**ASSESSMENT OF INDIVIDUALS’ ATTITUDE, KNOWLEDGE AND ANXIETY TOWARD COVID-19 AT THE FIRST PERIOD OF THE OUTBREAK IN TURKEY: A WEB BASED CROSS-SECTIONAL SURVEY**

**ABSTRACT**

**Objective**

The aim of this study is to evaluate the attitude, knowledge and anxiety status of individuals about COVID-19 at the first period of the outbreak.

**Methods**

This was an observational study carried out in Turkey. An online semi-structured questionnaire was developed by using google forms and the link of the questionnaire was sent through emails, WhatsApp and other social media to the contacts of the investigators between 20th March 2020 and 25th March 2020. The questionare contained 21 questions and Beck anxiety scale.

**Results**

1070 people were included in the study. Approximately one fifth of the participants had no idea about treatment and immunization against COVID19. According to the categorization of Beck Anxiety Inventory scores 8.6% showed severe anxiety symptoms. Anxiety levels of women, healthcare workers and those with psychiatric illness were higher (p <0.05). It was observed that women, healthcare professionals, those with chronic diseases, and those with moderate to severe anxiety used the medical facemask more frequently (p <0.05). 73% of the participants thought that they fully implemented the proposed measures; 25.2% of the them stated that population did not take any measures for the COVID-19.

**Conclusion:**

According to the results of the study individuals usually had better awareness and positive attitudes towards COVID 19 pandemic, but there were also things that needed improvement. The most important measure to be taken in order to prevent anxiety from increasing is to ensure the correct access of information and to establish psychological support lines.

**Key words:** Anxiety, Attitude, Covid-19, Knowledge, Outbreak

**What’s already known about this topic?**

It is obvious that COVID-19 epidemic, which the World Health Organization has declared as “pandemic”, has created a worldwide stress.

**What does this article add?**

Although the knowledge and attitudes of the public about COVID 19 is good, anxiety levels are not at a good level even in the early period of the epidemic. In pandemics, prevention of public anxiety is one of the most important steps to be taken.

**INTRODUCTION**

On December 31, 2019, the World Health Organization (WHO) China Country Office reported pneumonia cases of unknown etiology in Wuhan, Hubei province, China. On January 7, 2020, the causative agent was identified as a new Coronavirus (2019-nCoV), which has not previously been detected in humans. Later, the name of 2019-nCoV disease was accepted as COVID-19, and the virus was named as SARS-CoV-2 because of its close resemblance to SARS CoV [1,2]. The disease spectrum caused by Coronavirus in humans can range from simple colds to severe acute respiratory syndrome (Severe Acute Respiratory Syndrome, SARS). The disease is transmitted mainly through droplets. In addition, it is transmitted to the droplets produced by sick individuals by coughing and sneezing, after they come into contact with the hands of other people, bringing their hands to the mouth, nose or eye mucosa and touching them. Viruses can be detected in respiratory secretions of asymptomatic individuals, but the main transmission is from the sick individuals [1,2].

Before the first cases in Turkey, government took a lot of measurements against COVID-19. In this process, an *operation center* was established on January 6, and a *Science Board* was established on January 10, and developments were monitored as soon as possible. On January 14, the “Covid19 Disease Guide” was prepared by the Ministry of Health and the society was informed about all processes, this guide is updated regularly. Through the public spots and social media, it was announced that the public should not go out, except for professional status and special needs. Following the first case on March 10, curfew has been imposed to individuals aged over than 65 as of March 22 and under 20 years of age as of April 6. It is made compulsory for the public to wear masks in public areas [3]. All these practices and measures implemented at an early stage in Turkey; however there is no study about the evaluation of the knowledge and attitudes of the community to measures on COVID-19. The first aim in this study is to determine the general level of knowledge of the people about COVID 19, the compliance of the people with the measures proposed by the ministry and health institutions, and the opinions of the people about the compliance of the other individuals in the first phase of the epidemic.

It is obvious that this epidemic, which the World Health Organization has declared as “pandemic”, has created a worldwide stress [4]. In the case of viral outbreaks, it shows that a person with high anxiety will cause situations such as misinterpretation of health-related symptoms and poor environmental impact, depending on previous experiences with influenza and current information about the current outbreak; it was reported that low anxiety levels may have negative effects on health behavior [5].

It is obvious that COVID 19 has become the most researched subject in the world in recent months. It is also obvious that the COVID 19 pandemic will affect the mood of individuals in various ways. Turkey has not been demonstrated in a study on this subject. The second aim in this study is to investigate the anxiety status of adults about COVID-19 infection, which is declared as “pandemic” in the world and the number of cases and deaths in our country is increasing rapidly.

**MATERIALS & METHODS**

This was an observational study carried out in Turkey. An online semi-structured questionnaire was developed by researchers with a consent form by using google forms and the link of the questionnaire was sent through emails, WhatsApp and other social media to the contacts of the investigators between 20th March 2020 and 25th March 2020. The participants were encouraged to roll out the survey to as many people as possible. On receiving and clicking the link the participants got auto directed to the information about the study and informed consent. After they accepted to take the survey they filled up the demographic details. Then a set of several questions appeared sequentially, which the participants were to answer.

The universe of study constitute of the participants who above 18 years of age and able to use social media and smartphone app and willing to give informed consent were in cluded. Those who filled the questionnaire form were included in the study and they formed the sample of the research.

The online self-reported questionnaire developed by the investigators by using literature review and existing guidelines. The questionare contained 21 questions and Beck anxiety scale. Questionnaire questions are three (gender, age, occupation) questions for sociodemographic characteristics; a question for health characteristics, five questions evaluating participants' attitudes towards COVID-19, two questions evaluating the attitude of society and 9 questions evaluating knowledge levels. Beck Anxiety Scale is a self-evaluating 21-item Likert scale developed by Beck, Epstein, Brown and Steer in 1988 to measure the severity of anxiety in the psychiatric population. Anxious temperament, autonomic hyperactivity and motor tension include substances that determine some cognitions. The patient is asked to evaluate the symptoms within the 'last week including today'. Each symptom is evaluated as none, mild, moderate, and severe. The total score ranges from 0-63. Test-retest reliability was found to be 0.75. Translation of the scale into Turkish is done by the head of Bilkent University Psychological Counseling and Research Center, by Assoc. Dr. Nesrin Şahin. The validity and reliability study of the Turkish version was conducted by the Bakırköy mental and nervous diseases hospital, by Mustafa Ulusoy [6].

In the evaluation of the data, mean- + standard deviation was used for continuous variables, and frequency table was used for qualitative data. While investigating the relationship between qualitative data, chi-square test was used. Differences between continuous variables t test, ANOVA test or their nonparametric equivalents were used. The value of α = 0.05 was accepted as the level of error. Statistical analyzes were made with SPSS 23 package program.

**RESULTS**

A total of 1091 people answered the e-survey form; people who did not answer all of the questions were removed. 1070 people were included in the study. The full response rate of the survey is 98.0%.

64.5% of the participants (n = 690) were women; 35.5% (n = 380) are men. The average age of the participants was 39.85 ± 11.95 (min = 19; max = 83). Approximately, 40% of the population were healthcare professionals. The socio-demographic characteristics of the participants are given in Table 1.

**Table 1. Socio-demographic characteristics of the participants**

The sources of the participants' access to information about COVID19 Infection are given in Graphic 1.

**Graphic 1. Sources of participants to access information on COVID19 Infection**

The distribution of the responses of the participants to the knowledge questions regarding the COVID-19 infection is given in Table 2. Out of the total participants, 94.5 % answered that the virus transmitted by inhalation of droplets scattered by sick individuals coughing and sneezing. Only 9.3 % of responders regarded COVID-19 carries the risk of death at any age. Most participants (98.4 %)

acknowledged that washing hands frequently with soap and water for 20 seconds could prevent the spread of infection. Approximately one fifth of the participants had no idea about treatment and immunization against COVID19.

**Table 2. Distribution of respondents' responses to knowledge questions about COVID-19 infection**

Beck Anxiety Inventory mean score is 9.84 ± 10.96 (min = 0; max = 63). According to the categorization of Beck Anxiety Inventory scores according to cut scores; mild 78.7% (n = 842) of the participants; 12.7% (n = 136) of medium; It was found that 8.6% (n = 92) showed severe anxiety symptoms. Comparison of Beck Anxiety Scale anxiety levels according to sociodemographic characteristics is given in Table 3. Anxiety levels of women, healthcare workers and those with psychiatric illness were higher (p <0.05).

**Table 3. Comparison of Beck Anxiety Inventory anxiety levels according to sociodemographic characteristics**

The comparison of the factors associated with the visit status of the participants' health center (hospital, family health center etc.) after the COVID-19 pandemic is given in Table 4. It was observed that the frequency of visits to the health center (hospital, family health center, etc.) below 35 and above 65 years of age decreased more than other age groups (p = 0.003).

**Table 4. Comparison of the factors associated with the participants' health center (hospital, family health center etc.) visit status**

Comparison of the factors related to the participants' going out, meeting with their environment and face to face after the pandemic of COVID-19 is given in Table 5.

**Table 5. Comparison of the factors related to the participants' going out, their face to face meeting.**

Comparison of the factors associated with the washing hands of the participants after the COVID-19 pandemic is given in Table 6.

**Table 6. Comparison of factors related to participants' washing hands.**

Comparison of the factors associated with the use of medical masks of the participants after the COVID-19 pandemic is given in Table 7. It was observed that women, healthcare professionals, those with chronic diseases, and those with moderate to severe anxiety used the medical mask more frequently in the collective environment, and the frequency of not considering using under 35 years of age was higher (p <0.05).

**Table 7. Comparison of the factors associated with the use of medical masks of the participants in the collective environment**

73% of the participants (n = 781) have fully implemented the proposed measures for the COVID-19 pandemic; 26.8% (n = 287) of implementing some of the suggestions; 0.2% (n = 2) stated that they did not take any measures. 34.9% (n = 373) of the participants stated that their close environment has fully implemented to the proposed measures for the COVID-19 pandemic; 61.0% (n = 653) stated that some of them applied the suggestions; 4.1% (n = 44) stated that they did not take any precautions. 28.6% (n = 306) of the participants stated that population mostly implement the proposed measures for the COVID-19 pandemic; 46.2% (n = 494) of them applied some of the suggestion; 25.2% (n = 270) of them did not take any measures. The anxiety levels of the participants who stated that they applied some of the measures or not applied suggested for the COVID-19 pandemic were low (p = 0.001); it was observed that those who stated that their close environment did not take precautions had high anxiety level (p = 0.003).

**DISCUSSION**

Outbreaks are situations that threaten public health and can be prevented with community compliance against the recommendations of ministries and health institutions. Hence, this study attempted to evaluate the attitudes, knowledge, and anxiety states of individuals at the fırst perıod of the COVID-19 outbreak.

In all epidemics and pandemics, it is essential to create awareness of public for effective prevention of disease spread [7,8]. It has been seen in a study (2016) that health professionals have better awareness, positive attitudes towards epidemics/ pandemics [9]. In Johnson and colleques study (2016, during the H1N1 pandemia), they mentioned that generally public was unaware of the measures of prevention of the epidemic [10]. In a study conducted in India (2020, during COVID19 pandemia), it was seen that the participants had a moderate level of awareness regarding the mode of spread, symptoms, and yet adequate awareness about the preventive measures and educated healthcare people get more sensitized by these information’s [8]. In this study, we found that the Turkish individuals usually had better awareness and positive attitudes towards COVID 19 pandemic. Although they had good amount of knowledge about COVID 19 transmission ways, symptoms and the importance of hand washing; one fifth of the participants had no idea about treatment and immunization. This study draws attention to very few participants regarded COVID-19 carries the risk of death at any age. This may cause people not to know the mortality of the disease and consequently decrease their compliance with the measures. Also in this study, it was observed that the frequency of going out and meeting with relatives decreased and the hand washing frequency increased. It is also an important finding that the frequency of going to the health center is reduced by 60%. It is thought that the proposal made by the ministry on this issue "not to apply for a health institution unless it is an important situation" may be effective. Especially, the frequency of visits to the health center over 65 years of age decreased more than other age groups; it should be related to the curfew above 65 years of age. This study was carried out during the beginning of the epidemic and there was no "obligation to wear a facemask in crowded place" during this period. In this process, it is a low rate that approximately 40% of the participants use masks in public settings. It was observed that women, healthcare professionals, those with chronic diseases, those with moderate to severe anxiety used medical face masks more frequently. A study conducted during the 2009 influenza (H1N1) pandemic also found that increased anxiety was associated with increased hygiene [7]. In a study conducted during H1N1 pandemic in Hong Kong, association between increased anxiety and increased frequency of house disinfection was stated [11].

When the sources of the participants' access to information about COVID19 infection were evaluated, it was seen that almost all of them obtained information on the internet and social media, and that was followed by television. Our work was a web-based work and all of the participants were people using social media; it is an expected result that the same people are the most frequent source of information. One fourth acquire the information through neighbors, relatives, etc. In the research carried out by the KONDA Barometer in the first period of the epidemic in Turkey (March 7-8), news sources about COVID-19 were TV (88% news and 58% discussion programs), social media (63%), virtual press (59%) and friends (% 42) [12]. It is noteworthy that the main sources of information are the Ministry of Health, healthcare professionals and health organizations. The source from which information will be obtained is very important in this infection, which has influenced the whole world, accessing the correct and reliable information will both help the applications to be done correctly and help to minimize anxiety levels.

In present study, the general public showed their willingness to compliance with measures. Although the vast majority of the participants in the study stated that their compliance with the proposed measures against COVID-19 was good; their' opinions especially about the compliance of the society and their close environment with the suggestions were not in a good way. Also the individuals with low anxiety levels stated that they adhere less to measures, individuals with high anxiety levels stated that their close environment did not take precautions.

In this study, the vast majority of participants showed low anxiety; however, when categorized, it was seen that one fifth of the participants have moderate and severe anxiety, these rates are not to be underestimated. At the time of this study, the number of the cases did not reach dramatic levels. Despite this, the results obtained are of serious importance. Studies show that outbreaks cause worsening of existing psychiatric pictures or the emergence of new pictures in susceptible individuals [11, 13]. In present study, anxiety levels of women, healthcare workers and those with psychiatric illness were found higher than other groups. In recent studies it was shown that female reproductive hormones and related cycles may play an important role at gender differences of anxiety [14]. Also studies showed that those health care workers experiencing high levels of stress, anxiety, and depression symptoms during pandemics [15-17]. Health care workers on the front line who are directly involved in the diagnosis, treatment, and care of patients with COVID-19 and they are at risk of developing psychological distress and anxiety.

This study has several limitations. The study was an online survey and this creates limitation of the generalization of our findings to Turkey. Second, considering the age distribution in our study, it is seen that the frequency of individuals over 65 is 2.9% and various studies have proven that the risk of death in COVID-19 pandemic increases with age. The low proportion of people in the over 65 age group prevents us from making a real comment about these people.

To the best of our knowledge, this is the first study about attitude, knowledge and anxiety status of individuals who have experienced COVID-19 pandemia in Turkey, the same design was not found. We found that Turkish individuals usually had better awareness and positive attitudes towards COVID 19 pandemic, but there were also things that needed improvement. The vast majority of participants showed low anxiety; however one fifth of the participants have moderate and severe anxiety and anxiety levels affected the most compliance situation in various ways. The most important measure to be taken in order to prevent anxiety from increasing is to ensure the correct access of information and to establish psychological support lines.

**CONCLUSION:**

During this COVID-19 pandemic, most of the people are aware of this infection and preventive measures. Although they believe that they comply with the measures, they have concerns about their close environment and society. Although it is a study conducted at the beginning of the pandemic, that is, when the number of cases has not increased significantly, the anxiety rates are also a thought-provoking result.

There is no study to date that evaluated the anxiety levels of people at the beginning/first period of the COVID-19 pandemic. The most important measure to be taken in order to prevent anxiety from increasing is to ensure the correct access of information and to establish psychological support lines.

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**Compliance with Ethical Standard**

**Disclosure of potential conflicts of interest**

Duygu AYHAN BASER declares that she has no conflict of interest concerning the research, authorship, or publication of this article. Raziye Şule GÜMÜŞTAKIM declares that she has no conflict of interest concerning the research, authorship, or publication of this article. Murat CEVIK declares that she has no conflict of interest concerning the research, authorship, or publication of this article. Ekrem BASARA declares that she has no conflict of interest concerning the research, authorship, or publication of this article.

**Research involving Human Participants and/or Animals**

Research involve only human participants.

**Ethical approval:** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed consent**

Informed consent was obtained from all individual participants included in the study

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**TABLES**

**Table 1. Socio-demographic characteristics of the participants**

|  |  |  |
| --- | --- | --- |
|  | n | % |
| Gender  Woman  Men | 690  380 | 64,5  35,5 |
| Age  Above 21  21-35  36-45  46-65  Below 65 | 63  317  399  167  28 | 6,5  32,5  41,0  17,1  2,9 |
| Profession  Health employee  Other | 426  644 | 39,8  60,2 |
| Chronic disease state  Yes  No | 252  817 | 23,6  76,4 |
| Psychiatric disease state  Yes  No | 75  988 | 7,1  92,9 |

**Table 2. Distribution of respondents' responses to knowledge questions about COVID-19 infection**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Correct | | Non correct | | No idea | |
| **n** | **%** | **n** | **%** | **n** | **%** |
| The most common symptoms are fever, cough and shortness of breath. | 1031 | 96,4 | 9 | 0,8 | 30 | 2,8 |
| It is not contacted by touching the surfaces. | 67 | 6,3 | 901 | 84,2 | 102 | 9,5 |
| It is transmitted by inhalation of droplets scattered by sick individuals coughing and sneezing. | 1011 | 94,5 | 37 | 3,5 | 22 | 2,1 |
| It carries the risk of death at any age. | 100 | 9,3 | 859 | 80,3 | 111 | 10,4 |
| There is a diagnostic test. | 974 | 91,0 | 32 | 3,0 | 64 | 6,0 |
| There is no cure. | 50 | 4,7 | 780 | 72,9 | 240 | 22,4 |
| There is a vaccine. | 16 | 1,5 | 852 | 79,6 | 202 | 18,9 |
| For prevention, it is necessary to wash hands frequently with soap and water for 20 seconds. | 1053 | 98,4 | 9 | 0,8 | 8 | 0,6 |
| International returns do not pose a risk. | 144 | 13,5 | 831 | 77,7 | 95 | 8,9 |

**Table 3. Comparison of Beck Anxiety Inventory anxiety levels according to sociodemographic characteristics**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Anxiety Levels of Participants | | | | | | | |
|  | **Mild anxiety** | | **Moderate anxiety** | | **Severe anxiety** | | **p value** |
|  | n | % | n | % | n | % |
| Gender  Woman  Men | 511  331 | 60,7  39,3 | 108  28 | 79,4  20,6 | 71  21 | 77,2  22,8 | **0,000** |
| Age  Above 21  21-35  36-45  46-65  Below 65 | 51  240  312  146  24 | 6,6  31,0  40,4  18,9  3,1 | 9  44  56  11  1 | 7,4  36,4  46,3  9,1  0,8 | 3  33  31  10  3 | 3,8  41,3  38,8  12,5  3,8 | 0,079 |
| Profession  Health employee  Other | 322  520 | 38,2  61,8 | 55  81 | 40,4  59,6 | 49  43 | 53,3  46,7 | **0,020** |
| Chronic disease state  Yes  No | 188  653 | 22,4  77,6 | 35  101 | 25,7  74,3 | 29  63 | 31,5  68,5 | 0,118 |
| Psychiatric disease state  Yes  No | 12  823 | 1,4  98,6 | 20  116 | 14,7  85,3 | 43  49 | 46,7  53,3 | **0,000** |

**Table 4. Comparison of the factors associated with the participants' health center (hospital, family health center etc.) visit status**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Health center (hospital, family health center etc.) visit status | | | | | | | |
|  | **Increased** | | **Decreased** | | **Not Changed** | | **p value** |
|  | n | % | n | % | n | % |
| Gender  Woman  Men | 18  8 | 2,6  2,1 | 435  219 | 63,0  57,6 | 237  153 | 34,3  40,3 | 0,151 |
| Age  Above 21  21-35  36-45  46-65  Below 65 | 1  4  12  4  1 | 1,6  1,3  3,0  2,4  3,6 | 44  219  231  83  19 | 69,8  69,1  57,9  49,7  67,9 | 18  94  156  80  8 | 28,6  29,7  39,1  47,9  28,6 | **0,003** |
| Profession  Health employee  Other | 16  10 | 3,8  1,6 | 223  431 | 52,3  66,9 | 187  203 | 43,9  31,5 | **0,000** |
| Chronic disease state  Yes  No | 9  17 | 3,6  2,1 | 152  502 | 60,3  61,4 | 91  298 | 36,1  36,5 | 0,405 |
| Psychiatric disease state  Yes  No | 4  22 | 5,3  2,2 | 48  601 | 64,0  60,8 | 23  365 | 30,7  36,9 | 0,164 |
| Anxiety level  Mild  Moderate  Severe | 18  5  3 | 2,1  3,7  3,3 | 511  86  57 | 60,7  63,2  62,0 | 313  45  32 | 37,2  33,1  34,8 | 0,704 |
| TOTAL | 26 | 2,4 | 654 | 61,1 | 390 | 36,4 |  |

**Table 5. Comparison of the factors related to the participants' going out, their face to face meeting.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Going out, meeting face to face with the environment status | | | | | | | |
|  | **Increased** | | **Decreased** | | **Not Changed** | | **p value** |
|  | n | % | n | % | n | % |
| Gender  Woman  Men | 11  5 | 1,6  1,3 | 644  347 | 93,3  91,3 | 35  28 | 5,1  7,4 | 0,297 |
| Age  Above 21  21-35  36-45  46-65  Below 65 | 0  3  9  2  0 | 0,0  0,9  2,3  1,2  0,0 | 62  300  366  151  27 | 98,4  94,6  91,7  90,4  96,4 | 1  14  24  14  1 | 1,6  4,4  6,0  8,4  3,6 | 0,297 |
| Profession  Health employee  Other | 5  11 | 1,2  1,7 | 398  593 | 93,4  92,1 | 23  40 | 5,4  6,2 | 0,661 |
| Chronic disease state  Yes  No | 6  10 | 2,4  1,2 | 237  753 | 94,0  92,2 | 9  54 | 3,6  6,6 | 0,090 |
| Psychiatric disease state  Yes  No | 1  15 | 1,3  1,5 | 69  916 | 92,0  92,7 | 5  57 | 6,7  5,8 | 0,944 |
| Anxiety level  Mild  Moderate  Severe | 13  0  3 | 1,5  0  3,3 | 781  127  83 | 92,8  93,4  90,2 | 48  9  8 | 5,7  6,6  6,5 | 0,371 |
| TOTAL | 16 | 1,5 | 991 | 92,6 | 63 | 5,9 |  |

**Table 6. Comparison of factors related to participants' washing hands.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Washing hands status | | | | | | | |
|  | **Increased** | | **Decreased** | | **Not Changed** | | **p value** |
|  | n | % | n | % | n | % |
| Gender  Woman  Men | 660  363 | 95,8  95,5 | 2  2 | 0,3  0,5 | 27  15 | 3,9  3,9 | 0,832 |
| Age  Above 21  21-35  36-45  46-65  Below 65 | 57  309  384  155  27 | 90,5  97,8  96,2  92,8  96,4 | 0  0  3  1  0 | 0,0  0,0  0,8  0,6  0,0 | 6  7  12  11  1 | 9,5  2,2  3,0  6,6  3,6 | 0,059 |
| Profession  Health employee  Other | 412  611 | 96,7  95,0 | 1  3 | 0,2  0,5 | 13  29 | 3,1  4,5 | 0,400 |
| Chronic disease state  Yes  No | 69  948 | 92,0  96,0 | 0  4 | 0,0  0,4 | 6  35 | 8,0  3,5 | 0,135 |
| Psychiatric disease state  Yes  No | 239  783 | 94,8  96,0 | 1  3 | 0,4  0,4 | 12  30 | 4,8  3,7 | 0,739 |
| Anxiety level  Mild  Moderate  Severe | 805  133  85 | 95,7  97,8  92,4 | 3  1  0 | 0,4  0,7  0,0 | 33  2  7 | 3,9  1,5  7,6 | 0,181 |
| TOTAL | 1023 | 95,7 | 4 | 0,4 | 42 | 3,9 |  |

**Table 7. Comparison of the factors associated with the use of medical masks of the participants in the collective environment**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Using status of medical mask in collective environment | | | | | | | |
|  | **Use** | | **Not using but thinking** | | **Doesn't intend to use** | | **p value** |
|  | n | % | n | % | n | % |
| Gender  Woman  Men | 290  130 | 42,0  34,2 | 280  163 | 40,6  42,9 | 120  87 | 17,4  22,9 | **0,019** |
| Age  Above 21  21-35  36-45  46-65  Below 65 | 13  124  167  65  7 | 20,6  39,1  41,9  38,9  25,0 | 24  125  162  77  18 | 38,1  39,4  40,6  46,1  64,3 | 26  68  70  25  3 | 41,3  21,5  17,5  15,0  10,7 | **0,000** |
| Profession  Health employee  Other | 251  169 | 58,9  26,2 | 121  322 | 28,4  50,0 | 54  153 | 12,7  23,8 | **0,000** |
| Chronic disease state  Yes  No | 116  303 | 46,0  37,1 | 106  337 | 42,1  41,2 | 30  177 | 11,9  21,7 | **0,001** |
| Psychiatric disease state  Yes  No | 32  387 | 42,7  39,2 | 33  405 | 44,0  41,0 | 10  196 | 13,3  19,8 | 0,388 |
| Anxiety level  Mild  Moderate  Severe | 308  62  50 | 36,6  45,6  54,3 | 357  54  32 | 42,4  39,7  34,8 | 177  20  10 | 21,0  14,7  10,9 | **0,003** |
| TOTAL | 420 | 39,3 | 443 | 41,4 | 207 | 19,3 |  |

**Graphic 1. Sources of participants to access information on COVID19 Infection**