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A Study on the Characteristics of Infrequent and Frequent Outpatients Visiting Korean Traditional Medical Facilities

Jinwon Yoon [a], Haemo Park [b], Chaeshin Chu [c], Sung-Yong Choi [d], Kibum Lee [b], Sundong Lee [b,*]

[a]*Graduate School of Public Health, Seoul National University, Korea.*
[b]*Department of Preventive Medicine, College of Korean Medicine, Sangji University, Korea.*
[c]*Division of Epidemic Intelligence Service, Korea Centers for Disease Control and Prevention, Korea.*
[d]*Department of Preventive Medicine, College of Medicine, Hanyang University, Korea.*

Abstract

Objectives: This study was intended to analyze the characteristics of infrequent and frequent outpatients visiting Korean medical facilities, and find the related variables of frequent users.

Methods: The data source was the Report on the Usage and Consumption of Korean Medicine (2011) published by the Ministry of Health and Welfare and Korea Institute for Health and Social Affairs. We analyzed outpatient data using SAS 9.2.

Results: As much as 46.6% of the patients used Korean medical services over 11 times in 3 months. The proportion of frequent users increased depending on age, and their proportion was high in the low-income and low-education group. People with musculoskeletal disease, stroke, hypertension, and obesity were more likely to use Korean medical services. In general, patients were satisfied with their treatment, with frequent outpatients being more satisfied than infrequent outpatients. In logistic regression analysis, age and musculoskeletal disease were significant determinants of frequency of use of Korean medical services.

Conclusion: Age, musculoskeletal disease, and specific diseases were highly associated with frequent Korean medical utilization.

1. Introduction

It is well-known that the major factors that affect the usage of medical facilities are health insurance, education, private health insurance, disease, treatment rate, and satisfaction [1—6]. In addition to these factors, Korea has a unique situation in which consumers can choose between two competing medical facilities

available, namely, Korean Traditional Medicine (KTM) and Western medicine. The two facilities are thoroughly divided and undergo differential application of health insurance by disease, treatment methods, and the amount of medical expenditure, so that the consumers can choose either facility with consideration of these factors. Chronic illness is characterized by the need for need long-term treatments, and thus, health insurance and medical expenses can be a major factor according to the economic status of the consumer.

KTM involves applying a unique life aspect and medical theories to the treatment and is known to be comprehensive, accessed as the primary facility, and effective for treating chronic and geriatric illness. The use of KTM is known to be characterized by culture, religion, race, sex, region, and diseases [7,8]. Previous studies have shown that women, elderly individuals, low-income, more-educated, married, patients with musculoskeletal diseases (e.g., arthritis, backache, and frozen shoulders), stroke, gastroenteric troubles, and tonic medicine takers are more likely to use KTM [9–11]. The major reasons why they use KTM facilities are subjective expectation of treatment and introduction to KTM facilities by previous visitors [9–11].

This study aims to compare the characteristics of outpatients of the KTM facility by frequency. The authors had interest in understanding the factors of frequent users of this facility. Related data on the outpatients were selected from the Korean Ministry of Health and Welfare's Report (KMOH's Report) on the Usage and Consumption of Korean Medicine in 2011 [10]. The studies on the usage of KTM covered characteristics by sex, age, region, and disease [12–15]. The study patients are elderly individuals [16], patients with chronic illness [17,18], and patients with breast cancer [19]. No previous studies have compared outpatients of KTM by frequency, with specific focus on the frequent users of KTM. Logistic regression analysis was conducted to identify KTM users' sociodemographic characteristics, status of visiting medical facilities, major diseases and treatments, methods and treatment effect by disease, and satisfaction level. It is important to identify the status of KTM users, compare outpatients by frequency, and the factors of frequent users in developing appropriate policy in KTM.

2. Materials and methods

2.1. Study population

This study used data from the KMOH's Report on the Usage and Consumption of Korean Traditional Medicine in 2011 [10]. This report provides the basic statistics for KMOH's policy on KTM by investigating the status of KTM utilization and consumption of herbal medicine in Korea. The study included sociodemographic factors of inpatients and outpatients of KTM facilities, factors of medical service utilization and user's recognition, and use of KTM facilities for the past 3 months. The study was conducted from August 25 to September 30, 2011. Of the total 12,250 KTM facilities in Korea, 471 KTM facilities (171 KTM hospitals and 300 KTM clinics) were selected by multistage stratified sampling by region and institution type. During the investigation, a total of 5607 inpatients ($n = 1681$) and outpatients ($n = 3926$) were interviewed. We analyzed a total of 2583 outpatients in this study. The remaining outpatients did not provide a response and were thus excluded from the analysis.

2.2. Data analysis

We classified the frequency based on the number of visits to the KTM facility for the 3-month period. Frequency varied from one time to more than 60 times. We divided the study patients into three groups, namely, frequent, infrequent, and middle visitors, or upper 31.07%, lower 35.92%, and others, respectively. Frequent visitors visited KTM facility for more than 11 times and infrequent visitors visited the facility for one to three times. We analyzed the sociodemographic characteristics of the two groups by sex, age, marital status, education, and income. The two groups were also analyzed in terms of the medical institution preferred, disease and treatment method, treatment effect, satisfaction level, and side effect. A Chi-square analysis was conducted to understand the distribution of each variable. For the frequent visitors group, logistic regression models were applied to analyze the factors for using KTM facilities. Model 1 was adjusted for sociodemographic variable and medical institution preferred and Model 2 was adjusted for an additional 25 disease variables with the existing Model 1 variables. SAS 9.2 (SAS Institute Inc., Cary, NC, USA) was used for data analysis and the level of significance is 5% [20].

3. Results

3.1. Sociodemographic characteristics

Table 1 presents the sociodemographic characteristics of total, infrequent, and frequent visitors to KTM. A total of 2583 outpatients visited KTM facilities [766 men (29.7%) and 1817 women (70.3%)]. Most of the these visitors were in their 20s to 70s. Frequent visitors were in their 40s to 70s, whereas infrequent visitors were in their 20s to 50s. A majority of the visitors were married (1831 persons, 71.0%) and high-school and college graduates (1699 persons, 66.1%). They had jobs (1205 persons, 47.0%) and had an income of <1000–4000 USD and were covered by residence-based health insurance (2426 persons, 94.2%). There was statistically significant difference between the two groups in age, marital status, education, employment