The Use of Complementary and Alternative Medicine in the Patients Who Have Respiratory Disorders in Turkey

Melike Demir* and Nursen Kulakac
Gumushane University, Faculty of Health Sciences, Turkey

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*Corresponding author: Melike Demir; Gumushane Universitesi Saglik Bilimleri Fakultesi, Baglarbasi Mahallesi 29100, Gumushane, Turkiye, Tel: 053-349-289-57; E-mail: melekdm@gmail.com.

Abstract

Introduction: The aim of the study was to determine the prevalence and determining factors for the use of CAM by the patients with respiratory disorders.

Methods: The sample of the cross-sectional study was 141 patients with respiratory system disorders. Data were collected with a patient information form, complementary and alternative medicine scale. In the analyses, the percentage, mean, chi-square tests and spearman's correlations were performed.

Results: The patients’ mean age was 73 ± 78 and 56% (n = 79) were male. Herbal supplements (84.4%), dietary supplements (90.8%) and religious practices (86.4%) were the most common CAM methods used by the patients. There were no patients using biological practices. The use of garlic was higher in the male patients (χ² = 4.81; p = 0.028). Carrying a written amulet was higher in the single patients (χ² = 4.95; p = 0.026). The use of grapefruit was higher in patients with respiratory tract infections than those with asthma (χ² = 4.65; p = 0.031). Being prayed by hodja was higher in patients who had respiratory tract infections than those with asthma (χ² = 7.97; p = 0.005). The use of dietary supplements (r₂ = 0.25; p = 0.002) and CAM scale total score (r = 1.18; p = 0.0025) were found to increase as the level of education increased.

Conclusion: Our study showed that Herbal supplements, Dietary supplements and Religious practices were the most common CAM used by the patients. Linden tea, rosehip tea and thyme were the most common herbal supplements used by the patients. The use of garlic was higher in male patients. The use of grapefruit was higher in patients who had respiratory tract infections than asthma. So that, it would be appropriate to know the complementary and alternative treatments that patients use to improve the efficacy of drug treatment.

Keywords: CAM; Respiratory; Nursing

Abbreviation


Introduction

The use and cost of complementary and alternative medicine (CAM) has been gaining importance worldwide. CAM is a term for as many as 1,800 therapies practiced worldwide. These therapies are based on the medical systems of ancient peoples for over the thousands of years, both orally and in written record [1].

CAM is described in four categories by the United States (US) National Center for CAM therapies. These categories are mind-body systems (e.g. meditation, prayer, mental healing), manipulative and body-based practices (e.g. massage, reflexology), energy medicine (e.g. Reiki, therapeutic touch) and biologically based practices (use of natural substances, such as herbs, foods, vitamins, dietary supplements, herbal products) [2,3].

Worldwide, there exists a wide geographical variation in the prevalence estimates of CAM products’ utilization and the types of CAM therapies most commonly used. In low-and middle-income countries, up to 80% of the population may rely on medical treatment for their primary health care needs. For instance, in Pakistan, CAM has been considered to be the first line of treatment in rural areas where 80% of the country’s populations live [3]. In many high-income countries, CAM utilization is becoming increasingly popular, with up to 65% of the population reporting that they have used this form of medicine [4].

Studies show that 40% of Americans [5], 38% of Taiwanese [6], 26% of English [7] and 70% of Europeans use some form of CAM [8]. The studies shown that, between 54.3% and 60% of Turkish people use some form of CAM [9,10].

The popularity and increased use of CAM products have led to concerns about their safety and possible health risks [11]. Particularly, the data which can be considered as conclusive evidence about the safety of its use in individuals with chronic diseases and drug interactions are insufficient. The studies conducted with the specific disease groups are also inadequate. Although some studies are available about asthma COPD, a respiratory system disease, regional differences regarding the use of CAM are notable. Therefore, the aim of this study was to determine the prevalence and the determining factors for the use of CAM by the patients with respiratory disorders.

Methods

Setting and Sample

This cross-sectional study was conducted from November 2014 to May 2015 at a hospital in Gumushane. Inclusion criteria of this study were age 18 years or older, competency in written and spoken Turkish, and ability to consent to participate in the study. Depending on the inclusion criteria 141 patients, who had respiratory disorders, were invited to the study.

Data Collection

In this study data collected with patient information form and a complementary and alternative medicine scale. The Patient Information Form, which was created by the researchers, contained 10 items that addressed personal information (e.g. age, income level, and employment status, admission diagnosis). Complementary and Alternative Medicine Scale (CAM scale) was developed by Can G et al. [12]. This assessment scale has five subgroups that include 55 CAM interventions frequently used. These five subgroups are as below; herbal supplement subgroup (29 items), biological practices subgroup (three items), dietary supplement subgroup (14 items), religious practices subgroup (five items) and mind-body practices subgroup (five items). Each item is self-rated by the patient as 0 = no, 1 = yes [12,13].

Data Analysis

Descriptive statistics, means, median, frequencies, and percentages were used to show the distribution of personal
characteristics and illness related characteristics. Chi-square tests and Spearman’s correlations were also used in the assessment of factors affecting CAM use. All statistical tests were two-sided and the significance level was set at 0.05.

**Ethical Considerations**

The required permission was taken from the administration at the Gumushane Public Hospital Association. The patients were informed, and verbal consent was obtained.

**Results**

**Patients’ Demographic and Clinical Characteristics**

The patients’ mean age was 73.0 ± 78 and 56% (n = 79) were male. In the study population, 73.8% of the patients (n = 104) were married and 56.7% (n = 80) were primary school graduates. In this study, 41.8% (n = 59) of the patients were housewives and 95.7% (n = 137) were retired people (Table 1). In this study, 53.9% (n = 76) of the parents were COPD (chronic obstructive pulmonary disease) that caused hospitalization.

**CAM Use and the Factors Affecting CAM Use**

Herbal supplements (84.4%), dietary supplements (90.8%) and Religious practices (86.4%) were the most common CAM used by patients. White meat (78%), vegetables (79.4%), milk and milk products (77.3%) were the most common dietary supplements used by patients. Linden tea (58.1%), rosecup tea (59.6%) and thyme (41.8%) were the most common herbal supplements used by the patients. Praying (80.1%) was the most common religious practices used by the patients. Exercise (24.1%) was the most common mind-body practices used by the patients. There were no patients using biological practices (Table 2).

**Table 1:** Demographic patient characteristics. (*Chronic obstructive pulmonary disease*)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>73.0 ± 78</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>62</td>
<td>44</td>
</tr>
<tr>
<td>Male</td>
<td>79</td>
<td>56</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>104</td>
<td>73.8</td>
</tr>
<tr>
<td>Single/widowed</td>
<td>37</td>
<td>26.2</td>
</tr>
<tr>
<td>Educational level</td>
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<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>51</td>
<td>36.2</td>
</tr>
<tr>
<td>Primary school</td>
<td>80</td>
<td>57.6</td>
</tr>
<tr>
<td>High school</td>
<td>10</td>
<td>6.2</td>
</tr>
<tr>
<td>Profession</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retired</td>
<td>39</td>
<td>27.7</td>
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<tr>
<td>Housewife</td>
<td>59</td>
<td>41.8</td>
</tr>
<tr>
<td>Self-employment</td>
<td>38</td>
<td>27</td>
</tr>
<tr>
<td>Officer</td>
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<td>3.5</td>
</tr>
<tr>
<td>Employment status</td>
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<td></td>
</tr>
<tr>
<td>Working</td>
<td>4</td>
<td>2.8</td>
</tr>
<tr>
<td>Not working</td>
<td>137</td>
<td>97.2</td>
</tr>
<tr>
<td>Income level</td>
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<td></td>
</tr>
<tr>
<td>Good</td>
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<td>0.7</td>
</tr>
<tr>
<td>Moderate</td>
<td>135</td>
<td>95.7</td>
</tr>
<tr>
<td>Bad</td>
<td>5</td>
<td>3.5</td>
</tr>
<tr>
<td>Health insurance</td>
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<td></td>
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<tr>
<td>Yes</td>
<td>137</td>
<td>97.2</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>2.8</td>
</tr>
<tr>
<td>Cause hospitalization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COPD</td>
<td>76</td>
<td>53.9</td>
</tr>
<tr>
<td>Asthma</td>
<td>20</td>
<td>14.2</td>
</tr>
<tr>
<td>Respiratory tract infections</td>
<td>45</td>
<td>31.9</td>
</tr>
</tbody>
</table>

**Table 2:** Use of CAM Therapies. (a: Some patients used more than one CAM therapy so the percentages of CAM use are given according to the related item. b: Namaz: prayer performed by Muslims five times a day)
The use of garlic was higher in male patients (χ² = 4.81; p = 0.029). The Carry written amulet was higher in single patients (χ² = 4.95; p = 0.026). The use of grapefruit was higher in patients with respiratory tract infections than asthma (χ²= 4.65; p = 0.031). Being prayed by hodja was higher in patients who have respiratory tract infections than asthma (χ²= 7.97; p = 0.005).

The use of dietary supplements (r = 0.25; p = 0.002) and the CAM scale total score (r = 1.18; p = 0.0025) were found to increase as the education level increased. There was no statistically significant difference between the CAM scale total score and marital status (p > 0.05). There was no statistically significant difference between the CAM scale total score and educational level (p > 0.05).

Discussion

Studies reported that CAM use prevalence between 26% and 51% [6,7,14]. In Turkey this rate is between 54.3% and 70% [9,10,15]. There are regional differences in terms of the prevalence and the method of CAM in the world. In this study, we want to determine the prevalence and the determining factors for the use of CAM by the patients with respiratory disorders in Gumushane.

A systematic review reported that 20–30% of adults who have asthma used CAM [16]. Adults with more severe asthma symptoms were more likely to report using CAM [17,18]. Our study showed that Herbal supplements (84.4%), Dietary supplements (90.8%) and Religious practices (86.4%) were the most common CAM used by the patients with respiratory disorders. A study conducted with South Korean adults reported that 62% of adults had taken a dietary supplement [19]. Two studies in Turkey showed that herbs were the most frequently cited therapies [15,20]. Another study reported that herbal medicine (56.7%) and foods (78.5%) were used by the patients with COPD [21]. These results are similar to our result which showed that Herbal supplements were the most common CAM used by the patients.

In our study, white meat (78%), vegetables (79.4%), milk and milk products (73.3%) were the most common dietary supplements used by the patients. In addition, linseed tea (58.1%), rosehip tea (59.6%) and thyme (41.8%) were the most common herbal supplements used by patients. The use of garlic was higher in male patients. The use of grapefruit was higher in patients who have respiratory tract infections than those with asthma. In Algier et al. [22] study, the most commonly used herb was thyme while it was lime in another study [20]. One of the studies reported that 65.6% of patients use herbal tea [21]. Another study reported that nettle, rosehip, thyme, linseed, sage, chamomile, royal jelly were the most common herbal supplements used by the patients with respiratory system disease [23]. Although there is no conclusive evidence about drug interactions yet, there are some studies regarding plants. There is no data about the interaction between the respiratory system disease drugs and lime, thyme and rose hips, so it can be said that they are safe for now.

Our study showed that religious practice (86.4%) and praying (80.1%) were used commonly by the patients. A study showed that praying was the most regularly used CAM method [24]. The study conducted in Turkey reported that the most widely used cognitive and behavioral treatments were religious practices and yoga by the patients with respiratory disorders [23]. Similarly, another study reported that praying was the most frequently used CAM method in Turkey [25]. Therefore it is said that praying is an important Religious practice in Turkey.

Carrying a written amulet was higher in single patients. Being prayed by hodja was higher in patients with respiratory tract infections than those with asthma. A study carried out in Pakistan showed that 50% of the patients who visited faith healers for problems such as asthma, cough, and cold were cured [3]. Therefore, it is observed that in different cultures, different religious practices are used.

The use of dietary supplements and CAM scale total score were found to increase as education level increased. A study reported that educational level was found to be significantly related to CAM use too [25].

Conclusion

Our study showed that Herbal supplements, Dietary supplements and Religious practices were the most common CAM used by the patients. Linden tea, rosehip tea and thyme were the most common herbal supplements used by the patients. The use of garlic was higher in male patients. The use of grapefruit was higher in patients with respiratory tract infections than those with asthma. The CAM approaches used by the patients were found to be safe. However, garlic and grapefruit may reduce the effectiveness of some drugs used by the patients. Therefore, to question the use of the CAM methods used by the patients is important in terms of managing the side effect profile and efficacy of the treatment.

References


*Corresponding author: Melike Demir, Gumushane Universitesi Saglik Bilimleri Fakultesi, Baglarbasi Mahallesi 29100, Gumushane, Turkiye, Tel: 053-348-289-57; E-mail: melekdm@gmail.com.

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