.25)

Also, culture represents one of the factors that provide the individual with a psychological and emotional state that can lead the individual to a state of psychological flow, as it represents the total of what the individual learns, including the religious belief, language, customs, values, heritage, and ideas adopted by society and renewed through it by the behavior of its members. If that culture supports freedom, independence, and self-confidence within a framework of duties and responsibilities, the individual belonging to it will enjoy a psychological state that enables him to feel satisfaction, accept himself, and then his psychological flow will have the ability to achieve psychological and social compatibility, and the state of psychological flow will grow in him steadily. (Janet & Davy, 2013, p.115).

**In the same context**, (Mostafa Hegazy, 2012, p.170-171) identifies the factors leading to flow as follows:

- **Family upbringing:** Each family has its own character, which can provide care and appreciation for its members, and work on developing a spirit of independence, initiative, and the ability to achieve.
- **Social culture:** Every society has a general culture adopted by its members, which can provide the skills and requirements that can help its members face challenges.
- **Educational institutions**, especially schools: where the school determines the experiences and goals that the student is tasked with achieving in an atmosphere of freedom to enhance the student's ability to achieve through respecting his desires, inclinations and valuing his successes.
- **Internal motivation:** Refers to the individual's independence, his control over matters, and his sense of his role and status.

From the previous presentation, it is clear that flow is linked to several factors that lead to its occurrence. These factors vary to include the family in which the individual grows up and what it can provide in terms of psychological support and healthy upbringing, as well as society and its nature and the behaviors adopted by its members, which are linked to the culture of society, its customs and traditions, and the school and the various experiences it provides for teachers. Therefore, these factors together form important elements in the individual's reaching the state of psychological flow and what it entails in increasing the individual's confidence in himself and his feeling of enjoyment in his life within the society.

### **Dimensions of psychological flow.**

The dimensions associated with psychological flow can be explained in the following elements: **A- Clarity of goals.**

This means the existence of clear goals rooted in the activity that the individual seeks to achieve, and the existence of a sense of confidence about what is required of him to do, through his knowledge of what he should achieve from goals. When the individual clearly knows what he wants and is determined to reach it, his level of challenge and skill increases, which contributes to increasing the level of flow and feelings of happiness and thus the flow experience becomes effective and positive. (Swann & Crust, 2012, p.812))

### **B- Immediate feedback on progress towards the goal.**

Meaning that the individual has clear feedback that helps him achieve his goals, meaning that the information provided by the activity allows the person to recognize...

The process of translating the Arabic text into English would be as follows:

a- **The sense of progress towards the desired goal is challenging**, as it's difficult for the individual to become immersed in the activity without knowing what they should do or how useful it is. This is one of the important characteristics of flow experiences; flow activities not only make the objectives clear but also include immediate feedback that enables the individual to remain immersed in the activity.

(Sinnott, 2013, p. 44)

b- **The balance between perceived challenges and required personal skills.**

This means that the challenges should match the individual's abilities. If the challenges are too difficult, frustration appears; if the challenges are too easy, boredom appears. Therefore, the balance between these two areas is extremely

important for the success of the flow experience. (Swann & Crust, 2012, p. 812) **c- The integration of work and consciousness.**

This refers to being fully immersed, deeply involved, and feeling united with the activity, so that work is done in a spontaneous and automatic way. This requires the individual's full attention to the task at hand and a complete understanding of the importance of avoiding intrusive thoughts. When an individual is in a state of flow, they focus on the activity they are doing, and as a result, the phenomenon of merging work and consciousness occurs, where increased concentration leads to the integration of mind and work. (Csikszentmihalyi, 2017, p. 244) **d- Loss of self-awareness of needs.**

This means a decrease in self-awareness and social evaluation, where the individual becomes indifferent to what others see. It isolates the individual's consciousness of themselves and becomes as if they are separate from the world around them, with a feeling of unity with the environment. The loss of self-scrutiny does not mean that they are ignorant of what is happening in their body and mind. (Zager, Kocjan & Avsec, 2017, p. 203).

**e- Transformation of time perception.** The sense of time is switched based on the individuals' immersion in the associated activities and tasks. In some cases, there is a sense of time increasing or decreasing, meaning that the state of flow may give a sense that hours seem to turn into minutes, and seconds may change into hours (Zager, Kocjan & Avsec, 2017, p. 203).

The perception of time and its awareness varies according to the state of flow. Often, people who have experienced flow will report that hours have passed without their knowledge, while they were deeply engrossed in the flow activity. For example, a reader becomes completely immersed in a book late at night, and is only surprised when the light of dawn appears, without realizing that they have been reading all night.

**z-,The,sense,of,control.**

This means that the individual avoids thinking about failure, and has confidence in successfully mastering the task without worry or fear, as is the case in many situations in normal life, in addition to controlling activities that involve risks such as,skydiving,,mountain,climbing,,etc.

In flow experiences, one of the first things that an individual mentions relates to a sense of control over the situation. It is known that when difficulties and challenges are respected, planned for, and worked on to develop appropriate skills

to face them, there is a good chance of controlling them. Some people, like a chess player, say that they feel they can control others, that they have a sense of absolute power, and that they feel very strong. (Csikszentmihalyi, 2014, p.50) The sense of control tends to be a fundamental characteristic of the flow experience. When handling any activity, the individual must maintain their belief in controlling the activity in order to stay in a state of flow. (Csikszentmihalyi, 2017, p.70)

**Deep, concentration, on, the, given, task.**

This means full concentration on the task at hand with no intrusive thoughts distracting immersion in it. The individual's comprehension and focus on the activity become so intense that there is nothing else occupying their attention, with a note to filter out perceptions and thoughts unrelated to the activity and to avoid concern, for, them.

This dimension focuses on blocking out the external physical world and concentrating the mind entirely on the subject and current activity. For example, when engrossed in reading a new novel or a particular book; concentration is focused on reading and everything else disappears. In fact, the element of concentration is probably the most comprehensive element in the flow experience where the comprehension of the activity and immersion in it dominate the individual, and there is no room in the consciousness for any subject unrelated to the activity. (Swann, 2012, p. 807) **t-Enjoyment, of, the, experience.**

This means that the activity is rewarding for the individual in itself and not for obtaining future benefit or return. The experience and immersion in it are enjoyable in themselves even if that experience includes some kind of risks, difficulties, or pain. This is the ultimate goal of the flow state that engulfs the individual.

Looking at the above, it is clear that the state of flow includes an interaction between the individual and their lived reality in the environment where they face consecutive events that generate many desired goals to achieve. Subsequently, the individual reaches a state of harmony with those events through which they work to satisfy their psychological and cognitive requirements equally. This appears through the importance of psychological flow: -

A result of the studies conducted in the field of psychology, which were interested in psychological flow in the human direction and research in its intrinsic motivations and internal interests, the human being has become viewed as an active being characterized by organization in its interactions with the environment,

racing to acquire experiences and interact with them. As a result, the concept of psychological flow has become of great importance in psychology.

Mohammed Abdel Jawad emphasizes that psychological flow has utmost importance related to the opportunities it provides for self-regulation, control over consciousness, and feelings among individuals. It also prepares various opportunities for developing potentials and skills, as well as allowing the individual to acquire ideal and positive experiences during their interaction with the environment in which they live. (Mohammed Abdel Jawad, 2013, p.8)

Amal Abaza (2012, p.41) adds that psychological flow is of great importance in reducing feelings of anxiety, boredom, fear, and indifference, in addition to increasing the individual's self-confidence and granting them a chance for independence; preparing them for opportunities to be creative, raising the level of ambition, responsibility, and motivation towards achieving and accomplishing goals, regardless of the challenges and difficulties the individual faces.

In this context, various interpretations and evaluations of the state of psychological flow have demonstrated a strong and effective impact on the progress of individuals, their feelings of psychological satisfaction, and achieving quality in life. This is through studies conducted on several groups from various social, age, and cultural classes, in addition to the importance of psychological flow at the educational level at all its levels, starting from primary schools to the university level (Nakamura & Csikszentmihalyi, 2019, p.200).

### **Eighth: Types of Psychological Flow:-**

Not all attempts by the individual to flow are always successful, and the degree of success varies from one situation to another according to the circumstances of the situation, and the availability of appropriate means. If the responses that the individual makes are goal-conducive without resulting in loss or frustration, the flow is described as successful. Unsuccessful flow is one that does not lead to the goal. For example, an individual who lives in a cold environment and moves to a hot area takes a number of measures to protect their body from the change in the natural environment. If these measures succeed, it is described as successful adaptation, and if it fails, it is described as unsuccessful or failed adaptation.

According to this concept, flow can be divided into two types as explained by Mihaly below:

- **Negative flow:** It occurs through the environment surrounding the individual, so the individual has a state of dissatisfaction, accompanied by tension and a bad impression about the task they are undertaking. So, they might try to avoid engaging in it, for example when an individual has a task to complete a crucial work in a few hours, this might make them focus on it being a tiring experience which creates a sense of frustration.
- **Positive flow:** The individual acts as an agent for the activity and focuses all their energy on it due to their psychological enjoyment if they do it, such as enjoying their favorite recreational activity. In this case, the individual performs the task with motivation that makes them lose the sense of time and focuses all their attention towards it. (Nakamura & Csikszentmihalyi, 2019, p.199) **In addition to this, Lee classifies:**
- **Activity-based flow:** It is the flow that we experience by doing activities such as sports.
- **Thought-based flow:** This type of flow is related to the individual's mental state, and the individual exercises less actual energy in a thought-based flow state than in a flow based on physical activities, so the individual can maintain a thoughtbased flow state for a longer period and higher intensity. (Lee, 2015, p.7-8)

### **Secondly:,Cognitive,Distortions**

Cognitive distortions are not a mood state, but a lived experience, which gets worse with every failure or setback, and immediately dominates the self. The individual with cognitive distortions can't work or think. Instead, they are left to look at the painful life and always speak to others with phrases like: no hope, no use. The pessimist does not perform tasks alertly and attentively and does not have the ability to endure the difficulties he faces in order to achieve his desired goals. He is always fearful and hesitant, no matter how much he pretends to be optimistic sometimes. This is because pretending itself is one of the signs of weakness and defeat. It makes him automatically underestimate his capabilities, readiness, positivity, talents, and rush into committing errors intended to hide his poor psychological state. (Wala Khalil, 2012: 27).

### **Concept,of,Cognitive,Distortions:**

Aziza mentioned that cognitive distortions are the continuous movement of negative thoughts and feelings between the established neural connections from a

negative idea to negative feelings without stopping, accompanied by pessimism in seeing things, exaggerating in evaluating circumstances and situations, lack of optimism, not looking for beauty in everything, in addition to illusion and expecting evil. (Aziza Salah, 2012: 50).

Mory mentioned that cognitive distortions are those perceptions that come automatically and seem as if they are true and reasonable, but the person discovers when checking them that they are distorted and lack credibility and realism. (Aziza Salah, 2012: 50).

Cognitive distortions are pessimism in seeing things, exaggerating in evaluating circumstances and situations, it is the illusion that turns nothing into an obvious reality (Sanaa Sulaiman, 2011: 164).

Scheier and Charles define cognitive distortions as one of the synonyms for pessimistic orientation, and believe that this orientation leads to a loss of confidence in the possibility of facing and overcoming ordinary and difficult situations, which leads to failure. (Hoda Jamal, 2011: 72).

Abdul Sattar Ibrahim defines cognitive distortions (2018: 46) as a form of thinking characterized by a distance from positive expectations and optimism, lack of emotional control, and control over higher operations, a distance from a love of learning and healthy cognitive openness, a lack of general satisfaction, a loss of positive acceptance of differences from others, a distance from tolerance and comfort, lack of enjoyment of emotional intelligence, and also conditional selfacceptance, non-acceptance of personal responsibility, and a distance from positive risk-taking.

**Comment:**

The researcher defines cognitive distortions as the set of incorrect thoughts, perceptions, and illusions that were generated in the individual's mind as a result of the pressures and problems they experienced in their life and caused negative experiences for them, which affects their life and their relationship with others.

**Causes of Cognitive Distortions:**

Cognitive distortions have several causes, including:

- Criticisms and cynicism that an individual may be exposed to from their family, work, or relatives.



- Lack of self-confidence and the rapid drift behind emotional and emotional influences and indulgence without vision in emotions and away from stability and calm that pave the way for a positive personality in thought and behavior.
- A person's focus on their areas of weakness and then magnify them until they become their preoccupation.
- Introversions and distancing from positive social participation and training on social interaction.
- Making comparisons between the individual and others who outperform them while ignoring their strengths and excellence.
- The negative attitudes that the individual has from his travel.
- Over-sensitivity to criticism or reprimand.
- Empty time, as it is said, "If you do not occupy yourself with good, it will occupy you with evil."
- Exaggerating things beyond their size and not understanding situations rationally and calmly.
- Choosing friends who are negative in their thoughts and views.
- Fear, anxiety, and hesitation create a personality crowded with cognitive distortions.
- Watching programs or movies or reading articles that carry a negative tone has the greatest impact.
- Depression and gloominess in seeing matters and situations (Sanaa Sulaiman, 2011: 165).

### **Types of Cognitive Distortions:**

Some people may resort to a type of cognitive distortions that does not help the individual solve their problems and these errors lead to cognitive distortions:

#### **1- Partial view: Making causal Inferences**

Sharma defined the partial view as a short and superficial view of things. It is an error in perception or understanding and is based on evaluating the whole based on the part that thought of a part of the overall situation.

#### **2- Time ladder:**

Bhatnagar clarified that in the time ladder, focus is on a specific time period, usually near, so this thinking remains specific to the present and does not consider the future. (Hoda Jamal, 2011: 78)

#### **3- Ego centrism: Ego centric**

Where thinking focuses on what achieves a special interest for the individual himself with the absence of the concept of social we, and the student must be freed

from this view and this requires increasing his social knowledge in which the student communicates with others and develops ideas of giving and taking and considering the views of others, and also must know the ideas of others and their interests (Nayfa Qatami, 2013: 28).

#### **4- Arrogance: Arrogance**

That is, the individual's feeling of superiority in his thinking, where the individual here reaches the search in matters that do not need a logical explanation because they are characterized by clarity, so he exaggerates and exaggerates them.

#### **5- First Impression: First Impression**

It expresses rigidity in thinking and this pattern of thinking is characterized by haste and impulsivity in making decisions about a problem without indulging and delving into it.

#### **6- Extremism: Extremism**

Tincher pointed out that extremism is the individual's desire to launch generalized and extremely negative or positive standards, which is a strong influence on positive thinking. (Hoda Jamal, 2011: 79).

#### **7- Emptiness and lack of goals:**

That is, there are no ideal and great goals in the individual's life and there are no high ambitions that occupy his thinking, which leads to the presence of a cognitive void in him.

#### **8- Judgment and appreciation directions:**

This means that the individual does not possess the objective and sound criteria that determine the correct impression and error of things, and the non-convincing and non-rational psychological and social inclinations and tendencies, which leads to error and failure in thinking and perception.

#### **9- The effect of the general halo:**

That is, the individual's current judgment of the behavioral phenomenon or things may be affected as a result of his previous knowledge about this phenomenon or thing. If his previous idea and knowledge were positive, it will affect his evaluation of it, even if it was negative, and vice versa. His previous negative idea will affect his negative evaluation of the phenomenon, even if it is currently positive.

#### **10- Rigid templates or patterns:**

That is, the individual uses his judgment and evaluation of things on the basis of placing them on ready-made molds, influenced in his judgment on these things by the general positive or negative characteristics of these pre-prepared molds. The problem here is that thinking in this case is based on generalization, and this

generalization may be wrong; because there are individual differences between individuals that cannot be ignored (Hoda Jamal, 2011: 79).

### **Dimensions of Cognitive Distortions:**

#### **1- Thinking disorder:**

This includes the disorder and disruption of the context of thinking. The transition from one idea to another without completing the first idea, or circling around the same idea over and over again, or stopping talking about an idea before finishing it, or mentioning many details about the idea that are unnecessary in the context of the conversation.

And the disorder of thinking content: it takes the form of ideas that are not logically connected or in the form of illusions and unstable ideas. Thinking here revolves around events that resemble dreams, and this disorder appears in the form of the individual's inability to think in abstract conceptual concepts, or resorting to vague thinking far from the real ideas of things.

#### **2- Neuropathy:**

This is the appearance of a state of lethargy and sluggishness in thinking, or what is called a state of sleep in thinking (Coma), and this may appear in the form of mental delirium (Delirium) where the individual's mind in this state is between wakefulness and drowsiness and sometimes reaches a state of complete fainting.

#### **3- Memory disorder:**

This appears in the form of an increase in the ability to remember very precise details of some of the experiences that the individual has gone through, which lead to a state of tightness, gloom, and anxiety, especially in the case of unpleasant experiences, or it may appear in the form of the individual losing part of his memories or all of his memories.

#### **4- Emotional disorder:**

This means that the disturbed individual displays a pattern of thinking that is not proportional to the situation in quantity and type, so the individual shows some linguistic vocabulary that does not accurately express what is going on in his mind of ideas, as a result of which he falls into some mistakes and illusions.

#### **5- Behavioral motor disorder:**

This appears in the form of repetition of some nervous movements or some expressions and vocabulary without the need or necessity for them, and in this case, the individual shows some inverted or artificial movements in the form of patterns of mechanical behavior that are not convincing for the situation. (Ziad Barakat, 2016: 10)

#### **6- Misconceptions:**

Misconceptions in thinking lead to problems in adaptation and mental health, and here are some examples of these misconceptions in thinking:

- **Over-generalization:** It means that the individual judges a group of things or individuals based on a single appearance of these things.
- **All or none:** This means giving excessive importance to a certain subject so that this subject becomes the axis of thinking and does not find an alternative to it and strives to achieve it without achieving anything else.
- **Absolute sentences:** The use of phrases that present absolute, decisive judgments and do not take various possibilities into consideration, and the use of linguistic vocabulary out of place.
- **Continuation of the existing situation over time:** Cavanagh defined it as a lack of confidence in the future and the use of pessimistic ideas in life on the assumption that what was present in the past will remain as it is in the present and future. (Open University of Jerusalem: 18).

**The reasons that prevent the change or modification of these misconceptions:**

These beliefs are characterized by privacy, so they are not expressed in an emotional way, but are expressed unconsciously, and therefore it is difficult for the individual himself to clearly perceive them.

Likewise, these beliefs appear in the early stages of childhood so they become basic in the individual's life and he cannot do without them in order to adapt to the requirements of life, and thus they turn into patterns of fixed habits rooted in the individual's thinking that are not subject to modification and change due to his belief in them, and the individual does not easily give them up, as he has arrived At them in a long time, even some of the individuals who carry these beliefs try to prove their validity by following different methods and methods because they prefer to be right more than they prefer to be happier and more truthful and objective, and among these methods and methods that these individuals resort to:

- **Selection Ignoring:**  
The individual tries to ignore and avoid information, events, or situations that deny or contradict these beliefs, and only affirms awareness around the situations that characterize these misconceptions and confirm them, even if they are not objective.
- **Selection Attention:**  
The individual who carries these misconceptions focuses his attention on any remark that proves his wrong beliefs and does not focus on anything less than that.
- **Imitative Reinforcement:**

The individual tries to incorrectly interpret the facts he encounters in his life as including a reward or encouragement for these misconceptions. Some individuals who carry these beliefs try to seek flattery and praise for these beliefs. If the individual obtains these reinforcements and measures from those around him, these misconceptions become more entrenched and established for him, and he becomes more resistant to extinction.

- **Choosing friends:**

The individual chooses his friends who carry beliefs similar to his beliefs, which leads to each individual in this relationship choosing and selecting the facts and events that prove these misconceptions and their narratives and repeating them in a way that increases the focus of attention on them (Ziad Barakat Ghanem, 14:2016). Medhat Abul Nasr believes that there are numerous reasons to correct thinking errors, including:

- Self-awareness.
- The method of self-dialogue.
- Finding suitable alternatives and solutions.
- Trying to avoid falling into thinking errors.
- Psychological, social and educational guidance.
- Direct approach.
- Providing necessary information.
- Positive incentives when not falling into errors.
- Negative incentives when falling into errors. (Samia Rashad, 2014: 13).

Characteristics and attributes of cognitive distortions:

**Seligman, m.e.p refers to the fact that the characteristics of cognitive distortions are:**

- 1- **Continuity:** (which is that individuals who believe that the bad event is continuous, they are more prone to depression, and they are pessimistic individuals).
- 2- **Universality:** If the individual believes that the cause is universal, its effects will extend in many situations in his life, and those who see the bad event as comprehensive are pessimistic.
- 3- **Personalization:** It is to determine who is wrong. When things happen, individuals may blame themselves, and others may blame others, and self-esteem is primarily affected by the source to which the blame is directed. Individuals who blame themselves have low self-esteem and feel useless, guilty, and ashamed. On the other hand, those who blame others or external

circumstances have a good feeling about themselves when bad things happen to them, but they have a lack of self-esteem as a result of the internal method of self-dialogue. In (Walaa Khalil, 2012: 28).

**Patterson,t.g,Joseph,s point out key characteristics of individuals with cognitive distortions, which include:**

- They assume risks that have not happened at all.
- They turn illusions into facts and dreams become tangible reality.
- They interpret things according to their miserable psyche.
- Their psyche is dominated by weakness.
- They exaggerate the bad events that happen to them, resulting in outcomes that do not even agree with logic and reason.
- They do not perform tasks alertly and attentively, and they do not see the obstacles.
- They do not have the ability to endure the difficulties they face in achieving their desired goals.
- The despondent individual strives to achieve success in one type of goal that may be guaranteed to succeed due to its extreme ease.
- Their strength weakens, they lose vital determination and effective will, and their impact on those around them becomes bad.
- They are constantly feeling fear and hesitation, no matter how optimistic they appear.
- They rush to commit mistakes intended to hide their bad psychological state that caused society to almost shake off around them.
- Thinking about disasters is one of the most prominent symptoms, and perhaps it is the main reason for all symptoms of depression.
- Their future is gloomy, the present is unbearable, and the past is filled with painful and frustrating memories.

And the individual with cognitive distortions has a rigid, inflexible mind, incapable of getting rid of his opinions even if they are wrong. (Patterson,,2017:80-82).

**Third: The Approach and Procedures of the Study Introduction:**

This includes a presentation of the study's approach and procedures, in terms of the approach used, the study sample, the tools used, and methods of calculating their validity and reliability, and the steps of the study.

**First: The Study Approach:**

The researcher used the descriptive approach in its correlational and comparative methods to identify the relationship between cognitive distortions and

psychological flow, as well as to identify the relationship between cognitive distortions of male and female teachers.

### **Second: The Study Population:**

The study was conducted on a sample of (200) male and female secondary school teachers in Kuwait, divided into (100) males, and (100) females.

### **Study Tools:**

Cognitive Distortions Scale (prepared by / Renin Ahmed, 2021) A-

The purpose of the scale:

The scale aims to measure cognitive distortions and contains six dimensions (thinking disorder - feeling disorder - memory disorder - emotional disorder - motor behavior disorder - misconceptions). **b- Description of the Scale:**

The Cognitive Distortions Scale consists of six main dimensions:

#### **1- Thinking Disorder:**

This includes context thinking disorder where the transition from one idea to another occurs without completing the first idea. Or revolving around the same idea multiple times, or stopping talking about an idea before finishing it, or going into many unnecessary details about the idea in the context of conversation. And content thinking disorder: which takes the form of thoughts that are not logically interconnected, or in the form of delusions and unstable ideas. Thinking here revolves around events resembling dreams. This disorder appears as the individual's inability to think in abstract conceptual concepts, or resorting to vague thinking far from the real ideas of things.

#### **2- Neuropathy:**

That is, the appearance of a state of lethargy and sluggishness in thinking, or what is called the state of coma in thinking. It may also appear in the form of delirium, where the individual's mind in this case is between wakefulness and drowsiness and sometimes reaches a state of complete fainting.

#### **3- Memory Disorder:**

It is an increased ability to remember very precise details of some experiences that the individual has gone through, which leads to a state of distress, gloom, and anxiety, especially in the case of unpleasant experiences, or it may appear in the form of the individual losing part of his memories or all of his memories.

#### **4- Emotional Disorder:**

Meaning that the disturbed individual shows a pattern of thinking that is not proportional to the situation in quantity and quality. The individual shows some

linguistic terms that do not accurately express the ideas going through his mind, resulting in some mistakes and delusions.

#### **5- Behavioral Motor Disorder:**

It is a repetition of some nervous movements or some expressions and terms without needing or necessity. In this case, the individual shows some inverted or artificial movements in the form of patterns of mechanical behavior unconvincing for the situation.

#### **6- Misconceptions:**

Wrong beliefs in knowledge lead to problems in adaptation and mental health.

Below is an explanation of some models of these misconceptions in thinking:

- **Overgeneralization:** The individual judges a group of things or people based on one appearance of these things.
- **All or nothing:** That is, giving excessive importance to a particular topic so much that this topic becomes the focus of thinking, finds no alternative for it, and strives to achieve it without achieving anything else.
- **Absolute sentences:** Using phrases that present absolute, decisive judgments and do not take different possibilities into account, and using linguistic terms out of place.
- **Continuity** of the existing situation over time: Lack of confidence in the future and the use of pessimistic ideas in life on the assumption that what existed in the past will remain as it is in the present and the future.

#### **Scale Design:**

The researcher reviewed some Arabic and foreign references to define the procedural definition of cognitive distortions. The researcher also reviewed the dimensions of cognitive distortions, and the number of terms included within these dimensions is 74 terms. **c- Method of Estimating the Score:**

The scale consists of (30) terms, and scores are given according to the following gradient:

(1) Rarely, (2) Often, (3) Always, if the term is positive, and vice versa if the term is negative. Thus, the minimum score on the scale is (30) points, which represents the lowest level of cognitive distortions, and the maximum score (90) represents the highest level of cognitive distortions. **a- Scale Validity:**

The validity of the scale was also verified by calculating the Pearson correlation coefficient between the teachers' scores on the scale as a whole, and their scores on the cognitive distortions scale (prepared by Martin Seligman, 2000). It was found that there is a significant correlation between the average scores of teachers on the



two scales. The teachers who scored high on the cognitive distortions scale prepared by the researcher also scored high on Martin Seligman's cognitive distortions scale, with a correlation coefficient of (0.57), which is significant at (0.01). **b- Internal Consistency:**

The internal consistency method was used to calculate the validity by calculating correlation coefficients between the score of each dimension and the total score.

Table (1)

Correlation coefficients between dimension scores and the total score  
Cognitive distortions dimensions Correlation coefficients

Cognitive Distortions Dimensions	Correlation Coefficients
Thinking disorder	0.588
Feeling disorder	0.452
Memory disorder	0.636
Emotional disorder	0.778
Motor behavior disorder	0.648
Misconceptions	0.669
Total score	0.381

\*Significant at 0.05, significant at 0.01

As is clear from Table (1) above, all correlation coefficient values are statistically significant at (0.01), and therefore are acceptable.

Subsequently, the correlation coefficient of the score of each phrase with the total sum of the phrases of each dimension was calculated. Table (2) shows the validity coefficients of the scale's phrase terms.

Table (2)

Correlation coefficients between the score of each phrase and the score of the dimension to which it belongs in the cognitive distortions scale

<b>r Value</b>	<b>μ</b>	<b>r Value</b>	<b>μ</b>
<b>Fourth Dimension</b>		<b>First Dimension</b>	
0.531	<b>16</b>	0.541	<b>1</b>
0.426	71	0.462	<b>2</b>
0.218	71	0.302	<b>3</b>
0.247	71	0.601	<b>4</b>
0.436	02	0.210	<b>5</b>
<b>Fifth Dimension</b>		<b>Second Dimension</b>	
0.421	<b>21</b>	0.352	<b>6</b>
0.612	<b>22</b>	0.584	<b>7</b>
0.542	<b>23</b>	0.412	<b>8</b>
0.358	<b>24</b>	0.622	<b>9</b>
0.259	<b>25</b>	0.243	<b>11</b>
<b>Sixth Dimension</b>		<b>Third Dimension</b>	
0.463	<b>26</b>	0.517	<b>11</b>

0.395	<b>27</b>	0.522	<b>12</b>
0.418	<b>28</b>	0.265	<b>13</b>
0.377	<b>29</b>	0.465	<b>14</b>
0.348	<b>31</b>	0.285	<b>15</b>

Secondly, Test Stability:

The researcher used the statistical software package known as SPSS to calculate the test stability in two types of stability: retest stability, and stability using Cronbach's alpha equation, which can be addressed as follows:

a- Retest Stability:

In this method, the scale was applied to (30) teachers, then reapplied to them after a time difference of (15) days, and the stability coefficient was calculated by calculating the Pearson correlation coefficient between the scores of the first and second applications. The stability coefficient, as shown in the following table, was:

**Table(3)**

Stability of the scale using the retest method

Scale Name Number	Phrases Correlation	Coefficient	Significance Level
Cognitive Distortions	30	0.727	0.01

It is clear from the previous table that the stability coefficient is (0.727), which is a high stability coefficient and significant at (0.01), which confirms the stability of the cognitive distortions scale. This indicates the stability and validity of the scale.

b- Stability Using Cronbach's Alpha:

The Cronbach's alpha coefficient was calculated for all the phrases of the cognitive distortions scale, and the general stability coefficient was (0.752), which is a high stability coefficient and significant at a significance level of (0.01), which confirms the stability of the scale. This indicates the strength and validity of the scale for use.

Then, the "Cronbach's alpha" stability coefficient was calculated between the phrases of each dimension separately, as shown in the following table:

In the table, translate

**Table (4)**

Cronbach's alpha stability values for each dimension of the four dimensions of the cognitive distortions scale

Cognitive Distortions Dimensions	Correlation Coefficients
Thinking disorder	0.610
Feeling disorder	0.587
Memory disorder	0.800
Emotional disorder	0.662
Motor behavior disorder	0.659
Misconceptions	0.670
Total score	0.716

Table (4) shows that the stability coefficients of the five dimensions of the scale using Cronbach's alpha method are all high at a significance level of (0.01).

Psychological Flow Scale: Developed by Adam Mohamed Nasr (2014)

**1. The purpose of the scale:**

The scale aims to measure the psychological flow of secondary school teachers.

**2. Scale Description:**

The scale was developed by Adam Mohamed Nasr to measure the psychological flow of secondary school teachers. The final form of the flow scale consists of (50) phrases, and (10) phrases from the scale were added, thus making the scale consist of (60) phrases. To measure the consistency of the examinee with himself, we can identify it by comparing the score resulting from adding the first column with the sum of the sixth column, or comparing the examinee's response to the phrases of the first column and the corresponding phrases of the sixth column. Phrases (1, 51) and (2, 52) and (3, 53) and so on. The consistency of the score means the truthfulness of the examinee with himself, and the total score for the sum of the rows and columns represents the examinee's score on the flow scale.

### 3. **Scale Scoring Method:**

The scale is corrected by giving the choice (applies) the score (2), and (sometimes applies) the score (1), and (does not apply) the score (zero), thus the total score for the flow scale ranges between (zero - 100).

### 4. **Justifications for Using the Scale:**

The psychological flow scale developed by Adam Mohamed Nasr was used because its phrases are appropriate for secondary school teachers and its phrases are linked to the reality of the age and personality stage of the teachers and it includes many of the scales set to measure the psychological flow in addition to its temporal novelty. Translate

### 5. **Psychometric Properties of the Scale:**

#### **A- Scale validity:**

The scale developer relied on calculating the content validity. He had a group of arbitrators evaluate the phrases. They excluded some phrases and added others. Also, the construct validity was confirmed using the scale item analysis method (Items, Total, Analysis). The following table illustrates the internal consistency of the flow scale.

#### **Table (5)**

Correlation coefficients between the score of each item and the total score of the scale

Item No.	Correlation Coefficient	Item No.	Correlation Coefficient	Item No.	Correlation Coefficient	Item No.	Correlation Coefficient	Item No.	Correlation Coefficient
1	0.45**	11	0.62**	21	0.56**	31	0.55**	41	0.68**
2	0.71**	12	0.86**	22	0.82**	32	0.86**	42	0.64**
3	0.69**	13	0.81**	23	0.73**	33	0.69**	43	0.63**
4	0.51**	14	0.91**	24	0.71**	34	0.68**	44	0.81**
5	0.63**	15	0.77**	25	0.83**	35	0.62**	45	0.75**
6	0.86**	16	0.63**	26	0.61**	36	0.78**	46	0.68**
7	0.89**	17	0.76**	27	0.59**	37	0.68**	47	0.79**
8	0.87**	18	0.55**	28	0.89**	38	0.85**	48	0.66**
9	0.87**	19	0.86**	29	0.80**	39	0.78**	49	0.57**
10	0.81**	20	0.71**	30	0.75**	40	0.59**	50	0.71**

(\*\*) Significant at 0.01 level, (\*) Significant at 0.05 level, (-) Not statistically significant

The correlation coefficients between the score of each phrase and the total score of the scale ranged between (0.45 - 0.91), which is significant at the level (0.01), indicating the internal consistency of the scale.

The relative weight (weight estimate) of the scale phrases was calculated, and therefore inappropriate phrases and phrases that took relative weights less than one degree were excluded.

### **B- Scale reliability:**

To verify the stability of the psychological flow scale, the researcher (scale developer) relied on two methods:

#### **1- Internal consistency:**

The homogeneity, interrelation, and validity of the scale were confirmed by calculating the correlation coefficients between the scale phrases and the total score of the scale.

#### **2- Stability by applying and reapplying the scale:**

The first application of the tool was conducted on a sample of (50) male and female teachers, and it was reapplied after a month. The correlation coefficient between the two applications was (0.769), which is significant at the level of (0.01) and can be relied upon.

### **C- Scale reliability in the current study:**

The scale reliability was calculated in the current study on a sample (n=160) of male and female secondary school teachers, using two methods:

#### **1- Reapplication of the scale:**

The researcher calculated the reliability of the scale through reapplying the scale with a time difference of (15) days between the first application and reapplication on the same sample, and achieved a correlation value of (\*\*0.916). Translate

#### **□ Cronbach's Alpha and Split-Half Method:**

The reliability of the scale was calculated using Cronbach's Alpha, which was 0.975, a significant statistical coefficient. Reliability was also calculated using the split-half method, and the Spearman-Brown reliability coefficient was 0.961, and the Guttman coefficient was 0.755, both of which are statistically significant reliability coefficients.

## Study Results and Discussion

This includes a presentation of the study results that were reached, the statistical methods used in hypothesis testing, the interpretation of the results for each hypothesis in light of the theoretical framework and previous studies, then a presentation of some suggested research and educational recommendations that can be benefited from in light of the study's results.

### First: Study Results and Their Interpretation

1- The first hypothesis results and their interpretation:

The first hypothesis states that: "There is a positive statistically significant correlation between cognitive distortions (dimensions and total score) and psychological flow (dimensions and total score) among the study sample teachers". To verify the hypothesis, Pearson's correlation coefficient was used to find the relationship between cognitive distortions (dimensions and total score) and psychological flow (dimensions and total score) among the study sample teachers.

**Table (6)**

Pearson's correlation coefficients for the relationship between cognitive distortions (dimensions and total score) and psychological flow (dimensions and total score) among the study sample teachers.

	Meaning Presence	Balance	Selfbelief	Perseverance	Uniqueness and Novelty	Total Score
Thought Disturbance	-.562**	-.535**	-.390**	-.473**	-.438**	-.438**
Feeling Disturbance	-.546**	-.535**	-.299**	-.429**	-.410**	-.310**
Memory Disturbance	-.534**	-.489**	-.353**	-.427**	-.379**	-.379**



Emotion Disturbance	-.542**	-.544**	-.259**	-.452**	-.432**	-.532**
Motor Behavior Disturbance	-.556**	-.541**	-.354**	-.541**	-.405**	-.405**
False Beliefs	-.511**	-.457**	-0.305	-.558**	-.424*	-.424*
Total Cognitive Distortions	-.690**	-.640**	-.429**	-.563**	-.526**	-.526**

It is clear that there is a negative statistically significant correlation between each of the dimensions and total score of cognitive distortions and the dimensions and total score of psychological flow, except for the relationship between the dimension of false beliefs in cognitive distortions and the dimension of self-belief in psychological flow. Translate

**Discussion of the first hypothesis results in light of the theoretical framework and previous studies:**

Hanan Abdelaziz (2012: 3) explained that the more positive the thinking, the more effective and successful the solution to situations and problems. The more negative it is, the more these problems are dealt with superficially and incorrectly, whether by exaggerating these problems and overreacting to them, and thus not reaching a convincing solution to them, or by oversimplifying them, reducing them, and adopting negative methods in dealing with them, and thus not reaching a suitable solution for them.

Sayed Mohammadi mentions that individuals' cognitive beliefs play the role of a guide for their behaviors in their daily lives, as they affect them in choosing certain ways of performance and response to different events. The learners' perceptions of their own abilities, their perceived feelings, and their beliefs towards others (such as the teacher, parents, and friends) and their beliefs about learning tasks significantly affect their behaviors and subsequent performance on the one hand, and different learning outcomes on the other hand, perhaps the most important of which is the way of thinking. (Mahab Mohamed Al-Waqad, 2012: 220).

Sayed Khairallah (2008: 170) pointed out that individuals with cognitive distortions tend to believe that distorted events will last and will remain latent behind everything they do, and that they are responsible for these events, as they surrender to reality more than others.

Thinking is considered one of the most important foundations of all our behaviors. It is one of the most important causes of our mental and organic state, our selfimage, our self-esteem, and also in our ability to self-confidence and face problems. If the individual's way of thinking is characterized by negativity, he will not be able to manage himself effectively, achieve his goals, recover quickly from stressful events, improve his performance and control his feelings.

The results of the current study agree with the results of Bullock-Yowell, E., Reed, C.A., et al. (2015) study, and Elisabeth Ponce (2020) study, where the results indicated the existence of a negative statistically significant correlation between cognitive distortions and psychological flow.

### **3- The second hypothesis results and their interpretation:**

The second hypothesis states that: "There is a positive statistically significant correlation between cognitive distortions (dimensions and total score) and psychological flow (dimensions and total score) for the study sample teachers. To verify the hypothesis, Pearson's correlation coefficient was used to find the relationship between cognitive distortions (dimensions and total score) for the teachers and the psychological flow (dimensions and total score) for the study sample teachers.

**Table (7)**

Pearson's correlation coefficient table for the correlation between cognitive distortions (dimensions and total score) and psychological flow (dimensions and total score) for the study sample teachers.

	<b>Existential Meaning</b>	<b>Self Belief</b>	<b>Perseverance</b>	<b>Uniqueness &amp; Novelty</b>	<b>Total Score</b>
Thinking Distortion	-0.211	-0.365**	-0.497**	-0.578**	-0.137

Feeling Distortion	-0.198	-0.451**	-0.503**	-0.561**	-0.182*
Memory Distortion	-0.09	-0.425**	-0.461**	-0.456**	-0.205*
Emotional Distortion	-0.165	-0.365**	-0.460**	-0.449**	-0.129
Motor Behavior Distortion	-0.187	-0.354**	-0.501**	-0.314**	-0.132
False Beliefs	-0.064	-0.462	-0.403**	-0.142	-0.085
Cognitive Distortions Total Score	-0.264	-0.352**	-0.574**	-0.451**	-0.254**

There is a statistically significant negative correlation between the dimensions and the total score of cognitive distortions and the dimensions and the total score of psychological flow for teachers.

**Discussion of the second hypothesis results in light of the theoretical framework and previous studies:**

Wala Hussein Khalil (2007:7) pointed out that teachers now face many situations of low academic achievement, some of which are due to neglect and indifference, and some are due to irrational belief in the inability of teachers to achieve, and therefore they expect failure. These teachers feel a failure, which prompts them to

think negatively about their abilities and possibilities and evaluate themselves incorrectly. They develop a belief that no matter how they try to change the failure situations they are exposed to, they will not change because they believe that they are unable to make any improvement in their abilities.

Psychological flow is recovery and the ability to quickly get rid of illness or change or ordeal, and it is also used to mean psychological flow, which is a property of a substance that enables it to restore its shape or original position after folding, pulling, and pressing. The concept of psychological flow has become clear as a property that helps individuals adapt and adjust to situations where they are subjected to nervous pressures, or to ill-treatment (Samira Abu Ghazalah, 2009: 209,206).

Edward pointed out that resilience is the return to normal and easy recovery from obstacles, whether for the individual or for the group, and includes the behavior of psychological flow, fun and joy, and hope, and the possession of faith, and the support of social relationships, as individuals have the power to develop and modify it through education and support (Edward,2007:211).

Mohammed Siddiq's study (2009: 45) pointed out that exposure to shocking life experiences and the individual's ability to adapt to them, represents distressing

experiences for some people who take pathological responses as a result of their inability to adapt to them. They evoke many psychological and physiological disorders, such as feeling depressed, frustrated, anxious, and desperate.

Research has shown that psychological flow is a constructive process that involves a positive meaning of life. People show this positivity in difficult life situations. Describing people as resiliently positive does not mean that they are immune and do not pass through hardships or pressures. Emotional pain and sadness are common symptoms among individuals who suffer from shocks and severe hardships in their lives. In fact, the path to psychological flow is often fraught with emotional pressure (Mohammed Osman, 2010: 28).

The teacher is the pillar of education and learning in any educational system. The more sophisticated the teacher, the more the student progresses. The higher the teacher's psychological flow, the more positive it affects the students and all elements of the educational process. The lower the teacher's psychological flow, the more they feel pressure, emotional pain, and sadness, which affects their work and their interaction with students, which negatively affects the students.

#### **5– Third hypothesis results and their interpretation:**

The third hypothesis states: "There are no statistically significant differences in cognitive distortions due to the level of psychological flow among the teachers in the study sample".

To verify the hypothesis, the "t" test was used to detect the significance and direction of the differences between the averages of the teachers' scores with high and low psychological flow. Table (8) below illustrates the results of this analysis as follows:

**Table (8)**

Results of the "t" test to detect the significance and direction of the differences between the average scores of teachers with high and low psychological flow in cognitive distortions

Variable	High Psychological Flow (n=100)	Low Psychological Flow (n=100)	t	Df	Significance Level
	M	SD	M	SD	
Thinking Distortion	20.5000	3.14862	32.4667	11.90402	5.32**
Feeling Distortion	22.7000	2.46563	31.1333	8.95095	4.97**
Memory Distortion	10.9667	2.07586	17.9667	7.53604	4.90**

Emotional Distortion	9.5000	1.61352	14.8333	5.66345	4.96**
Motor Behavior Distortion	7.5333	1.27937	12.4333	4.95277	5.24**
False Beliefs	26.3000	6.72694	37.2333	14.00168	3.85**
Cognitive Distortions Total Score	100.1333	16.29837	165.2333	50.16159	676**

Where \*Significant at 0.05, \*\*Significant at 0.01

From Figure (1) the following results are clear:  
(Translation needed for Figure 1 if provided)



Figure (1)

(Differences between the average scores of teachers with high and low psychological flow in cognitive distortions)

There are statistically significant differences at the level of (0.01) between the average scores of teachers with high and low psychological flow in the dimensions and the total score of cognitive distortions in favor of those with low psychological flow.

**Discussion of the results of the third hypothesis in light of the theoretical framework and previous studies:**

Reinad Ahmed (2014: 10) mentioned that individuals who can maintain their calm in the face of disasters possess what psychologists call psychological flow or the ability to overcome problems and defeats. Those with psychological flow have the ability to use their skills and resilience to overcome challenges and recover from them, which may include job loss, financial problems, diseases, or the death of loved ones. Conversely, those who lack this flow and become crushed under the weight of these experiences may be prevented from looking at problems and use unhealthy coping mechanisms to deal with these challenges.

Dweck and Leggett refer to the individual's beliefs about their mental abilities playing a significant role in the positivity/negativity of knowledge. Teachers who believe their mental abilities are innate and fixed lack the necessary abilities to overcome stages of failure they go through, therefore, they anticipate falling into failing behavioral patterns leading to low academic results and educational outputs. Hence, they are less capable of positive thinking compared to individuals who believe their mental abilities represent an entity capable of growth and development. These individuals respond to failure more flexibly, making them more capable of facing difficulties and obstacles, and therefore they are more capable of positive thinking (Mahab Mohammed Al-Waqad, 2012: 222).

Previous studies have pointed to a positive correlation between psychological flow and better health, life satisfaction, the ability for psychological flow, self-esteem, self-confidence, self-control, courage, and optimism in the face of hardship and not surrendering to diseases. There is a negative correlation between it and depression, physical and psychological pain, psychological loneliness, and loss of hope. The studies did not show any differences between the genders (males and females) (Lundman, et al., 2017: 230).

Individuals with psychological flow are characterized by having many personal resources including: self-esteem, self-confidence and self-control, courage, and optimism in the face of hardship. Moreover, they have cognitive energy and do not surrender to diseases. A study by Lindeman and others pointed out that many studies on individuals' responses to unfavorable life events led to a general agreement that transforming an ordeal into a growth experience, and moving it enhances one's life to be an outlet for psychological flow behavior (Samira Abu Ghazaleh, 2009: 211).

Thinking is one of the basic factors in human life, it helps guide the individual in his life as it helps solve many problems and avoid many dangers. With it, an



individual can control and manage many matters. The more an individual thinks positively, the higher their psychological flow in facing pressures and problems. This leads to an effective and successful solution to these problems. Conversely, cognitive distortions that lead to dealing with these problems in superficial and wrong ways, whether it's by magnifying the problem and exaggerating in dealing with it, thus not reaching a convincing solution, or simplifying it and reducing it, and following methods in dealing with it, thus not reaching a suitable solution.

### **5- Results and interpretation of the fourth hypothesis:**

The fourth hypothesis states that: "There are no statistically significant differences in cognitive distortions" due to the level of psychological flow among the teachers in the study sample".

To verify the hypothesis, the "t" test was used to detect the significance and direction of the differences between the average scores of teachers with high and low psychological flow. Table (9) shows the results of this analysis as follows:

**Table (9)**

Results of the "t" test to detect the significance and direction of the differences between the average scores of teachers with high and low psychological flow in cognitive distortions

<b>Variable</b>	<b>High Psychological Flow (n=100)</b>	<b>Low Psychological Flow (n=100)</b>	<b>t</b>	<b>df</b>	<b>Significance Level</b>
Mean	SD	Mean	SD		
Thought Disorder	25.8000	4.84528	36.9333	15.04793	6.66**
Feeling Disorder	27.5333	5.03694	33.3667	9.56801	6.93**
Memory Disorder	17.5000	2.70057	22.8667	8.29577	6.09**

Emotional Disorder	15.6000	1.95818	17.9333	8.03048	6.41**
Motor Behavioral Disorder	13.8333	1.98413	15.2000	7.22962	6.11**
Incorrect Beliefs	36.4667	14.71279	42.5333	16.19308	4.94**
Total Cognitive Distortions Score	109.733	22.73633	169.5000	41.67259	8.46**
Where *significance at 0.05, **significance at 0.01					

From Figure (2), the following results are clear: Translation

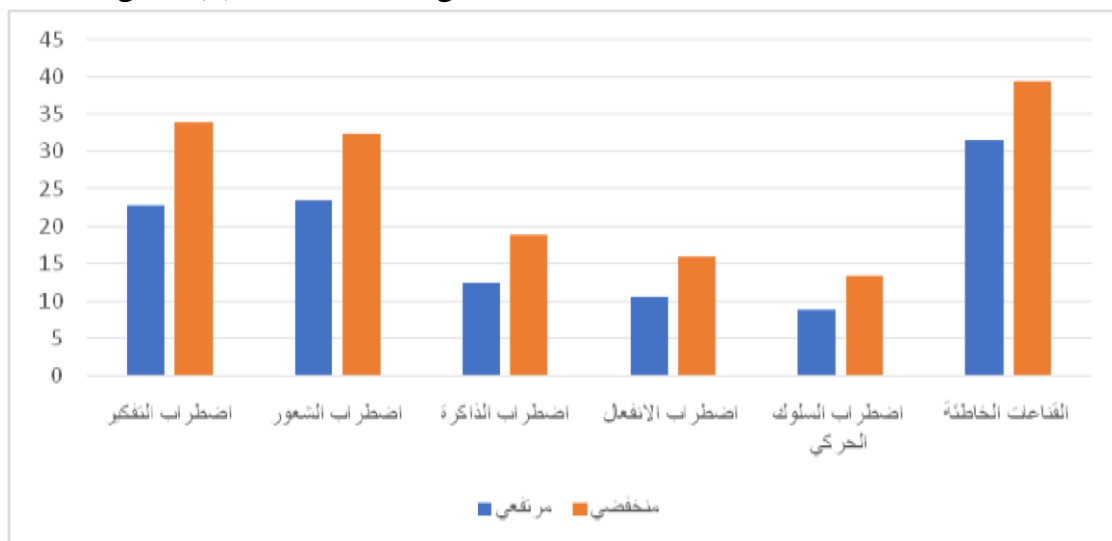


Figure (2)

**(Differences between the average scores of teachers with high and low psychological flow in cognitive distortions)**

There are statistically significant differences at the level of (0.01) between the average scores of teachers with high and low psychological flow in the dimensions

and the total score of cognitive distortions in favor of teachers with low psychological flow.

**Discussion of the results of the fourth hypothesis in light of the theoretical framework and previous studies:**

From the results of this hypothesis, it is clear that the low psychological flow of teachers affects cognitive distortions.

Ahmed Badawi (2012: 2) mentioned that a person characterized by low psychological flow does not accept changes in himself, finds it difficult to adapt, and his relationship with himself and others is disrupted whenever something new arises or the reality changes. In this case, poor adaptation is a sign of mental health disorder or personality disorder. On the other hand, a person characterized by high psychological flow can respond appropriately to any change in his environment, achieving harmony between his needs and motives on the one hand, and the pressures of the environment on the other. Therefore, he behaves in a positive way that enables him to successfully perform his role in life. He has the ability to deal with reality in the appropriate way, he accepts it, changes it, or evades it as the situation requires and as his abilities allow. He also has the emotional ability to bear the burden of revisiting his thoughts, positions, and lifestyle. He has the ability to see the self from other angles and through a different lens. The basic characteristic in the individual's personality, which helps him and enables him to adapt well, is psychological flow. Successful adaptation means overcoming risks and tribulations and developing competitiveness in the face of pressures, and it includes: the ability to face the pressures of life and its difficult challenges, living a dignified life, the ability to socially interact with others, forgiveness, hope, and making life meaningful.

Psychological flow is one of the most exciting phenomena for human development, as it gives us an idea of the individual's ability to successfully face problems and pressures and perform his functions in a qualified and effective manner while exposed to tribulations (Campbell, & Murraay 2007).

Samira Abu Ghazaleh (2009: 211) referred to psychological flow as a personal or individual characteristic that is an achievement associated with growth or a reflection of a temporary balance between risk and protection factors. Some consider it a social or institutional characteristic, but it is affected by genetic and environmental factors. Therefore, competent individuals are characterized by

having many personal characteristics, such as: (self-esteem, courage, optimism in the face of tribulations, self-confidence, self-control). (Samira Abu Ghazaleh, 2009: 211).

Marilyn & Lowrence pointed out that psychological flow is considered one of the basic determinants of an individual's personal factors and personal characteristics, especially self-esteem, which makes the individual able to overcome shocks, and thus this is reflected in the use of persuasive methods while objecting to some matters and caring about the way of dealing with problems and personal mistakes emanating from the individual. (Safaa Hassan, 2014: 47).

Based on the above, teachers who are characterized by low psychological flow do not have the ability to face pressure and challenges, and they cannot recover from the effects of cognitive distortions, which negatively affects their students.

#### 5- Results and interpretation of the fifth hypothesis:

The fifth hypothesis states: "There are no statistically significant differences in the level of cognitive distortions among the teachers in the study sample between males and females."

To verify the hypothesis, the "t" test was used to detect the significance and direction of the differences between the average scores of male and female teachers with high and low cognitive distortions. Table (10) shows the results of this analysis as follows:

**Table (10)**

Results of the "t" test to detect the significance and direction of the differences between the average scores of male and female teachers in the level of cognitive distortions

Variable	Males (n=100)	Females (n=100)	t	df	Significance Level
Mean	SD	Mean	SD		
Thought Disorder	33.0161	8.94151	31.7241	8.58761	0.88

Feeling Disorder	36.2258	9.21206	33.9310	6.877.2	1.55
Memory Disorder	18.8871	7.42944	17.8103	5.47549	1.045
Emotional Disorder	17.8226	6.18633	15.6724	4.26486	0.195
Motor Behavioral Disorder	15.6290	7.72512	17.2931	3.66112	0.998
Incorrect Beliefs	38.7097	18.9347	41.3966	10.47460	0.86
Total Cognitive Distortions Score	18.7810	41.7968	135.5517	37.88078	1.90

From Table (10) it is clear that there are no statistically significant differences between males and females in the level of cognitive distortions of the teachers in the study sample.

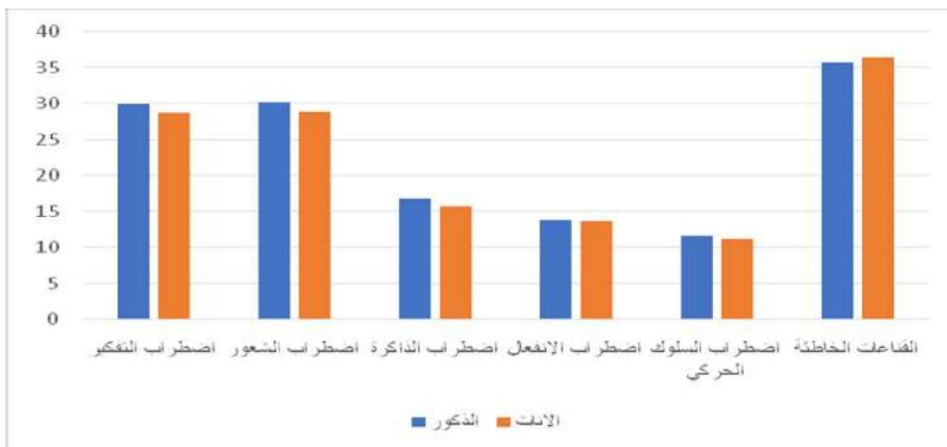


Figure (3)

(Differences between the average scores of male and female teachers in the level of cognitive distortions)

### **Discussion of the Results of the Fifth Hypothesis in Light of the Theoretical Framework and Previous Studies:**

Fronak mentioned that the more positive the thinking used by the individual, the more effective and successful the solution to the problem. Conversely, the more cognitive distortions there are, the more the individual deals with these problems in superficial and incorrect ways, either by exaggerating and overreacting to the problem, thus failing to reach a convincing solution, or by simplifying and minimizing it, adopting negative methods in dealing with it, thus failing to reach an appropriate solution (Huda Jamal, 2011: 67).

Sayed Khairallah (2008: 170) indicated that individuals with cognitive distortions tend to believe that these distortions will last and remain behind everything they do, and that they are responsible for these events. They surrender to the status quo more than others.

Sayed Mohamedi notes that individuals' cognitive beliefs play a guiding role in their daily behaviors. They also influence their choice of specific methods for performance and response to various events. Learners' perceptions of their

personal abilities, perceived emotions, beliefs towards others (such as teachers, parents, and friends), and beliefs about learning tasks significantly impact their behaviors and subsequent performance, as well as different learning outcomes, the most important being the way of thinking (Mohab Mohamed Al-Waqad, 2012: 220).

Fronak mentioned that the more positive the thinking used by the individual, the more effective and successful the solution to the problem. Conversely, the more negative the thinking, the more the individual deals with these problems in superficial and incorrect ways, either by exaggerating and overreacting to the problem, thus failing to reach a convincing solution, or by simplifying and minimizing it, adopting negative methods in dealing with it, thus failing to reach an appropriate solution (Huda Jamal, 2011: 67).

Thinking is a fundamental factor in human life. It helps individuals navigate their lives, solve many problems, avoid many dangers, and control and manage many things to their advantage. Cognitive distortions are a set of incorrect thoughts, perceptions, and illusions formed in an individual's mind due to the pressures and problems they have experienced, leading to negative experiences that affect their life and relationships with others.

The results of the current study align with those of Mourizio (2016) and Hanan Abdulaziz (2011), which indicated no statistically significant differences between males and females in the level of cognitive distortions.

However, the results of the current study differ from those of Backe (1978) and Lyabomirsk (2022), which showed that females are more prone to cognitive distortions than males.

**Results and Interpretation of the Sixth Hypothesis:**

The sixth hypothesis states: "There are no statistically significant differences in the level of psychological flow between male and female teachers in the study sample."

To verify this hypothesis, a t–test was used to detect the significance and direction of differences between the average scores of teachers with high and low psychological flow. Table (11) shows the results of this analysis as follows:

**Table (11)**

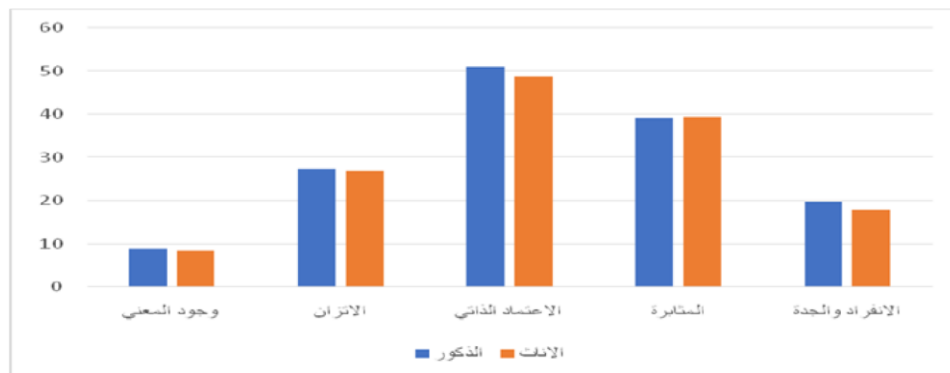
Results of the t–test to detect the significance and direction of differences between the average scores of male and female teachers in the level of psychological flow.

Variable	Males (n=100)	Females (n=100)	t	df	Significance Level
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	M	SD	M	SD	
Presence of Meaning	9.8368	3.31511	8.1897	3.25230	2.81
Balance	27.2915	9.34123	26.6897	9.43594	0.48
Self-belief	50.9865	15.84669	48.7931	15.99630	0.98
Perseverance	40.1495	17.66226	39.3103	13.84893	0.011
Uniqueness and Novelty	25.6290	7.53172	17.7586	6.74943	1.80
Overall Psychological Flow	46.6988	19.83827	62.7069	19.33533	0.77

From Figure (4), it is evident that there are no statistically significant differences between male and female teachers in the level of psychological flow in the study sample.



**Figure (4)**

(Differences between the average scores of male and female teachers in the level of psychological flow)

## **Discussion of the Results of the Sixth Hypothesis in Light of the Theoretical Framework and Previous Studies:**

Samira Abu Ghazaleh (2009: 209, 206) indicated that psychological flow is the ability to quickly recover from illness, change, or adversity. It is also used to describe psychological resilience, which is a characteristic of a material that allows it to regain its original shape or position after folding, stretching, and compressing. The concept of psychological flow has become clear as a characteristic that helps individuals adapt and cope with situations where they are exposed to psychological stress or abuse.

Edward (2017: 211) also pointed out that psychological flow is the ability to return to a normal state and easily recover from obstacles, whether for individuals or groups. Behaviors associated with psychological flow include fun, joy, hope, having faith, and supporting social relationships. Individuals have the strength to develop and modify it through education and support.

The American Psychological Association (2009) noted that psychological flow is one of the methods that enable individuals to positively adapt and cope with life's circumstances and stressful events.

As Krismer (2015) defines it, psychological flow is a constructive process that implies a positive meaning of life that can be nurtured in individuals by developing the numerous attributes they possess, especially teachers. Krismer also emphasizes that psychological flow is a capacity that emerges in an individual and society, particularly in the face of adversities (Krismer, 2015:11-12).

As stated by Wagnild (2013), psychological flow refers to personal traits that assist an individual in enhancing positive adaptation under any stress or painful events (Wagnild, 2013: 43).

In the humanities, it is agreed that psychological flow can be defined as dynamic processes involving positive adaptation despite traumatic experiences or painful events (Davidson & Connor, 2013: 77).

Psychological flow is the ability to bounce back after adversity, or the ability to overcome adversity, recover from the cognitive distortions of the stressful event, and return to a normal state after exposure to shocks and pressures.

The current study's results align with Lundman's (2017) findings, suggesting no statistically significant differences between males and females in the level of psychological flow.

**Hypothesis Seven Results and Interpretation:**

Hypothesis seven states: "Cognitive distortions in the study sample teachers can be predicted in light of their psychological flow and their teachers."

This hypothesis is the core of the study and serves as its main hypothesis. To test the validity of this hypothesis, the researcher used multiple regression analysis.

Table 12 illustrates the variance regression analysis model for the variables predicting cognitive distortions in the study sample pupils.

**Table 12**

Model	Sum of Squares	Degrees of Freedom	Mean Sum of Squares	F-Value	Significance
Regression	142195.872	20	7109.794	19.164	0.01
Residual	36729.595	99	371.006		
Total	178925.467	119			

The significance of the "F" value is apparent from the above Table 44, where the calculated "F" value (19.164) is significant at the level (0.01), indicating the strength of the model variables in explaining the total variance of the dependent variable represented in the "cognitive distortions" in teachers. The value of the multiple correlation coefficient is 0.891 (R=), the determination coefficient value is 0.795 (R<sup>2</sup>=), and the adjusted determination coefficient value is 0.753 (R<sup>2</sup>/2=). This confirms the model variables' ability to explain approximately 75.3% of the total variance for cognitive distortions. The remaining 24.7% can be explained by other variables outside the scope of the current research. Table 45 shows the multiple regression analysis results for the factors predicting cognitive distortions.

**Table 13**

<b>Model Variables</b>	<b>Regression Coefficient (B)</b>	<b>Standard Error</b>	<b>Standardized Regression Coefficient (β)</b>	<b>T</b>	<b>Significance Level</b>
Emotional Exhaustion	-1.574	1.242	-0.137	-1.264	Not significant
Physical Exhaustion	6.837	3.675	0.867	1.860	Not significant
Mental Exhaustion	3.355	0.998	0.342	3.381	Significant at 0.01
Personality Dissipation	15.18	4.938	0.966	2.466	Significant at 0.05
Decrease in Personal Performance	8.27	2.059	0.578	3.040	Significant at 0.01
Presence of Meaning	7.088	2.168	0.346	1.885	Not significant
Balance	-0.936	0.585	-0.213	-1.605	Not significant
<b>Model Variables</b>	<b>Regression Coefficient (B)</b>	<b>Standard Error</b>	<b>Standardized Regression Coefficient (β)</b>	<b>T</b>	<b>Significance Level</b>

Self-Belief	-2.262	0.741	-0.724	-3.04	Significant at 0.01
Perseverance	-0.798	0.286	-0.294	-2.835	Significant at 0.01
Uniqueness and Novelty	-0.601	0.654	-0.103	-0.915	Not significant
Emotional Exhaustion in Teachers	1.031	1.842	0.080	0.560	Not significant
Physical Exhaustion in Teachers	1.174	1.116	0.103	1.053	Not significant
Mental Exhaustion in Teachers	1.343	1.594	0.115	0.844	Not significant
Personality Dissipation in Teachers	13.159	2.582	1.324	5.094	Significant at 0.01
Decrease in Personal Performance in Teachers	-1.228	1.917	-0.114	-0.640	Not significant
Presence of Meaning in Teachers	-7.122	1.966	-0.590	-3.623	Significant at 0.01
Balance in Teachers	-3.816	1.135	-0.261	-3.364	Significant at 0.01

Self-Belief in Teachers	-1.984	2.254	-0.117	-0.882	Not significant
<b>Model Variables</b>	<b>Regression Coefficient (B)</b>	<b>Standard Error</b>	<b>Standardized Regression Coefficient (β)</b>	<b>T</b>	<b>Significance Level</b>
Perseverance in Teachers	-1.012	1.719	-0.065	-0.589	Not significant
Uniqueness and Novelty in Teachers	-11.019	2.404	-0.521	-4.580	Significant at 0.01

### **Discussion of the Seventh Hypothesis Results in Light of the Theoretical**

#### **Framework and Previous Studies:**

The regression analysis equation above demonstrates that the variables most positively contributing to cognitive distortions are: teachers' mental exhaustion, teachers' personality dissipation, teachers' decrease in personal performance, and teachers' personality dissipation. On the other hand, the variables (teachers' selfbelief, perseverance, presence of meaning for teachers, balance for teachers, uniqueness and novelty for teachers) contribute negatively to cognitive distortions. However, the researcher found no significant contribution from any of the following variables to cognitive distortions: emotional exhaustion of teachers,

physical exhaustion of teachers, presence of meaning for teachers, balance for teachers, uniqueness and novelty for teachers, emotional exhaustion for teachers, physical exhaustion for teachers, mental exhaustion for teachers, decrease in personal performance, self-belief of teachers, and perseverance of teachers.

### **Summary of Study Results:**

The results of the current study can be summarized in the following points:

1. There is a significant negative correlation between all dimensions and the total score of cognitive distortions and dimensions, and the total score of psychological flow, except for the relationship between the dimension of false beliefs of cognitive distortions and the dimension of self-belief of psychological flow.
2. There is a significant positive correlation between all dimensions and the total score of cognitive distortions and dimensions, and the total score of psychological exhaustion, except for the relationship between the dimension of false beliefs for cognitive distortions and the dimension of emotional exhaustion for psychological flow.

3. There is a significant negative correlation between all the dimensions and the total score of cognitive distortions and the dimensions, and the total score of teachers' psychological flow.
4. There are statistically significant differences at the level (0.01) between the averages of the scores of teachers with high and low psychological flow in the dimensions and the total score of cognitive distortions in favor of those with high psychological flow.
5. There are statistically significant differences at the level (0.01) between the averages of the scores of teachers with high and low psychological flow in the dimensions and the total score of cognitive distortions for teachers in favor of those with low psychological flow.
6. There are statistically significant differences at the level (0.05) between the averages of the scores of teachers with high and low psychological flow in the dimensions and the total score of cognitive distortions for teachers in favor of those with high psychological flow.
7. There are no statistically significant differences between males and females in the level of cognitive distortions for teachers in the study sample.



8. There are no statistically significant differences between males and females in the level of psychological flow for teachers in the study sample.
9. There are no statistically significant differences between males and females in the level of psychological exhaustion for teachers in the study sample.
10. The following variables predicted cognitive distortions in teachers: teachers' mental exhaustion, teachers' personality dissipation, teachers' decrease in personal performance, and teachers' personality dissipation

**Third: Study Recommendations:**

Based on the findings of the current study, the researcher recommends the following:

1. Teachers should use teaching methods and techniques that help them think positively to avoid cognitive distortions.
2. It is necessary to have supervisory and educational guidance centers available, as well as psychological and social support to help teachers overcome their psychological, social, and emotional problems. This is to prevent teachers from experiencing psychological disturbances and intense

emotional feelings that lead to cognitive distortions filled with frustration, depression, and intolerance.

3. Teachers should be patient and optimistic, avoid pessimism, hastiness, and uncreative competition that can deteriorate their mental and physical health, increase their level of depression and gloom, threaten their mental health, and render them a hopeless, frustrated individual unable to think about surrounding issues.
4. It's important to understand the psychological needs of high school teachers, which can be achieved by conducting numerous psychological and social studies among them.
5. Conduct seminars with parents and teachers on how to deal with high school teachers and impart them with skills of psychological flow.

**Fourth: Suggested Future Research:**

Based on the theoretical framework, previous studies, and the results of the current study, the researcher suggests a number of research topics that require further studies to ascertain their results:

1. A program based on rational therapy to improve cognitive distortions among high school teachers.
2. A guidance program to enhance psychological flow and its impact on confrontation efficiency among high school teachers.
3. The relationship between cognitive distortions and psychological flow among high school teachers and their teachers.
4. A program based on social support to overcome cognitive distortions among high school teachers.

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