EVALUATION OF RELATIONSHIP BETWEEN HARDINESS AND PERFECTION WITH LIFE QUALITY IN DYSPEPSIA PATIENTS

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ABSTRACT

This investigation was done to study relationship between hardness, and perfectionism with life quality in the patients with dyspepsia.

Sample subjects include male and female patients with dyspepsia in Ardebil city, about 80 persons that they were selected by sampling method. To collect data, psychological hardness scale, and positive and negative perfectionism scale life quality scale of physical-mental conditions were used. Pearson correlation method and multiple-variable regression coefficient were used to analyze data. The results of research showed that there is a negative significant relationship between hardness (r=0.39) and positive perfectionism (r=0.22) negative perfectionism (r=0.28) with life quality in dyspepsia patients. Multiple-variable regression analysis results showed that hardness, anger and perfectionism predicts 32% variance of life quality of patients with dyspepsia.

Since the hardness and perfectionism has important role in life quality of patients with dyspepsia it is possible to teach psychological strategies such as confronting with stress to the patients.

Keywords: Hardness, Perfectionism, Life Quality, Dyspepsia Disease
INTRODUCTION

Pain in stomach correlated with eating is one of the common complaints of patients with gastrointestinal problems. This pain may be based on gastric peristalsis in stomach. Els may ease the pain of this condition. Dyspepsia may be due to disorder in nervous control of stomach or disorder in digestive system or in other parts of the body. Dyspepsia is a non-specific term includes various complaints in upper abdomen (nausea, vomiting, heart burn, regurgitation). Some people with dyspepsia show similar symptoms of ulcers such as epi-gastric burning or feeling of grab or pain. Also some other suffers from other symptoms of gastric motility disorders like a feeling of fullness after a meal, bloat, belching, anorexia, early satiety. Most people with dyspepsia having functional nature symptoms arise from gastro-esophageal reflux disease (GERD) or gastric disorders including dysfunction in locomotive activity and more sensitive afferent pathway. These symptoms also include functional dyspepsia syndrome. Some cases may be the result of a more serious disease in a member. Non-stomach ulcer dyspepsia is a classic symptom of peptic ulcer and is a common clinical problem and may be observed in 25 to 40 percent adults. By the way, only 15 to 25 percent patients with dyspepsia suffer from duodenum. The remaining percentage suffering from functional dyspepsia, are in conditions that is most of the time, related to abnormal perception about stomach events which is risen by sensitivity of visceral afferents. The recent evidence indicates that about 40% of patients with non-ulcer dyspepsia, actually the adaptive response of epi-gaster are impaired. Dyspepsia symptoms may be chronic, recurrent or start again. Diagnostic check should be concentrated on other reasons of dyspepsia such as stomach cancer or gastroparesis.

Functional dyspepsia is one of the most common clinical problems in medical outpatients. Around 60% of patients with dyspepsia are known as functional dyspepsia patient. These patients show symptoms without any biochemical or physical cause and seeking treatment. Based on diagnostic parameters of Rome II this disease is diagnosed by eliminating other action gastro-intestinal problems like Irritable Bowel Syndrome (IBS).

There are various assumptions to justify function on dyspepsia symptoms such as movement disorder hypothesis. Allergic food intolerance, visceral hypersensitivity, helicobacter pylori infection and finally, psychological theory, emphasize on effects of mental disorders on gastro-intestinal pain and complaints. This belief is called nervous dyspepsia by some patients.

Infection, which now, looks an outstanding factor for this disease is not a sufficient cause for
r affliction, because 50% of people over 70 years suffer from this infection, but not all of them are with dyspepsia symptoms. Salesman believes that since there was found no member problem in patients with functional dyspepsia to justify their symptoms, it seems that psychological factors play critical role in expressing these symptoms. Among psychological factors related to dyspepsia with fewer studies is hardness, perfection and life quality which has also been less considered in Iran.

Bowling suggests that life quality is something more than physical health; life quality includes feeling of safe and healthiness, basic level of satisfaction and overall sense of self-worth. An abstract and complex concept includes various fields that all share personal satisfaction and self-esteem. Evaluating a person with dyspepsia may not be good in welfare (satisfaction and dissatisfaction) in important aspects of life, or may not be accurate in its adaptive function pattern in life which causes problems and pressure in life and these factors make dyspepsia by stress followed by physiological disorders. Life quality of patients with chronic gastrointestinal pain is much less than that of general population and even life quality of mentioned patients is lower than that of patients with other chronic diseases. While Buzas in his study concluded that life quality is inversely related to action dyspepsia. One of the psychological variables related to life quality of patients with dyspepsia is hardness. Hardness is a combination of beliefs about self and the world, which consists of three components: commitment, control and militancy. Kobassa considers hardness as a set of personality traits which plays as a tolerance source in confronting stressful events of life. Arab Ali Doosti et al in a study about hardness and dyspepsia reported that people with action dyspepsia are significantly of less hardness than healthy people. In people with dyspepsia, their hardness function may be incomplete than stressful events of life. This function along with underlying physiological factors leads to abnormal visceral feeling in GI which finally followed by dyspepsia.

Results of studies by change et al and lee et al showed that people with function dyspepsia use less problem-focused coping, are less supported by society, less define the problem and are of less capabilities to find flexible solutions. According to Lazar use et al they hardly ever evaluate loss and profits of available solutions before they act out. According to Taylor et al and lee et al these people pay less attention to abstain information and ask emotional support from others. Havy et al showed that people with function dyspepsia are significantly younger than health people and education was really effective in affection.
o this disease and its treatment [20]. The results from a study by Richter showed that psychological characteristics of patients with functional dyspepsia are more effective than experienced stressful events on the symptoms of functional dyspepsia [21]. Arab Ali Doosti et al. in a research on studying the coping ways and hardness in patients with functional dyspepsia concluded that people with functional dyspepsia are significantly less tougher than healthy people and use less problem-focused coping style and apply significantly more coping, neutral and emotion-focused style [17]. Perfectionism is the person's sustainable tendency to lay the perfect and unattainable standards and attempts to accomplish them [22]. Although, the behavioral pattern of perfectionism has been described as a positive factor [23], this structure as a neurotic and negative style of behavior has always been considered [23]. The psychological structure associated with negative self-assessment creates stress and anxiety as a factor increasing acid and secreting pepsin and finally followed by dyspepsia [13]. Personal standards of perfectionism and unrealizable through increased failure experiences impose self-blame and helplessness to the person and the failure experiences in accomplishing perfectionism criteria lead to critical evaluation and low of self-esteem and increase readiness for facing psychological and education problems [23], Ochi et al. in a research studying perfectionism correlation with abdominal symptoms in 168 patients with action dyspepsia concluded that perfectionism is correlated with abdominal symptoms in patients with dyspepsia or it can be an individual somatic factor or cause symptoms of dyspepsia [24].

Jones et al. in a study found that patients with action dyspepsia showed more psychological symptoms, low life quality and more mental confusion compared with healthy subjects [25]. Overall according to few studies in this case and having no studied the role of hardness and perfectionism relationship on life quality of patients with dyspepsia and having conflicting results in the field of life quality of the patients, conducting this study seems necessary and important, thus the present study aims at determining relationship between hardness and perfectionism with life quality in patients with dyspepsia.

RESEARCH METHODS

The methods of the present study is correlational in which relationship between variables is studied. In this study, the hardness and a variety of perfectionism are considered as predictor variables and life quality, and dyspepsia symptoms are regarded as criterion variables. Subjects of this study are all male and female patients with dyspepsia in hospitals and clinics in Ardabil. Since the number of subjects should
be at least 30 people in correlation studies \cite{26}, we selected 80 people to increase external credit for our research. In order to select appropriate patients for this study, the researcher attended in diagnostic examination appointments of patients and those who were diagnosed as dyspepsia by gastroenterologist were entered into this study and the research objectives were explained for them. After consenting, they were asked to the questions about gender, education, job, duration of disease and family background. Then the scale question Nain of psychological hardness, positive and negative perfectionism scale and life quality scale and physical and emotional state of patients were given to them and they were asked to complete the questionnaire according to the instructions. The questionnaires were individually performed and the performance was fixed and patients completed the questionnaire just in one session and finally the data were collected and analyzed by Pearson correlation coefficient and multiple regression analysis. Before employing research tools, diagnosing the patients with dyspepsia was done by an expert doctor based on valid documents and clinical experiments such as examinations by means of Endoscopy, radiology, ultrasound, and histology. Research tools are as following: questionnaire on dyspepsia symptoms: The questionnaire of dyspepsia symptoms was graded by the researcher of present study based on severity of the disease, using symptoms of dyspepsia from valid sources therefore was approved by a specialist. Psychological hardness scale: the questionnaire of psychological hardness was made by Coobasa with 45 items and the subject answers each four optional item (ranging from completely incorrect to completely correct). Internal consistency coefficients of psychological hardness scale was 0.62, 0.66 and 0.82 for subscales of fighting, commitment and control, respectively. Cranach's alpha coefficient was 0.85 for total psychological hardness scale. Validity coefficient of psychological hardness was 0.48 for commitment, 0.35 for control and 0.38 for fighting variables \cite{27}. In a pilot study the coefficients of Cranach's alpha was gained as 0.86 and for three subscales of fighting, commitment and control was reported as 0.69, 0.83 and 0.72 respectively. Halving the coefficients in the total scale and its components were 0.75, 0.64, and 0.71 respectively \cite{27}. Positive and negative perfectionism scale: This scale was made by Therby Short et al \cite{28}. They measure the perfectionism scale from the functional and behavioral point of view. The scale has been codified to diagnose positive and negative perfectionism and each subject answers the items with 5-graded liker's scale (completely agree, agree, neutral, disagree, completely disagree). They measure 20 positive perfectionism items a
nd 20 negative perfectionism items. The scores range of each subject was 20 to 100 in this scale. Hess et al showed that the scale has acceptable factor structure and high internal consistency. Also Cronbach’s alpha coefficient was 0.84 for positive perfectionism and 0.83 for negative perfectionism [29]. Also, Hess and previse reported cronbach’s alpha coefficient of positive and negative perfectionism subscales as 0.83 and 0.81 respectively. Their results support bi-factorial perfectionism [29]. Besharat reported 0.90 and 0.87 for positive and negative perfectionism internal consistency coefficients, respectively. Also, the Retest reliability coefficient of this questionnaire was 0.86 [30]. Aboo-al-Qasemi reported 0.87 for Cronbach’s alpha coefficient of this questionnaire [29].

Life quality scale: This scale has been edited by Barazir to evaluate physical and mental state and has 36 items. Life quality scale has been normalized by Montazeri et al in Iran and its validity and reliability was confirmed in various studies. Dehdari et al reported 0.82 for Cronbach’s alpha coefficient of the questionnaire. Also in a study Parandeh et al reported 0.82 for validity coefficient of this scale. In another study Dehdari et al reported 0.75 for reliability coefficient of this scale by re-test method [13].

RESULTS:
Table 1 shows mean and standard deviation for dyspepsia symptoms, life quality, psychological hardness components (commitment, control, fighting) and positive and negative perfectionism aspects in patients with dyspepsia.

Table 2 shows correlation coefficients of psychological hardness components and perfectionism aspects with dyspepsia symptoms and life quality and the result shows that there is a significant negative relationship between psychological hardness and dyspepsia symptoms and a positive relationship with life quality of patients with dyspepsia. The positive perfectionism also has a negative relationship with dyspepsia and a positive relationship with life quality and negative perfectionism has a positive relationship with dyspepsia symptoms and life quality (p<0.01).

In order to determine the relationship between each of hardness variables, positive perfectionism and negative perfectionism on variance of dyspepsia symptoms of patients, hardness and positive perfectionism and negative perfectionism as prediction variable and dyspepsia symptoms as criteria variable were analyzed in regression equation. In Table 3, the observed F is significant (P<0.001) and the variables explain about 48% of variance related to dyspepsia symptoms. According to Betta coefficient s, the variables of negative perfectionism ($\beta = 0.385$), hardness ($\beta = 0.291$) and positive per
fectionism ($\beta\beta=0.135$) can surely predict 99% of changes related to dyspepsia symptoms in patients.

To determine the effect of variables of hardness, positive and negative perfectionism on variance of life quality indicator in patients, hardness, positive and negative perfectionism were analyzed as prediction and life quality variables as criteria variable in regression equation.

In Table 4 the observed result is significant (p<0.001) and 32% of variance related to life quality is explained by hardness, positive and negative perfectionism. According to Beta coefficients the effect coefficient of hardness ($\beta\beta=0.394$) and negative perfectionism ($\beta\beta=0.340$) can surely predict 99% of changes related to life quality of patients with dyspepsia.

| Table 1: Mean and standard deviation of dyspepsia symptom scores and quality of life, hardness components and perfectionism aspects in patients with dyspepsia |
|-----------------------------------------------|---------|---------|
| dyspepsia symptom                           | 105/8   | 24/77   |
| quality of life                              | 83/35   | 18/39   |
| commitment                                   | 31      | 7/49    |
| control                                      | 29/91   | 6/43    |
| fighting                                     | 33/75   | 8/28    |
| perfectionism pos                             | 65/59   | 15/36   |
| perfectionism neg                             | 61/46   | 13/70   |

| Table 2- Correlation coefficients hardness components and perfectionism aspects with life quality in patients with dyspepsia |
|-------------------------------------------------|---------|---------|
| variable                                        | life quality | dyspepsia symptoms |
| commitment                                     | 0/22***  | -0/30** |
| control                                        | 0/51**   | -0/33***|
| fighting                                       | 0/27**   | -0/30** |
| hardness                                       | 0/39**   | -0/30** |
| Positive perfectionism                        | 0/22     | -0/27   |
| negative perfectionism                        | 0/28***  | 0/20*** |

| Table 3- Regression analysis dyspepsia symptoms On variables hardness, positive perfectionism and negative perfectionism in dyspepsia patients |
|------------------------------------------------|---------|---------|
| Predictor variables                            | Index   | ss      | df      | MS       | (pf) | R    | R2   | B     | SE   | B     | (Pf) |
| hardness                                       | Regression | 15606/297 | 2   | 7803/14/8 | 18/37 | 9    | 0/56 | 0/32  | -0/37 | 20/66 | -0/29 | -2/298 |
| residual                                       |          | 32870/453 | 77  | 426/889   | (0/00 1) | 0/001 |
DISCUSSION

This research aims at determining the relationship between hardness and perfectionism with life quality in patients with dyspepsia. The results of life quality in patients with dyspepsia. The results of this study showed that there is a negative relationship between hardness (and its components) and the symptoms of dyspepsia. This is compatible with results of Arab Ali Doosti and his three colleagues, so that patients with action dyspepsia are significantly less hard than healthy people.

Also there is a negative significant relationship between commitment, fighting and dyspepsia and there is no available research result about this finding there was a significant relationship between control and dyspepsia which is in compatible with results of Bent et al.

The psychological hardness of individual is basically related to intermediate effects and modulators of stressful events in life and illness {27}.

The evidence from the research indicate that...
ack of modifying psychological hardness may lead to disease {27}. People exposed to lower psychological hardness show severe emotional reactions against life problems and are hurt by stress in a long time {16}. This study has shown that stress may increase cholesterol, blood pressure and cortisol just in those who have lower psychological hardness {27}. So it can be concluded that low psychological hardness is one of the main factors that can lead to dyspepsia.

The results of the research showed that there is a negative significant relationship between perfectionism (positive and negative) and dyspepsia symptoms. This is in compatible with results of Ochi et al. So perfectionism is correlated to abdominal symptoms in patients with dyspepsia or it can be a somatic individual factor or causing action dyspepsia symptoms {24}. Perfectionism causes physiological changes in human and may weaken immune system in a long time by causing hormonal and neurotransmitter changes and creates problems such as Migraine, cardiovascular disease perfectionism complain more of physical pains {23}. So it can be concluded that perfectionism can one of the main factors that weaken immune system and makes dyspepsia. The findings of the research showed that there is a positive significant relationship between hardness and its components with life quality in patients with dyspepsia which about this result there is no available research finding. Since commitment, control and fighting are of psychological hardness components, it is more likely that the three components are related to life quality of patients. A person with high personal commitment is highly combined with increased importance of his/her own life aspects like job, family and interpersonal relationships {27}. So this idea in component can be a kind of life quality showing a relationship between hardness and life quality and fighting is believed that variability, but not stability, can be a natural life aspect. People who need to an opportunity to learn more know that threat to their security and comfort, and such an idea can be accompanied by uncomfortable cognitive flexibility, tolerance and main situations {16}. Thus these beliefs and their results are features related to life quality. Also the results showed that there is a positive and significant relationship between perfectionism and its varieties with life quality. Which about this result there is no available research finding probably perfectionism and life quality are related to each other, that is these perfectionists may are not adequately satisfied with their life quality levels or may people with low class people do not satisfy about the ir present living conditions—so one tends to li
ve in a better situation and this means to reach upper levels of present situation in life, perfectionism. Thus, it can be said that perfectionism is related to life quality. The results of multivariable regression analysis showed that about 48% of variance related to dyspepsia symptoms are explained by hardness and perfectionism. Regression coefficient of prediction variables shows that of above variables, hardness and perfectionism can significantly predict symptoms of dyspepsia and negative perfectionism, hardness and positive perfectionism, respectively have the most effect on symptoms of dyspepsia.

The results of multivariable regression analysis show that 32% of variance related to life quality are explained by hardness and perfectionism and regression coefficient of predictive variables show that of above variable aspects just hardness and perfectionism can explain life quality of patients with dyspepsia and negative perfectionism, hardness and positive perfectionism, respectively, have the most effect on life quality of patients with dyspepsia which in this case there is no available research result. Perhaps, perfectionism and life quality are interacted with each other, that is, perfectionists may are not sufficiently satisfied with their life quality or low class people may are not satisfied with their present living conditions so on e tends to live in a much better conditions and this means to expect an upper life quality than the present lifestyle and this is the perfectionism. So it can be said that perfectionism is related to life quality.

CONCLUSION

In general, it can be said that there is a correlation between hardness and its components (commitment, fighting and control) and positive and negative perfectionism with symptoms of dyspepsia. There is no relationship between hardness, perfectionism and their components with life quality of patients with dyspepsia. Also these variables play critical role in predicting dyspepsia symptoms and life quality of patients with dyspepsia.

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