

## **The impact of fear of Covid-19 on eating behavior in Pakistan residents**

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**Annotation:** The author presents the results of an analysis of the impact of fear of COVID-19 on the emotional eating behavior of Pakistanis. The study involved 412 people. Diagnosis was carried out using the COVID-19 Anxiety and Phobia Scale and the Emotional Eating Behavior Scale. Fear of COVID-19 and eating behavior in adults is mediated by gender, marital status, perception of overweight, increased eating behavior at home during the pandemic process, frequency of information about coronavirus. A statistically significant difference was found in the frequency of information about the growth of eating behavior in everyday life, mental illness and coronavirus during the pandemic process.

**Key words:** anxiety, nutrition, health, COVID-19.

## **Влияние страха перед Covid-19 на пищевое поведение жителей Пакистана**

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**Аннотация:** Автор представляет результаты анализа влияния страха перед COVID-19 на эмоциональное пищевое поведение жителей Пакистана. В исследовании приняли участие 412 человек. Диагностика осуществлялась с помощью Шкалы тревожности и фобий перед COVID-19 и Шкалы эмоционального пищевого поведения. Страх перед COVID-19 и пищевое поведение у взрослых опосредован полом, семейным положением,

восприятием избыточного веса, повышенным пищевым поведением дома в период пандемического процесса, частоты информации о коронавирусе. Выявлено наличие статистически значимой разницы в частоте информации о росте пищевого поведения в быту, психических заболеваниях и коронавирусе в период пандемического процесса.

**Ключевые слова:** тревога, питание, здоровье, COVID-19.

The World Health Organization declared a COVID-19 pandemic on February 11, 2020 after the virus spread to 160 countries and reached more than 200,000 cases and 8,000 deaths [1]. In Pakistan, the first official case diagnosed with COVID-19 was announced in the spring of 2020, at the same time the first death was registered, and the number of deaths in a short time exceeded 100 people. Residents of Pakistan have felt a lot of negative consequences observed in all spheres of life. It is believed that such sudden changes in daily life are risk factors that can significantly affect mental health [2].

It is likely that the fear of getting sick, the uncertainty that the disease will reach him, his family, that the place of residence is unsafe and such assessments will be a source of strong anxiety.

Anxiety, in other words, the general definition of anxiety as a concept in psychology is one of the main emotions that prepare a person for action in the face of a possible danger threatening the personality. Health anxiety is also involved in the formation of anxiety disorders and is one of its components this forms its clinical appearance [3]. Even when people receive assurances from doctors that there are no signs of a serious illness, the conviction of the disease and concern remain, and they resist the idea of deterioration (as in the case of a serious physical condition), although the frightening "symptoms" rarely become gradual.

The severity of health anxiety, as a rule, is not related to the criteria of physical health [4]. People with high health anxiety are less likely to work outside. As a rule, they prefer to receive a disability pension with high physical limitations and more

days of bed rest at home (Barsky et al., 1994). Emotional eating behavior corresponds to excessive eating behavior in the face of negative emotions. Emotional eating behavior with its general definition, such as depression, anger, anxiety

This is a tendency of eating behavior that develops in response to emotional states and in response to them. Emotional overeating depends on many psychological, social and biological factors. Eating Disorders today

It is very widespread in industrialized societies, where the "ideal" weakness is emphasized (for example, movie stars and models are outstanding role models).

When studying studies, it turned out that emotional eating behavior and compulsive overeating are closely related. People with compulsive overeating tend to eat in response to a bad mood. This is usually a condition of obesity

This manifests itself in the form of eating as a reaction to emotions in negative situations, for example, in women who have communication problems. Mehrabian [5] investigated the relationship between the amount of food consumed and different types of emotions and reactions. Accordingly, excessive food intake is distress, depression, fatigue

Eating a small amount of food was associated with emotions of fear, tension and pain. Lyman [6] showed that although there is a tendency to buy healthy food during positive emotions, there is a greater tendency to consume junk food during negative emotions. Patel and Schlundt [7] found that people with positive and negative temperaments ate significantly more food than people with a neutral temperament, and that a positive temperament positively influenced food intake compared to a negative temperament.

### **Methods**

Statistical processing of the empirical data obtained was carried out using the statistical software package SPSS 26. Descriptive statistics for categorical variables are presented in the form of frequency and percentages. The correspondence of numerical variables to the normal distribution was checked using the "Shapiro-Wilk test". Median (minimum-maximum) values are given for data whose descriptive

statistics of numerical variables do not show a normal distribution. The "Mann-Whitney U-test" was used to compare two independent groups that did not have a normal distribution, and the "Kruskal-Wallis H-test" was used to compare more than two groups. The results of multiple comparative tests are expressed in letters next to the average values. Studying the relationships between the Spearman scales, rank differences were determined by the correlation coefficient." "Regression analysis" was used to test the effect between variables. In all calculations and interpretations, the level of statistical significance was taken as " $\alpha < 0.05$ ,  $\alpha < 0.01$ ,  $\alpha < 0.001$ ", and the hypotheses were two-sided was founded.

## Results

In this section, the findings and comments obtained regarding the subproblems of the research, which was conducted by including 412 individuals who met the inclusion criteria, were evaluated. When the distribution of the individuals participating in the study according to their socio-demographic characteristics is examined; 68.1% were female, 62.6% were under 30 years old, 58.3% were single, 66.6% were university graduates, 54.4% were normal weight, 43.3% were not working, 52.7% did not consider themselves overweight. and 66.3% of them were found to have increased their eating behavior at home during the pandemic process.

When studying the distribution of persons participating in the study according to the form of information about coronavirus; 87.8% of them did not have chronic diseases, 82.6% of them did not get infected with coronavirus during the pandemic, 57% of them were members of a risk group in their family, 57.4% of them followed information about coronavirus for more than 2 hours a day day. 46.2% of the coronavirus affected their daily lives quite strongly, 58.2% of them are anxious and 47.7% of them know what to do if their child or parents are infected with COVID-19. The average value of the psychological subparameter is  $18.56 \pm 6.30$ , the average value of the somatic subparameter is  $6.17 \pm 3.82$ , the average value of the social parameter is  $11.70 \pm 3.25$ , and the average value of the economic parameter is  $7.17 \pm$  It was found that the average score of 3.34 and C19P-S was  $37.12 \pm 16.12$ .

It was found that the average score of hypersensitivity to somatic symptoms and the anxiety sub—range of the health anxiety scale was  $16.57 \pm 3.21$ , the average score of negative consequences of the "disease" sub-parameter was  $7.35 \pm 2.36$ , the average score of the Total SAS score was  $33.92 \pm 7.56$ . In the Turkish emotional nutrition scale, the average score on the nutrition sub-parameter in cases of stress was  $29.81 \pm 13.47$ , the average score on the nutrition sub-parameter to cope with negative emotions was  $21.15 \pm 10.16$ , and the average score on the self-assessment control sub-parameter was  $11.26 \pm 3.13$ . The stimulus compared to the control evaluation of the sub-parameter has an average value of  $6.52 \pm 2.22$ , and the overall TDYS score was  $4.55 \pm 22.33$ .

The total score and subparameters of the COVID-19 phobia scale, the health anxiety scale and the emotional nutrition scale depending on the gender of people in the scores of the psychological subparameter of the scale ( $U = 41422$ ;  $p < 0.001$ ), in the score of the somatic subparameter ( $U=50058.5$ ;  $p < 0.001$ ), in the score of the social subparameter ( $U=53654$ ;  $p < 0.001$ ), according to the economic subparameter score ( $U=55874$ ;  $p < 0.001$ ) and the total C19P-S score ( $U=46008.5$ ;  $p < 0.001$ ), health anxiety was associated with hypersensitivity to somatic symptoms and sub-anxiety. Measurement score ( $U=47085$ ;  $p < 0.001$ ), negative results of the evaluation of the disease subgroup ( $U=63152.5$ ;  $p < 0.05$ ) and the overall SAS score ( $U=49270$ ;  $p < 0.001$ ). When comparing the sub-parameters and overall scores on the COVID-19 phobia scale and the emotional nutrition scale, depending on the marital status of the participants: COVID-19 phobia scale by somatic subparameter ( $U=71172$ ;  $p < 0.05$ ), social subparameter ( $U=69964.5$ ;  $p < 0.01$ ), economic subparameter ( $U=70111.5$ ;  $p < 0.05$ ) and Total score C19P-S ( $U=71671$ ;  $p < 0.05$ ) and the scale of emotional nutrition according to the nutrition subparameter in stress situations ( $U=67320.5$ ;  $p < 0.01$ ), according to the nutrition subparameter in order to cope with negative emotions ( $U=68426$ ;  $p < 0.01$ ) and in the self-control subparameter ( $U=69686.5$ ;  $p < 0.01$ ), a statistically significant difference was found in the stimulus scores and control ( $U=71634$ ;  $p < 0.05$ ) and the total TDYS score ( $U=66482.5$ ;  $p < 0.001$ ).

According to the subjects' perception of being overweight, according to the psychological sub-range scores ( $U=71601$ ;  $p<0.01$ ), somatic sub-parameter scores ( $U=69648$ ;  $p<0.01$ ), social sub-parameter scores ( $U=71260.5$ ;  $p$ ) on the COVID-19 phobia scale ( $<0.01$ ), economic sub-parameter scores ( $U=69436$ ;  $p<0.01$ ) and the total C19P-S score ( $U=69532$ ;  $p<0.01$ ), and are also associated with the values of the "Food" sub-parameter of the Emotional Eating Behavior Scale ( $U=49004$ ;  $p<0.001$ ), and the "Food to cope with negative emotions" sub-parameter ( $U=53407.5$ ;  $p<0.001$ ) and the sub-parameter "self-control" as an indicator of measurement ( $U=58454.5$ ;  $p<0.001$ ), the indicator of sub-measurement of stimulus control ( $U=64793.5$ ;  $p<0.001$ ) 0.001) and the overall TDYS score ( $U=49421$ ;  $p<0.001$ ), statistically significant differences were revealed. According to the change in eating behavior towards an increase in food consumption at home during the pandemic process, according to the scale of the psychological subgroup of the COVID-19 phobia scale ( $U=52392$ ;  $p<0.001$ ), it was associated with the indicators of the somatic subgroup scale ( $U=55303.5$ ;  $p<0.001$ ). 0.001), the score of the social sub-range ( $U=52161.5$ ;  $p<0.001$ ), the score of the economic subscale ( $U=55489$ ;  $p<0.001$ ), the total score of C19P-S ( $U=50268.5$ ;  $p<0.001$ ) and hypersensitivity to somatic symptoms and the subscale of anxiety (U) of the health anxiety scale = $57606.5$ ;  $p<0.001$ ), a statistically significant difference was revealed in negative outcomes of the disease subscale ( $U=61514$ ;  $p<0.01$ ) and the overall SAS score ( $U=56307$ ;  $p<0.001$ ). According to the increase in eating behavior at home during the pandemic process, the scale of emotional nutrition in the scores of the nutrition subparameter in stress situations ( $U=46141.5$ ;  $p<0.001$ ), in the scores of the nutrition subparameter in order to cope with negative emotions ( $U=49015$ ;  $p<0.001$ ) in the face of the stimulus, statistically significant differences were found in the scores for the control sub-parameter ( $U=51823$ ;  $p<0.001$ ) and the total TDYS score ( $U= 46942$ ;  $p<0.001$ ).

### **Conclusion**

When the results of a study conducted in Pakistan to investigate the impact of fear of COVID-19 and health issues on emotional eating behavior were analyzed, it

was observed that COVID-19 phobia scores differed by gender, marital status and well-being.

According to their status, an increase in eating behavior at home during the pandemic process and the frequency of information about the coronavirus, the adult health anxiety scale depending on gender, age, an increase in eating behavior at home during the pandemic. In accordance with mental disorders and chronic diseases, indicators of emotional nutrition increase depending on gender, age, marital status of adults, BMI groups, perception of being overweight and eating behavior at home during the pandemic.

The presence of a statistically significant difference in their status, mental disorders and the frequency of information about the coronavirus was revealed. Emotional nutrition between the COVID-19 phobia scores and the scores of the health anxiety scale in the subjects. A statistically significant relationship was found between indicators of health anxiety and indicators of COVID-19 phobia and indicators of emotional nutrition. It was found that all the sub-parameters and general assessments of COVID-19 phobia and health anxiety had a statistical effect on emotional nutrition assessments. Constant access to news about the epidemic from social networks or television can increase the level of health anxiety, as well as the level of fear and anxiety in people.

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