Research Article

Traditional Methods and Practices Used in Society to Prevent COVID-19

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Abstract

AIM: The aim of this study was to determine the traditional methods and practices used during the coronavirus disease 2019 pandemic.

METHOD: This descriptive study was conducted between July 11 and 25, 2020, with volunteers above 18 years of age registered in the population of a district located in a rural district in Turkey. For the implementation of the study, permission was obtained from the Selçuk University Ethics Committee of Non-Interventional Scientific Research. The data collection form consisted of two parts. In the first part of the data collection form, there are seven questions concerning about characteristics of the participants. In the second part of the form, there are 13 questions concerning about characteristics of the participants. During the research application, data were collected from 500 participants. Data of the study were summarized in numbers, percentage, mean, and standard deviation and Fisher’s exact and Chi-square tests were performed.

RESULTS: Participants mostly used disinfectant (2.97 ± 1.18) and cologne (2.87 ± 1.09) in their personal hygiene for protection against coronavirus disease 2019 infection, in addition to home ventilation (3.77 ± 0.54) and use of bleach (2.78 ± 1.36) for home/environmental hygiene. Around 80.4% of those who did not take precautions did not work in healthcare and the status of taking precautions against coronavirus disease 2019 varied according to the field of employment (p = .000). The traditional method total score changed between the age groups 18–45 and 46–76 years, and the use of traditional methods increased with age (p = .000).

CONCLUSION: It was determined that the rate of using protective measures recommended by experts during the coronavirus disease 2019 pandemic was high in the research group, while the scores of using traditional methods were also high. In addition, the rate of using protective measures was high among health sector workers. Results from this study may suggest further research to reveal the traditional methods and practices used during the coronavirus disease 2019 pandemic in order to take precautions for methods and practices known to be detrimental to human health and to increase the use of those known to be useful, in line with the results obtained.

Keywords: COVID-19 pandemic, traditional methods, traditional practices

Introduction

To date, numerous viral infections have emerged and have affected global health. With the increased pace of modern life and intercontinental travel, the risk of the emergence of an epidemic in any part of the world has increased (Al-Hazmi, 2016). Recently, one of the life-threatening viruses has been the group of coronaviruses.

The cause of the pneumonia cluster observed on December 31, 2019, in Wuhan, the capital of the Hubei region of China, was identified on January 7, 2020, as a new coronavirus that had not been detected in humans before. Coronavirus disease 2019 (COVID-19) is transmitted by the respiratory way and through contact and poses a fatal risk, which is more in comorbid patients among all people (Ministry of Health, 2020a). The first case of COVID-19 outside China was reported by a traveler from Wuhan in Thailand; later, the virus spread to all continents except Antarctica (World Health Organization [WHO], 2020a, b). The World Health Organization declared it a global pandemic on March 11, 2020, and (WHO, 2020c) on March 13, 2020, reported that Europe had become the epicenter of the coronavirus crisis (WHO, 2020d). Now regarded as much more than a health crisis, the COVID-19 pandemic shakes up every country it spreads to and causes social, economic, and political turmoil (United Nations Development Program [UNDP], 2020).

In many countries including Turkey, strict sanctions and legal measures are applied to prevent the disease and reduce its spread. Countries all over the world are leading a comprehensive campaign to slow down the spread of the disease by testing, treating patients, tracing contacts, imposing travel restrictions, quarantining citizens, canceling large gatherings such as sports and concert events, and temporarily closing schools (UNDP, 2020). People have started to resort to traditional methods for protection, support, relaxation, or treatment during the pandemic period.
Traditional health practices are medical practices related to any particular society’s beliefs, traditions, values, and culture (Sulu Uğurlu et al., 2013). Due to its cultural characteristics, Turkey is among the countries in which traditional methods and practices are frequently resorted to. Various traditional methods are known to be used in cases of cold and flu in Turkey (Aslan, 2014; Görgüç, 2019; Tortumluoğlu et al., 2004; Tavukcu, 2016; Unsal, 2017. It is also known that people living in rural areas apply traditional practices more frequently (Tortumluoğlu et al., 2004).

The number of studies to determine the traditional methods and practices applied during COVID-19 in Turkey is very low (Çetin Kargın, 2021). In a study, it was determined that traditional methods were used frequently during COVID-19. In the present study, data have been collected from people living in the rural side of Turkey to determine their use of traditional methods concerning the COVID-19 pandemic, as well as their purpose and frequency of doing so. In addition, we have also focused on the frequency of using methods recommended by experts to prevent COVID-19 virus transmission (Aliclar & Cöl, 2020; Ministry of Health, 2020b, c; Turkey Academy of Sciences, 2020). Besides, the variation of the data by gender and status of employment in the field of healthcare was also investigated. In this scope, the study aimed to determine the traditional methods and practices used in society to prevent COVID-19.

Research Questions
In this study, answers were sought to the following questions:

1. Which traditional methods affect personal/home/environmental cleaning in the COVID-19 pandemic?
2. Which variables affect the traditional method?

Method

Study Design
The study is of descriptive design.

Sample
It was conducted between July 11 and 25, 2020, with volunteers above 18 years of age who were registered in a rural district in Turkey. During the research application, data were collected from 500 participants. The research was conducted with all participants over the age of 18 and literate and the sample was not determined. This research used the snowball sampling technique, which is considered a useful technique when targeting specific individuals in a certain population (Karasar, 2016).

Data Collection
The questionnaire form, which was used as a data collection tool, was created online with a link to the survey website. The questionnaire was conducted online. The link for the questionnaire to be completed online was copied and forwarded to the participants via phone messaging application, and, in turn, they were asked to share this link with three people in their network. The follow-up, control, and coordination of the shared questionnaire links were ensured by the participants. The informed consent form was presented at the beginning of the questionnaire as an introduction, and the survey started following the approval of the participants. Participants completed the online questionnaires in about 15 minutes. Questionnaire data and contact information were stored in a password-protected electronic database to ensure privacy and anonymity.

Data Collection Tool
Inclusion criteria were to be 18 years of age or older and to participate voluntarily. At the beginning of the study, a pre-study application was made to 15 people. After the necessary corrections were made, the data collection form was finalized and the actual application was started.

Sociodemographic and Descriptive Questionnaire Form
The form, which was developed by the researchers by reviewing the relevant literature (Aslan 2014; Aliclar & Cöl, 2020; Ministry of Health, 2020b; Ögenler & Yapıcı, 2012; Cınar et al., 2015; Tavukçu, 2016; Tortumluoğlu et al., 2004; Unsal, 2017), consists of two parts. In the first part of the data collection form, there are seven questions concerning the following characteristics of the participants: gender, age, education, employment, working status in the field of healthcare, family structure, and income level. In the second part of the form, there are 13 questions concerning the following characteristics of the participants: observance of necessary precautions against COVID-19, the history of COVID-19 in oneself or in the family, methods and practices applied against COVID-19, purposes of applying these practices, and benefits and harmful effects expected from the mentioned practices.

Statistical Analysis
The data obtained were evaluated using version 25.0 of Statistical Package for the Social Sciences software (IBM SPSS Corp., Armonk, NY, USA). Data of the study were summarized in numbers, percentage, mean, and standard deviation. Fisher’s exact and Chi-square tests were performed to analyze the relationship between the hygiene methods used by the participants and their gender and working status in the field of healthcare.

The answers given by the participants regarding their rate of using traditional methods during the COVID-19 pandemic and the methods they use in personal and environmental hygiene are coded as follows: 0: never, 1: rarely, 2: sometimes, 3: often, and 4: always. By adding the mean scores of traditional methods used by the participants, the traditional method total score (TMTS) was obtained.

Significant differences between certain features of the pandemic period and the mean TMTS scores were determined using the independent samples t-test. Statistically significant differences between the intended use of the methods and the mean TMTS scores were evaluated using one-way analysis of variance. p < .05 was considered statistically significant for the evaluation.

Ethical Considerations
For the implementation of the study, permission was obtained from the Selçuk University Ethics Committee of Non-Interventional Scientific Research (Date and Decision Number: July 17, 2020; 17/07/2020-E.54682), and the consent of the participants was obtained to ensure voluntary participation.
Results

The age of the participants in the study varied between 18 and 76 years, and the mean age was 37.93 ± 13.05. Around 68.8% of the participants were female, 56.4% were university graduates, 38.8% worked in the field of healthcare, and 98.2% of the participants and 97% of their families had no history of COVID-19. In addition, about half of the participants (49.5%) obtained information about COVID-19 through their own initiative, and 12.1% from the television (Table 1).

Around 80.4% of those who did not take precautions did not work in healthcare, and the status of taking precautions against COVID-19 varied according to the field of employment (p = .000). There were no participants who were working in the field of healthcare and did not use masks, and only ten of those not working in the field of healthcare did not use masks, meaning that the use of mask differed according to the field of employment (p = .008). In addition, using gloves out of home is more common in participants not working in the field of healthcare (p = .021) (Table 2).

Participants mostly used disinfectant (2.97 ± 1.18) and cologne (2.87 ± 1.09) in their personal hygiene for protection against COVID-19 infection.

In home/environmental hygiene, home ventilation (3.77 ± 0.54), bleach (2.78 ± 1.36), saltwater (2.71 ± 1.38), and cologne (2.66 ± 1.34) were most commonly used (Figure 1).

Around 39.1% of men and 30.2% of women always used cologne, and the use of cologne varied in terms of gender (p = .027). Similarly, 18% of those working in the field of healthcare and 42.5% of those not working in the field of healthcare always used cologne, meaning that the field of employment affected the use of cologne (p = .000). In addition, it was determined that 14.9% of those working in the field of healthcare and 16% of those not working in the health field often used vinegar, and the use of vinegar in personal hygiene varied according to the field of employment (p = .037). Similarly, 33.5% of those working in the field of healthcare and 25.8% of those not working in healthcare often used disinfectants, meaning that the use of disinfectants varied according to the field of employment (p = .042) (Table 3).

Around 6.4% of men did not use cologne, while 21.2% of women and 12.2% of men sometimes used cologne, and the use of cologne varied according to gender (p = .027). No gender difference was found in the methods used for other personal hygiene (p > .05) (Table 3).

Around 38.7% of those working in healthcare often used bleach for home/environmental hygiene, and 41.8% of those not working in healthcare always used it. Although the use of bleach varied according to the field of employment (p = .004), it was observed to be generally high. Around 31.4% of those working in healthcare often used disinfectants, and 45.1% of those not working in healthcare used them for home/environmental hygiene. Although the use of disinfectants varied according to the field of employment (p = .006), its use in home/environmental hygiene was observed to be generally high (Table 4).

| Table 1. Sociodemographic Characteristics of Participants |
|---------------------------------------------------------|
| **Min–Max** | **Mean ± SD** |
| **Gender** | N | % |
| Male | 156 | 31.2 |
| Female | 344 | 68.8 |
| **Education level** | | |
| No formal education | 3 | .6 |
| Primary education | 62 | 12.4 |
| Secondary education | 18 | 3.6 |
| High education | 55 | 11.0 |
| University education | 282 | 56.4 |
| Postgraduate education | 80 | 16.0 |
| **Working status** | | |
| Working | 306 | 61.2 |
| Not working | 131 | 26.2 |
| Retired | 63 | 12.6 |
| **Working status in the field of healthcare** | | |
| Yes | 194 | 38.8 |
| No | 306 | 61.2 |
| **Family structure** | | |
| Nuclear family | 365 | 73.0 |
| Extended family | 66 | 13.2 |
| Broken family | 69 | 13.8 |
| **Income status** | | |
| Less than income | 89 | 17.8 |
| More than income | 141 | 28.2 |
| Income is equal to expenses | 270 | 54.0 |
| **History of COVID-19** | | |
| Yes | 9 | 1.8 |
| No | 491 | 98.2 |
| **Their family’s COVID-19 history** | | |
| Yes | 15 | 3.0 |
| No | 485 | 97.0 |
| **COVID-19 information resources** | | |
| Family advice | 54 | 10.8 |
| Friend advice | 27 | 5.4 |
| Own initiative | 228 | 45.6 |
| Medical staff advice | 37 | 7.4 |
| Social media | 54 | 10.8 |
| Television | 56 | 11.2 |
| Other | 44 | 8.8 |
| Total | 500 | 100.0 |

*Note: SD = standard deviation; COVID-19 = coronavirus disease 2019.*
The frequency of use of 29 traditional methods was scored between 0 (never use) and 4 (frequent use), and a high score indicated overuse. The min–max and mean ± standard deviation of the obtained scores are given in Table 5. During the COVID-19 pandemic, the participants drank water (3.4 ± 0.7), ate soup (3.0 ± 1.0), prayed (3.0 ± 1.3), and ate vegetables the most (3.0 ± 1.0). The least used methods were rubbing the chest with alcohol (1.1 ± 0.3), wearing a religious amulet (0.0 ± 0.3), and visiting an Islamic preacher (0 ± 2).

The scores of 29 traditional methods were collected and TMTS was obtained and a high score indicated overuse. The traditional method total score varied between the age groups 18–45 and 46–76, and the use of traditional methods increased with age (p = .000). Those who stated that they took sufficient measures against COVID-19 had higher TMTS (40.86 ± 13.63), and there was a statistically significant relationship between taking sufficient measures and TMTS (p = .030). Those who stated that they benefited from the method they used had higher TMTS (45.08 ± 12.99), and a statistically significant relationship was available (p = .000). Regarding the purposes of using the methods, those who used traditional methods were found to have higher TMTS (52.67 ± 10.73). The traditional method total score varied according to the participants’ purpose of using traditional methods (p = .000), and the difference between the post hoc test and

Table 2.
Comparison of Participants’ Use of Methods Recommended by Experts for Protection Against COVID-19 Infection and Their Working Status in the Field of Healthcare

| Working Status in the Field of Healthcare | Yes   | No   | Total |
|-------------------------------------------|-------|------|-------|
|                                           | N     | %    | N     | %    |
| Taking precautions against COVID-19       |       |      |       |      |
| Yes                                       | 172   | 44.3 | 216   | 55.7 |
| No                                        | 22    | 19.6 | 90    | 80.4 |
| Use of mask out of home                   |       |      |       |      |
| Yes                                       | 194   | 39.6 | 296   | 60.4 |
| No                                        | -     | 10   | 10    | 100.0|
| Use of gloves out of home                 |       |      |       |      |
| Yes                                       | 71    | 32.9 | 145   | 67.1 |
| No                                        | 123   | 43.3 | 161   | 56.7 |
| Total                                     | 194   | 38.8 | 306   | 61.2 |

Note: SD = standard deviation; COVID-19 = coronavirus disease 2019.
*Fisher’s exact test.
Table 3.
Comparison of Methods Used by Participants in Personal and Home/Environmental Hygiene for Protection Against COVID-19 Infection and Their Gender

|                               | Gender          |                  |                  |                  |                  |
|-------------------------------|-----------------|------------------|------------------|------------------|------------------|
|                               | Male N %        | Female N %       | Total N %        |                  |                  |
| **The methods used in personal hygiene** |                  |                  |                  |                  |                  |
| **Cologne**                   |                 |                  |                  |                  |                  |
| Never                         | 10 6.4          | 11 3.3           | 21 4.2           |                  | **.027**         |
| Rarely                        | 9 5.8           | 29 8.4           | 38 7.6           |                  |                  |
| Sometimes                     | 19 12.2         | 73 21.2          | 92 18.4          |                  |                  |
| Often                         | 57 36.5         | 127 36.9         | 184 36.8         |                  |                  |
| Always                        | 61 39.1         | 104 30.2         | 165 33.0         |                  |                  |
| **Vinegar**                   |                 |                  |                  |                  |                  |
| Never                         | 55 35.3         | 111 32.3         | 166 33.2         |                  | **.806**         |
| Rarely                        | 19 12.1         | 45 13.0          | 64 12.8          |                  |                  |
| Sometimes                     | 38 24.4         | 78 22.7          | 116 23.2         |                  |                  |
| Often                         | 20 12.8         | 58 16.9          | 78 15.6          |                  |                  |
| Always                        | 24 15.4         | 52 15.1          | 76 15.2          |                  |                  |
| **Carbonate**                 |                 |                  |                  |                  |                  |
| Never                         | 101 64.7        | 201 58.4         | 302 60.4         |                  | **.071**         |
| Rarely                        | 19 12.2         | 60 17.4          | 79 15.8          |                  |                  |
| Sometimes                     | 20 12.8         | 37 10.8          | 57 11.4          |                  |                  |
| Often                         | 3 1.9           | 24 7.0           | 27 5.4           |                  |                  |
| Always                        | 13 8.3          | 22 6.4           | 35 7.0           |                  |                  |
| **Saltwater**                 |                 |                  |                  |                  |                  |
| Never                         | 103 66.0        | 205 59.6         | 308 61.6         |                  | **.576**         |
| Rarely                        | 14 9.0          | 43 12.5          | 57 11.4          |                  |                  |
| Sometimes                     | 24 15.4         | 58 16.9          | 82 16.4          |                  |                  |
| Often                         | 6 3.8           | 20 5.8           | 26 5.2           |                  |                  |
| Always                        | 9 5.8           | 18 5.2           | 27 5.4           |                  |                  |
| **Disinfectant**              |                 |                  |                  |                  |                  |
| Never                         | 7 4.5           | 21 6.1           | 28 5.6           |                  | **.770**         |
| Rarely                        | 10 6.4          | 29 8.4           | 39 7.8           |                  |                  |
| Sometimes                     | 25 16.0         | 45 13.1          | 70 14.0          |                  |                  |
| Often                         | 44 28.2         | 100 29.1         | 144 28.8         |                  |                  |
| Always                        | 70 44.9         | 149 43.3         | 219 43.8         |                  |                  |
| Total                         | 156 100.0       | 344 100.0        | 500 100.0        |                  |                  |
| **The methods used in home/environmental hygiene** |                  |                  |                  |                  |                  |
| **Cologne**                   |                 |                  |                  |                  |                  |
| Never                         | 17 10.9         | 35 10.2          | 52 10.4          |                  | **.072**         |
| Rarely                        | 10 6.3          | 42 12.2          | 52 10.4          |                  |                  |
| Sometimes                     | 21 13.5         | 69 20.1          | 90 18.0          |                  |                  |
| Often                         | 43 27.6         | 82 23.8          | 125 25.0         |                  |                  |

(Continued)
| Gender       | Male            | Female          | Total           |   |
|--------------|-----------------|-----------------|-----------------|---|
|              | N    | %   | N    | %   | N    | %   | p  |
| Always       | 65   | 41.7| 116  | 33.7| 181  | 36.2|    |
| Vinegar      |      |     |      |     |      |     |    |
| Never        | 50   | 32.1| 102  | 29.7| 152  | 30.4|  .768|
| Rarely       | 15   | 9.6 | 47   | 13.7| 62   | 12.4|    |
| Sometimes    | 32   | 20.5| 68   | 19.8| 100  | 20.0|    |
| Often        | 27   | 17.3| 62   | 18.0| 89   | 17.8|    |
| Always       | 32   | 20.5| 65   | 18.9| 97   | 19.4|    |
| Carbonate    |      |     |      |     |      |     |    |
| Never        | 95   | 60.9| 204  | 59.3| 299  | 59.8|  .147|
| Rarely       | 15   | 9.6 | 49   | 14.2| 64   | 12.8|    |
| Sometimes    | 27   | 17.3| 45   | 13.1| 72   | 14.4|    |
| Often        | 5    | 3.2 | 24   | 7.0 | 29   | 5.8 |    |
| Always       | 14   | 9.0 | 22   | 6.4 | 36   | 7.2 |    |
| Bleach       |      |     |      |     |      |     |    |
| Never        | 27   | 17.3| 38   | 11.1| 65   | 13.0|  .194|
| Rarely       | 9    | 5.7 | 17   | 4.9 | 26   | 5.2 |    |
| Sometimes    | 14   | 9.0 | 45   | 13.1| 59   | 11.8|    |
| Often        | 51   | 32.7| 103  | 29.9| 154  | 30.8|    |
| Always       | 55   | 35.3| 141  | 41.0| 196  | 39.2|    |
| Saltwater    |      |     |      |     |      |     |    |
| Never        | 103  | 66.0| 209  | 60.8| 312  | 62.4|  .038|
| Rarely       | 8    | 5.2 | 40   | 11.6| 48   | 9.6 |    |
| Sometimes    | 23   | 14.7| 50   | 14.5| 73   | 14.6|    |
| Often        | 6    | 3.8 | 25   | 7.3 | 31   | 6.2 |    |
| Always       | 16   | 10.3| 20   | 5.8 | 36   | 7.2 |    |
| Disinfectant |      |     |      |     |      |     |    |
| Never        | 14   | 9.0 | 44   | 12.8| 58   | 11.6|  .299|
| Rarely       | 10   | 6.4 | 38   | 11.0| 48   | 9.6 |    |
| Sometimes    | 24   | 15.4| 51   | 14.8| 75   | 15.0|    |
| Often        | 42   | 26.9| 79   | 23.0| 121  | 24.2|    |
| Always       | 66   | 42.3| 132  | 38.4| 198  | 39.6|    |
| Home ventilation | Never/rarely | 2   | 1.3 | 2   | .3  | 4   | .8  |  .350|
|              |      |     |      |     |      |     |    |
|              |      |     |      |     |      |     |    |
|              |      |     |      |     |      |     |    |
| Note: *Chi-square test.
### Table 4.
Comparison of Methods Used by Participants in Personal and Home/Environmental Hygiene for Protection Against COVID-19 Infection and Their Working Status in the Field of Healthcare

| Method              | Never | Rarely | Sometimes | Often | Always | Total |
|---------------------|-------|--------|-----------|-------|--------|-------|
| **Cologne**         |       |        |           |       |        |       |
| Yes                 | 6     | 18     | 52        | 83    | 35     | 217   |
| No                  | 15    | 20     | 40        | 101   | 130    | 306   |
| Total               | 21    | 38     | 92        | 184   | 165    | 500   |
| p                   | .000  | .037   | .990      | .433  |        |       |
| **Vinegar**         |       |        |           |       |        |       |
| Yes                 | 56    | 36     | 45        | 29    | 28     | 166   |
| No                  | 110   | 28     | 71        | 49    | 48     | 306   |
| Total               | 166   | 64     | 116       | 78    | 76     | 500   |
| **Carbonate**       |       |        |           |       |        |       |
| Yes                 | 120   | 30     | 21        | 10    | 13     | 162   |
| No                  | 182   | 49     | 36        | 17    | 22     | 306   |
| Total               | 302   | 79     | 57        | 27    | 35     | 500   |
| **Saltwater**       |       |        |           |       |        |       |
| Yes                 | 112   | 28     | 34        | 9     | 11     | 162   |
| No                  | 196   | 29     | 48        | 17    | 16     | 306   |
| Total               | 308   | 57     | 82        | 26    | 27     | 500   |
| **Disinfectant**    |       |        |           |       |        |       |
| Yes                 | 6     | 10     | 31        | 65    | 82     | 162   |
| No                  | 22    | 29     | 39        | 79    | 137    | 306   |
| Total               | 28    | 39     | 70        | 144   | 219    | 500   |

The methods used in home/environmental hygiene

| Method | Never | Rarely | Sometimes | Often | Always |
|--------|-------|--------|-----------|-------|--------|
| **Cologne** | 23 | 25 | 54 | 48 | 29 |
| p       | .000  | .000  | .000      | .000  |        |
Table 4.  
Comparison of Methods Used by Participants in Personal and Home/Environmental Hygiene for Protection Against COVID-19 Infection and Their Working Status in the Field of Healthcare (Continued)

| Method                  | Working Status in the Field of Healthcare | Yes | No   | Total | p*  |
|-------------------------|------------------------------------------|-----|------|-------|-----|
|                         | N     | % | N     | % | N | % |
| **Vinegar**             |       |   |       |   |    |    |
| Always                  | 44    | 22.7 | 137 | 44.8 | 181 | 36.2 |
| Never                   | 48    | 24.7 | 104 | 34.0 | 152 | 30.4 | .001 |
| Rarely                  | 39    | 20.1 | 23  | 7.4  | 62  | 12.4 |
| Sometimes               | 38    | 19.6 | 62  | 20.3 | 100 | 20.0 |
| Often                   | 34    | 17.6 | 55  | 18.0 | 89  | 17.8 |
| Always                  | 35    | 18.0 | 62  | 20.3 | 97  | 19.4 |
| **Carbonate**           |       |   |       |   |    |    |
| Never                   | 116   | 59.8 | 183 | 59.8 | 299 | 59.8 | .704 |
| Rarely                  | 25    | 12.9 | 39  | 12.7 | 64  | 12.8 |
| Sometimes               | 32    | 16.5 | 40  | 13.1 | 72  | 14.4 |
| Often                   | 9     | 4.6  | 20  | 6.6  | 29  | 5.8  |
| Always                  | 12    | 6.2  | 24  | 7.8  | 36  | 7.2  |
| **Bleach**              |       |   |       |   |    |    |
| Never                   | 15    | 7.7  | 50  | 16.3 | 65  | 13.0 | .004 |
| Rarely                  | 10    | 5.1  | 16  | 5.3  | 26  | 5.2  |
| Sometimes               | 26    | 13.4 | 33  | 10.8 | 59  | 11.8 |
| Often                   | 38.7  | 25.8 | 30  | 15.5 | 68  | 13.0 |
| Always                  | 68    | 35.1 | 128 | 41.8 | 196 | 39.2 |
| **Saltwater**           |       |   |       |   |    |    |
| Never                   | 116   | 59.8 | 196 | 64.1 | 312 | 62.4 | .802 |
| Rarely                  | 21    | 10.8 | 27  | 8.8  | 48  | 9.6  |
| Sometimes               | 30    | 15.5 | 43  | 14.1 | 73  | 14.6 |
| Often                   | 14    | 7.2  | 17  | 5.6  | 31  | 6.2  |
| Always                  | 13    | 6.7  | 23  | 7.4  | 36  | 7.2  |
| **Disinfectant**        |       |   |       |   |    |    |
| Never                   | 20    | 10.4 | 38  | 12.4 | 58  | 11.6 | .006 |
| Rarely                  | 22    | 11.3 | 26  | 8.5  | 48  | 9.6  |
| Sometimes               | 31    | 16.0 | 44  | 14.4 | 75  | 15.0 |
| Often                   | 61    | 31.4 | 60  | 19.6 | 121 | 24.2 |
| Always                  | 60    | 30.9 | 138 | 45.1 | 198 | 39.6 |
| **Home ventilation**    |       |   |       |   |    |    |
| Never/rarely            | 2     | 1.0  | 2   | .6   | 4   | .8   | .625 |
| Sometimes               | 3     | 1.5  | 4   | 1.3  | 7   | 1.4  |
| Often                   | 30    | 15.5 | 58  | 19.0 | 88  | 17.6 |
| Always                  | 159   | 82.0 | 242 | 79.1 | 401 | 80.2 |
| Total                   | 194   | 100.0 | 306 | 100.0 | 500 | 100.0 |

Note: *Chi-square test.
Tukey’s honestly significant difference was observed to be caused by those using them for the purpose of treatment (Table 6).

Regarding the benefit of any particular method used, the participants stated that the method strengthens the immunity, gives the feeling of vigor, eases sore throat, provides hygiene, and fights the virus effectively. Regarding the adverse effects of the methods used, the adverse effects were found to be mostly related to the use of cologne and disinfectants, frequent hand washing, and the use of masks and gloves. These adverse effects were listed as difficulty in breathing, pressure marks on the skin and ears, skin irritation, eczema, dermatitis, headache, and weight gain, in addition to nosebleeds caused by the ginger-honey mixture.

### Discussion

In the present study, it was determined that healthcare workers thought they took more precautions during the COVID-19 pandemic and used masks. In a systematic review study by Chu et al. (2020), examining 172 observational studies in 16 countries and 6 continents, it was found that a distance of less than 1 m increased the transmission of the virus, and physical distance of at least 1 m was strongly associated with protection. In addition,
it was reported in this study that the use of face masks significantly reduced the risk of infection. Kumar et al. (2020) found that healthcare professionals have a positive attitude toward the use of face masks. Ergün et al. (2020) determined that the attitude point toward the information and decontamination about COVID-19 of the health personnel who work in emergency health services is high. Kabasakal et al. (2021) found that health sector workers were more adaptable in complying with protective measures than service sector workers. These results support this study and once again emphasize the importance of complying with protective measures.

In the present study, it is also demonstrated that the rate of using cologne is higher in men and in those who do not work in the field of healthcare. Cologne is used extensively and in quite different areas in Turkish society. In a study conducted by Sözen et al. (2018) with beauticians, it was determined that, in addition to antiseptic solution and alcohol, cologne was used for skin cleansing before the application of procedures. In the study by İlhan–Erkal et al. (2012) investigating first aid interventions after contact with suspected animals, it was found that cologne was widely used. Similarly, as a traditional method used in dental pain, cologne is poured on a piece of cotton and placed on the aching tooth (Efe, 2012). In the studies reviewed, it was reported that cologne had various uses, but there was no study in the literature on the use of cologne in flu or during COVID-19. The high rate of use of cologne seems to have resulted from the culture-specific characteristics of Turkish society.

The present study also revealed that those who did not work in the field of healthcare used vinegar more often in their personal and home/environmental hygiene. Similar to cologne, vinegar is also widely used in Turkish culture for various purposes. In the study by Sıralı et al. (2015), it was reported that vinegar was used as a traditional method to prevent itching in case of a bee sting. In a study conducted by Efe et al. (2012) with women, the

| Table 6. Comparison Between Certain Features of the Participants Regarding the Pandemic Period and Mean TMTS Scores |
|---------------------------------------------------------------|
| The Traditional Method Total Score (TMTS)                     |
| N    | Mean | SD  | t     | p    |
|------|------|-----|-------|------|
| Age  |      |     |       |      |
| Between 18 and 45 years | 380  | 38.9 | 13.5  | -3.658 | .000* |
| Between 46 and 76 years | 115  | 44.1 | 13.8  |       |      |
| Gender|      |     |       |      |
| Male  | 156  | 40.8 | 13.5  | .707  | .480* |
| Female| 344  | 39.9 | 13.8  |       |      |
| Working status in the field of healthcare                  |      |     |       |      |
| Yes   | 194  | 40.8 | 12.8  | .836  | .403* |
| No    | 306  | 39.7 | 14.3  |       |      |
| Taking sufficient measures against COVID-19                 |      |     |       |      |
| Yes   | 388  | 40.9 | 13.6  | 2.175 | .030* |
| No    | 112  | 37.7 | 13.8  |       |      |
| Benefit from the method used                                |      |     |       |      |
| Yes   | 166  | 45.1 | 13.0  | 5.864 | .000* |
| No    | 334  | 37.7 | 13.4  |       |      |
| Harm of the method used                                     |      |     |       |      |
| Yes   | 13   | 43.3 | 17.0  | .842  | .400* |
| No    | 487  | 40.1 | 13.6  |       |      |
| Purposes in use of the method**                            |      |     |       |      |
| Support | 235  | 41.6 | 13.7  |       | .000** |
| Relief  | 72   | 35.6 | 12.4  |       |      |
| Protection | 173  | 39.9 | 13.2  |       |      |
| Treatment | 12   | 52.7 | 10.7  |       |      |

Note: *Independent groups t test.
**One-way ANOVA test.
***Eight participants none of whom answered were not included.
SD = standard deviation; COVID-19 = coronavirus disease 2019.
participants indicated that they used vinegar poured on a piece of cotton to reduce toothache in their children. The present study showed that vinegar is used in personal and home/environmental hygiene, whereas in other studies examined, vinegar had different uses. However, there was no study in the literature on the use of vinegar in flu or during COVID-19.

The present study revealed that bleach was used extensively. The Center for Disease Control and Prevention (CDC) reported that bleach can be used as a disinfectant against COVID-19. It was observed that the use of bleach has increased, especially in home disinfection, during the COVID-19 pandemic (Chang et al., 2020; Gershman, 2020). In addition to increased use, it has been reported that bleach is used in excessive amounts compared to the rates recommended by experts (Gharpure et al., 2020), especially resulting in poisoning due to bleach (Gershman, 2020). In a study conducted by the CDC in May 2020, there were unsafe practices in the society, such as washing food products (e.g., fruits and vegetables) with bleach, applying cleaning products and disinfectants to bare skin, and deliberately inhaling or swallowing these products. It was emphasized that healthcare personnel should be on alert for similar cases (Gharpure et al., 2020). This study has supported the results of other studies we have reviewed and has revealed the widespread use of bleach. In addition, this findings have demonstrated the need for further research to determine other purposes of bleach use, as well as rates of use, types of misuse, and rates of poisoning.

Traditional practices and methods in Turkish culture are widely used in different professions and age groups (Aslan 2014, Efe et al., 2012, İlhan-Erkal et al., 2012; Ögenler & Yapıci, 2012; Cınar et al., 2015; Sirali et al., 2015; Sözen., 2018; Tortumluoğlu et al., 2004; Tavukcu, 2016; Uysal, 2017). The high TMTS level of the participants in the present study has supported the results of prior studies. During the COVID-19 pandemic, it was observed that the participants frequently used traditional methods such as praying and wearing evil eye talismans and religious amulets, though at low rates. In the study conducted by Ögenler et al. (2012) with university students, it was reported that some participants believed that passing under a ladder brought bad luck, while others kept or wore evil eye talismans or religious amulets and had lucky numbers, days, or items. In a study by Cınar et al. (2015), it was reported that mothers feared evil eye on their babies, and as a result, most of them prayed against it or pinned evil eye talismans or religious amulets on the clothes of their babies. Similarly, in a study conducted by Özsoy et al. (2008) among women in Turkey and Iran, wearing evil eye talismans and praying have been shown to be widely used practices. The fact that there are still many unknowns about COVID-19 may have caused the participants to resort to praying (Özlü & Öztas, 2020). It is known that praying has no detrimental effects and provides psychological relief (Bardia et al., 2006). Therefore, it can be recommended for use as ancillary to the other methods suggested by experts.

In this study, as age increased, mean TMTS increased. In a systematic review (2014) in which 25 articles were examined, it was reported that the popularity and use of traditional and alternative medicine practices have increased in recent years. It was also indicated that the popularity and continuous use of these practices among elderly people should not be considered surprising. In addition, in this systematic review, it was stated that such practices in the elderly mostly involved herbal products and/or nutritional supplements and that ethnic and cultural characteristics affected the use of these practices (Sackett et al., 2014). In a study conducted by the American Association of Retired Persons and the National Center for Complementary and Alternative Medicine, it was reported that the use of complementary and alternative medicine (CAM) increased rapidly and that CAM was used by more than half of the elderly (AARP and NCCAM Survey Report, 2011). Similarly, there are studies showing that traditional and alternative medicine practices are widely used in the elderly (Siddiqui et al., 2014) and the rate of applying these practices increases with age (Oral et al., 2016; Sağkal et al., 2013). The findings obtained from this study are consistent with the literature. It is known that the risk of COVID-19 infection or even death is higher for the group above 60 years of age (Ministry of Health, 2020). In this process, Turkey has considered citizens of 65 years of age and above as a risky group, resulting in efforts for public awareness on this issue and implementation of curfew covering that age group starting from March 21, 2020 (Ministry of Interior, 2020). These measures may have affected the rate of using traditional practices and methods in the elderly group in this study.

In the present study, it was observed that those who thought they had taken sufficient precautions against COVID-19 and those who stated that they benefited from these methods had higher TMTS. Besides, it was determined that the participants mostly used these methods for therapeutic purposes. This finding demonstrates that participants highly trusted traditional methods. This may have resulted from a large number of unknowns about COVID-19, and the lack of vaccine and specific treatment (Özlü & Öztas, 2020). However, the fact that this result may adversely affect the use of methods recommended by experts should not be ignored. Therefore, healthcare professionals should demonstrate utmost concern in using protective methods that are known to be effective (such as wearing masks and gloves, using disinfectants, washing hands, etc.). We may suggest further research to reveal the traditional methods and practices used during the COVID-19 pandemic, focusing on the benefits and harms they may entail.

In the present study, it was determined that the majority of workers thought they took sufficient precautions during the COVID-19 pandemic, and all of them used masks out of the home. On the other hand, the scores of the traditional method use were also quite high. Disinfectants and cologne were used more often than other methods in personal hygiene. In addition, a remarkable result was the excessive use of bleach in home/environmental hygiene, as well as the home ventilation practice, meaning that chemical substances were used alongside traditional methods. As other remarkable results, it was found that mean TMTS increased as age increased, the mean TMTS of those who stated that they took sufficient measures against COVID-19 were higher, and the mean TMTS of those who
benefited from the method they used was also higher. These results were statistically significant. Moreover, it was observed that the participants often resorted to traditional methods such as praying, wearing evil eye amulets, keeping natural stones, and visiting an Islamic preacher.

**Conclusion and Recommendations**

Based on the results of the present study, it is recommended to increase the number of researchers which would reveal various traditional methods and practices used during the COVID-19 period to take precautions, especially against the methods and practices known to be harmful to human health in line with the results obtained and to increase the use of traditional methods and practices known to be useful.

**Ethics Committee Approval:** This study was approved by Ethics committee of Selçuk University (Date: July 17, 2020; Decision Number: 17/07/2020-E.54682).

**Informed Consent:** Written informed consent was obtained from the participants who agreed to take part in the study.

**Peer Review:** Externally peer-reviewed.

**Author Contributions:** Concept – F.Ö., DA.; Design – F.Ö., DA.; Supervision – F.Ö., DA.; Resources – F.Ö., DA.; Materials – F.Ö., DA.; Data Collection and/or Processing – F.Ö., DA.; Analysis and/or Interpretation – F.Ö., DA.; Literature Search – F.Ö., DA.; Writing Manuscript – F.Ö., DA.; Critical Review – F.Ö., DA.

**Declaration of Interests:** The authors have no conflicts of interest to declare.

**Funding:** The authors declared that this study has received no financial support.

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Florence Nightingale J Nurs 2022; 30(2): 154–166
