CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES



Volume: 04 Issue: 03 | May-Jun 2023 ISSN: 2660-4159

http://cajmns.centralasianstudies.org

Emotional Contagion Among Professors in University of Baghdad

1. Dr. Huda jameel abdullghani

Received 17th Apr 2023, Accepted 18th May 2023, Online 19th June 2023

¹Clinical psychology, The Director of lab testing in Ministry of higher education Iraq Baghdad. 2020 **Abstract:** Emotional contagion is considered one of the essential variables that gained the attention of scientists in social psychology because of its effective role in the communication process, empathy, and social influence, so attention has increased since the scientists Hatfield put his theory of emotional contagion he defined as" automatic mimicry and synchronized in expressions signs and physical movements between a person and others.

The research aimed to:

- 1. Translate the Emotional Contagion Scale for scientist Doherty (Doherty; 1997)
- 2. Identify Emotional Contagion level for Instructors at the University of Baghdad
- 3. Comparing Emotional Contagion according to gender and Specialization between Instructors.

The researcher presented the scale to a group of experts to achieve the current research aims. To extract the validity translation for the scale, which consists of 15 items and 5alternatives(always, often, usually, rear, never).

The scale applied to the sample consists of (100) Instructors from the University of Baghdad. The researcher concluded the following:

- 1. High level of Emotional Contagion in Instructors at the university of Baghdad
- 2. Significant differences in emotional contagion according to the gender variable, females are more susceptible to emotional contagion than males, and the science faculty are more susceptible to emotional contagion than humanity Specialization.

The researcher recommended that:

- 1. Prepare psychological counseling program by experts and specialists in counseling to reduce emotional contagion in female instructors
- 2. Organizing sessions grouped by specialists which focus on the negative effects of emotional contagion on mental and physical health
- 3. Awareness campaigns by media and social media describe emotional contagion risks

1050 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

Suggestions

The researcher suggested the fowling studies:

- 1. Emotional Contagion and its relation with personality types in psychiatrists
- 2. Comparative study in positive and negative emotional contagion for women with breast cancer and non-cancer
- 3. Emotional contagion for children with special needs (deaf and dumb)

1. Research Problem

Despite the importance of emotional infection in our lives in terms of sympathy and social communication, it is a risk factor in many problems in our daily life (Bon, 1995, p.13). The danger of emotional contagion is highlighted in the speed of its spontaneous and non-spontaneous transmission in negative emotions, which are represented by anger, sadness, fear, and disgust, as individuals within the group imitate emotions of sadness, fear, and anger rather than emotions of joy and surprise.

In a study by Laird and his colleagues (Laird. 1994), by showing a video film to a group of participants that contained all the emotions and placing conditions on the participants not to show their emotions, it was noticed that all the participants seemed to be emotionally sad, while none of them showed expressions of feeling joy. The study concluded that Emotional contagion of sadness and anger is more effective between the group and quickly moves from joy and amazement (Laird. 1994. pp. 231-247). Exaggeration in imitation of emotions between one person and another may not always mean sympathy with him, but it may be one of how he resorts to Some people refer to it to deceive a person's "trick," so we see him exaggerating his facial expressions and hand movements that show the extent of his affection and sympathy (E. Hatfield, 1992.151), and Evan Pullman's study showed that the transmission of feelings of anger among members of the group enhances the proportion of hypocrisy and social hypocrisy and makes them More severe and hasty in making decisions that are unfair to others (Evan Polman.2012. 129-139),

As Helen H. Lee (2012) has shown, people vary in emotional mimicry, with those with a high degree of emotional contagion being in a stable mood, low on motivation, and more prone to depression. Lee. 2012. pp.7-8) and affect performance and achievement,

Judith Vollmer's study showed that the soccer team captain's emotions, represented by resentment and sadness, affected the team's performance and reduced their spirit of competition. 2012.pp. 203-220) (Judith Volmer. Some exaggerate in imitating the emotions of others to the point where he criticizes how he expresses them. Many aim to shed light on them or achieve certain gains more than they feel internally with sympathy and often found in actors and hysterical characters Hatfield, 2004; Rude, 2005))), as well as being the biggest catalyst for violence, riots, widespread insurrections and extremist blocs (Church, 1964; McCague, 1968), insurrections, sit-ins, and outbursts of anger in religions (Ehrenreich, 2006), rapid political coups, and sectarianism. Biased (Hatfield & Rapson, 2004; Rude, 2005).

The university environment is affected by emotional infection, as in other areas of life. However, it becomes more dangerous because of its negative effects on the students and their future. It has a position for him, so the researcher decided to study the emotional infection of the teachers and professors of the University of Baghdad, knowing that it was not addressed to the researcher's knowledge.

1.1.The importance of the research

By their nature, group members tend to be influenced by one another, whether by ideas, trends, or what is presented from viewpoints. That influence may be spontaneous without us controlling it or

1051 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

because of sympathy. It may be the result of our conviction in their opinions, taking into account the individual differences between individuals in terms of the degree of influence in the group (Bartel, C.A., R. 2000 p.197-231), and the basic emotions are sadness, happiness, love, fear, and anger Fischer (K. W., Shaver, P. R. 1990. pp. 81-127).),

So we see him smiling with his smile or getting angry and angry at seeing his anger. It is called "emotional contagion," where the emotions of a person converge with another, imitating them unconsciously, with movement, postures, and facial expressions (Hatfield, E., J.T., 1993. pp.96-99). The emotional contagion variable is one of the variables that has attracted the attention of scientists in clinical and social psychology, as well as neuropsychology and physiology, and increased interest in it by the scientist Elaine Hatfield in 1993, who considered it "the individual's automatic tendency To mimic the emotional expressions, facial gestures and body movement of another person, describing it as blind imitation (49-61-Schoenewolf.1990.pp) (Hatfield, E. 1993. pp.153-154).

Emotional contagion is linked to many psychological variables, such as attitudes, tendencies, behavior, social influence, and persuasion (Bartel, C.A.. 2000. pp. 197-231) and social media networks. Emotional infection among millions of people who continue on Facebook. Facebook indicates that emotional infection is less effective than infection between people in direct contact. However, the social network enlarges it and makes it more synchronized and transmitted between communicators, especially in emotional relationships between the sexes (Coviello L, Sohn Y, 2014). pp.1-6), and it is related to the gender variable, as females are more likely to imitate emotions and be affected by them with their male friends and peers (p.127). 2014 Paul A. Konasewich)

It is worth noting that emotional contagion is the basis for the success of social interaction and achieving status (2002: 664–675 S. G Barsade). The teaching staff at the university level is considered a role model and a role model for their students to follow, which is an effective basis for motivating them and encouraging them to achieve their goals and serve their country. His emotions and sympathy are strong incentives that enhance their spirit of optimism and create a positive outlook for the future. A comparison in the emotional infection of the female and male teachers of the University of Baghdad, knowing that this research has not been addressed to the researcher's knowledge.

1.2.The aim of the research

The current research aims to:

- 1. Translation of the Emotional Contagion Scale for Doherty. 1997) R. William Doherty
- 2. Identifying the level of emotional infection among female and male faculty members
- 3. Comparison of emotional infection between female and male teachers at the University of Baghdad

1.3.The search limitations

The current research is determined by the teaching staff of the University of Baghdad, Baghdad, for the 2014-2015 academic year.

1.4.Emotional Contagion:

- Schoenwolf (1990): The process of influencing emotions within a group or between two people through induction, consciously or unconsciously. Schoenwolf.1990. 49-61)).
- Hatfield (1994): automatic mimicry and synchronization of expressions, signals, body movements, and gestures between one person and another (Hatfield, E, 1994., p.7)
- Rene Coenen, 2(012): Capturing emotions from a person and meeting them without arrangement or intentionality and any previous intentions or intentions (Rene Coenen, 2012, p.1).

```
1052 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org
```

- ➤ K.W. Fischer (1990): the tendency to spontaneously imitate another person's expressions and utterances in succession to an emotional encounter (K.W. Fischer.1990.pp153-154).
- ▶ Robbins & Judge, 2011: Capturing the emotions of others (Robbins & Judge, 2011.p.6).
- Hamilton (2011): the friction of people's emotions with each other after their interaction for a long period (Hamilton, 2011.p.73).
- ➢ Furthermore, the researcher knew it: the automatic sampling of others' emotions, facial expressions, and movements.

As for the procedural definition: It is the degree the respondent obtains in the emotional contagion scale.

2. Theoretical framework and previous studies

The facial feedback hypothesis; (Darwin, 1872)Facial feedback hypothesis concerns facial expressions as being affected by emotional experiences as a visible part that depicts expressions and emotions (Buck, R. 1980. 811-824). The scientist Darwin is considered the pioneer of this theory, which states: "People's emotions and their imitation of others are deeply affected by the reactions emanating from the facial muscles.

Emotional expressions, signs, and gestures that emerge on the face enhance emotions and increase their degree, and controlling the external signals of the face reduce emotions. It has evolved because it has adaptive value and put this theorizing on the emotional expressions of the organism and its evolution over time for its adaptive capacity for survival (Darwin, 1872),

Darwin hypothesized that the state of flight or fight, and nervous arousal, was found to preserve the organism's life and that animals and humans are identical in their emotions and facial expressions, and their basis is innate (Darwin, C., 1872, p.366).

2.1.Simulation Model

This model was developed by the scientist Lipps in 1907, and after him, Goldman, to the effect that the process of imitating facial expressions inevitably leads to emotional infection, which in turn facilitates the discrimination of emotions and the effect on emotional infection is based on empathy and the ability to recognize the feelings of others (Lipps, 1907. pp. 694). -722), (Goldman, 2005. pp. 193-213).

The authors of this model sought to explain emotional mindreading on the basis that people recognize and recognize the emotions of others by simulating emotional experiences within themselves (Goldman, 2005.p.12). The model consists of three steps:

- 1. During emotion recognition, the observing person imitates expressions in a subtle way
- 2. The facial feedback or observation creates a symmetry of the emotions within the observing person
- 3. The observing person begins to understand the emotions according to what they have been taught and interprets them as he perceives them. As for the part of this model, it is based on the fact that observing the face or feedback on facial expressions is necessary. Imitation of emotions is automatic (Izard, 1971.p.8; Tomkins 1962.p65).

2.2. Theory of emotional contagion

Hatfield and Doherty developed this theory in 1993 (Hatfield,., Cacioppo, J.T., & Rapson, R.L; 1993: Doherty; 1995) that people unconsciously and automatically imitate their colleagues fleetingly and fleetingly, and they bring slight reversals With their life partners, and through interaction, they get a lot of reflexive emotions (Hatfield, 1993.p.96)), and that there are individual differences and many

1053 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

factors, such as genes, early experiences, personality, gender as well as the degree of response to the emotions received from others and the extent of their influence and their empathy, inclinations, and the degree of attention or lack thereof (Hatfield, 1994.p.5); people who are strongly affected by emotional reactions and show emotional responses (Eisenberg et al., 1991) are more susceptible to emotional infection certain characteristics that are

I. They pay close attention and can read the emotional expressions of others.

II. They consider themselves internally related rather than remaining independent.

III. They imitate facial expressions, tone of voice, body shape, and movements.

IV. They strongly influence the person who feels emotional expressions through the surrounding feedback (Hatfield, E., Cacioppo, J., & Rapson, R. 1992.12-19)). He also summarized emotional contagion with two steps: the person imitates others, so if a person smiles, the other person returns with a smile and the second changes mood during that tradition.

Hatfield shows that emotional infection consists of three stages:

> The mimicry tradition

People imitate each other automatically and continuously in conversation and try to synchronize their movements with facial expressions, voice, posture, or posture. Most of the facial changes are discreetly tracked. A. Smith (A. Smith) 1976.p6. The proponents of this theory divided the tradition into:

- a. Facial Mimicry: People by nature often mirror the facial expressions of others and those around them (Dimberg, 1982. pp.643–647) (Vaughan, 1980. pp. 909–923).
- b. Vocal Mimicry: People imitate the voice of others during conversation
- c. Postural Mimicry: Individuals imitate the posture of the body and the way of standing, and this process cannot be imitated effectively, intentionally or consciously, because it is characterized by a high degree of complexity, accuracy, and speed, which is described as the speed of light Cappella, 1981. p. 132) (Bernieri, et al., 1991.p.2), body posture synchronization between friends occurs within 12 milliseconds as the time taken to take a single image (Chapple, 1982. p. 52). There is no way one can deliberately move, which makes the person who copies the movement deliberately and consciously be described as evasive or phony (Davis, M. R. 1985.p. 69; William 1966.pp347).

> Feedback

Subjective emotional experiences are affected moment by moment through activation and feedback from the face, posture, and movement imitation. The proponents of this theory believe that the emotional experiences of the participants can be affected by the central nervous system, and incoming feedback: it means the facial and movement expressions that are received or received by the individual for imitation and synchronization, and awareness of self-perception processes, when the individual makes inferences about his emotional state based on his expressive behavior (Adamatzky, 2005.p.2))

This theory asserts that emotional experiences are formed through the face, posture, and imitation of body posture. From Hatfield's point of view, emotions are dealt with to some extent by facial reactions and body posture, and the feedback phase includes:

a. Facial Feedback:

Hatfield adopted Darwin's hypothesis about the face and its muscles and conducted experiments to prove its validity about; meaning he showed, "Emotional experiences are deeply affected by expressions and facial muscles. (Darwin, C. 2005.p.365; Adelmann, 1989; 249–280). Ekman

1054 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

concluded in 1983 that facial reactions affect emotional experiences and the activity of the autonomic nervous system (Matsumoto, 1987. 769–774; Ekman, 1983. pp. 1208–1210)

b. Vocal Feedback:

Emotional experiences are instantaneously affected by sound vocal mimicry (Zajonc, 1989. pp. 395–416; Duclos, 1989; 100–108). Hatfield and colleagues (Hatfield, 1995) and researchers in the field of communication found that basic emotions are associated with specific types of intonation, voice type, rhythm, and silence (Hatfield, 1995).pp. 293-312

c. Postural Feedback:

Emotions are formed from feedback, posture, and movement (Bernieri et al., 1988. pp. 243–253). People tend to feel emotions consistent with facial expressions, tone of voice, and body movement in an adaptive manner. , anger and fear are more likely to feel connected emotions (Duclos, S. 1989. pp. 100–108).

> Contagion

As a result of the previous two stages, individuals tend, moment by moment, to "catch" the emotions of others. The reason for empathizing with people, their thoughts, and feelings is due to the presence of certain neurons called canonical neurons that directly link perception and action. At the same time, there are other types of neurons. It is called the nervous mirror. It has been observed that it flashes when mammals perform the same action by observing other animals J.D. Laird., 1992.p234.)) The scientists concluded that the structure of the brain that performs the same performance when observing some of them is the same as the structure of the brain in emotional infection and empathy, the same in humans (17-36) (Wild, B., 2001, 109-124; Wild, B, 2003. pp; Iacoboni, 2005; pp. 77-101; Rizzolatti, 2005, pp. 55-76.) There are several areas of the human brain that are active during action generation and through observing the actions of others, such as the mirror system that allows us to plan, not our own, as well as understand the actions of others when Her Observation, (Miller, 1963. 24-30), 10-19.pp; Brothers, 1989; Mogil, 2006. 1-4). All social psychology, neuroscience, and clinical scientists agreed with Hatfield after clinical, neurological, and zoological observations that people pick up on each other's emotions all the time (Tseng, 1980. pp. 61–97). Hatfield asserted that infection increases in females because females are more emotionally charged. In general, interpersonal communication and deepening enhance emotional contagion, while it decreases if social relations are lukewarm. However, emotional contagion has negative effects, and this is the reason for calling it emotional contagion, as people are more prone to sadness, anger, and disgust than to joy, surprise, and negative emotions. They last longer and are influenced by their mood (Hatfield, 1994.8-12; Hurley, 2005.p.6)

2.3.Discuss previous theories

There are many theories regarding emotional infection and how it occurs. From Darwin's point of view, emotions have an identical innate basis in humans and animals, and the face and its muscles are the basis of emotional infection (Darwin, 1872). Lipps and Goldman agreed in the simulation model about the effectiveness of facial feedback in emotional infection, but they differed in terms of its transmission. While Darwin considered an imitation of indulgences as having an identical instinctive basis in animals and humans and a process for survival, the owners of the simulation model relied on the observation process of facial expressions and empathy as the basis of emotional contagion and the experiences that exist within the individual (Goldman & Sripada, 2005.p.12). As for Hatfield, in his theory, he gave emotional contagion a more extensive and comprehensive mechanism, considered it an automatic process that takes place moment by moment, during which meeting and synchronization occur between two people or a group and gave great importance and included body language,

1055 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

movements, and facial expressions and did not give a role to awareness or the side. The researcher adopted the theory of emotional contagion. Hatfield provides a theoretical basis for his research.

2.4.Previous studies

1. (Magen, Eran;, Paul A.2011)

The study aimed to compare the most vulnerable to emotional infection between the sexes in stress on a sample of 48 pairs of friends who were presented with the emotional infection scale after 8 minutes of the process of attributive interaction between them. Eran; Paul A. 2011. P.611-616)

2. (Judith Volmer. 2012)

The study aimed to identify the effect of the leader's mood at work, team members, achievement level, and performance and the influence of the leader's affective tone on 63 students in three teams. Each team has a person who is considered a leader. Negative on performance and achievement, the study concluded that the team's success is due to the nature of its leader and his emotional expressions Judith Volmer. 2012. pp. 203-220)).

3. (Anna Z. Czarna, 2014)

The study aimed to find the relationship between exposure to emotional contagion and narcissism in a sample of 296 males and females classified into high and low narcissism. Those with high narcissism have no tendency to emotional contagion compared to those with low narcissism (Anna Z.; 2014. pp.8-12).

4. (R. William Doherty, 1997)

The study aimed to identify individual differences by measuring the reliability of the emotional contagion scale on a sample of 1988 people to assess the scale's stability and to identify the relationship between emotional contagion and each of the following variables: sensitivity to others, social functions, self-esteem and empathy, self-assertiveness, And alienation, and emotional equanimity. The scale's stability rate was 0.90 according to the Alpha Cronbach equation, and the results showed a positive relationship between sensitivity to others, social functions, self-esteem, and empathy, and a negative relationship between emotional contagion and self-assertion, alienation, and emotional balance, and that women are more susceptible to emotional infection than males. 1997. pp. 131-154) R. William Doherty).

2.5.Discussing previous studies

- 1. Most previous studies aimed to identify emotional contagion and its relationship to other variables, such as stressful situations, as in the study of Megan Iran and Paul (Magen, Eran; Paul A.2011), and leaders' mood, as in the study of Judith Volmer. 2012, and other variables such as narcissism And individual differences (Anna Z. Czarna; 2014), sensitivity to others, social functions, and self-esteem, as in the study of R. William Doherty. 1997)). The current research aims to translate the emotional infection scale of Doherty (R. William Doherty. 1997) and to identify emotional infection among female teachers and professors of the University of Baghdad to find the difference in emotional infection according to the sex variable and identify the most common type of infection and thus agreed with studies in identifying infection emotionality
- 2. The sample: the smallest sample size was (48) males and females, as in the study of Megan Iran and Paul (Magen, Eran; Paul A.2011) and the largest (1988) (R. William Doherty. 1997), and most of the studies sampled from males and females except Judith Volmer's study (2012), and thus the current study differed from studies in the selection and type of sample of female and male teachers at the University of Baghdad, with several (100) and of both sexes.

1056 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

- 3. The tool: All previous studies used the emotional contagion scale (R. William Doherty. 1997), and thus the current study agreed with the studies in the tool.
- 4. Results: Most previous studies have concluded that females are more susceptible to emotional infection than women. The researcher will present the results in the fourth chapter.

3. Research Procedures

3.1.The research community

The current research community is represented by the female and male teachers of the University of Baghdad for the academic year 2014-2015

Sample of Research:

The applied research sample of (100) teachers, consisting of (50) females and (50) males, was randomly selected (Random Sampling).

3.2.The search tool

To achieve the objectives of the current research, the (Emotional Contagion) scale was adopted and translated to assess individual differences between males and females in exposure to emotional infection prepared by Doherty in 1997 from its original language (English) into Arabic, and the following are the steps of construction, adoption, and translation:

3.2.1.Scale (Emotional Infection):

The researcher used the scale (emotional contagion) as a tool for collecting data from the research sample to identify the infection in the basic emotions of the subjects because the researcher had adopted it in his presentation of the concept of emotional contagion, as well as to achieve the objectives of the current research. The following is a full description of the scale:

This scale was prepared by the scientist Doherty in 1997, and the scale consist. It items, and it is a onedimensional scale intended for all cultures that measure people most susceptible to emotional infection resulting from the observations ma. According to Kru, the face and the scale are characterized by a high degree of stability, which reached (.90). Iteration and its paragraphs were distinguished in their relevance to modernity that occurred to measure the basic types of emotions across different world cultures, body movements, and expression systems. The scale also included negative and positive emotions (Ekman, 1992. pp. 169-200). The construction of the scale went through three stages, represented by:

- 1. Designing items to assess the stability or consistency of the identical responses to 5 types of emotions (happiness, love, fear, anger, and sadness) and assessing the ability of items to measure emotions (Fischer, Shaver, & Carnochan, 1990. pp. 81-127).
- 2. To avoid bias in the answer and desirability, the paragraphs were designed as negative and positive statements corresponding to five alternatives according to the Likert scale (never, rarely, usually, often, always) corresponding to a scale of degrees (1, 2, 3, 4, 5) (Cronbach, 1960. p. 17; Ekman, 1982. pp. 143).
- 3. The scale in its first form consisted of 18 items, from which three positive items were deleted due to their degree of social desirability, and the scale became in its final form consisting of 15. Items were randomly distributed in

The five emotions are as follows: (Happiness 2, 3, 11), (Love 6, 9, 12), (Fear 8, 13, 15), (Anger, 5, 7, 10), and sadness (1, 4, 14). 1997.p. 136 (R. William Doherty).

1057 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

As for the internal consistency of the scale: Internal Consistency: The scale was presented to 226 students of the University of Hawaii from different and manifold cultures, 69 males and 157 females, with an average age of 24.87 and a standard deviation of 6.75, the stability was also extracted by retesting a sample of 43 students. The stability of the scales reached Positive (love, happiness) and negative (fear, sadness, and anger) subcategories .80 and .82, respectively. 1997.pp.135-137 (R. William Doherty)

Steps to prepare and translate the scale:

To create and use the scale (emotional contagion) in achieving the objectives of this research, the researcher has undertaken several steps, as follows:

- 1. The researcher herself translated the scale from English into Arabic.
- 2. The scale was presented in its original version in English to two experts \Box and 2 in the English language (each separately), and they were asked to translate the scale into Arabic.
- 3. The three copies translated into Arabic have been consolidated into one copy.
- 4. The translated version into Arabic was presented to the linguist for linguistic checking.
- 5. Then it was presented to two experts in the English language and psychology for re-translating it into the English language, taking into account that the experts were unaware of the original copy written in the English language.
- 6. Then, its translation was matched and presented to the two experts in (1 and 2) above to check the conformity. After these procedures, the process of localization and the integrity of the translation of the search scale were achieved.

3.3.Statistical procedures for item analysis

The validity of the paragraphs (logical analysis of the paragraphs):

- 1. Apparent honesty: The scale was presented to a group of professors specializing in educational and psychological sciences, with several (15) paragraphs. The researcher adopted (81%) or more of the experts' opinions in agreement to keep the paragraph, and based on the experts' opinion, the number of Paragraphs of the scale (15) paragraphs, taking into account all the modifications in the linguistic formulation and interpretation of the meaning.
- 2. Extracting the discriminatory power of the paragraphs: After the respondents' (100) questionnaire was designed according to the given weights, the theoretical range of whose scores ranged from (15-75) and the total scores for each examinee was determined, the scores were fixed from the highest to the lowest score, and the percentage (27%) was chosen as the highest and (27%) of the lowest scores, to determine two groups with the largest size and maximum possible variance, as the number of forms for each group reached (27), and thus the number of forms analyzed became (54) forms, and to test the difference between the average scores of the upper and lower groups on each paragraph of The items of the scale (15) and the items that got a T value (1,96) were considered distinct, as they are a function at the level of (0.05) or more.

evertebra	senior group		lower group		T value	Indication
	average	deviation	average	deviation		level
1	3,5556	1,05003 _	2,7778	2,7778	2.231	function
2	4,6296	0,56488	3,7037	1,17063	3.702	function
3	4.5556	0.64051	3.5556	0,89156	4.733	function

Table 1. The discriminatory power of the emotional contagion scale

1058

Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

4	4.5926	0,63605	3.1111	1.25064	5.486	function
5	4.0370	0.85402	2.3333	1.20894	5.981	function
6	4.3333	0.78446	3.11 11	0.97402	5.078	function
7	4.0741	1.07152	2.6667	0.91987	5.179	function
8	4.2593	0.90267	3.000	1,10940	4.757	function
9	2.6667	0.78628	4.1852	1.17670	5.575	function
10	3.6667	1.14354	2.7778	1.12090	2.884	function
11	4.1852	1.03912	3.5926	1.00992	2.125	function
12	4.1111	0.9156	3.1852	1.24150	3.148	function
13	4.1481	0.9739	2.7778	1.05003	5.131	function
14	4.3333	0.78446	2.7037	1.20304	5.896	function
th15	3.8148	1.21012	2.0741	1.07152	5.596	function

3.4. The relationship of the paragraph score with the total score of the scale

The correlation between each paragraph and the scale's total score was extracted using the analysis sample of (100), and all items achieved a statistically significant correlation at the level (of 0.05).

 Table 2. Correlation coefficients between the paragraph score and the total score of the emotional contagion scale

	Excellency	correlation coefficient	love	correlation coefficient	fear	correlation coefficient	anger	correlation coefficient	Sorrow	correlation coefficient
	- 2	0.724 ***	6	0.629 ***	8	0.631 ***	5	0.720 ***	5	0.636 ***
8	3	0.783 ***	9	0.782 ***	13	0.780 ***	7	0.616 ***	4	0.588 ***
	ŝ	0.702 ***	12	766 *	th15	0.708 ***	10	0.646 ***	14	0.664 ***

* a function at the 0.05 level, ** a function at the 0.01 level

The relationship of the paragraph with its sub-scale was also extracted for each of the five sub-scales in the emotional contagion scale, which showed that all paragraphs have a high correlation with their domains, which is a function at the level of 0.05.

Table 3. Relationship of the paragraph to the domain to which it belongs

paragraph number	correlation coefficient	paragraph number	correlation coefficient	paragraph number	correlation coefficient
1	,0344 ***	6	0.450 ***	11	0.262 ***
2	0.414 *	7	0.481 ***	12	0.294 ***
3	0.380 ***	8	0.394 ***	13	0.457 ***
4	0.527 *	9	0.451 ***	14	0.488 ***
5	0.493 *	10	0.332 ***	th15	0.554 ***

function at*0.01 level

1059 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

3.5.Reliability

Alpha Cronbach equation: The stability of the scale was calculated using the Alpha Cronbach coefficient, and the stability of the scale was 0.80)) The final application The sample of the final application, which was chosen randomly (100), was taught and taught within the faculties of the University of Baghdad.

3.6.Statistical means

The researcher used the statistical package (SPSS) to analyze the data and the final results of the application.

3. Results and Discussion

- 1. Translating the emotional contagion scale to the world. 1997 (R. William Doherty). This goal was achieved during the application of statistical procedures.
- 2. To identify the level of emotional contagion among the female and male faculty members of the University of Baghdad, and to identify the level of emotional contagion among the female and male faculty members of the University of Baghdad, the arithmetic mean and the standard deviation of the total scores of the sample members were calculated on the scale. Then the t-test for one sample was used to identify the significance of the difference between the arithmetic mean and the hypothetical mean. Of the scale, it was found that the arithmetic mean of the sample is higher than the hypothetical mean.

Table 4. The t-test for one sample to test the significance of the difference between the sample mean and the hypothetical mean of the emotional infection scale

sample	mean	Std	t-value	t-score		df	Indication
-		1.1		calculated	tabular	n en	level
100	53.400	7.51564	45	11.177	1,96	99	0.05

This indicates the presence of emotional infection among the teachers at the University of Baghdad, and this result can be explained that teaching is a profession that requires a degree of emotion to communicate the material or idea to the student. Body language.

Since it is the profession of a teacher, he spends half of his day at work, which leads to a rise in emotional infection due to his frequent interaction with others. In addition, the emotional infection varies in its degree from one individual to another, and it is spontaneous and synchronous, and the individual cannot control it (Hatfield et al., 1994.p.1; Davis, M. R. 1985.p. 69)).

3. Finding the difference in emotional contagion between female and male teachers of the University of Baghdad according to the variable of gender and specialization. The researcher used a two-way variance analysis, which showed a difference in emotional contagion according to the sex variable. In favor of females, the results also showed that there are differences in emotional contagion in the specialization (scientific) (human) and in favor of the humanities departments, and Table (5) shows this.

Table 5. Binary analysis of variance according to the variable of sex and specialization

Source	Type II sum of	df	Mean square	F	sig
intersection sex	square 285156.000 350.983	1 1	285156.0 350.983	5653.788 6.959	0.00 0.010



Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

Specialization	377.920	1	377.920	7.493	0.007
Specialization:	0.331	1	0.331	0.007	0.936
Gender	4841.882	96	50.436		
error	290748.000	100			
total					

This result can be explained by the fact that females are more susceptible to emotional infection than males. Females imitate emotions and are affected by them more than males due to social upbringing and personal experiences; females differ from males in their perception and interpretation. Hatfield confirmed this theory in his theory and a study (Magen, Eran; Paul A.2011. P.611-616) that women are more likely to change the emotional state associated with the state of their peers when listening to their problems. The nature of eastern society links masculinity and strength inversely to emotion. It explains the emotional impact of a weak personality and inability to cohesion in front of the problems faced by the individual. Much criticism may be directed at men if the emotion of sadness or fear appears. He describes it as a female, as men control their emotions towards listening to the problems of their peers, and their impact is not noticeable and does not show any facial expressions or changes (Magen, Eran; Paul A.2011. P.611-616). The specialization result can also be explained by the fact that the scientific departments and the materials' nature tainted by the content complexity make the teacher more vulnerable to pressure in delivering the material to the mind. It is prone to emotional infection, as it exposes the material to students who differ in their abilities and the nature of their expression, which makes them show more emotions. The teacher communicates with them throughout the day, so he is more vulnerable to emotional infection than the teachers in the humanities departments.

4. Recommendations

Through the results reached, the researcher recommends the following:

- 1. Preparing a psychological counseling program by specialists to reduce emotional infection among university teachers
- 2. Organizing group sessions by specialists focusing on the negative effects of emotional infection on mental and physical health
- 3. Awareness through the media and social networks about the danger of emotional infection

5. Suggestions

Through the results reached, the researcher suggests conducting the following studies:

- 1. Emotional contagion and its relationship to personality patterns among psychiatrists
- 2. A comparative study of active and passive emotional infections among women with and without breast cancer
- 3. Emotional infection in children with special needs (deaf-mute)

References

- 1. Adamatzky, A. (2005), Patterns of irrationality in emotions, beliefs, and actions. London
- 2. Adelmann, P. K., (1989). Facial deference experience of emotion , 40, 249–280.
- 3. A. Smith. (1976). The Theory of Moral Sentiments (Clarendon Press, England)
- 4. Bartel, C.A. and Saavedra, R.(2000) The Collective Construction Work Group Moods. Administrative Science Quarterly, 45, p.197-231.

1061 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

- 5. Bernieri, F. J., Davis, J. M., (1991). Interactional synchrony and the social affordance of rapport: A validation study.
- 6. Bernieri, F. J., Reznick, J. S., (1988). Coordinated movement and rapport in teacher student interactions. J. Nonverbal Behavior, 12(2), 120–138.
- 7. Brothers, L. (1989). A biological perspective on empathy. Psychiatry, 146, 10–19.
- 8. Buck, R. 1980. Nonverbal behavior and the theory of emotion J.Personality and Social Psychology, 38(5), 811-824.
- 9. Cappella, J. N., & Planalp, S. (1981). silence sequences in informal conversations : Inter speaker influence. Human Communication Research, 7, 117–132.
- 10. Chapple, E. D. (1982). Movement and sound: The musical language of body rhythms in interaction. In M. Davis (Ed.), Interaction rhythms.
- 11. Church, W. F. (Eds.), (1964). The influence of the enlightenment on the revolution: Creative, disastrous or non-existent? Lexington, MA: D. C. Heath.
- 12. CONDON, W. S.; OGSTON, W. D (1966). SOUND FILM ANALYSIS OF NORMAL AND PATHOLOGICAL BEHAVIOR PATTERNS, J. Mental Disease. 143(4):338-347.
- 13. Coviello L, Sohn Y, Kramer ADI. (2014) Detecting Emotional Contagion in Social Networks.Cronbach, L. J. (1960). psychological testing (2nd ed.). New York
- 14. Czarna, A. Z., Wróbel, M., Dufner, M., & Zeigler-Hill, V. (2014). Narcissism and Emotional Contagion in: press Periodicity in communicative behavior (pp. 31–52
- 15. Darwin, C. (1872). The expression of the emotions in man. London Murray, 366
- 16. Darwin, C. (2005). The expression of the emotions in man and animals. MT: Kiesinger
- 17. Davis, M. R. (1985). Perceptual reverberation components. In Goldstein & G. Y. Empathy: Development, training, and consequences (pp. 62–108). Hillsdale: Erlbaum
- 18. Dimberg, U. (1982). Facial reactions to expressions. Psychology, 19, 643-647.
- 19. Doherty, R. W., Orimoto, L., & Hatfield, E. (1995). Emotional contagion: Gender and occupational differences., 18, 355-371
- 20. Duclos, S. E., Laird, J. D., & Van Lighten, (1989). Emotion-specific effects of facial expressions. Journal of Personality and Social Psychology, 57, 100–108
- E. Hatfield, J.T. Cacioppo, & R.L., (1992). Primitive emotional contagion, Psychology, 14, 151-177. M. S. Clark, Ed. (Sage, Newbury Park)
- 22. Ehrenreich, B. (2006). History of collective joy. New York
- 23. Ekman, P., Friesen, W., & P. C. (1982). similarities and differences in facial behaviors across cultures In P. Ekman (Ed.), Emotion in the human (pp. 128-143).
- 24. Ekman, P., Levenson, R. & Friesen, W. (1983). Autonomic nervous system activity, 221, 1208–1210. 26. Ekman, P. (1992). An argument for basic emotions., 6,169-200.
- 25. Evan Polman, (2012).Effects of Anger, Guilt, and Envy on Moral Hypocrisy, Social Psychology. 38 no. 1 129-139
- 26. Fischer, K. W., Shaver, P. R., & Carnochan, P. (1990). How emotions develop? Cognition and Emotion, 4, 81-127.

1062 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

- 27. Goldman, A. I., & Sripada, C. S. (2005). Simulations models of emotion recognition. Cognition, 94(3), 193-213
- 28. Gustave Le Bon. (1995), Psychologie des foules éd. Paris: Universities de Franc
- 29. Hamilton, David R. (2011) Emotional Contagion: Are Your Feelings 'Infecting' Others? The Huffington Post.com, Inc
- 30. Hatfield, E., Cacioppo, J., & Rapson, R. (1992). Primitive emotional contagion. In M. S. Clark(Ed.), Review of personality and social psychology. Newbury Park
- 31. Hatfield, E., Cacioppo, J.T., & Rapson, R.L. (1993). Emotional contagion. Current Directions in Psychological Science, 2, 96-99.
- 32. Hatfield, E., Cacioppo, J., & Rapson, R. L. (1994). Emotional contagion. New York
- 33. Hatfield, E., Hsee, C, C. (1995). The impact of vocal feedback on emotional experience and expression. Journal of Social Behavior and Personality, 10, 293-312.
- 34. Hatfield, E., & Rapson, R. L. (2004). Emotional contagion: Religious and ethnic hatreds and global terrorism. In L. Z. Tiedens & C. W. Leach (Eds.), The social life of emotions (pp. 129– 143). Cambridge, UK: Cambridge University Press.
- 35. Helen H. Lee. 2012. An Investigation of the Effect of Self -mentoring Ontario, Canada
- 36. Hurley, S. & Chater, N. (2005a). Perspectives on Imitation: From Neuroscience to Social Science: Mechanisms of imitation in animals Cambridge: MIT Press.
- 37. Iacoboni, M. (2005). Understanding others: Imitation, language, and empathy. In Susan Hurley & Nick Chater. Perspectives on Imitation Science. pp. 77-101.
- 38. Izard, C. E. (1971). The face of emotion. New York: Appleton-Century-Crofts
- 39. J.D. Laird and C. Bresler. (1992), The process of emotional feeling: A self-perception theory, in Emotion: Review of Personality and Social Psychology, 13, 213-234.
- 40. Judith Volmer. 2012. Catching Leaders' Mood: Contagion Effects in Teams .no. 2, pp 203-220
- 41. K.W. Fischer, P.R. Shaver, and P. (1992). How emotions develop? Cognition and Emotion, 4, 81-127 (1990); N.L. Stein and K. Oatley. Special issue: Basic emotions, Cognition and Emotion, 6, 161-319 (1992).
- 42. Laird, J.D., Alibozak, T., Davainis, D., B., & Pacheco, (1994). Individual differences in the effects of spontaneous mimicry on emotional contagion. Motivation and Emotion, 18, 231-247.
- 43. Lipps, T., (1907). Das Wissen von fremden Ichen. In: Lipps, T. Psychologies chi Untersuchungen Band 1, (pp. 694-722). Engelmann, Leipzig
- 44. Magen, Eran;, Paul A.(2011). Women Support Providers Are More Susceptible than Men to Emotional Contagion Following Brief Supportive Interactions. *Psychology of Women*. v35 n4 p611-616
- 45. Matsumoto, D. (1987). The role of facial response in the experience of emotion: More methodological problems and a meta-analysis. Journal of Personality and Social Psychology, 52, 769–774
- 46. McCague, J. (1968). The second rebellion: The story of the New York City draft riots of 1863. New York: Dial Press

1063 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

- 47. Miller, R. E., Banks, J. H., (1963). facial expression in "cooperative –avoidance conditioning" in monkeys. Journal of Abnormal and Social Psychology, 67, 24–30.
- 48. Rene Coenen and Joost Broekens,(2012). Delft University of Technology models emotional contagion based on experimental evidence for moderating factors.
- 49. Rizzolatti, G. (2005). The mirror neuron system and imitation. In Susan Hurley & Nick Chater. Perspectives on Imitation: From Neuroscience to Social Science Volume 1: Mechanisms of imitation in animals. Cambridge, MA: MIT Press, pp. 55-76.
- 50. Robbins, Stephen P. & Judge, Timothy A. (2011) Organizational Behavior, 14 th Edition, Pearson Education, Inc.
- 51. Rude, G. F. E. (2005).: A study of popular disturbances in France and England, 1730-1848. London, England: Seri
- 52. R. William Doherty .(1997). The Emotional Contagion Scale: A Measure of Individual Differences. Journal of Nonverbal Behavior .Vol 21, Issue 2, pp 131-154
- 53. Schoenewolf, G. (1990). Emotional contagion. Behavioural induction in individuals and groups. Modern Psychoanalysis, 15: 49-61.
- 54. Schoenewolf, G., (1990). Emotional contagion: Behavioral induction in individuals and groups.' 'Modern Psychoanalysis; 15, 49-61
- 55. S. G Barsade, (2002) "The ripple effect: Emotional contagion in groups," Administrative Science Quarterly 47, n°. 4.664–675.
- 56. Tseng, W-S., & Hsu, J. (1980). Minor psychological disturbances of everyday life. In H. C. Triandis & J. D. Draguns (Eds.), Handbook of cross-cultural psychology: Vol. 6. pp. 61–97. Boston: Allyn & Bacon.
- 57. Tomkins, S. S. (1962). Affect, imagery, consciousness: Vol. I. The positive affects. Oxford,England: Springer
- 58. Vaughan, K. B., & Lanzetta, J. T. (1980). Vicarious instigation and conditioning of facial expressive Journal of Personality and Social Psychology, 38, 909–923.
- 59. Wild, B., Erb, M., & Bartels, M. (2001). Are emotions contagious? gender differences Psychiatry Research, 102, 109-124.
- 60. Wild, B., Erb, M., Eyb, M.(2003). Why are smiles contagious? An fMRI study of the interaction between perception .Psychiatry Research: Neuroimaging, 123, 17-36.
- 61. Zajonc, R. B., Murphy, S. T., & Inglehart, M. (1989). Feeling and facial Deference: Psychological review, 96, 395–416.

1064 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org