

Evaluation of Resorting To Traditional Practices by Elderly People during the Covid-19 Pandemic

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	ABSTRACT
	<p>Background: The COVID-19 pandemic has been affected all age groups, especially the elderly people. Individual measures are taken by elderly people to protect from the disease.</p> <p>Objective: This study aims to determine the status of resorting to traditional practices by elderly people during the COVID-19 pandemic.</p> <p>Method: This descriptive and cross-sectional study was conducted with 453 elderly individuals residing in Tunceli in eastern Turkey, between May and October 2021. The research data were collected online using a survey form. The obtained data were analyzed by numbers and percentiles in the SPSS 24 package program.</p> <p>Results: Of the elderly individuals with an average age of 73 years, 65% had one or more chronic diseases. Of the elderly, 43% had health problems during the COVID-19 pandemic, 25% was on a diet for protection against COVID-19, 83% had life changes, and 63% was resorting to herbal methods.</p> <p>Conclusion: The elderly individuals were observed to resort to traditional practices for protection from the COVID-19.</p>
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INTRODUCTION

Diseases such as Cholera, Plague, Smallpox, Spanish Flu, Human Immunodeficiency Virus (HIV/AIDS), Avian Flu, Swine Flu, Mad Cow, Ebola, Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Syndrome (MERS) have led to a pandemic in the world, causing significant health problems along with mass mortalities. Today, the new type of COVID-19 that emerged in Wuhan, China in December 2019 and caused a pandemic threatens the lives of all people worldwide (Ertas, 2021; Türk, 2020; WHO, 2020). The coronavirus epidemic has spread rapidly to all countries since 2019, causing the death of millions of people, and still negatively affects the economic, social, and political structures of countries, especially the health systems. In order to reduce the effects of this rapidly transmitted disease, restriction, and prevention measures are being applied all over the world (Kaya, 2020; Wang & Tang, 2020). The coronavirus pandemic affects all age groups, but mostly the elderly people are at risk for the disease. Mortality rates due to disease are usually high in elderly who have chronic respiratory, cardiovascular, cancer, diabetes diseases, and so on. Most countries implement some measures in the fight against the epidemic, such as physical distancing, isolation, and quarantine. It is emphasized that it is of importance to comply with quarantine and preventive measures to protect the health of elderly people who are the group at the most risk (UNFPA, 2020). In addition to preventive measures, it has been emphasized that nutrition and lifestyle habits are important for the protection and maintenance of elderly health (Bauer & Morley, 2021; Ceolin et al., 2020). It is seen that one of the methods used by the elderly for protection against the disease is traditional practices (Dedeli & Karadakovan, 2011). According to the World Health Organization (WHO), 25% of people around the world

use complementary and alternative treatment methods (Sağkal et al., 2013). The concept of traditional and complementary medicine is considered the knowledge, skills, and practices with or without an explanation, but based on theories, beliefs, and experiences specific to various cultures, which are used for healing or treatment and maintaining well-being through the diagnosis of the diseases, and physical and mental protection from the diseases (Republic of Turkey Ministry of Health, 2017). An increase is observed in chronic degenerative diseases that are difficult to treat and care for in the elderly due to an increase in life expectancy. Increased costs in the treatment of diseases, difficulties in accessing health care, distrust of treatment methods, search for a cure for terminal illnesses, and cultural reasons have increased interest in alternative treatment methods (Dedeli & Karadakovan, 2011; Sağkal et al., 2013). So far, no effective methods for the fight against COVID-19, other than vaccination, have been reported. However, it has been stated that herbal medicine of countries such as China, India, and Iran, which have experience in preventing pandemic and endemic infectious diseases, together with the therapeutic drugs of western medicine, may have positive effects against the coronavirus disease. It is emphasized that medicinal plants can be used in combination with modern medicine through appropriate follow-up until the exact treatment of the disease is found. Since medicinal plants and a healthy diet will strengthen immunity against infection in the fight against the epidemic, it has been stated that it will be useful to apply it as a complementary treatment (Dudani & Saraogi, 2020; Mirzaie et al., 2020; Panyod et al., 2020). This study was conducted to determine the status of resorting to traditional practices by elderly people during the coronavirus (COVID-19) pandemic.

MATERIALS AND METHODS

Study Design

This study has a cross-sectional and descriptive research design. For this study a qualitative-quantitative method was used. For this purpose, Creswell's concurrent transformative mixed-model research design was utilized (Creswell, 2003). In this design, which helps to better understand the facts and alternative approaches, the qualitative and quantitative data were collected concurrently and analyzed together.

Study Sample

The study population was consisted of people aged 65 and over who lived in the central neighborhoods of Tunceli in eastern Turkey. Without a sample selection, 453 elderly individuals, who could be contacted between the dates of the study, who agreed to

participate voluntarily in the study were included in the sample of the study.

Study Place

The research was carried out in the central neighborhoods of Tunceli, located in the eastern Turkey. The research data were obtained in the Atatürk, Cumhuriyet, Alibaba, Yeni Mahalle, İnönü, Moğultay, Aktuluk center neighborhoods of Tunceli.

Data Collection

Data were collected using a questionnaire developed by researchers in accordance with the literature (Kaya, 2020; UNFPA, 2020; Wang & Tang, 2020; WHO, 2020). In central neighborhoods of Tunceli in the east of Turkey, between May 3rd and October 15th, 2021. The questionnaire consists of two parts. The first part of the 28-item questionnaire

consists of eight items on socio-demographic characteristics (age, gender, education status, working status etc.) and the second part consists of 20 items that determine the status of resorting to traditional practices (life style habits change, nutritional changes, diet usage, herb usage etc.) by the elderly. The research data were collected online using the form, developed digitally by the researcher, through Google forms.

Data Analysis

SPSS Version 24.00 for Windows (IBM, Armonk, New York, USA) was used for the statistical analysis of the study data. Data were entered into the SPSS package program in a computer environment and analyzed by numbers and percentiles.

Ethical Dimensions

Before starting the study, ethical approval was obtained from the Munzur University of Non-Interventional Research Ethics Committee with decision No: 2 on 03.11. 2020 (05/11/2020-E.15446-30603717-050.01.04). During the time interval of the study, the children of the elderly were contacted and the purpose of the study was explained. After obtaining their consent for the research, the questionnaires were sent on the digital platform. They were informed that the information provided by the elderly participants in the study will be kept confidential, will not be used anywhere else except for the research, and can leave the research at any time.

RESULTS

The average age of the participants was 72.84±7.76, 51.4% was female, and 22.3% was primary school graduate. Of the participants, 9.2% was working in a

job for income, and 57.4% had an average monthly income less than expenses. Of the participants, 64.9% had a chronic disease (Table 1).

Table 1. Descriptive characteristics of the elderly individuals

Characteristics	N	%
Age (X±SD)	72.84±7.76 (Min =65, Max=95)	
Gender		
Female	233	51.4
Male	220	48.6
Education status		
Illiterate	40	8.8
Literate	99	21.9
Primary school	101	22.3
Secondary school	67	14.8
High School	94	20.8
Bachelor's degree and above	52	11.4
Employment status		
Working	42	9.2
Nonworking	411	90.8
Perceived average monthly income		
Lower than expenses	260	57.4
Balanced	160	35.4
Higher than expenses	33	7.2
One or more chronic illnesses		
Yes	294	64.9
No	158	35.1

During the coronavirus pandemic, 43.0% of the elderly had health problems, only 13.0% could be examined by a specialist physician, and 25.3% could be examined by a primary care physician. Of the participants, 32.6% had learned about COVID-19

prevention measures from a physician, 67.1% had learned from the media, and 56.5% had learned from his/her close circle (Table 2).

Table 2. Access to health services by elderly people during the corona pandemic

Characteristics	N	%
The status of experiencing health problems during the epidemic		
Yes	195	43.0
No	258	57.0
The status of examination by a specialist physician		
Yes	59	13.0
No	394	87.0
The status of examination by a primary care physician		
Yes	115	25.3
No	338	74.7
The status of getting information about protection from the COVID-19		
Yes	395	87.1
No	48	12.9
Information source ^a		
Media	304	67.1
Close circle	256	56.5
Physician	148	32.6

^aNumber of respondents giving more than one answer

In this study, 83.9% of the elderly reported that COVID-19 caused a change in their lives, 83.4% of them made a change in their diet, 77.5% of them had a changed in movement, 84.3% of them had a changed in their social life. Of the participants, 24.9% was found to follow a diet for protection against COVID-19. Most of them stated that they consume fruits and soups instead of fatty and solid nutrition. Of the participants, 92.9% stated that the diet was beneficial. Almost all the participants reported that yogurt was included in their diet (Table 3).

It was observed that the elderly had limited movement during the COVID-19 process and changed their eating habits. The statements of the elderly regarding lifestyle changes are given below.

"I am cautious to eat 1 bowl of yogurt a day. I always put a clove of garlic in it. This protects me from the disease" (Female, Age 80).

"I am cautious to eat natural foods. I do not consume fatty dishes, I take care to consume soup and yogurt" (Male, Age 84).

"We used to not go to a physician, and there were no physicians in this area where we live. There were

herbs that were a remedy for everything when I got sick. The healers knew these herbs growing in the mountains, they were almost talking to them and when someone got sick, they gave them mixtures prepared from various herbs" (Male, Age 92 and 94).

Of the participants, 82.7% stated to have a life change to protect themselves from COVID-19 (Table 3).

"There was lockdown order for the elderly for a long time. I haven't been out on the streets for six months. And the disease is still present. Although there is no lockdown anymore, I only go out for a short time in places that are not crowded" (Male, Age, 82).

"I try not to enter crowded places. When I go out on the street, I wear a mask and pay attention to social distancing" (Female, Age 72).

"I used to not wash my hands very often. However, now I often wash my hands. And I pay attention to not to touch around" (Male, Age 76).

Of the participants, 63.1% was using herbal methods for protection against the coronavirus, and 91.6% was considered these methods beneficial (Table 3).

Table 3. Some of the methods used for protection against COVID-19

Characteristics	N	%
Did Covid-19 change your life?		
Yes	380	83.9
No	73	16.1
Living area affected by Covid-19^b		
Nutrition	379	83.4
Movement	351	77.5
Social	382	84.3
Lifestyle changes		
Yes	375	82.7
No	78	17.3
Diet application		
Yes	113	24.9
No	340	75.1
The status of considering the diet useful (n=113)		
Yes	105	92.9
No	8	7.1
Using a herbal method		
Yes	286	63.1
No	167	36.9
The status of considering the herbal method useful (n=286)		
Yes	262	91.6
No	24	8.4

^b Number of respondents giving more than one answer

It was found that the elderly used herbs such as *Rosa canina* L. (25.8%), *Origanum acutidens* (16.3%), *Allium tuncelianum* (14.6%), *Gundelia armeniaca* (12.3%), *Crataegus monogyna* (10.8), *Urtica* (8.2%), *Rubus armenicus* (7.9%), *Eremurus spectabilis* (7.5%), *Helichrysum arenarium* (7.3%), *Mentha piperita* (7.3%), *Zingiber officinale* (6.4%), *Viscum album* (6.0 %) and *Anchusa azurea* (4.9%), respectively, for protection against coronavirus. The participants stated that they brew these plants in boiled water and consume them as tea. In addition, they stated that they make

vinegar of hawthorn, consume garlic in yogurt, and make marmalade of *Crataegus monogyna*, *Rosa canina* L, and *Rubus armenicus* (Table 4).

"I make and consume tea from natural herbs every day. It makes me stronger. I feel good this way" (Female, Age 79).

"I don't know when I visited a physician the last time when I got sick. Nettle, rosehip, and thyme are what heals diseases. In order not to get sick, we drink these teas" (Male, Age 81).

Table 4. Herbs that the elderly use for protection against the coronavirus

Herb	n	%
<i>Rosa canina</i> L (Rosehip)	117	25.8
<i>Origanum acutidens</i> (Oregano)	74	16.3
<i>Allium tuncelianum</i> (Tunceli garlic)	66	14.6
<i>Gundelia armeniaca</i> (Cardoon)	58	12.3
<i>Crataegus monogyna</i> (Hawthorn)	49	10.8
<i>Urtica</i> (Stinging nettle)	37	8.2
<i>Rubus armenicus</i> (Blackberries)	36	7.9
<i>Eremurus spectabilis</i> (Affodill)	34	7.5
<i>Helichrysum arenarium</i> (Sandy everlasting)	33	7.3
<i>Mentha piperita</i> (Mint)	33	7.3
<i>Zingiber officinale</i> (Ginger)	29	6.4
<i>Viscum album</i> (Mistletoe)	27	6.0
<i>Anchusa azurea</i> (Italian bugloss)	22	4.9
Mons fungus (King trumpet mushroom)	15	3.3
<i>Matricaria recutita</i> (Chamomile)	12	2.9
<i>Tussilago farfara</i> (Coltsfoot)	12	2.9

DISCUSSION

The body's resistance to diseases decreases and diseases increase with aging, along with psychological and physiological changes in individuals. As the average life expectancy increases worldwide, chronic diseases increase in the aging population, which poses an economic burden for countries. It has been reported that two-thirds of the individuals aged 65 and over living in European countries have at least two or more chronic diseases (Bakır & Akin, 2019). In people aged 65 and over in Turkey, 90% has at least one chronic disease, 35% has two, 23% has three, and 14% has at least four or more chronic diseases (Gümüştakım & Ayhan Başer, 2019). It has been reported that chronic diseases rank first (78.7%) among the causes of death in the elderly in Turkey (Altın, 2020). In this study, it was also found that two-thirds of the elderly (64.9%) have at least one chronic disease. This finding is in line with the literature.

It has been reported that the elderly become more dependent as their health, economic, and social problems increase due to the measures implemented during the coronavirus pandemic (isolation, quarantine, lockdown, etc.). Since the risk of death is high in the elderly who are diseased during the pandemic, it has been emphasized that the health and care services and the social support to be provided for the elderly have become even more important (Ekici, 2020; Petretto & Pili, 2020). During the COVID-19 pandemic, almost half of the elderly reported having problems accessing health services, and more than half reported not being able to see a specialist physician or a primary care physician. They reported that they received information from the media, close circle, and physicians to protect themselves from the virus during the coronavirus pandemic. Continuous access to health services is of great importance in maintaining the health of the elderly, for treatment of their chronic diseases, follow-up, and routine checks. Situations such as disruptions in health services for the elderly due to the pandemic and lack of care and social support in the lives of the elderly may further increase their problems. Therefore, the introduction of multidimensional supportive policies by the public that will improve the health of the elderly will have a positive impact on their quality of life.

Lifestyle, diet, age, medical conditions and environmental factors are taken important roles in combating COVID-19 (Gasmi et al., 2021). The concept of culture includes approved and disapproved situations in a society and is considered behaviors, practices, and values shared by the members of a society (Baş et al., 2019). Although the concept of health and disease is generally a field of medical science, it has been emphasized that health and disease are also evaluated within the socio-cultural system in all societies (Konak, Akin; Aktar, 2009). Although the use of traditional methods has been limited after the

introduction of modern medicine, it has been stated that traditional treatment methods have continued to the present day through cultural transfers in societies. Today, however, it has been emphasized that traditional and beneficial treatment methods are used for complementary therapy in medical sciences (Yılmaz, 2020). It has also been stressed that it is important to use medicinal plants and develop new antiviral drugs using these plants to control diseases such as coronavirus (Boukhatem, 2020). Foods, herbs, and diet therapy have been reported to be important in strengthening immunity against coronavirus disease, and it has been emphasized and suggested the use of herbs or mixtures in the prevention and treatment of disease, within the scope of preventive and protective treatment, but it has also been stressed that their use should be under the supervision of modern medicine in case of any side effects (Balkrishna et al., 2020; Dudani & Saraogi, 2020; Panyod et al., 2020). It has been reported that the studied region is located in the plant geography of Iran-Turan and is rich in plant diversity. It has been stated that there were 1523 plants around the province and 46 species of these plants were endemic (Cakilcioglu, 2020; Koyuncu & Arslan, 2009). It has been emphasized that these plants are medicinal and this healing tradition has been passed on to generations and that diseases have been treated with 27 healing plants (Konak, Akin; Aktar, 2009; Yürür, 2016). In this study, more than half of the elderly experienced a change in lifestyle and it is seen that elderly people resort to traditional methods to protect themselves from the coronavirus. In a study, it was stated that 80% of the participants used medicinal plants as a preservative during the COVID-19 process (Villena-Tejada et al, 2021). It is reported that the most frequently used herbs were *Eucalyptus*, *Zingiber officinale* (ginger), *Capsicum annuum* L. (green pepper), *Allium sativum* L.(garlic) and *Matricaria recutita* (chamomile)for treatment and prevention. It has been reported that as the age progresses, individuals who have had COVID-19 in their relatives were used plants more frequently (Villena-Tejada et al, 2021). It has been reported that the compounds used in the prevention of COVID-19 and reported to be effective are obtained from *Anethum graveolens* L.(parsley), *Capsicum annuum* L. (Pandey et al., 2020) and *Zingiber officinale* (Dibakar et al., 2020). In a study conducted in Nepal, it was reported that the rate of herbal usage has increased during the COVID-19 process and the commonly used plants were *Zingiber officinale*, *Curcuma* L., *Cinnamomun tamala*, *Citrus* L, *Allium sativum* L., *Tinospora cordifolia*, *Mentha piperita* and *Ocimum basilicum* L. It has been reported that the most common type of use was grinding or boiling (Khadka et al., 2021).

Similar to the results of the researches, this study also nearly half of the elderly were found to use herbs such as *Rosa canina* L, *Origanum acutidens*, and *Rubus*

armenicus in order to strengthen their immunity for protection against the coronavirus, whereas the other half were found to use *Allium tuncelianum* (Tunceli garlic), *Crataegus monogyna*, *Urtica*, *Eremurus spectabilis*, *Mentha piperita*, *Gundelia armeniaca*, *Mons fungus*, *Helichrysum arenarium*, *Zingiber officinale*, *Viscum album*, *Anchusa azurea*, *Tussilago farfara*, and *Matricaria recutita*. Almost all the elderly people (91.6%) reported that this herbal method was beneficial. This study and other studies show that herbal methods are significantly preferred for protection during the COVID-19 process.

In one study, it was noted that the coronavirus is more severe in the elderly who are malnourished and do not have a strong immune system, and the mortality rate is also high in this population (Yigitalp, 2021). Considering the research findings, it was found that the participants used medicinal herbs to protect themselves from the coronavirus pandemic and strengthen their immune systems. It has been found that medicinal herbs are generally widely used in traditional and complementary practices in Turkey, where people resort to some traditional practices for treatment and protection against coronavirus disease (Thakur et al., 2020). In another study, it was reported that 35 different ailments are treated with 64 plant species by traditional healers in the Lahaul valley of India (Thakur et al., 2020). It has been reported that the natural healing method based on Ayurveda in India has the potentials

for both prevention and treatment of COVID-19 (Rastogi et al., 2020). In India, it has been reported that some herbal compounds are strong SARS-CoV-2E protein inhibitors and that these herbal compounds can play a role in the design of antiviral therapeutics against the COVID-19, on the other hand, some medicinal plants have been shown to have potential advantages for the treatment coronavirus disease (Alam et al., 2020) Traditional Chinese medicine (TCM) and Indian medicinal plants have been stated to be hope against COVID-19, and the importance of evaluating their healing aspects and supporting them with experimental studies was emphasized as the epidemic was brought under control (Ahmad et al., 2021; Ren, Zhang, Whang, 2020). In addition, it has been stated that traditional Chinese medicine can reduce the severe symptoms of patients in the treatment of COVID-19 and that Chinese Medicine is effective in strengthening the individual's resistance against the COVID-19 disease (Dai et al., 2020; Xu & Zhang, 2020). In African countries, on the other hand, it has been reported that "COVID-organics", an elixir based on *Artemisia annua* extract, is used for traditional treatment against COVID-19 (Garcia, 2020). As can be seen in other studies as well as this study, traditional practices such as herbal practices are among the preferred practices for disease prevention. Although the herbs used to protect against COVID-19 in different places differ, this study and other studies show that ginger, mint, garlic, chamomile and citrus are used more frequently.

CONCLUSION AND RECOMMENDATIONS

According to the findings obtained in the study, it was found that the elderly people resort to traditional methods to protect themselves from COVID-19 and use herbs, especially endemic ones, in their culture and geography to strengthen their immune system.

The fact that the settlement and the surrounding area of the studied place are rich in plant diversity facilitates access to traditional herbs and allows participants to use them as an immune system booster

against the epidemic. However, to be known the effects and consumption conditions of plants are important. It should not be forgotten that beneficial plants that are not consumed properly can threaten health. So, further studies are needed to evaluate the effect of herbs on diseases in order to make the desired utilization of medicinal herbs in the studied region for the treatment of diseases along with their positive contribution to health.

LIMITATIONS

This study has some limitations. The limitations of the study are that the study was conducted in a province and it was based on the self-reports of the participants.

The results of the study can be generalized to this group. By this reasons more studies on this subject are needed.

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