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Abstract: The aim of present research is to investigate the relation between anxiety and gastric ulcer in a sample of the general population to find whether anxiety can lead to gastric ulcer. The population was 100 people which 50 of them suffered gastric ulcer and 50 of them were people who had no Digestive problems and were healthy. This population has participated in this research by filling Hamilton anxiety scale questionnaire. Results from this research showed: even though anxiety could be seen less among healthy people than people who suffered gastric ulcer but anxiety wasn't the factor to lead gastric ulcer but it was among the predisposing factors so anxiety didn't have meaningless difference with gastric ulcer. In this research, Age, sex and education Variables weren't considered. In this research we don't have contrast and zero assumption as we are not going to Infer or estimate anything but we want to find whether there is meaningful difference in what we are investigating.

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Introduction

In Philosophical Thought, Plato created two Complete categories between Body and soul Apart from religious thinking and mass of emotions which was used as Equivalent to physical processes which was Different order of intelligence and awareness through world of ideas and was derived from The thinking processes and is unchangeable.

On abnormal psychology history, Emil Kraepelin by publishing Textbook of Psychiatry in 1883 showed: Understanding Influence of physical changes in mental activities is common phenomenon. The important effect of Member states on Specific mental disorders was known many years before Emil Kraepelin but his big change in theses factors is an emphasize on existence of them. Acceptance of effect in contrast direction means the effect of mind on Physical illness which emerged later. There were exceptions too. For any years, doctors realized this Cause and effect relationship. For example the relation between physical illness such as high blood pressure and Ulcers, anxiety and chronic emotional stress and cases known as psychosomatic disorders regularly entered the Classification of medical diagnoses.

No Broader mindset about the effect of mental factors on physical status was announced until 1960 decade. In that period Physiological Psychologists by measuring physiologic responses such as blood pressure, Pulse rate and body temperature attentively through The discovery of sensitive electronic gadgets showed ;these responses which referred as Involuntary responses can be controlled Voluntary. Their duty was to prove convincingly that Psychological forces such as the decision to lower the heart rate can affect the Responses of the nervous system.

Mentioned research creates the impression that maybe psychological factors are effective even in cancer and infectious diseases. There are some reports in Psychological and medical resources which know the denial of such illnesses illogical. For example in 1991, simultaneous Controlled studies in Pittsburgh and at Salisbury in England were done that led to the fact that High levels of psychological stress, nearly doubles a person's chance of getting a cold. It seems stress lowers the body's resistance against viral infection. Even though more studies about special physical illnesses is needed but in recent years some of illnesses such as Chromosomal abnormalities, cardiac, gastrointestinal ulcers and migraine headaches are linked to Psychological Causes.

Method

The statistical population, sample and methodology of the study: the statistical population of study is composed of two groups: people who are with gastric ulcer and healthy people. People with gastric ulcer were patients who referred Madaen hospital located in Tehran.

Healthy people were people who were chosen randomly with certainty to be healthy. Being healthy was determined, through some questions about Digestive disorders. Sample in this research were 100 people, which 50 of them suffered Digestive disorders and 50 of them were healthy people (control group).

Sampling was done randomly and without considering variables such as age, sex, level of education and Social and economic class. 20 questions include Hamilton rating scale questions which include 14 questions related to anxiety signs plus 6 extracted questions from Authoritative sources about life style,

Emotional and spiritual states were used. Hamilton rating scale questions is used among clinical comparison and per question has 5 ranks from 0 to 4. Zero shows lack of symptom and four shows symptom of disease.

This symptom includes: Anxious mood, Stress, fears, insomnia, and difficulty in concentrating, depressed mood, muscle tension, general physical condition, cardiovascular symptoms, and symptoms of gastro-intestinal and respiratory.

Research hypothesis: is there any relation between anxiety and Gastric ulcer.

Results

According to the gained results from the table in people with Gastric ulcer, zero hypothesis is confirmed. It means: there is no meaningful difference between observed and expected frequencies. According to obtained data and by 99% certainty we can conclude that: there is no meaningful relation between anxiety and Gastric ulcer. According to some issues and researches they confirmed the relation between anxiety and Gastric ulcer and consider mental disorders to Cause psychosomatic diseases.

In some cases they concluded that; anxiety is Aggravating factor for peptic ulcer. Etiology in most of the mental disorders is passing initial levels and different hypotheses are presented about the causes of psychosomatic diseases.

According to this issue that underlying cause of gastrointestinal distress is not just excitement we can conclude that Psychological factors are important in onset, exacerbation, or persistence. For example: Mirsky's work has shown: Pepsinogen Level of release in a patient with Gastric ulcer or duodenal ulcer is higher than control group. It is shown: Pepsinogen blood level is constant throughout the lifetime of human and it is shown in early years of life and it is one of the specifications that has genetic basis.

In a research which was done on thousand people who joined the army in U.S. Army, concluded that; Gastric ulcer occurs more in people with high gastric secretion and also high blood Pepsinogen level. In such people, Psychological problems, personality conflicts or poor environmental conditions cause Emotional reaction arousal that affect Mechanisms of the autonomic nervous system and the endocrine glands. Peptic ulcer that is Psycho – physiological disorder shows Constitutional predisposition to stress in effective way to realize such diseases. This relationship can be seen in MAC channel field surveys in 1996 that showed Peptic ulcers have Family background. For example among the family of the people with Gastric ulcer, the probability to develop such illness is 3 times more than total population. In

susceptible person to Peptic ulcers there is high risk of vulnerability. According to this fact, only exciting Factor is not the reason to Genesis of gastric ulcer so we can conclude that exciting factors especially anxiety has no role in causing problems among our samples but they are Aggravating factor as there is no special difference in comparison with control group.

Also we have to consider hereditary factors. Gastric ulcer is Hereditary among samples. In 1953 Sal and Karpeh realized that: the hours that gastric acid is too much, is related to Periods of high anxiety. These findings didn't support exclusive theory but showed: anxiety due to any reason increases Hydrochloric acid secretion and gastric ulcer preparation. In this research χ^2 test was done to find whether there is any meaningful difference between Observed and expected frequencies. Hypothesis of zero and contrary wasn't done as we don't want to Infer or estimate anything. Just we want to see whether there is meaningful difference.

After obtaining sufficient data, the frequency of each 5 options about 20 questions for both groups (50 people with Gastric ulcer and 50 healthy people) was justified in two tables. After extracting Frequencies, two groups according to χ^2 test formulation about the observed frequency and expected frequency were observed.

$$E = \frac{(E_o)(E_r)}{E^*}$$

(O) Observed frequency and (E) expected frequency were analyzed and observed in two groups of healthy people and people with Gastric ulcer.

$$\chi^2 = \frac{(O - E)^2}{E} = \frac{3184/5}{100.5/6} = 3/16$$

People with Gastric ulcer are equal to 3/16 with probability of 1% error degrees of release equal to:

$$d.f = (c-1)(r-1) = (5-1)(2-1) = (4)(1) = 4$$

As release degree is between 70 and 80 with 1% error between 100/43 and 113/33. It means: $\chi^2 c < \chi^2_{1-3/16} < 100/43$. According to zero hypotheses we can assume: there is meaningful difference between observed frequencies and expected frequencies.

$$IE = 986/91$$

$$I(o - E)^2 = 2220/94$$

$$X^2 = I \frac{(o - E)^2}{E} = \frac{2220/94}{986/91} = 2/25$$

With 1% error probability, release degree is:

$$d.f = (c - 1)(r - 1) = (2 - 1)(2 - 1) = 1$$

According to release degree which is between 70 and 80 with error probability of 1% is between 100/43 and 113/33. It means $2/25 < 100/43$, so zero Hypothesis is confirmed so we can conclude that there is no meaningful difference between observed frequencies and expected frequencies in healthy people. Of course healthy people are less anxious than people with Gastric ulcer

Discussions

Psychological interaction model

Brain is controlling member of Physical activities and mental events such as Cognition and emotion. Two models which present interaction occurrence method are: 1. Nature field method (for a specific illness) and 2. Stress and the general adaptation syndrome.

Nature field method- Stress

Nature field method- Stress claims; Human disorders (physical or mental) are due to existence of nature Susceptibility for a specific illness like Tuberculosis or schizophrenic. Vulnerability can be due to genetic defects or former physical illness such as Pertussis in neonatal period.

This Susceptibility can be stimulated due to Stressor that is a body disturbing invader in Physical impairment or a Disturbing emotional experience in early life. In the case of psychological disorder. According to this model Psychological event such as: cognition and emotion are effective in creation of Physical disorders or diseases and disturb due to stressor which affected the individual is among Accessible reconciliation mechanisms for him/her.

These mechanisms are due to Prior positive experiences. For example: child Poor relationships, parents or positive learning experiences in prior Stressful situations. Simply saying; people who are healthier from Psychological point of view, tolerates stress so their Vulnerability to develop mental disorder won't be excited. Method.

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ulcer were patients who referred Madaen hospital located in Tehran.

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General adaptation syndrome

It Does not address the causal factors but it describes chain stages which an individual responses stress occurrence from Psychological and physical point of view. This model determines 3 stages in Organism's response to stress events:

1- first stage: is called warning stage which raises Personal defense (in both psychological and physical cases)

2- Second stage: is Resistance which all the individual resources will be used to defend. In case of being successful there will be no need for third stage but in case of failure, there will be third stage which is Collapse stage and leads to Psycho – physiological Disorders.

The role of stress in psychosomatic disorders

Stress can be defined as a Stimulus or a change in the internal or external environment that degree exceeds intensity or strength and persistence of the organism adaptation capacity and as result lead to change in behavior or kind of Compatibility and disorder in specific conditions and finally lead to illnesses.

Stress factor can involve a physical stimulus, Infection (bacteria, viruses and fungi) or Allergic reactions or Stimuli and the different changes in the range of psychological and social scopes. The effect of stressor factor can be measured according to Impact on Hypothalamus, the cortex of the adrenal gland, the sympathetic system and the central part of the adrenal gland in secretion of various hormones.

The difference between physiologic stressor and psychosocial stressor is that strength of an internal psychosocial stressor is not assessed by an internal menace. The order of occurrence which may happen in relation to impact of stimuli on an individual is shown in figure. These stimuli can be physical or psychosocial stressors. The response of the individual to such stimuli which are affected by temperament gastrointestinal factors and mitigation causes as result of environment impact on inheritance pattern.

Stimulus psychosocial stressors	Individual factors Environmental inheritance pattern	Physical changes and mechanisms	Illness vanguards	illness
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Kasl and Cobb have done a considerable Longitudinal research about the effect of factory's closure on workers' health in Pakistan. In this research Measurement of blood pressure which is carried out every month showed: Blood pressure increased during the period which the factory was expected to be closed. The blood pressure lasts among unemployed workers and returned to the normal range after a few months of employment or after employment.

Harvey buffer observed more death cases, among unemployed workers, due to Heart and kidney diseases, liver cirrhosis, and homicide. In fact anxiety is a process to aware you and is a warning to the person about an imminent danger so prepares the person to tackle the threat of danger. It is A very distressing mental state and due to this fact, mentioned person can't suffer that for a long time.

Anxiety causes Physiological changes in the body, so the body will immediately alert and prepare to have intense physical activity to fight or flee. The cardiovascular system is stimulated, the heart beats faster and Blood pressure remains constant or increases to send more blood to the muscles. The liver secretes glucose and Adrenal glands produce epinephrine. Intestinal and Gastric systems are inhibited and discharge and its activity is reduced.

Components of anxiety

There are three different levels of anxiety:

- 1- Neuroendocrine which is related to adrenaline or epinephrine Hormone which secretes from Central part of the adrenal gland
- 2- Psychological: Psychological manifestations of anxiety include feelings of anxiety and discomfort perceived by the cortex
- 3- physical: Manifestations of body movements – Visceral, Skin response – Cardiovascular, Gastrointestinal, respiratory and the genitourinary, Musculoskeletal vasomotor- Pupillary reaction

Response to Anxiety

- 1- Behavioral: such as: Excessive Caring, Irritability, restlessness and excessive dependence
- 2- Physical Response: Visceral reaction in one or more physical systems, cardiovascular, gastrointestinal, the genitourinary and respiratory systems.

Immune system

Warning response itself does not cause infection or disease, it may decrease body defense over time by

destructing Immune system function. Immune system components are: blood, Thymus, bone marrow and lymph nodes. Any types of disorders in immune system can decrease body defense against Pathogens or assessment of trauma.

Physical effects of Psychological stressors

Some of physiological changes in Warning severe Psychological reactions may cause Degradation in the effective functioning of the immune system. For example it is proved that in Alert Reaction, release of neurotransmitters, such as catecholamine, renal cortical steroids and endorphins in blood can be seen that each of them can decrease Performance of white blood cells to defend body in a way. The result of vulnerability is what is called Psycho – physiological disorder.

individual's life style is related to creation of psychological Mental illness. People are different in describing the life occurrence. As result their expectations are different. Mentioned styles are classified in to two categories: Optimistic and pessimistic. Pessimistic knows the occurrences as quality of everything and unfortunately determines their destiny by this view. For example: as a group they are more prone to diseases: both Infectious Disorders and disorders which are more related to Emotional tension like Peptic ulcers.

In a study which is known as Harward study, 5% of Harward university students were observed from 1939 to 1944 after terminating their studies. Their gradual style that was one of considerable aspects (pessimistic and optimistic) was assessed at the age of 25. Peterson and Seligman reported: the people who were categorized as pessimistic at the age of 25, at the age 45 had worse status in comparison to people who were optimistic. In further studies (1987) they reported: in a study which was done on a group of Bachelor University student about their health status, a year after assessing their life style (explained style), similar results were found. Pessimistic students referred to the doctors due to Infectious Diseases Twice more than pessimistic.

Another study which was done by National Cancer Institute researchers showed; even Breast Cancer reflects the patient's level of cynicism. in a group of 34 patients who suffered breast cancer, pessimistic died sooner than optimistic.

Peptic ulcer

Acid dyspepsia is a common complaint of mature American. There are 10 types of medicine without a prescription to alleviate mentioned pain in drugstores aisles but none of them can solve it totally. The only way to alleviate this pain is to Alkalinize Gastric contents.

So what directs acidity Flow to the gastric that causes gastric wall and Duodenal Attrition (The first part of the small intestine) by passing time and creates Open and painful wound like a volcano?

Peptic ulcers were reported for the first time in the early 19th century. At first the prevalence of this disease was higher in women, but now men are suffering the mentioned disease two times more than women. The assessment predicts about 25million American will suffer Peptic Ulcer. The mentioned disease is curable, nevertheless 10/000 people die annually because of this disease.

Causes of Peptic Ulcer

Many reasons were recognized. From biologic point of view, these reasons are basically related to Dietary. Strongly acidic foods, alcohol and may be smoking should be prohibited. There is the probability of being Vulnerability factors that make some people more sensitive to such materials but medical and psychological belief is that Psychological Factors and among them; negative excitements such as Dependency requirements, Repressed anger and feeling of hatred cause the main cause of these disorders. High activity level affected by negative excitements is related to Peptic ulcers.

Alexander hypothesis: he describes the person who is disposed to Ulcer peptic as a person who passed his/her early life with dependency, Guilt and shame feelings. Conflict represses dependency requirements. Alexander formulation for People prone to peptic ulcer and Excitation of this conflict, influenced by external occurrence that Increase the flow of digestive secretions. Whenever this Stimulation is done regularly, Ulcer peptic occurs.

According to Alexander 3 essential conditions are needed for peptic ulcer formation:

1- Vulnerability is a medium to depend on Defense mechanism of the reaction that changes dependency to False Autonomy.

2- Occurrence or situation which stimulates Conflict of dependence or independence and as result treats individual.

3- Physical response to menace which leads to Excessive production of digestive secretions. Alexander formulation in field of peptic ulcer leads to capture the imagination of many specialists and stimulates some specialists to collect confirming Documents.

In 1968 Alexander and colleagues observed the ability of group of internal specialists and psychoanalyst to identify people who suffered Peptic ulcer in an 83-member group of patients with a psychosomatic illness such as gastrointestinal.

A summary of the interview with the patient without any reference to physical symptoms was given to the Reviewers. Psychiatrists determined 50% of male patients with peptic ulcer. Internal specialists provided an accurate diagnosis in 40% of cases. In women patients, predict was higher than randomized rate. Weiner and colleagues presented bitter facts about the role of causative role of Dependency needs in the development of peptic ulcers in dealing with the psychological factors identification leading to peptic ulcers from the other aspects and by using data based on wider group.

Their design was a prospective study with the goal of predicting Subsequent measurements (Physiological changes associated with wound) from earlier measurements (Personality traits, suggested Conflicting dependency requirements) that proved: peptic ulcer susceptible people have higher discharge rates (based on Pepsinogen assessment in Blood serum).

2073 Conscripts were tested in training course to check this material. According to this measurement, the group with high level of Pepsinogen was chosen for further studies. A control group with low Pepsinogen was chosen among the same Conscripts. Being a member in these groups, assures predicting the incidence of wound by having stress in Course of primary training.

The most valuable result for Psychologists was that; Personality Subtest score which was done with the aim of assessing Conflicting dependency requirements could separate high Pepsinogen group and low Pepsinogen group. In addition, conflicting requirements of reliance (meaningfully from statistic view) could predict that: which person among high Pepsinogen group faced higher risk of peptic ulcer.

Of course there are other contributing factors such as Psychological or Biological factors. Other Psychological factors include: job experience which produces Emotional tension, Sustained life-threatening situations which people disappoint to attempt and change affairs or States of chronic stress or tension reasons. The group that shows high percent of peptic ulcer is the sample of Long-term effects of emotional stress.

Recommendations

According to the fact that psycho physiologic is type of disorders that identifies by Physical signs Affected by exiting factors and just engages a member which is controlling by the autonomic nervous system.

These symptoms create due to Physiological changes that are accompanied with some exciting status. It is recommended to provide fields for the researchers to have more researches to check how can we decrease environmental anxiety and stress and prepare individual for them.

Many researches can be done about Psychosomatic Diseases, disease such as Gastric ulcer, Heart, cardiovascular and respiratory diseases that many people are suffering and is increasing day by day to check whether these diseases have physical or mental source and whether environmental stress is effective in emerge of these disease.

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