Original Article

Usage of complementary and alternative medicine in women with urinary incontinence at a hospital in Turkey

İlkınur Gökşin *, Güler Duru Aşiret, Cemile Kümente Yılmaz

Department of Nursing, Faculty of Health Sciences, Aksaray University, Aksaray, Turkey

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ABSTRACT

Background: Urinary incontinence (UI) is a health problem that is common in women of all ages. Besides pharmacological and surgical treatments, there are lifestyle changes and complementary and alternative medicine (CAM) to relieve UI symptoms. This study aimed to examine lifestyle arrangements and CAM use by women with UI.

Methods: We conducted a cross-sectional study using data from 352 women with UI. The study sample consisted of female patients that were aged 18 and above. We asked patients whether they experienced urine leakage, and included all patients with UI in the sample regardless of UI type or severity. We collected the study data by using the personal information form and Incontinence Severity Index (ISI).

Results: In this study, 7.1% of women with UI used CAM while 92.9% did not. We found that only the women with mixed incontinence used CAM more (p < 0.05). The CAM techniques commonly preferred by women included prayer (48.0%), hot application (36.0%) and herbal teas (24%). While 52.2% of women stated that they benefited from CAM use, all of them (100%) stated that they experienced no side effects of CAM. The most common lifestyle changes was losing weight.

Conclusion: Turkish women with UI had a low rate of CAM use in this study. The use of CAM was related to age and education, and women with mixed UI used CAM more.

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1. Introduction

Urinary incontinence (UI), which is defined as the involuntary loss of urine, is a common health condition that causes medical, psychosocial, and personal hygiene problems. Population studies from many countries found that the occurrence of UI varied between 25 and 45%. Many factors such as multiple pregnancies, traumas experienced during the birth process, menopause, hysterectomy, urinary tract infections, obesity, and chronic diseases can cause UI. While UI is not a life-threatening problem, it can affect women’s health, social life, and psychological state by causing embarrassment, decreased self-confidence, isolation due to reduction in social activities, and serious economic burden.

Considering that UI can be a disturbing problem for women, it should be controlled and it is possible to control bladder function with non-pharmacological and alternative methods. Literature reported that women with UI made lifestyle modifications to control their bladder, such as losing weight, regulating fluid intake, avoiding caffeine, and restricting activities that caused excessive stretching of the pelvic floor muscles. In addition to those methods, women can use complementary and alternative medicines (CAM) to provide bladder control. The World Health Organization defined CAM as the sum total of knowledge, skills, and practices based on theories, beliefs, and experiences in different cultures, used in the maintenance of health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses. Despite reported widespread use of CAM in gynecology, there is limited information on the specific use of CAM among women with UI. In an international study, it was found that 42% of women with UI use CAM. Through the search of national literature, one study that aimed to identify the use of CAM by women with UI was identified; this study reported that 33% of women with UI used CAM, with the most common therapy being prayer. In literature search, a limited number of studies examining the use of CAM by women with UI were found. Thus, the purpose of this study was to examine the CAM usage rate and lifestyle modifications of women with UI.

* Corresponding author.
E-mail addresses: ilkurgoksin@hotmail.com (İ. Gökşin), lerduru@gmail.com (G. Duru Aşiret), cemilekutme@yahoo.com (C. Kümente Yılmaz).

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2. Methods

2.1. Study design

This cross-sectional study examined CAM and lifestyle modifications used by Turkish women with UI.

2.2. Participants

The study took place between 2 May 2018 and 2 April 2019 at the Research and Training Hospital of Aksaray University. Consent was obtained from 352 women aged 18 and above who were inpatients at the hospital for internal, gynecological, or chest problems; they all experienced incontinence in addition to their diseases. The participants in the study did not have speaking or hearing problems that prevented communication; they had not been diagnosed with a psychiatric disease; they had inpatient treatment for at least one day in the above-mentioned clinics during the dates of the study. All the inpatients were asked whether they experienced urine leakage, and those with an experience of urine leakage were included in the study group regardless of the type or severity of UI.

2.3. Survey instrument

We developed questionnaire using literature. The questionnaire consisted of 2 major sections. The first section included questions on sociodemographic characteristics (age, education, marital status, income level, residence, etc.) and questions related to UI (number of children, delivery method, incontinence duration, incontinence type, health facility visits due to incontinence, daily life effects of incontinence, etc.).

The second section included questions on CAM and lifestyle modifications (use of CAM, methods used, duration of use, benefits, experience of side effects, and previous exposure to any information on CAM or lifestyle modifications). Translated version of Incontinence Severity Index (ISI) which was tested for its validity and reliability, was used. The ISI consists of 2 questions and multiplies the responses of the urine leakage frequency and amount to get a total score. The ISI score increases proportionally with the severity of incontinence. A total ISI score of 1–2 points indicates “a slight UI problem”, 3–6 indicates “a moderate UI problem”, 8–9 indicates “a severe UI problem”, and 12 indicates “very severe UI”.

### Table 1

Socio-demographic and CAM use characteristics of the groups.

| Characteristics                     | Overall (N = 352) | CAM users (N = 25) | Non-CAM users (N = 327) | P    |
|-------------------------------------|-------------------|--------------------|-------------------------|------|
| Age (years)                         | 53.8 ± 15.4       | 46.4 ± 12.7        | 54.4 ± 15.5             | 0.032|
| ≥64 years                           | 260 (73.9)        | 23 (92.0)          | 237 (73.5)              |      |
| >65 years                           | 92 (26.1)         | 2 (8.0)            | 90 (26.5)               | 0.022|
| Educational level                   |                   |                    |                         |      |
| Illiterate                          | 122 (34.7)        | 4 (8.0)            | 120 (36.7)              |      |
| Primary school                      | 186 (52.8)        | 31 (64.0)          | 170 (52.0)              |      |
| >High school                        | 44 (12.5)         | 7 (28.0)           | 37 (11.3)               |      |
| Marital status                      |                   |                    |                         | 0.531|
| Married                             | 327 (92.9)        | 24 (96.0)          | 303 (92.7)              |      |
| Single                              | 25 (7.1)          | 1 (4.0)            | 24 (7.3)                |      |
| Number of children                  | 4.0 ± 2.2         | 3.5 ± 2.4          | 4.1 ± 2.2               | 0.014|
| Have child                          | Yes               | 340 (96.6)         | 318 (97.2)              |      |
|                                     | No                | 12 (3.4)           | 9 (2.8)                 |      |
| Type of birth                       |                   |                    |                         | 0.065|
| Vaginal delivery                    | 285 (83.1)        | 14 (66.2)          | 270 (84.4)              |      |
| Cesarean                            | 32 (9.3)          | 4 (17.4)           | 28 (8.8)                |      |
| Both of them                        | 26 (7.6)          | 4 (17.4)           | 22 (6.9)                |      |
| Employment status                   |                   |                    |                         | 0.399|
| Yes                                 | 27 (7.7)          | 3 (12.0)           | 24 (7.3)                |      |
| No                                  | 325 (92.3)        | 22 (88.0)          | 303 (92.7)              |      |
| Income status                       |                   |                    |                         | 0.057|
| High                                | 36 (10.2)         | 6 (24.0)           | 30 (9.2)                |      |
| Middle                              | 291 (82.7)        | 18 (72.0)          | 273 (83.5)              |      |
| Low                                 | 25 (7.1)          | 1 (4.0)            | 24 (7.3)                |      |
| Area of residence                   |                   |                    |                         | 0.009|
| City                                | 231 (65.6)        | 14 (56.0)          | 217 (66.4)              |      |
| Town + Village                      | 121 (34.4)        | 11 (44.0)          | 110 (33.6)              |      |
| Duration of incontinence            |                   |                    |                         | 0.971|
| ≤1 years                            | 52 (14.8)         | 4 (16.0)           | 48 (14.7)               |      |
| 1–5 years                           | 191 (54.3)        | 14 (56.0)          | 177 (54.1)              |      |
| 6–10 years                          | 66 (18.8)         | 5 (20.0)           | 61 (18.7)               |      |
| ≥11 years                           | 43 (12.2)         | 2 (8.0)            | 41 (12.5)               |      |
| Applying to the health facility due to UI |                |                    |                         | 0.846|
| Yes                                 | 97 (27.6)         | 8 (32.0)           | 89 (27.2)               |      |
| No                                  | 255 (72.4)        | 17 (68.0)          | 238 (72.8)              |      |
| Type of incontinence                |                   |                    |                         |      |
| Stress                              | 200 (56.8)        | 10 (40.0)          | 190 (58.1)              | 0.078|
| Urgency                             | 112 (31.8)        | 5 (20.0)           | 107 (32.7)              | 0.188|
| Mixed                               | 86 (24.4)         | 14 (56.0)          | 72 (22.0)               | 0.001|
| Overflow                            | 22 (6.3)          | 1 (4.0)            | 21 (6.4)                | 0.630|
| Severity of incontinence            |                   |                    |                         |      |
| Mild                                | 110 (31.3)        | 4 (16.0)           | 106 (32.4)              | 0.387|
| Moderate                            | 127 (36.1)        | 13 (52.0)          | 114 (34.9)              |      |
| Severe                              | 48 (13.9)         | 4 (16.0)           | 45 (13.8)               |      |
| Very severe                         | 66 (18.8)         | 4 (16.0)           | 62 (19.0)               |      |

Bold values: p<0.05.
2.4. Data collection

The study was conducted in accordance with the principles of the Declaration of Helsinki and the study purpose, method, and their rights were explained to all participants. We received an approval from the Research and Training Hospital of Aksaray University and ethics approval from the Human Research Ethics Council of Aksaray University (2018/95).

Women were interviewed face-to-face. The data was collected by interviewing the women individually in their hospital rooms. Completing the survey forms took approximately 10 min. Researchers asked literate participants to fill in the forms themselves. For the illiterate participants, the researchers read the survey questions aloud for them and recorded the participants’ responses.

2.5. Statistical analysis

We analyzed the data using the IBM SPSS 21.0 (IBM Corp., Armonk, NY, USA) statistical program. Descriptive statistics, such as number, percentage, mean, standard deviation, minimum and maximum values, were used to present the descriptive characteristics of the women, and the Chi-square test was used for comparing the categorical variables. A p-value of <0.05 was the limit for statistical significance.

3. Results

3.1. Socio-demographic characteristics and CAM use

Of the 381 UI women who were interviewed, 352 (92.4%) agreed to participate in the study and answered all questions, but 29 (7.6%) were excluded because they answered the questionnaire incompletely. Data from 352 women with UI showed that 7.1% (n = 25) of women with UI used CAM while 92.9% (n = 327) did not. Table 1 indicates the descriptive characteristics of participants in the two groups according to their use of CAM.

When we examined the differences between women in terms of their descriptive characteristics and CAM use, we found a difference between age, education, whether or not they have children, and area of residence (p < 0.05). We found that CAM use was more common in women aged 64 and below (p < 0.05), who were primary school graduates (p = 0.05) and had children (p = 0.014). There was no statistically significant difference between the women who used CAM and those who did not in terms of marital status, employment and income level.

Of the participants who used CAM, 56.0% had UI for 1–5 years, 32.0% had applied for admission to a health facility due to UI, 40.0% had stress incontinence, 56.0% had mixed incontinence, 20.0% had urge incontinence, and 52.0% had moderate severity of UI. When examining the UI characteristics of women who used CAM and those who did not, the women with mixed incontinence were found to have used CAM more (p < 0.05).

3.2. CAM characteristics and lifestyle arrangements

Table 2 summarizes characteristics with respect to lifestyle modifications and CAM use. CAM therapies commonly preferred by women included prayer (48.0%), hot applications (36.0%), and herbal teas (24.0%). While 52.2% of women stated they benefited from CAM use, all of them (100%) stated they had not experienced any side effects of using CAM. When asked if they had previously received any information on CAM, 72.0% of women stated that they had, and among them 32.0% received CAM information from healthcare personnel. Nearly all of the women, accounting to 92.0%, wanted to get information on CAM. When we examined the lifestyle changes of women due to UI, we found that losing weight was the most common practice (56.0%) and reducing fluid intake was the second (40.0%).

4. Discussion

In this study, CAM use was more common in primary school graduated women aged 65 and under and UI women with children, and women with mixed type incontinence. Our study found that only 7.1% of women used CAM to relieve UI symptoms. The low rate of the use of CAM for UI can be explained by the fact that there is a lack of information on different methods and that women generally consider UI normal. Similarly, studies show that many women see incontinence as a natural result of aging and, therefore, do not seek medical help. The use of CAM was found to be more common among women aged 64 and under, who were primary school graduates and who had children. A similar study in the literature found that 71.6% of women with UI were below 65 and 44.6% of women that used CAM were primary school graduates.

This also relates to the previous studies and older women do not seek solutions while younger people consider UI to be treatable.

In addition, it was found that women using CAM had mixed type incontinence. In line with our study, a previous study reported that women who used CAM mostly had mixed incontinence. This may be because while women with other types of incontinence can relieve UI symptoms or severity with interventions or lifestyle modifications, women with mixed incontinence seek solutions by trying various methods, as many factors may be simultaneously effective with this type of UI.

| Table 2: Characteristics of lifestyle arrangements and CAM used by women (N = 25). |
|---------------------------------|-------|-------|
| N                               | %     |       |
| CAM use duration                | 32.7 ± 20.7 (min-max 1–60 month) |
| CAM modality used              |       |       |
| Pray                            | 12    | 48.0  |
| Hot water bag application on the sole of the foot | 9 | 36.0 |
| Herbal tea                      | 6     | 24.0  |
| Abdominal massage               | 2     | 8.0   |
| Aromatherapy                    | 2     | 8.0   |
| Acupuncture                     | 1     | 4.0   |
| Music                           | 1     | 4.0   |
| Vitamin                         | 1     | 4.0   |
| Benefit status                  |       |       |
| Yes                             | 13    | 52.2  |
| No                              | 12    | 47.8  |
| Side effects                    |       |       |
| Yes                             | 0     | 0.0   |
| No                              | 25    | 100.0 |
| Information on use of CAM       |       |       |
| Yes                             | 18    | 72.0  |
| No                              | 7     | 28.0  |
| Information source              |       |       |
| Friend                          | 5     | 20.0  |
| Healthcare personnel            | 8     | 32.0  |
| Media (TV, internet, etc.)      | 3     | 12.0  |
| All                             | 3     | 12.0  |
| Interest of CAM information on UI |     |       |
| Yes                             | 23    | 92.0  |
| No                              | 2     | 8.0   |
| Lifestyle modifications due to UI |     |       |
| Losing weight                   | 14    | 56.0  |
| Restriction of fluid intake     | 10    | 40.0  |
| Prevention of constipation      | 6     | 24.0  |
| Avoiding caffeinated beverages  | 6     | 24.0  |
| Avoid lifting heavy items       | 6     | 24.0  |
| Stop smoking                    | 1     | 4.0   |

* Multiple statements are considered.
The most common CAM therapy used by women with UI was prayer. It is consistent with previous study.\(^1\) It is assumed to be related to their cultural environment. Patients may believe in spiritual power and try to manage the disease in the best way by adapting to the treatment.

Other treatment methods for relieving UI symptoms include lifestyle modifications.\(^2\) Studies reported that the most common lifestyle changes practiced by women with UI were the reduction of fluid intake\(^3\) and proper diet.\(^4\) Our study found that the most common lifestyle adjustment was losing weight. In the literature, it is reported that lifestyle modifications have positive effects on UI.\(^1,2\)

This study had several limitations. The study subjects were selected from a single hospital and data was limited to women who were not bedridden without cognitive problems. Information on fertility characteristics was based on the self-report of the women. In addition, pregnant women were not included in this study.

In conclusion, our study showed that women with UI had a low rate of CAM use. The use of CAM was related to age and education, and women with mixed UI used CAM more. However, the results cannot be generalized to all Turkish women or to all women because of the small sample size and of the single site.

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Author contributions

All three authors (İG, ADG, YKC) contributed significantly to this article, including the design of this review, the analysis and interpretation of data and the drafting and revision of the article. All three authors approved the final version.

Conflict of interest

The authors declare that they have no competing interests.

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Ethical statement

The study conducted in accordance with the principles of the Helsinki Declaration and explained the study purpose and method to all participants along with their rights. We received a written approval from the Research and Training Hospital of Aksaray University and an ethics approval from the Human Researches Ethics Council of Aksaray University (2018/95).

Data availability

Data will be made available upon request.

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