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An examination of rational drug use and traditional complementary medicine in patients hospitalized because of gastrointestinal system bleeding

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ABSTRACT

Aims: The aim of this study was to determine the knowledge levels of rational drug use, the attitudes toward traditional and complementary medicine, and the relationship between these in patients admitted to the Internal Medicine Clinic because of gastrointestinal system bleeding.

Methods: This descriptive, cross-sectional study was conducted with 124 patients hospitalized in the Internal Medicine Clinic of a training and research hospital with a diagnosis of gastrointestinal bleeding between 10.07.2022 and 10.12.2022.

An information form including demographic and clinical characteristics, the Rational Drug Use Scale (RDUS), and the Complementary, Alternative, and Conventional Medicine Attitudes Scale (CACMAS) were applied to the patients. The data obtained were analyzed statistically using SPSS vn. 23.0 software.

Results: For the whole sample of patients hospitalized with a diagnosis of gastrointestinal system bleeding, the mean RDUS points were determined to be 19.8±4.17 and the mean total CACMAS points were 96.76±15. In the subscales of the CACMAS, the mean points were determined to be 28.15±9.42 for philosophical congruence with complementary medicine, 23.23±10.39 for dissatisfaction with conventional medicine, and 45.38±8.18 for holistic balance. A statistically significant negative correlation was found between rational drug use and dissatisfaction with conventional medicine ($p \leq 0.001$), and a statistically significant positive correlation was found between rational drug use and holistic balance ($p \leq 0.001$). A backward-step regression analysis was performed to measure the relationship between rational drug use and the three quantitative variables of the CACMAS. The linear equation of the relationship to the second model was found to be statistically significant ($p \leq 0.001$).

Conclusion: The results of this study demonstrated that rational drug use was low and that rational drug use had a proportionate effect on holistic balance in patients hospitalized in the Internal Medicine Clinic because of gastrointestinal bleeding.

Keywords: gastrointestinal bleeding, rational drug use, alternative medicine, patient

INTRODUCTION

Gastrointestinal bleeding, which has a high mortality rate, is a common medical emergency that requires hospitalization and a multidisciplinary approach for diagnosis and treatment.[1,2] The mortality rate during hospitalization has been reported to be 7% worldwide. Previous studies have shown that H.pylori infection and the use of non-steroid anti-inflammatory drugs (NSAIDs) are the leading risk factors for gastrointestinal system bleeding and that the risk of complications in patients with bleeding is increased 4-fold in those who use NSAIDs and 2-fold in those who use aspirin. The first approach to patients presenting with suspected gastrointestinal system bleeding should be the questioning of the use of oral anticoagulants, antiplatelet drugs, and NSAIDs. Of these drugs, the use of NSAIDs without prescription is extremely widespread.[3,4]

Although NSAIDs are the most frequently recommended drugs for symptomatic relief in the treatment of pain, fever, and inflammation, they are drugs which are often used without a prescription.[5] It has been reported that an estimated 29% of fatal peptic ulcer complications, especially in elderly patients, may be associated with NSAIDs.[6] Aspirin is fundamentally an NSAID and is often used without prescription as it is thought to be effective in preventing cardiovascular diseases (CVD), and reducing morbidity and mortality.[7,8]

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However, in the decision to use low-dose aspirin for the prevention of CVD in clinical practice, the bleeding risks of the individual should be carefully evaluated and in those taking prophylactic low-dose aspirin, combined use together with an acid-suppressing agent is recommended.[9]

The interest in traditional and complementary medicine has increased in recent years. Herbal methods are the most commonly used. Therapeutic plants and their chemical components have started to be used in the prevention and treatment of many diseases. However, in addition to the beneficial effects of herbal products, it is also known that they can contain dangerous bioactive elements. It is important that the efficacy on systems of the products used and interaction with other drugs are supported by evidence-based studies.[10,11] Previous studies have shown that some plants have the potential to intervene in blood clotting. Various regulations have been made in Turkey and throughout the world in general on the subject of plants with this effect, but they continue to be used without supervision. When more than one plant is used at the same time, or especially when it is used with drugs, this can lead to severe side effects and even toxicity.[12] Uncontrolled drug use and/or the use of traditional complementary medicine methods, especially to get rid of symptoms of pain, is a common thing right now.[13] Although there are studies on drugs and plants that may cause gastrointestinal bleeding, no study has been found that evaluates this. Although there are studies in the literature on drugs and plants that may cause gastrointestinal bleeding, no study has been found that evaluates the attitudes of patients with gastrointestinal bleeding regarding rational drug use and complementary medicine practices. The aim of this study was to determine the relationship between rational drug use and traditional and complementary medicine in patients hospitalized in the Internal Medicine Clinic because of gastrointestinal bleeding.

METHODS

The study was carried out with the permission of Başakşehir Çam and Sakura City Clinical Researches Ethics Committee (Date: 06.07.2022, Decision No: 218). All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki.

This descriptive, cross-sectional study was conducted with 124 patients hospitalized in the Internal Medicine Clinic of a training and research hospital with a diagnosis of gastrointestinal bleeding between 10.07.2022 and 10.12.2022. It was calculated to be necessary to include 110 patients in the t test family (linear bivariate regression) using 0.85 power, 0.05 error, and 0.25 slope H1.

An information form including demographic and clinical characteristics, the Rational Drug Use Scale (RDUS), and the Complementary, Alternative, and Conventional Medicine Attitudes Scale (CACMAS) were applied to the patients. The Rational Drug Use Scale (RDUS) of 21 items in a single subscale was developed in 2018 by Demirtaş et al.[14] to measure knowledge about rational drug use. Responses are given as "yes", "no", I don't know, and the total points range from 0-42. In the original version of the rational drug use scale, a score of ≥ 35 points is accepted as knowledge of rational drug use. A score of ≥35 points is accepted as knowledge of rational drug use. The Cronbach alpha value of the original scale was 0.79, and this value was determined to be 0.80 in this study. The Complementary, Alternative, and Conventional Medicine Attitudes Scale (CACMAS) was developed by McFadden et al. in 2010, and validity and reliability studies of the Turkish version were conducted in 2016 by Köse, Ekerbiçer, and Erkorkmaz.[15] The responses to the scale items are on a 7-point Likert-type scale ranging from 1= I completely disagree to 7= I completely agree, to give a total score in the range of 1-189 points. The scale has 27 items in 3 subscales of Philosophical Congruence with Complementary and Alternative Medicine with 8 items (nos: 5,7,9,18,19,21,22,24; 1-56 points); Dissatisfaction with Conventional Medicine with 10 items (nos: 1, 4, 8, 11, 14, 16, 17, 20, 26, 27; 1-70 points); and Holistic Balance with 9 items (nos: 2, 3, 6, 10, 12, 13, 15, 23, 25; 1-63 points). Reverse scoring is applied to 5 items (nos: 1, 4, 8, 9, 26). Higher total scores obtained from this scale indicate a more positive attitude toward complementary and alternative medicine. The Cronbach's alpha value of the original scale and in the current study was determined to be 0.80.

Statistical Analysis

The data obtained in the study were analyzed statistically using G*Power 3.1.9. and IBM SPSS vn. 23.0 software. Following evaluation of the conformity of data to the normal distribution with the Kolmogorov-Smirnov test, parametric tests were applied to data showing a normal distribution and non-parametric tests to data not conforming to the normal distribution. The sociodemographic data were stated as mean±standard deviation (SD), median, minimum- maximum values, number (n), and percentage (%). In the comparisons of two groups of continuous data, the Student's t-test was used, and correlations were examined with the Pearson correlation coefficient. A value of $p<0.05$ was accepted as the level of statistical significance.

RESULTS

The patients hospitalized in the Internal Medicine Clinic because of gastrointestinal system (GIS) bleeding were determined to have a mean age of 59.17±16.04 years; 102 (82.2%) patients had an education level of primary school; 96 (77.42%) were married; 100 (80.65%) had an income of an average level; and 88 (71%) were determined to have a chronic disease.

Of the total 124 patients hospitalized in the Internal Medicine Clinic because of GIS bleeding, 92 (74.2%) did not use anticoagulants, 118 (95.2%) used stomach protection, 88 (71%) reported regular drug use, 63 (50.8%) took painkillers only when they were in pain, and 41 (33.1%) used aspirin (Table 1).

Table 1. The sociodemographic characteristics and clinical findings of the patients (n=124)

Characteristic Features	N	Percentage
Age	59.17±16.04	
Gender		
Female	55	44.4%
Male	69	55.6%
Education		
Primary school	102	82.3%
High School	12	9.7%
University	10	8.1%
Marital status		
Married	96	77.4%
Single	12	9.7%
Divoced/Widowed	16	12.9%
Income level		
Low income	12	9.7%
Middle income	100	80.6%
High income	12	9.7%
Chronic disease		
Present	88	71%
Absent	36	29%
Number of chronic diseases		
None	36	29.0%
One	40	32.3%
2 or more	48	38.7%
Anticoagulant use		
Non-use	92	74.2%
Antiagregan	12	9.7%
Antikoagülan	20	16.1%
Stomach protection use		
Present	118	95.2%
Absent	6	4.8%
Regular drug use		
Use	88	71.0%
Non-use	36	%29
Painkiller		
Use	63	%50.8
Non-use	61	%49.2
Aspirin		
Use	41	33.1%
Non-use	83	66.9%

The mean systolic blood pressure was determined to be 115.85±14.76, and the mean diastolic blood pressure was 68.32±10.92 (Table 2).

Table 2. Blood pressure values of the patients (N=124)

	N	Min	Max	Mean±SD	Median
Systolic BP	124	87	147	115.85±14.76	120
Diastolic BP	124	45	96	68.32±10.92	68

For the whole sample of patients hospitalized with a diagnosis of gastrointestinal system bleeding, the mean RDUS points were determined to be 19.8±4.17 and the mean total CACMAS points were 96.76±15. In the subscales of the CACMAS, the mean points were determined to be 28.15±9.42 for philosophical congruence with complementary and alternative medicine 23.23±10.39 for dissatisfaction with conventional medicine, and 45.38±8.18 for holistic balance (Table 3).

Table 3. The Rational Drug Use and CACMAS scores of the patients (N=124)

	N	Min	Max	Mean±SD	Median
Rational Drug Use	124	7	30	19.8±4.17	21
CACMAS subscale scores					
Philosophical congruence with CAM	124	12	52	28.15±9.42	27.00
Dissatisfaction with conventional medicine	124	10	50	23.23±10.39	20.00
Holistic balance	124	31	58	45.38±8.18	46.50
Total	124	72	132	96.76±15	97.50

*CAM: complementary and alternative medicine

In the female patients hospitalized because of GIS bleeding, the RDUS points (20.33±4.37, p:0.04), and CACMAS subscale points of dissatisfaction with conventional medicine (26.04±9.74, p: 0.03), and holistic balance (47.24±7.33, p: 0.02) were found to be significantly higher than in males. In the male patients, the CACMAS subscale mean points for philosophical congruence with complementary and alternative medicine were determined to be significantly higher (29.77±9.52, p:0.03). No statistically significant difference was determined between the RDUS points and the CACMAS points according to education level. When examined according to marital status, the CACMAS subscale mean points for philosophical congruence with complementary and alternative medicine (36.33±9.06, p:0.002) and the total CACMAS points (104.67±12.5; p: 0.004) were determined to be statistically significantly higher in patients who were single compared to those who were married. The mean RDUS score of patients with a good income status (22.17±4.02, p:0.03) was higher than that of the other groups; the patients

with a low income had higher mean points in the CACMAS subscale of dissatisfaction with conventional medicine (30±15.17, p: 0.03), and these differences showed statistical significance (p<0.05). No statistically significant correlation was determined between the presence or number of chronic diseases and the RDUS and total CACMAS points (p>0.005), (Table 4).

The CACMAS subscale points of philosophical congruence with complementary and alternative medicine of the patients who used anticoagulants (32.95±10.77; p:0.04) were determined to be statistically significantly high. No statistically significant correlation was determined between the status of using stomach protection and the RDUS and CACMAS points (p>0.005), (Table 4).

The total CACMAS points (98.66±14.76; p:0.03) and the holistic balance CACMAS subscale points 846.49±8.34; p:0.02) of the patients who reported regular drug use were determined to be statistically significantly higher compared to those of the patients who did not use drugs regularly. The RDUS points of patients who did not use painkillers (21.21±4.00, p:0.01), and the CACMAS subscale points of dissatisfaction with conventional medicine of the patients who only took painkillers when they were in pain (26±10.67; p:0.01) were statistically significantly high (Table 4).

Table 4. Correlations between the demographic characteristics and the clinical findings of the patients and the RDUS and CACMAS scores (N=124)

	Rational drug use		Philosophical congruence with CAM		Dissatisfaction with conventional medicine		Holistic balance		CACMAS Total points	
Gender										
Female	20.33±4.37	0.208	26.13± 8.97	0.032*	26.04±9.74	0.007*	47.24±7.33	0.023*	99.4±15.41	0.080
Male	19.38±3.98		29.77± 9.52		20.99±10.42		43.9±8.56		94.65±14.43	
Education										
Primary school	19.71±4.48	0.942	28.36± 8.82	0.607	23.73±10.56	0.39	45.06±8.29	0.48	97.15±14.84	0.349
High school	20.58±1.78		26.67± 14.71		18.17±6.09		46.08±6.3		90.92±18.11	
University	19.8±2.62		27.8±8.44		24.2±11.85		47.8±9.3		99.8±11.96	
Marital status										
Married	19.68±4.2	0.325	28.01± 9.43	0.002*	23.75±10.09	0.384	45.34±8.62	0.659	97.1±14.24	0.004*
Single	19±5.26		36.33± 9.06		21.33±8.86		47±7.68		104.67± 12.5	
Divoced/widowed	21.13±2.85		22.88± 4.6		21.5±13.22		44.38± 5.56		88.75± 18.08	
Income level										
Low income	21±3.77	0.032*	25.67± 4.96	0.221	30±15.17	0.156	44.33±6.97	0.411	100±18.59	0.581
Middle income	19.37±4.14		27.95± 9.46		22.88± 9.61		45.15±8.39		95.98±14.6	
High income	22.17±4.02		32.33± 11.66		19.33± 8.81		48.33±7.33		100±14.93	
Chronic disease										
Absent	19.33±3.08	0.429	28.56± 8.8	0.762	21.25± 11.07	0.177	46.5±8.06	0.331	96.31±15.11	0.831
Present	19.99±4.54		27.99± 9.7		24.03± 10.05		44.92±8.23		96.94±15.03	
Number of chronic diseases										
None	19.33±3.08	0.203	28.56± 8.8	0.485	21.25± 11.07	0.117	46.5±8.06	0.044*	96.31±15.11	0.767
One	20.48±4.61		26.95± 11.09		25.13± 10.24		43.2±5.89		95.28±15.06	
2 or more	19.58±4.49		28.85± 8.39		23.13± 9.91		46.35±9.59		98.33±15.03	
Anticoagulant use										
Non-use	19.64±4.06	0.397	27.36± 8.65	0.065	22.9±10.74	0.48	44.76±8.4	0.153	95.02±15.34	0.035*
Antiagregan	21.42±1.56		26.25± 11.02		22.25± 8.04		49.83±5.08		98.33±11.59	
Anticoagulant	19.55±5.49		32.95± 10.77		25.3±10.17		45.55±8.11		103.8±13.54	
Stomach protection										
Use	19.75±4.19	0.535	27.74± 9.04	0.183	23.37± 10.49	0.487	45.18±8.1	0.226	96.29±14.96	0.122
Non-use	20.83±3.76		36.33± 13.56		20.33± 8.52		49.33±9.56		106±13.65	
Regular drug use										
Use	20.34±4.48	0.023*	28.99± 10.02	0.123	23.18±9.99	0.942	46.49± 8.34	0.018*	98.66± 14.76	0.027*
Non-use	18.47±2.92		26.11± 7.51		23.33±11.45		42.67±7.18		92.11±14.75	
Painkiller use										
1 every 2 days	20.48±4.17	0.01*	27.78± 12.83	0.58	21.22±8.95	0.01*	47.09±5.46	0.25	96.09±16.05	0.14
When there is pain	18.7±4.01		28.98± 7.14		26±10.67		44.21±9.31		99.19±14.54	
Non-use	21.21 ±4		27± 10.44		19.84±9.64		46.29±7.38		93.13±14.72	
Aspirin use										
Use	19.49± 3.1	0.562	29.83± 9.46	0.165	22.49±10.37	0.580	46.12±8.76	0.479	98.44±13.82	0.383
Non-use	19.95± 4.61		27.33± 9.34		23.59±10.44		45.01±7.9		95.93±15.56	

A statistically significant positive correlation was found between mean systolic blood pressure values and the mean CACMAS subscale points of philosophical congruence with complementary and alternative medicine (p:0.009), and a statistically significant negative correlation with the mean subscale points of dissatisfaction with conventional medicine (p:0.000). The mean diastolic blood pressure values were determined to be statistically significantly positively correlated with the mean subscale points of philosophical congruence with complementary and alternative medicine (p:0.015), and negatively correlated with the mean subscale points of dissatisfaction with conventional medicine (p:0.000), (Table 5).

Table 5. Correlations between the blood pressure values and the RDUS and CACMAS points (N=124)

		Age	Systolic BP	Diastolic BP
Rational Drug Use	r*	0.094	0.111	0.039
	P	0.298	0.255	0.689
Philosophical congruence with CAM	r*	-0.145	0.253**	0.236**
	P	0.108	0.009	0.015
Dissatisfaction with conventional medicine	r*	0.104	-0.356**	-0.358**
	P	0.249	0.000	0.000
Holistic balance	r*	0.006	0.054	-0.084
	P	0.947	0.579	0.391
Total	r*	-0.016	-0.023	-0.114
	P	0.864	0.818	0.246

*Pearson correlation coefficient, **statistically significant

The relationships between the RDUS points and the CACMAS total points and subscale points were evaluated with correlation analysis. No statistically significant correlation was found between the RDUS points and the subscale of philosophical congruence with complementary and alternative medicine (p=0.444). A statistically significant negative correlation was determined between the RDUS points and the subscale of dissatisfaction with conventional medicine (r=-0.381, p<0.001), and a statistically significant positive correlation was found between rational drug use and holistic balance (r=0.472;p<0.001) (Figure 1).

A backward step regression analysis was performed to measure the relationship between rational drug use and the three quantitative variables of the CACMAS. The linear equation of the relationship to the second model was found to be statistically significant (F=21.759, p<0.001).

The equation showed equivalence of RDUS=13.124-0.90 Dissatisfaction with Conventional Medicine + 0.193 Holistic Balance (p<0.001, p=0.010, respectively). The subscale of philosophical congruence with complementary and alternative medicine was not found to have a statistically significant effect on RDUS (p=0.164). An increase of 1 unit in the dissatisfaction with conventional medicine subscale reduced the RDUS points by 0.90 and an increase of 1 unit in the holistic balance subscale increased the RDUS points by 0.193, as a result of which the RDUS score was calculated as 13.28.

DISCUSSION

The non-rational use of drugs causes a decrease in patient compliance with treatment, drug interactions, the development of resistance to some drugs, prolongation or recurrence of diseases, an increase in the frequency of adverse events, and an increase in treatment costs. One of the most important problems in the non-rational use of drugs is the use of analgesics without a prescription.16 In a study of 542 patients presenting at an Internal Medicine polyclinic, it was reported that 51.8% of adults used drugs without a prescription, and 88.6% of the unprescribed drugs were painkillers.[17] In another study of 2842 students in a Health Sciences Faculty, 52.1% of the students stated that they used painkillers without a prescription, and the percentage of students with a high income level using painkillers was lower than that of other income groups.[18] Although the rational drug use points of the current study patients who used drugs regularly were high, the scores were determined to be below the RDUS cutoff value of 35 points. Patients who

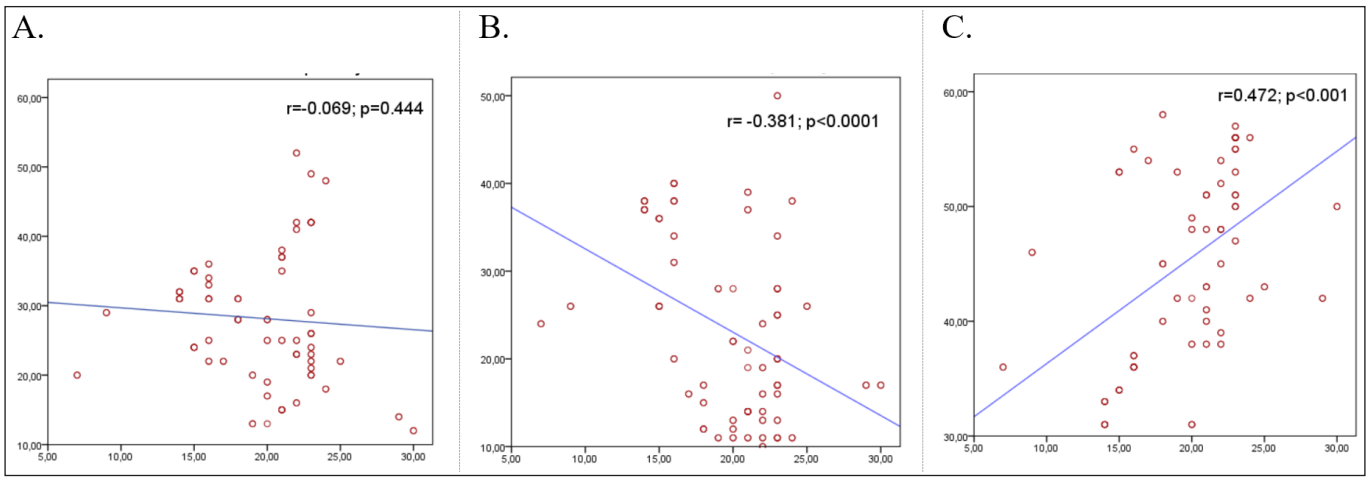

Figure 1. Graphic representations of the correlations between Rational Drug Use and (A)Philosophical Congruence with CAM, (B) Dissatisfaction with Conventional Medicine, and (C) Holistic Balance

used painkillers only when they were in pain were found to have lower RDUS points, which was thought to be due to conscious behavior to relieve the negative condition created by pain and focus on the outcome of pain relief.

Aspirin is one of the drugs most often used in the general population because of its analgesic, anti-inflammatory, anti-pyretic, and anti-aggregant effects. In literature, aspirin has been shown to be an independent risk factor for the first occurrence of GIS bleeding, other than varices.[4] A study of 119 patients who presented at family practitioners reported that 42% were using aspirin as they wished.[19] In another population-based study related to low-dose aspirin users, the incidence of lower GIS bleeding was higher than the incidence of upper GIS bleeding, but the incidence rates of GIS bleeding and 30-day mortality rates of hospitalized patients were lower for those with lower GIS bleeding than for those with upper GIS bleeding.[20] It was seen that 33.1% of the current study patients were using aspirin, but no statistically significant difference was determined between those using and not using aspirin in respect of the RDUS points. Aspirin is a readily available over-the-counter drug and is widely used in the general population. Unconscious use of aspirin at high doses is absolutely a serious risk factor for upper GIS bleeding. Therefore, it is important that society is informed and awareness is created within the framework of health education before these negative outcomes emerge.

The use of traditional and complementary medicine methods is increasing in many countries. The reasons for people wanting to benefit from complementary and alternative medicine include conformity with cultures, lower cost, easy availability, that they are not interventional procedures, and that they seem to be promising for chronic, psychiatric, and terminal diseases.[21] Özer et al.[22] examined the attitudes to complementary and alternative medicine of patients presenting at the Internal Medicine Polyclinic, and reported total CACMAS mean points of 115.78±18.81, philosophical congruence with complementary and alternative medicine subscale points of mean 35.54±8.81, dissatisfaction with conventional medicine subscale points of 35.54±10.28, and holistic balance subscale points of 44.7±8.25. While the philosophical congruence with complementary and alternative medicine and dissatisfaction with conventional medicine subscale points were lower in the current study, the holistic balance points were similar at a mean 45.38±8.18.

Under the umbrella term alternative and complementary treatment, herbal products have started to be widely used. Although there are few reports of the side-effects of herbal products known as complementary and alternative , it has been reported in the literature that biological-based products obtained from unreliable sources can cause a toxic effect or drug interactions.[23] In a study of 348 patients presenting at a family health center, it was determined that 47.1% of the study participants were interested in herbal treatments and applied these, and 19.8% used complementary and alternative medicine-herbal treatment-first when they became ill. It was also determined that females used herbal products at a higher rate than males.[24]

In another study of 196 adults with digestive system problems, 53.8% reported that they used diet and herbal products for these GIS problems.[25]

In a study in Sweden, 1029 patients presenting at the emergency department were questioned about their use of alternative medicine. It was determined that 72.9% of the patients applied alternative medicine at some time in their lives, and the middle-aged female group with a middle-school level of education, and those who used drugs without a prescription used alternative medicine more.[26] The behaviours and attitudes to complementary and alternative medicine were examined in a study of 700 patients presenting at a university hospital, and it was reported that females, females with a high income level, those with poor health perception and chronic disease, and those with knowledge about the use of complementary treatments had higher alternative medicine attitude points than the other groups.[27] The use of complementary and alternative medicine and the associated behaviours and attitudes were examined in a study of 110 immigrants, and it was reported that females and those with a chronic disease showed greater complementary and alternative medicine use behaviour and attitudes.[28] In another study by Kaur et al.,[29] 29.3% of the study population in Malaysia stated that they had used complementary and alternative medicine health services at some time in their life, and more females than males (23.9% vs. 19.3%) reported that they had benefitted more from complementary and alternative medicine practices.[29]

In our study, traditional complementary medicine attitude scores are seen to be high. In addition, the study determined that greater attitudes wardcomplementary and alternative medicine were found in females than in males and in single patients compared to those who were married. Moreover, the holistic balance subscale points were determined to be higher in patients with two or more chronic diseases. Nowadays, it seems that there is a tendency to use complementary medicine for health maintenance and aesthetic purposes, especially in the female and single population. It is thought that the results of our study are due to the fact that women are prone to using alternative medicine methods even without being sick. The RDUS points of the patients who did not

use painkillers were found to be high, and the subscale points of dissatisfaction with conventional medicine were found to be high in those who only used painkillers when they were in pain. This suggested that there was a relationship between rational drug use and not obtaining the expected effect from the use of random painkillers without a doctor's prescription. The RDUS points were higher in patients with a good income level, and the dissatisfaction with conventional medicine subscale points were high in those with a low income. When it is considered that a good income level is in parallel with educational level and access to healthcare services, the data obtained on this point were to be expected. The CACMAS subscale points of philosophical congruence with complementary and alternative medicine were determined to be high in those who used anticoagulant drugs. This was attributed to anticoagulants being taken on prescription and requiring continuous follow-up. The total CACMAS points and holistic balance subscale points were determined to be higher in patients who used drugs regularly compared to those who did not. This could be thought to be due to the fact that, with the thought of lifetime dependency, those who have to take drugs continuously may be directed to alternative treatments and show an interest in complementary and alternative medicine.

Limitations of the Research

The limitations of the study are that the research was conducted in a single hospital and that the sample size could not be expanded due to the researcher leaving the institution.

CONCLUSION

The results of this study demonstrated that rational drug use was low and that rational drug use had a directly proportional effect on holistic balance in patients hospitalized in the Internal Medicine Clinic because of gastrointestinal bleeding. It can be considered that the development of preventative healthcare services with health education related to rational drug use to prevent the development of gastrointestinal bleeding would have a positive effect on hospitalizations. In this context, it is important that nurses, who take a leading role in health education, are knowledgeable about rational drug use and traditional and complementary treatment methods.

ETHICAL DECLARATIONS

Ethics Committee Approval: The study was carried out with the permission of Başakşehir Çam and Sakura City Clinical Researches Ethics Committee (Date: 06.07.2022, Decision No: 218).

Informed Consent: Written consent was obtained from the patient participating in this study.

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