

Complementary and Supportive Therapy Practices Used by Nurses to Prevent COVID-19: Natural and Herbal Products

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Abstract

Introduction and Objective: Nurses COVID-19 pandemic fear infecting their patients during infection of their family members or complementary-supportive treatment increased their use of natural and herbal products. It was conducted to determine the herbal practices used by nurses as a complementary and supportive treatment to prevent COVID-19.

Materials and Methods: The data of this study, which was carried out in descriptive and cross-sectional design, was collected on 255 nurses in all clinics located at X State Hospital in April 2022. In collecting data, "personal information form was used for the survey. The Ethics Committee of the institution and the permissions required approximately 10 minutes after receiving the questionnaire was applied to nurses.

Results: It was determined that 92.9% of the nurses participating in the study increased lemon and orange consumption, 42.7% onion garlic consumption, 45.1% water consumption and 7.8% home bread consumption in preventing COVID-19. Nurses were found to drink honey and propolis (40%), natural products (50.2%), kefir (15.3%), thyme tea (20%), lime (13.7%) and lemon water (6.3%), gargle with boiling water (26.7%), use vitamin D (44.3%) and pay attention to sleep patterns (49.4%).

Conclusion: At the end of this study, it was determined that nurses use herbal products, which are complementary-supportive treatment applications, to prevent COVID-19.

Keywords: nurse; COVID-19; complementary and supportive therapy; natural and herbal products

Introduction

Coronavirus disease (COVID-19) is a viral disease caused by severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2), which was first declared as a "pandemic" by the World Health Organization (WHO) on March 12, 2020. Although many vaccines and treatments have been found since COVID-19 emerged, people around the world seem to be increasingly concerned about their risk of contracting the disease. For this reason, many people have turned to finding complementary-supportive treatment options while complying with COVID-19 prevention and prevention measures. The most frequently used of these treatments are natural products and herbal supplements [1, 2].

In the literature, it is reported that many drugs (such as antimalarial agents, antiviral therapy, immune-based therapy, corticosteroid drugs) are used to treat COVID-19 disease and vaccine applications are carried out to prevent COVID-19 disease. In addition, it has been reported that herbal

medicines, natural products and plant extracts used as complementary-supportive therapy increase the immunity of individuals, reduce the risk of COVID-19 transmission, and are effective in managing the disease in individuals diagnosed with COVID-19 [1, 3]. Healthcare professionals, who are at high risk for the risk of COVID-19 transmission, have tried to reduce the risk of contracting COVID-19 infection and strengthen their immune systems with herbal supplements, together with the natural products they have been using since the pandemic process [4]. As a matter of fact, nurses who played a role in the maintenance of primary health care services during the pandemic used herbal medicines, natural products and plant extracts as complementary-supportive treatment intensively due to the fear of getting infected and transmitting the infection to family members and patients [4, 5]. In line with this information, the aim of this study is to determine the herbal applications that nurses use as complementary-supportive treatment to prevent COVID-19.

Materials and Methods

Purpose and type of research

This study was carried out in a descriptive and cross-sectional design in order to determine the herbal practices used by nurses as complementary-supportive therapy in preventing COVID-19.

Research Questions

Question 1: Do nurses use herbal products from complementary-supportive treatment applications in the prevention of COVID-19?

Place and Time of Research

The research was carried out in all clinics in X State Hospital in April 2022.

Population and Sample of the Research

The universe of the study consisted of 290 nurses working at X State Hospital. No sampling method was used in the study, and the study was completed with 255 nurses who agreed to participate in the study and met the research criteria (response rate 87.9%).

Data Collection Tools

In the research, "Personal Information Form Questionnaire", which was prepared by the researchers by scanning the literature, was used [2, 4, 6-9].

"*Personal Information Form*": This form consists of 21 questions in total, 8 questions to question the introductory characteristics of the participants (such as age, gender, marital status, having a child, educational status, clinic they work in, professional experience, having a chronic disease, smoking status, having a chronic disease in the mother or father, having COVID-19) and 13 questions to determine the herbal applications used by nurses as complementary-supportive treatment in preventing COVID-19 (lemon or lemon water, orange, honey, propolis,

onion, garlic, kefir, thyme tea and linden consumption, sleep patterns, vitamin D use, home bread consumption, etc.).

Data Collection

Questionnaire forms were distributed to the participants by informing them about the purpose of the research and how it would be done. Verbal and written consent of the participants was obtained. It took approximately 10 minutes to complete each questionnaire.

Ethical Aspect of Research

Before starting the research, permission was obtained from Osmaniye Korkut Ata University Scientific Research and Publication Ethics Committee Ethics Committee (dated 22/12/2021 and numbered 2021/8/3) and from the Y Provincial Health Directorate of the X State Hospital where the research will be conducted (dated 20/04/2022 and numbered E.64589).

Analysis of Data

Data were analyzed in the Statistical Package for the Social Sciences (SPSS) 22.0 program. Numbers and percentage distributions were used in the evaluation of the data.

Results

The mean age of the nurses participating in the study was 37.52 ± 7.77 (Min: 23-Max: 58) years and their average professional experience was 14.37 ± 8.23 (Min: 23-Max: 58) years; most of them (72.2%) were women, 81.2% were married and 83.5% had children. It was determined that more than half of the participants (67.7%) had a bachelor's degree, 26.3% worked in surgical clinics, more than half (74.1%) did not have any chronic diseases, 4.6% of those with chronic disease had hypertension. Again, it was found that 73.7% of the participants were non-smokers, 62.4% of their parents had a chronic disease, and 78.4% of the nurses had COVID-19 (Table 1).

Features		Mean±SD	Min-Max
Age		37.52 ± 7.77	23-58
Professional experience		14.37±8.23	1-38
		n	%
Gender	Female	184	72.2
	Male	71	27.8
Marital status	Married	207	81.2
	Single	48	18.8
Status of having children	Yes	213	83.5
	No	42	16.5
Educational status	Health vocational high School	36	14.1
	Associate degree	43	16.9
	Undergraduate	170	66.7
	Master's Degree	6	2.4
The clinic worked	COVID-19	37	14.5
	Operating room	39	15.3
	Surgical Services	67	26.3
	Intensive care	38	14.9

	Emergency	50	19.6
	Internal Services	24	9.4
Having a chronic illness	Yes	66	25.9
	No	189	74.1
Diagnosis of owned chronic disease	Asthma	14	3.4
	Diabetes	12	2.9
	Hypertension	19	4.6
	Hypothyroidism	11	2.6
Smoking Usage status	Yes	67	26.3
	No	188	73.7
Presence of chronic disease in the mother	Yes	159	62.4
	No	96	37.6
Presence of chronic disease in the father	Yes	159	62.4
	No	96	37.6
The situation of passing COVID-19 disease	Yes	200	78.4
	No	55	21.5

Table 1. Descriptive Characteristics of the Participants

92.9% of the nurses participating in the study reported that they increased their consumption of lemon and orange to prevent COVID-19, 49.4% reported that they paid attention to sleep patterns, and 40% used honey and propolis. Again, 42.7% of the participants stated that they increased their onion and garlic consumption, 26.7% of them gargled with vinegar water, 50.2% of them consumed natural

products, 15.3% of them consumed kefir and 44.3% of them used vitamin D. In addition, the participants reported that they consumed thyme tea (20%), linden (13.7%) and water with lemon (6.3%), increased their water consumption (45.1%) and increased their consumption of homemade bread (7.8%) (Table 2).

Features	n	%
I consume more lemons and oranges.		
Yes	237	92.9
No	18	7.1
I pay attention to my sleeping pattern.		
Yes	126	49.4
No	129	50.6
I consume honey and/or propolis.		
Yes	102	40.0
No	153	60.0
I increased the consumption of onions and garlic.		
Yes	109	42.7
No	146	57.3
I make a throat gargle with vinegar water.		
Yes	68	26.7

No	187	73.3
I consume natural products such as village milk, organic eggs, homemade yogurt, olive oil.		
Yes	128	50.2
No	127	49.8
I'm drinking kefir.		
Yes	39	15.3
No	216	84.7
I am using vitamin D.		
Yes	113	44.3
No	142	55.7
I'm drinking thyme tea.		
Yes	51	20.0
No	204	80.0
I'm drinking linden tea.		
Yes	35	13.7
No	220	86.3
I drink water with lemon.		
Yes	16	6.3
No	239	93.7
I increased my daily water consumption.		
Yes	115	45.1
No	140	54.9
As much as possible, I make bread at home and consume it.		
Yes	20	7.8
No	235	92.2

Table 2. Herbal Applications of Complementary-Supportant Treatment Used by Participants to Prevent COVID-19

Discussion

In this study, it was determined that the most common herbal supplement used by the participants was citrus fruits such as lemons and oranges, which have high vitamin C values. We think that this is due to the geographical location of the province where the research was conducted in the Mediterranean Region. Similarly, in a study conducted with nursing students in Turkey, it was reported that 57.7% of the participants consumed lemon to prevent COVID-19 [6]. In a study investigating the use of herbal products in the general population and healthcare personnel during the COVID-19 pandemic, it was reported that both healthcare personnel and the general population took vitamin C supplements or that the consumption of citrus fruits containing vitamin C such as lemons and oranges is common [4]. In another study evaluating the nutritional habits of adults after the COVID-19 epidemic, it was determined that almost half of the participants (50.4%) started to take vitamin C as a supplement [10]. Yet another literature has reported that vitamin C may be effective in preventing COVID-19 [11].

WHO recommends that adults consume fresh fruits, vegetables, legumes, whole grain products, oilseeds and foods of animal origin every day during the COVID-19 process [7]. In a study on the nutrition of nurses related to the COVID-19 pandemic, it was reported that the consumption of eggs, yogurt, nuts, cereals, vegetables and fruits increased. In the same study, it was reported that half (50%) of the health workers participating in the study consumed village milk, organic eggs, homemade yogurt and olive oil. The fact that the province where the research was conducted is a place where many natural products can be accessed and that the participants are aware of healthy food consumption can be considered among the factors that make it easier to consume natural products [8].

Bee honey and propolis are rich in powerful antimicrobial, bactericidal, antiviral, anti-inflammatory, immunomodulatory and antioxidant bioactive compounds [12]. In our study, the nurses participating in the study stated that they used honey and propolis (40.0%) against COVID-19. In a study, similar to our study, it was concluded that health workers believed that honey was protective against COVID-19 and used propolis [8]. In another study conducted with nursing students, very few of the

students (7.8%) preferred honey as a preservative in the pandemic [6]. In Işık and Can's study, it is estimated that the reason for the lower honey consumption compared to our study may be due to the insufficient economic conditions of the students.

There is information in the literature that onions and garlic have been used to prevent many diseases in the past. The onion plant prevents the entry of the COVID-19 virus into the cell; It has been reported that garlic, which has antiviral, antioxidant, anti-inflammatory and immunomodulatory properties, is used in epidemic diseases such as cholera and plague [13]. About half (42.7%) of the nurses participating in our study reported that they increased their consumption of onion and garlic in the fight against the virus. In a study conducted with nursing students in our country, it was reported that 10.9% of the participants consumed onions and garlic during the pandemic process [6]. In another study conducted with healthcare professionals, participants stated that they believed that garlic (17.2%) was the most protective against COVID-19 disease [8]. Again, in a study conducted in Saudi Arabia, it was reported that 34.4% of the participants used garlic as a preventive measure in the pandemic [2].

In our study, it was determined that 26.7% of the nurses made throat gargles with vinegar water to prevent viruses in order not to get COVID-19 disease. In the literature, it is reported that vinegar has antioxidant, antidiabetic, antitumor, anticarcinogenic, anti-infection effects and is used in various health applications. In a study conducted with nursing students, it was reported that 7.8% of the students drank vinegar water to prevent infection [6]. In another study conducted with healthcare professionals; It has been reported that participants consume vinegar because they believe that vinegar is cheap, easy to make, and a traditional method used in the treatment of many diseases, dating back to before Christ [14].

In a reviewed literature, it has been reported that probiotics play an active role in the treatment of respiratory symptoms and boosting the immune system in the inflammatory process caused by COVID-19 [15]. In our study, 15.3% of the nurses participating in the study reported that they preferred kefir because they thought it was a good probiotic to prevent COVID-19. In a study with similar results to our study, it was determined that 17.2% of nursing students consumed yogurt and kefir to protect themselves from COVID-19 disease [6]. In another study conducted with healthcare professionals, it was found that 9% of the participants believed that kefir protects from COVID-19 [4].

In this study, it was determined that nearly half of the nurses (44.3%) used vitamin D to prevent COVID-19. In a study, it was reported that more than half (56.9%) of healthcare workers started to use vitamin D during the COVID-19 pandemic period [9]. In the reviewed literature, it has been reported that vitamin D supplementation in patients with COVID-19, which supports the reasons for the use of vitamin D by nurses in our study, reduces the severity of the disease [16, 17].

There are some reports that thyme and thyme oil have antiviral effects in reducing respiratory symptoms as well as high antioxidant compounds [18]. In our study, it was determined that 20% of the nurses consumed thyme tea against infection. In a study conducted with nursing students in our country, it was reported that the majority of the participants (87.5%) consumed herbal teas, including thyme tea, against COVID-19 [6].

WHO has recommended consuming eight to ten glasses of water daily during the COVID-19 outbreak [7]. In our study, it was determined that nurses (45.1%) increased their daily water consumption during the pandemic process.

Making bread at home is an important and ancient practice in Turkish Culture. As a matter of fact, it is reported in the literature that people believe that making bread at home is healthier and more hygienic, especially during the quarantine period, since the beginning of the

COVID-19 epidemic [19]. It was concluded that very few (7.8%) of the nurses participating in our study made bread at home and consumed it. It is thought that this situation is caused by the intense working tempo and fatigue of the health workers and they cannot spare time to make bread at home.

Conclusion

As a result; at the end of this study, it was determined that nurses use herbal products, which is one of the complementary-supportive treatment applications, to prevent COVID-19.

Resources

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