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Research Article

Overgeneralization of the Preparatory Stage Pupils

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Abstract

The research aims to identify the overgeneralization of the preparatory school students and find out the differences between the overgeneralization according to the (sex, branch) variables. The research sample consisted of (381) male and female students; they were selected by the random stratified sampling method. The researchers have constructed the overgeneralization scale of three fields: central beliefs, middle beliefs, and automatic thoughts, and then ascertained its psychometric characteristics validity and reliability. Next, they used several statistical tools to analyze the data. The results show that the preparatory school students have overgeneralization, and there are significant differences according to the sex (male, female) and branch of study (scientific and humanities) variables. Accordingly, several recommendations and suggestions have been put forward.

The problem of the study :

The rapid and great life development influenced all aspects of life widely and for all societies and people. Thus, the individuals in general and preparatory school students adopt illogical beliefs and thoughts that affect their academic and personal lives. Furthermore, they suffer psychological pressures from the surrounding environment in which distorted their cognitive beliefs.

Exposure to repeated psychological pressures influences individual thoughts and beliefs, making his thinking rigid and giving absolute judgments controlled by overgeneralization. Thus, the individual beliefs and thoughts become very limited (Beck, Steer, Kovacs & Garrison, 1985: 56-559). Overgeneralization is represented in cognitive distortions in that the individual distorted reality depending on wrong suggestions resulting from incorrect learning through one of the growth stages. These distortions lead to a negative style of thoughts towards the self and others and are harsh to the self (Beck, 1995:83). This was confirmed by (Carver and Ganellen 1983: 330-337), which indicated that overgeneralization is one of the factors of being harsh with the self.

Overgeneralization is one factor that leads to many psychological and social diseases, such as intolerance and extremism in ideas. Moreover, these wrong generalizations are an indication of the emergence of poor compatibility with oneself and others. (Ibrahim, 1994: 308-309).

Cognitive psychologists focus on the early stages in a child's life, which later plays a role in receiving the automatic thought of overgeneralization that are acquired through socialization in childhood, so the individual has a negative philosophy and vision that he embraces in the interpretation of future events, and these ideas appear automatically and without effort. Beck called them the term automatic thoughts, and if the overgeneralization dominates the individual's thinking, it contributes to feelings of anxiety and depression (Beck, 1976: 45-56)).

Through educational career and personal experience, the researchers observed many overgeneralizations in the students' environment through which the student's fate and future can be decided according to this overgeneralization that has nothing to do with reality or logic. Hence, the research problem arises in whether preparatory school pupils have ideas and behaviors characterized by overgeneralization?

Importance of the study

The intermediate stage represents an important stage because it corresponds to a psychological stage and a change in growth aspects and because it coincides with the stage of adolescence. Also, it represents the stage of preparing students for the university community, where students go through a stage that requires planning for the professional and academic future, and the student's success in facing these challenges represents his qualification to live an organized and positive life. However, if the student fails to confront it, this negatively affects his view of himself, the world, and the future, and he adopts a negative belief about his life (Khalifa, 2000: 255).

(Raslan,2011) emphasized that the individual's cognitive formation and way of thinking determine the extent of his mental health or illness by associating the individual's adoption of false beliefs tainted by overgeneralization with low self-esteem and feelings inadequacy, which are indicators of health disorder. To a rise in self-esteem and the world, which is an indicator of mental health (Ruslan, 2011: 22).

The scientist Beck is one of the most prominent of setting the basic rules for correcting and treating the individual's wrong thoughts to build a civilized society. He pointed out that these thoughts, including overgeneralization, are the result of wrong assumptions, and when these assumptions are corrected, the individuals will produce balanced behaviors and feelings. Thus, the results will be positive due to generalizing positive experiences to all aspects of an individual's life (Beck, 1967).

As (Beck 1979) sees, the individual's experiences affect his emotions, as the individual becomes excited because he is exposed to psychological pressures from the surrounding environment, which produces distorted cognitive plans and beliefs. Thus, changing the way he thinks about these events stops by refuting the automatic negative thoughts and replacing them with positive and logical thoughts and making him more aware of his thoughts, which facilitates reaching psychological balance, which helps generate effective responses to psychological pressures and disturbing events(Beck, 1979:45).

Moreover, when the beliefs are positive, they serve the development of the individual and lead to a feeling of happiness and productivity. When his beliefs are negative, it results in negative thinking in the individual's behavior, feeling, and low productivity (Wal,2006:144).

Accordingly, the importance of the current research is reflected in the importance of adopting logical and realistic beliefs because of their relevance in achieving future goals and attracting the attention of teachers and counselors to the negative effects of overgeneralization.

Aims

The current research aims to identify:

1. Overgeneralization of preparatory school students.

2. Differences in overgeneralization according to gender variables (males - females) and the branch (scientific - humanities)

Limits

The current research is limited to students of the preparatory stage of both sexes (males, females) and for the two branches (scientific and literary) in the Baghdad Governorate / Karkh2 for the academic year (2020-2021).

Definitions of basic terms

overgeneralization defined by:

(Beck, 1967)):

An individual's embrace of extremist beliefs comes as a result of a specific incident. Thus, the individual tends to incorrectly apply these beliefs to incidents that are not similar to the previous incident, which leads the individual to destroy his self-confidence, prevent himself from forming successful relationships, and hinder his success in all aspects of life.

(Beck, 1967 cited in Corsini @ Wedding, 2005,247),)

Theoretical definition:

The researchers adopted the definition of Beak (1967) as a frame of reference in building the scale and adopted its theory to explain the results in the current research.

Operational definition:

It is the total score obtained by the student on the scale of overgeneralization used in this research

Theoretical background:

Overgeneralization

Beck (1967) has identified some thinking errors (distortions of thinking processes), including overgeneralizations, where these patterns of irrational thinking work on the defeat of the individual and can cause anxiety and tension, and (Beck) considered that the individual who has psychological problems has errors in the way of thinking, it leads to illogical results. Thinking errors appear in the form of basic

cognitive distortions represented in the individual's thinking in a rigid way (Beck. & Alford, 2009: 370. 378).

The overgeneralizations were divided into two types:

1. Negative Overgeneralization

The wrong thinking of the individual leads to exposure to psychological problems, and the individual who suffers from emotional problems is more susceptible to these systematic errors in thinking that distort the reality of the individual. Mistakes that lead to adaptation problems when an individual judges a group of people or things based on one appearance and are the antithesis of logical thinking and rationality and is inevitably linked to provoking suffering and psychological obstacles, a negative way of thinking associated with many pathological patterns. Such as depression in particular, because depressed people usually make negative generalizations about themselves or quick judgments about specific things based on their past experiences (Bennett, 1996:1627).

The negative overgeneralization has many effects, as follows:

• The individual tells himself about ideas or things that seem logical and correct, but in fact, they are the result of overgeneralization or haste and falsification of the truth to a large extent (Blatt, afflitti, & Quinlan, 1976: 383-389).

• Overgeneralization makes the individual harsh to himself, and this stems from the fact that people generalize their behavior and activities at a very high level of image, and it affects the processing of information and the interpretation of events, as the individual distorts and distorts information without evidence to support these distorted ideas. (Abramson, & Sackheim, 1977: 838-351)

• Overgeneralization affects human life because it is considered a wrong way of thinking and an obstacle to the healthy growth of individuals (Beck, 1967).

2. Positive Overgeneralization

Positive generalizations are acquired thinking that can enhance, grow, change, and consolidate (Mayo clinic staff, 2014: 89-93). Positive generalizations result from the formation of positive beliefs and experiences in the individual. Positive experiences towards solving problems make the individual positively anticipate the possibility of problem-solving, and these expectations are a form of positive generalization. This expectation makes individuals more positive in solving future problems, strives to achieve goals across life domains after initial perceptions of success, engages in pursuing ambitious goals and responding with increased confidence to success, and generalizes the causes of positive events to broader aspects of life. Positive generalizations among group members have been generalized to their out-group behaviors (Stark, Flach & Veenstra, 2013: 622).

Eisner et al. (2008) find that positive generalizations are represented by "the tendency of the individual to generalize positive experiences and thoughts from one situation to another." Positive generalization has three main dimensions: ascending generalization, lateral generalization, and social generalization (Eisner et al., 2008:154-163).

The relationship between negative and positive generalizations

Fazio & Richar (2005) believe that the generalization of negative experiences is more than positive experiences because the individual is more rational in positive situations and may have an opportunity to criticize and reflect on the situation. Thus the generalization of negative experiences is more severe (Fazio & Richard, 2005:641 -647).

The individual bad experiences form a basis and a strong motive for explaining future accidents by generalizing those experiences to those accidents. The negative and positive generalizations do not happen randomly in the brain but according to regular processes. When the negative generalizations increase towards a specific situation, such as anxiety and fear due to the increase in negative stimuli, the weakness in the positive motivators associated with positive generalization, it is important to reinforce the positive motivators of students, put them in positive situations, and make their mistakes a source of education, instead of reprimand or blame (Lissek, 2014:134-142). In many cases, we repeatedly hear phrases such as "I always fail exams, and this will be my case with this exam." This phrase indicates negative generalizations and carries a lack of self-confidence and a lack of thinking or criticizing the situation logically (Abu Bakr, 2015: 249).

Theories explaining overgeneralization:

1. Aaron Beck - Cognitive theory

Contemporary psychology has paid increasing attention to the cognitive aspect of psychological phenomena, emphasizing the cognitive orientation of the need to understand the intermediate processes in an individual, between the stimulus he receives and the apparent response that they produce. Furthermore, many cognitive psychologists led by Beck strongly emphasized the importance of cognitive appraisal for individuals who express the situation, i.e., the meaning of stimuli (Al Shukri, 2018: 56).

Cognitive theory is usually based on the following assumption: "People are not disturbed by events, but by the meaning they give to these events." For the same person in different situations, these meanings and interpretations are different (Al-Saqqa, 2009:3). Beck noted that some individuals perceive thoughts in a vague way, and although their thinking is distorted and not controlled by will and emotions, it seems completely logical to them. These automatic thoughts are part of the internal communication system with the self (such as conclusions, self-evaluation, expectations, and recall) and are manifested in low self-criticism, overgeneralizations of bad experiences, and painful memories. Many of these ideas are very complex and somewhat unrelated to the content of the exciting situation (Al Sunaidi, 2013: 24).

In his cognitive model, Beck assumed three levels (Core Belief, Intermediate Belief, and Automatic Thoughts).

It was found that internal beliefs during a particular situation affect the individual's feelings. This feeling is expressed by spontaneous or automatic thoughts about the situation and affects his behavior and emotions. Moreover, these internal beliefs lead to a functional physiological change (Beck, 2000: 23).

The following is an explanation of the dimensions of the cognitive model:

First, Core Beliefs: They are the most central thoughts about the self, others, and the world around us. Some psychologists refer to them as schemas or (cognitive systems) and consist of negative and positive beliefs (Beck, 2007: 200).

These beliefs grow during socialization, and most individuals have positive central beliefs in their lives, but negative beliefs appear during psychological stresses and crises, and they are the opposite of automatic thoughts. Beck notes that the negative believes consist of two parts: central beliefs related to helplessness and weakness and central beliefs related to attention and hate (Kahla 1998: 24). Through central beliefs, we can describe ourselves, others, and the world around us in general, obligatory, and immutable terms. For example, the rich are greedy, the poor are kind, and central beliefs are part of our processing of information in our normal lives (Corwin et al., 2008: 124).

Second Intermediate Belief: It consists of assumptions or attitudes and rules. They are more difficult to modify than automatic thoughts, but more malleable than central thoughts (Beck, 2007: 213). These beliefs affect the individual's view of the situation, which affects the way he thinks and how he acts and feels.

Third, Automatic Thoughts

It is a stream of thoughts that appear spontaneously and are not produced through effort or contemplation (Beck, 2007: 125-127). Beck called involuntary mental images automatic thoughts. The synonymous of automatic thoughts are self-statements and self-talk. For example, the individual tells himself, “I feel that my actions and actions are always wrong.” These feelings came as a result of one experience or event experienced by the individual. The cognitive model (Beck) assumes that the individual distorts the information received until it becomes a theoretical framework for understanding his own experiences and the world around him (Corwin et al., 2008: 123). Automatic thoughts are clear, unambiguous, and formulated like a reductionist style limited to necessary words and devoid of the logical sequence that characterizes goal-oriented or problem-solving thinking (Grammar, 2010 45-46).

Beck explained that the personality consists of schemas and cognitive structures, consisting of beliefs and assumptions that may be true or false based on the individual's experiences during the developmental stage. Distorted thoughts appear, including overgeneralization involuntarily due to the events experienced by the individual and the psychological pressure. Mostly, these thoughts are negative and are based on false assumptions. Therefore, it is like dialogue with the self, and the individual cannot adapt to it or get rid of it, which leads to mental confusion and psychological discomfort (Early,2000:78).

2. Physiological model of Overgeneralization

This model sees the transition from childhood to adolescence (puberty). Many changes occur, one of which is neurodevelopment, where the neural network is radically reprogrammed, which has to do with noticing feelings, generalization, and perhaps the way of thinking in general.

There are special mathematical operations necessary for declarative memories so that these memories become generalized. One of those calculations is pattern completion, and this process is responsible for the difference in response to similar situations. There is also a region in the middle temporal lobe in the brain called (hippocamp) where the fields The temporalis in the hippocampus is responsible for these arithmetic operations. In contrast, the adjacent region is called Ammonis Cornu, which is responsible for

completing the pattern. Therefore, this model is based on two hypotheses. The first is that changes and maturation in the hippocampus weaken the separation process, leaving the pattern completion process to lead the neurobiological mechanisms to negative generalizations. The negative generalization arises from a deficit in pattern separation, and the growth of the hippocampus region occurs largely in adulthood.

As for the second hypothesis, the deep interconnection between brain regio

ns may activate more regions than others according to the number of transmitted stimuli. Therefore, the stage of puberty increases the effectiveness of the amygdala, and thus its impact on the hippocampus, which contributes to weakening the process of separating patterns that leads to negative generalizations (DanaL et al., 2020:2-6)

Previous studies:

John & et al., (1992): Cognitive generalization, parental authority, and self-esteem among university students.

The study aimed to identify the relationship between cognitive generalizations, self-esteem, family variables of parental tolerance, authoritarianism, and cognitive variables of high standards and self-criticism. The sample consisted of (145) university students from the first mixed liberal arts university; five questionnaires were randomly presented to each student, namely: the mothers' authority questionnaire, the fathers' authority questionnaire, attitudes towards the self-scale, the self-esteem scale, the cognitive generalization questionnaire, in addition to a demographic information form. The results showed that maternal and paternal tyranny were inversely related to self-esteem, while maternal and paternal authority was directly related to self-esteem. However, hierarchical regression analyses revealed that the effects of patriarchal authority were overshadowed by the severity of the cognitive variable of overgeneralization and the tendency for a general feeling to fail. A particular attitude to a general sense of failure was associated with 33.6% of the variance in self-esteem, and power variables accounted for an additional 12.2% of the variance in self-esteem (John & et al. 1992).

Research methodology and procedures: The researcher adopted the descriptive correlative approach because it is one of the most common methods in the systematic scientific explanation of the phenomenon.

1- Population

The current research population is limited to the preparatory school students present in (67) schools affiliated to the Directorate of Education of Baghdad Governorate / Karkh II and the academic year (2020-2021). The whole population is (49414) males and females, (22611) males and (26803) females. The population is divided according to the branch of study into: scientific (13919) males and (16895) females, and the humanities branch (8692) males, and (9908) females.

2- Sample

The researchers chose (10) schools, including (5) schools for males and (5) schools for females with a total of (381) male and female students, where they were chosen by random stratified method and in a proportional manner, (174) males for the scientific and humanities section, and (207) females for the scientific and literary section and the Table (3) explains it.

Table (1)

Distribution of the research sample according to the variables (gender, branch)

Total	number of students				School names	ت
	Female		male			
	humanities	scientific	humanities	scientific		
42	—	—	21	21	Al Rawabi High School for Boys	**1**
21	—	—	21	–	Literary Zakat Preparatory School for Boys	**2**
43	—	—	21	22	Mohammed Al-Hakim High School for Boys	**3**
40	—	—	22	18	Tetouan High School forBoys	**4**
28	—	—	—	28	Preparatory scienceknowledge for boys	**5**
41	21	20	—	–	Al-Manhal PreparatorySchool for Girls	**6**
43	22	21	—	–	Hama prep school for girls	**7**
40	21	19	—	–	Al-Amal Preparatory School for Girls	**8**
42	22	20	—	–	Al-Nahda PreparatorySchool for Girls	**9**
41	21	20	—	–	Al-Aqeedah high school for girls	**10**
381	207		174		Total	

3- Statistical analysis sample

In selecting the statistical analysis sample, the researcher relied on the stratified random method of equal distribution, as (400) male and female students were selected from the preparatory school students, distributed equally according to the variables of gender (males, females) and branches (scientific, humanities).

4- Instrument:

Steps to construct the overgeneralization scale:

1. Defining the concept and its dimensions:

To construct the scale, the researchers:

adopted Beck (1967) theory as a theoretical framework in the current research.

Defined the concept of overgeneralization according to Beck's definition (1967), where he defined it (it is the individual's embracing of extremist beliefs built on the impact of a specific incident and then the individual's tendency to apply these beliefs incorrectly to incidents that are not similar to the previous incident)

• Determining the areas of overgeneralization according to Beck's theory which are:

1- Core Beliefs: These are the most central thoughts about oneself, others, and the world around us. He refers to them as schemas or (cognitive systems) and consist of negative and positive beliefs.

2- Intermediate Beliefs: They consist of assumptions, attitudes or attitudes, and rules. They are more difficult to modify than automatic thoughts, but more malleable than central thoughts.

3- Automatic Thoughts: It is a stream of thoughts that appear spontaneously and are not produced through effort or contemplation and are always short and come in a reduced form, common to all people and are verbal or imaginary or both (Beck, 2007: 125-200).

5- Items' construction

The researchers reviewed the literature and previous studies, as well as the previous standards that were mentioned. They applied an open questionnaire to a sample of preparatory school students that were randomly selected, as their number reached (40) male and female students, distributed according to the variables (sex, branch). The researchers asked the sample an open question after explaining the characteristics of the individual who has overgeneralization according to the presented definition. (34) items were formulated in its initial form, (14) for the field of central beliefs, (10) for the field of middle beliefs, and (10) the field of automatic thoughts, which covers the theoretical definition of each of the three fields according to Beck's 1967 theory see appendix (4). For preparing the alternatives and weights of the overgeneralization scale, the Likert method was adopted to prepare the overgeneralization scale by placing four alternatives in front of each scale item (strongly agree, agree, sometimes agree, disagree). Scores (4-1) were distributed on the scale alternatives, respectively, and all the scale items were negative.

6-Face validity

The scale was presented in its initial form to (12) experts in education and psychology to ensure the instructions, items relevant to the measurement of an overgeneralization, and appropriate alternatives. An agreement percentage of (80%) or more was adopted for the items to be valid. The number of items on the scale became (30) items.

7- Scale correction:

The degree of overgeneralization was calculated by summing the respondent's scores on the scale items, and weights ranging from (4-1) were determined, respectively, and according to the appropriate alternative chosen by the examinee according to the quartet Likert scale, as it gave (4) for the alternative

strongly agree, (3) degrees for the alternative to agree, and (2)) for the alternative I sometimes agree and (1) for the alternative I disagree.

8- Statistical analysis of the overgeneralization scale items

A- Discrimination power:

The discrimination power of the items is one of the psychometric characteristics that can be relied upon in evaluating the efficiency of the paragraph in measuring the trait to be measured because it distinguishes between individuals who get high scores in the measured trait from those who get low scores in the measured trait. This step aims to get the items with high and good discrimination (Ahmed, 1981: 258). The sample of statistical analysis (400) male and female were chosen by the simple random method to extract the discrimination power of the items according to the two extreme groups; the researcher followed the following steps

1. The researcher arranged the statistical analysis sample forms according to the total degree in descending order from the highest degree to the lowest degree.

2. The researcher assigned (27%) of the forms with the highest scores as the highest group, and the number of forms was (108) as their total scores ranged between (100-86) degrees, and 27% of the forms with the lowest scores were appointed. The total scores ranged between (51-74) degrees, and thus the two extreme groups were sorted, upper and lower.

3. The mean and standard deviation of the scores of each of the upper and lower groups were calculated on each of the items of the overgeneralization scale. The discrimination power of the items was calculated using the t-test for two independent samples to test the significance of the differences between the means of the two groups. All of the items are seen as discriminated after comparing the calculated t-value with the tabulated T- value (1.96) at the level of significance (0.05) and the degree of freedom (214), except for the item (12). T- value is less than the tabulated value. Thus, the number of items on the scale became (29) items. Table 2 illustrates this.

Table (2)

The discrimination power of the items of the overgeneralization scale using the two extreme groups method

Significance	Calculated T-value	lower group		senior group		ت
		Standard deviation	SMA	Standard deviation	SMA	
significant	5.01	0.93	2.09	0.94	2.73	1
significant	8.27	1.07	1.90	1.05	3.09	2
significant	3.08	0.98	2.68	1.09	3.11	3
significant	4.72	1.15	51 .2	0.98	3.19	4
significant	4.93	1.04	45.2	1.06	3.16	5
significant	4.72	1.06	22.2	1.07	91.2	6
significant	5.34	1.11	11.2	1.03	89.2	7
significant	3.79	1.05	2.30	1.10	2.85	8

significant	2.97	1.15	2.78	0.94	3.20	9
significant	52.11	0.87	1.57	0.99	3.04	10
significant	4.83	0.96	2.25	1.07	2.92	11
Not significant	1.05	1.07	97.2	1.01	3.12	12
significant	8.26	1.11	11.2	0.93	3.26	13
significant	09.3	1.10	2.52	1.05	2.97	14
significant	5.92	0.94	1.97	1.08	2.79	15
significant	4.44	1.02	2.44	0.98	3.04	16
significant	7.25	1.06	2.09	1.02	3.12	17
significant	6.92	1.06	2.18	1.05	3.17	18
significant	4.39	1	2.22	1.05	2.83	19
significant	4.44	1	2.26	1.17	2.92	20
significant	6.47	1.03	1.96	1.09	2.90	21
significant	8.37	1.02	2.05	0.97	3.18	22
significant	8	1.05	1.70	1.16	2.91	23
significant	5.64	1.03	1.97	1.12	2.80	24
significant	4.22	0.91	2.57	1.02	3.13	25
significant	7.65	1.04	2.19	0.98	3.24	26
significant	4.84	1.17	2.26	1.05	2.99	27
significant	8.37	0.95	1.87	1.02	2.99	28
significant	7.92	0.97	1.83	1.07	2.94	29
significant	6.07	01.1	11.2	1.08	2.97	30

b: Internal consistency (construction validity): To achieve this procedure, (100) respondents' questionnaires were selected from the statistical analysis sample by random method. The correlation between the degree of the items and the total degree of the scale is statistically significant because its values are higher than the Pearson tabulated value of (0.098) at the significance level (0.05) and the degree of freedom (398), except for item (12), which was omitted during the discrimination power because it is not statistically significant, Table (3) explains it.

Table (3)

The relationship of the items score with the total score of the scale

significance	correlation coefficient	items	significance	correlation coefficient	items	significance	correlation coefficient	items
significant	0.33	**21**	**significant**	0.30	**11**	significant	0.23	**1**
significant	0.36	**22**	**---**	**fell into discrimination**	**12**	significant	0.42	**2**
significant	0.44	**23**	significant	0.38	**13**	significant	0.19	**3**
significant	0.28	**24**	significant	0.17	**14**	significant	0.24	**4**

significant	0.22	**25**	significant	0.35	**15**	significant	0.27	**5**
significant	0.38	**26**	significant	0.21	**16**	significant	0.29	**6**
significant	0.30	**27**	significant	0.37	**17**	significant	0.29	**7**
significant	0.38	**28**	significant	0.33	**18**	significant	0.19	**8**
significant	0.43	**29**	significant	0.26	**19**	significant	0.17	**9**
significant	0.33	**30**	significant	0.29	**20**	significant	0.49	**10**

C- Relationship of the degree of the item with the total degree of the field:

The researchers also revealed the relationship of the degree of each item with the degree of the field to which it belongs and found that all the correlation coefficients of the degree of the items of the scale with the degree of the field are statistically significant because their values are greater than the Pearson tabulated value of (0.098) at the level of significance (0.05) and the degree of freedom (398), Table (4) illustrates this.

Table (4)

Relationship of the item score with the total score of the field

significance	**correlation coefficient**	**item**	significance	**correlation coefficient**	**item**	significance	**correlation coefficient**	**item**
	Automatic Thoughts			**Intermediate Belief**				**Core Belief**
significant	0.45	21	significant	0.54	13	significant	0.26	**1**
significant	0.41	22	significant	0.38	14	significant	0.46	**2**
significant	0.49	23	significant	0.47	15	significant	0.25	**3**
significant	0.35	24	significant	0.28	16	significant	0.26	**4**
significant	0.30	25	significant	0.38	**17**	significant	0.32	**5**
significant	0.39	26	significant	0.42	18	significant	0.31	**6**
significant	0.35	27	significant	0.36	19	significant	0.35	**7**
significant	0.48	28	significant	0.40	20	significant	0.30	**8**
significant	0.49	29				significant	0.26	**9**
significant	0.38	30				significant	0.49	**10**
						significant	0.32	**11**

D: Relationship of the domain to the domain and the domain to the total score of the scale: This was achieved by finding the correlation between the scores of the sample members within each domain of the scale and the total score of the scale, as well as the correlation of each domain with the other domain, depending on the scores of the sample members as a whole, and Table (5) illustrates this:

Table (5)

The relationship of the domain to the domain and the domain to the total score of the scale

overgeneralization	**Automatic Thoughts**	**Intermediate Belief**	**Core**	**the field**	**the field**

			Belief	
0.83	0.55	0.44	1	**Core Belief**
0.73	0.41	1	---	**Intermediate Belief**
0.84	1	---	---	**Automatic Thoughts**

E: Indicators of the reliability of the overgeneralization scale:

The concept of reliability is one of the essential concepts in measurement, in which the degrees of the scale have a high degree of accuracy, mastery, and consistency in what they provide us with from the examined data. The reliability coefficient provides many statistical indicators for the phenomenon studied. Accordingly, it can be judged on the scale's accuracy (Al-Jabali, 2005: 113).

The reliability coefficient was extracted by the following method:

–Alpha Cronbach method

In order to verify the reliability coefficient of the overgeneralization scale, (100) respondents' questionnaires were randomly selected from the statistical analysis sample. The SPSS statistical program was used to analyze the data. The reliability coefficient was (0.076), which is a good coefficient.

The final formula for the overgeneralization scale:

In its final form, the scale consists of (29) items with a quadrilateral gradation distributed on (3) domains arranged intentionally and sequentially. items (1, 11) were given for the domain of central beliefs, items from (12, 20) for the domain of middle beliefs, and items from (29,21) for the field of automatic thoughts, and the highest value of the scale reached (116) and the lowest value was (29) degrees, with a hypothetical mean of (72,5) degrees, and thus the scale became ready to be applied to the final research sample

B- The final application of the overgeneralization scale:

After verifying the validity and reliability of the overgeneralization scale, the following was carried out:

The scale was distributed to the final research sample of (381), with (174) males, (89) for the scientific section, (85) for the humanities section, (207) for females, (100) for the scientific section, and (107) for the humanities section, after making sure that the students understand the instructions and explaining to them the importance to answer accurately and that their answer is important in the success of this research, which is devoted to scientific purposes, and emphasizing not to leave any items unanswered. The application extended from (1/25/2021) to (4/2/2021).

Fourth: Statistical means

The researchers used statistical methods, including the t-test for one sample, the t-test for two independent samples, the Pearson correlation coefficient, and Cronbach's alpha coefficient to calculate the reliability coefficient.

Presentation and interpretation of the results

Objective (1): To identify the overgeneralization of preparatory school students.

The researcher applied the overgeneralization scale to the research sample of (381) individuals to achieve this goal. The results showed that the mean score on the scale is (75.52) and a standard deviation of (10.16). From comparing the arithmetic mean with the hypothetical mean of the scale, the hypothetical mean is (72.5) degree by using one-sample t-test, it was found that the difference was statistically significant in favor of the arithmetic mean, as the calculated t-value was higher than the tabulated t-value (1.96) with a degree of freedom (380) and the level of significance (0.05), see table (6).

Table (6)

T-test for the difference between the sample mean and the hypothetical mean of the overgeneralization scale

significance level	degree of freedom	Table T-value	Calculated T-value	hypothetical mean	standard deviation	SMA	Sample volume
significant	380	1.96	5.80	72.5	10.16	75.52	381

Table (6) indicates that the research sample has overgeneralization, and this result can be interpreted according to the theory of (Beck), where he sees that the central beliefs grow during socialization. Furthermore, we can describe ourselves, others, and the world around us in very general and rigid terms during socialization. They are not subject to change, and that these beliefs are part of our processing of information in our natural lives, and when evaluating those cognitive structures of the cognitive beliefs of the central beliefs, we notice them in many situations that the individual is exposed to, which are characterized by overgeneralization. Beck noted that the middle beliefs represented by rules and requirements affect the individual's vision. He emphasized that automatic thoughts are part of the internal communication system, such as conclusions and generalization of experiences and expectations manifested in low self-esteem and criticism. Thus, generalizations and assumptions are formed based on the experiences that the individual acquires during the developmental stage that appears involuntarily and exerts psychological pressure on the individual and he cannot get rid of it easily (1967, Beck). The researcher can explain this result because overgeneralization is an abnormal condition that results in psychological problems for individuals due to the rules of socialization, the intellectual and cultural heritage of the society in which the student lives, and his personal experiences that establish a set of unrealistic ideas and beliefs that he generalizes on himself, the world and the future. The Iraqi individual did not agree with the events to which he was exposed and did not interact with them in a normal way and moved away from the rational and logical method in explaining the events and experiences presented at a specific time and generalized them to the other unrelated events.

Objective (2) To identify the differences in the overgeneralizations according to the two variables (sex, branch).

To achieve this goal, the researchers used Two Way ANOVA to identify the significance of the differences in the overgeneralizations according to the variables of sex and branch, and the two tables (7-8) illustrate this:

Table (7)

Arithmetic averages and standard deviations of the overgeneralization scale according to sex and branch variables

standard deviation	SMA	The number	Variables
6.29	77.17	89	**Male - Scientific**
6.69	78.74	85	**Male - Literary**
6.52	77.94	174	**Males - total**
9.86	78.98	100	**female - scientific**
11.69	68.35	107	**female literary**
12.06	73.48	207	**female – whole**
8.40	78.13	189	**scientific - holistic**
11.06	72.95	192	**Literary - holistic**
10.16	75.52	381	**total summation**

Table (8)

The results of two-way analysis of variance revealed the significance of differences in overgeneralization according to the sex and branch variables

Sig. 0.05	F	M.S	D.F	s.of.s	s.of.v
signifcant	21.095	1754.728	1	1754.728	sex
signifcant	29.265	2434.292	1	2434.292	Branch
signifcant	42.303	3518.760	1	3518.760	Branch * sex
----	----	83.180	377	31358.943	The error
----	----	----	381	2211964.000	total

The results of Table (8) indicate the following:

1- There is a statistically significant difference in the overgeneralization according to the gender variable and in favor of females. That is, the females use the overgeneralization more than males, as the calculated t -value (21.095) is higher than the tabulated t-value (3.84) at the level of significance (0.05) and a degree of freedom (1-377). This result can be explained by the fact that females are exposed to more cognitive distortions than males, especially overgeneralization due to personal and societal factors (Al-Sharif, 2017). The researchers attribute this result to the fact that the socialization of females affects the nature of their beliefs, as females acquire many central beliefs and wrong attitudes about self, others, and the future, which they generalize to the later stages of their life for overgeneralization (1967, Beck).

2-There is a statistically significant difference in overgeneralizations according to the branch variable in favor of the scientific. The scientific branch students use overgeneralizations more than humanities since the calculated value (29.265) is higher than the tabulated value (2.37) at the level significance (0.05) and degree of freedom (1-377). This result can be explained according to the cognitive theory, which sees that the events experienced by the individual during childhood may lead to cognitive distortions, and the lack of experience and training may lead to non-consensual ways of thinking such as setting unrealistic goals and forming inaccurate and irrational assumptions. The generalizations result from incompatible thoughts, beliefs and assumptions, and negative conclusions that suggest failure and loss and ignore success. Therefore, thoughts and feelings are generalized to all stimuli that suggest failure (Ellis, 1979: 13-19). The researchers can explain this result that the negative thoughts adopted by the students of the scientific branch may be due to the challenges they face in terms of inappropriate goals and the size of expectations that parents place on them that sometimes make them misperceive the events and make generalized and exaggerated judgments about their future.

In order to find out the differences in the interaction between the variables of sex and branch, Scheffe test for post hoc comparisons was used, and Table (9) shows that: 3- There is a significant interaction between the variables (sex and branch), as the calculated t-value (42.303) is higher than the tabulated t-value (3.84) at the significance level (0.05) and the degree of freedom (1-377). Therefore, there is a clear effect for each of (sex - branch) in overgeneralization.

Table (9)

The differences between the means and the critical Scheffe values show the overgeneralization according to the sex and branch variables

Significance	Critical Scheffe Value	difference between the two means	SMA	number	Comparisons
0.05 not significant at	4.69	1.57	77.17 78.74	89 85	**Scientific - Male** **Male – humanities**
not significant at 0.05	4.51	1.81	77.17 78.98	89 100	**Scientific - Male** **female-Scientific**
significant 0.05 benefit of a scientific male	4.44	8.82	77.17 68.35	89 107	**Scientific - Male** **female – humanities**
not significant at 0.05	4.57	0.239	78.74 78.98	85 100	**Male – humanities** **Scientific - female**
In 0.05 significant favor of a humanities male	4.50	10.40	78.74 68.35	85 107	**Male - humanities** **female - humanities**
0.05 significant In scientific female	4.31	10.63	78.98 68.35	100 107	**female-Scientific** **female - humanties**

Recommendations

1. Focusing on the role of social growth in developing students' logical and positive beliefs to be effective members of society.

2. Emphasizing the role of counseling services in the school to correct students' beliefs and ideas that are dominated by cognitive biases, including overgeneralizations that affect their vision of themselves and the world around them.

Suggestions

1. Conducting correlational studies between overgeneralization and other variables (social growth, learning styles, thinking styles).

2. Conducting an experimental study for middle school students by preparing a training program to reduce the overgeneralization of some students.

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