

Healthcare Service Utilization and Associated Factors in Elderly - A Review in Asian Countries

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Introduction

In the Asian countries, the entry of baby-boomers into old age is a social policy issue [1]. The Council for Economic Planning and Development predicted that elderly (more than 65 y/o) will reach 22.5% by 2028 in Taiwan [2]. The percentage of the elderly (more than 65 y/o) increased from 11.3% in 2010 to 14.0% in 2017, and it is expected to rise to 37.4% in 2050 in Korea [3]. The population aged (more than 60 y/o) in China is projected to increase from 13.9 % in 2013 to 32.8 % by 2050 [4].

A Taiwan National Health White Paper (2020) reported that the main factor influencing the higher life span was medical care [5]. From a health perspective, older people tend to spend a greater proportion on health care than other sectors of the population [6]. Thus, improving education or enhancing care services may be needed to ensure that elderly make wise decisions concerning medical care and their health [8].

Changing disease patterns and the increase in the need for chronic disease management have increased interest in the use of traditional Chinese and Korean medicine (e.g., herbal medicine, acupuncture, moxibustion); and complementary/ alternative medicine (e.g., recalling the soul, gua sha, cupping therapy, manipulation, chiropractic, massage, reflexology, bone reduction, and traditional trauma dislocation) across the Asian countries [1,7-10].

One Taiwan study by the National Institutes of Health in 2003 revealed that individuals aged older than 65 years were exhibiting greater healthcare utilization [11]. Other studies have shown that individuals who were younger and had higher education levels tended to seek out Western medicine treatment [12], as did elderly who were conscious of being ill [13]. One study found that, as age increased, so did the utilization rate of traditional Chinese medical treatment [14]. Korean elders with lower incomes were more likely to consult a doctor or use traditional Korean medicine than those with higher incomes. Possible reasons for the different results may be that the study population is older or older people of lower income are simply in worse health than those of higher income [1].

Among individuals aged 65 years or older, 57% of women and 44% of men also used herbal medicine, vitamins, and mineral supplements. A higher likelihood of polypharmacy was also found with increasing age [15]. Compliance awareness has been found to be closely related to education level [16].

One major factor determining accessibility to medical care is convenience [17]. With greater convenience, elderly is more likely to seek out regular treatment [17]. The United State (US) Centers for Disease Control and Prevention found that the main reason for the US population aged more than 65 years old who delayed in seeking medical care when ill was the difficulty of accessing such care [18].

To maintain the body’s healthy functioning, elderly must engage in greater physical activity and healthy behaviors [19].

The motivation for health promotion was still high in the aging group, and they had sufficient time to engage in healthy behaviors [20]. Therefore, health protection and promotion are important concepts to maintain health of the elderly.

The purpose of this review article is to describe the health status and healthcare services utilization of elderly in Asian countries, and examine the factors that are associated with effective healthcare services utilization. The Andersen healthcare utilization conceptual model is used to identify the subgroup differences in utilization. Andersen introduce “equitable distribution”, which is important for addressing the problem of access to care [21-24]. It would be useful to utilize the model to interpret the results of these studies.

Andersen healthcare utilization conceptual model

The Andersen healthcare utilization model or behavioral model, developed in 1968 in the USA context, has been applied widely in international research on health services [21-24]. It has guided systematic investigations into the factors that lead to the use of health services including predisposing, enabling and need factors. Predisposing factors can be characteristics such as age, sex, education, occupation, social relationship, social norms and health beliefs etc. Enabling factors could be income, access to health insurance, availability of transportation and health care facilities etc. Need represents both perceived and actual need for health care services, such as perception of health, evaluated health etc. [21-24]. (Fig 1).

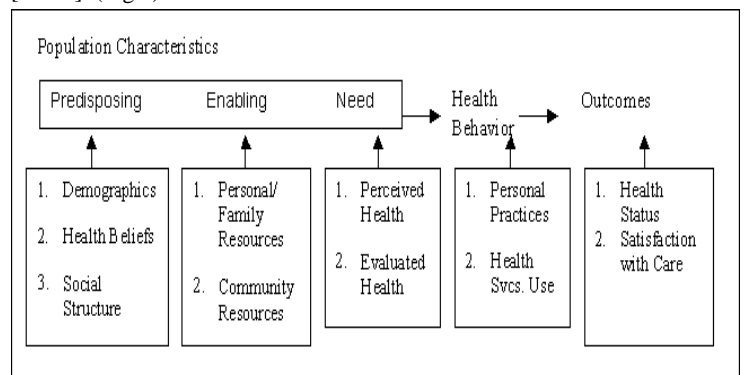


Figure 1: The Andersen healthcare utilization conceptual model²¹⁻²⁴

Discussion

The proportion of elderly who perceived their health status as good or excellent was 46.2% (in Taipei city) [8], which was notably higher than those reported in the Taiwan national surveys in 2005 (35.8%) and 2009 (38%) [National survey results (including 21 counties and 187 villages and towns) in 2005 and 2009] [25,26]. In China and Korea study showed the proportion of elderly who perceived their health status as good or excellent were 48% and 56.2% [1,4].

Drawing on Andersen's behavioral model, the results are discussed according to the differing factors influencing healthcare service use:

A. Predisposing factors

- 1. Gender:** In Taipei study, women were more likely to utilize healthcare service than were men [8]. Same result was found in a study by Yeh, the reason being that women were judged to pay more attention to their physical and mental conditions [27]. But there were different results and explanations in China and Korea studies, being female in China is negatively correlated to healthcare service, possibly reflecting the fact that females are more capable to manage their health problems in a better way than males [4]; In Korea, older Korean women were less likely than their counterparts to have used healthcare services. More specifically, men were much more likely to have visited a doctor than women. They were also two times more likely to have used traditional Korean medicine than women, this may be explained by the fact that women who grew up in traditional patriarchal families may have hindered them from seeking medical services [1].
- 2. Age:** Taipei study showed that different age groups had different choosing healthcare service [8]. Tsai found that elderly with chronic diseases were more likely to choose traditional Chinese medicine [14]. Those who 80 and older, were more likely to have used primary care services such as physicians and traditional Korean medicine [1].
- 3. Education level:** In Taipei study, people with higher education levels (e.g., college or higher) were more likely to utilize healthcare service than were respondents with an education of less than junior high school. In contrast, recalling the soul declined with education level [8]. It has been noted that elderly with lower education levels are less likely to be concerned about their health status [28]. Furthermore, elderly with higher education levels may be more motivated to engage in self-care and are more compliant with a healthy lifestyle [13]. In China study, higher education is positively associated with healthcare service probably because highly educated older people are more attentive to their health [4].
- 4. Health concerns:** Respondents in Taipei study with greater health concerns were more likely to utilize Chinese medicine services and an organic diet than were those with lower health concerns [8]. Weng noted a higher utilization rate of Western medicine among those whose perceived health statuses or actual health states were poor [29]. In China study, currently not drinking, or not smoking is positively associated with having physical examinations and healthcare service. This may reflect adaptive behaviors after having health problems instead of reduced health risk factors as have been found in the literature on developed countries [4].

B. Enabling factors

- 1. Living arrangement:** In Taipei study, elderly living with their families were more likely to utilize healthcare service than were those living alone [8]. Liao also showed that elderly living with family tend to have relatively good physical and mental health [30]. In contrast, living alone was significantly related to lower use of healthcare services, decreased utilization of medical services overall, and a lower likelihood of searching for health knowledge [31]. In China study showed another different result: being separated/divorced/widowed is positively associated with all types of healthcare utilization indicating that partnership is playing an important role in maintaining good health among older people [4].
- 2. Community resources (e.g., accessibility of medical care):** In Taipei study, as many as 94.5% of elderly preferred Western medicine for treatment when ill while 11.4% preferred Chinese medicine [8].

Both of these rates are higher than those in the Taiwan national survey data (77.8% in 2005, 68% in 2009 and 4.3% in 2005, 3.6% in 2009, respectively) [25,26]. In China study, communist party membership and urban residence are positively associated with healthcare service because Communist party members and urban residents have better access to medical facilities and better forms of health insurance [4].

C. Need factors

- 1. Perceived need (e.g., perceived physical and mental health):** Respondents in Taipei city who were receiving treatment for chronic diseases were more likely to utilize Western medicine services compared to those not receiving such treatment. Additionally, those with higher depression scores were found to be more likely to utilize Western and Chinese medicine services, an organic diet, and manipulation and physical therapy than were those with lower depression scores [8].

The lower individuals' health awareness and willingness were difficult to avoid health hazards and poor health-related behaviors [32]. As such, their use of medical resources is generally rather low. Previous studies have similarly found a close association between health cognitions and behaviors and use of medical resources [32]. Furthermore, self-reported health status is related to suffering from chronic disorders, functional limitations in daily life, and emotional factors [33].

Those who with poor health were more likely to have used primary care services such as physicians and traditional Korean medicine [1]. In China study, multiple chronic diseases and poor perceived health are strong need factors for all types of healthcare utilization; depression increases the probability of using inpatient care and visiting a doctor, with activities of daily living (ADL) limitations or pain increases the probability of seeing a doctor while with functional loss increases the probability of having physical examinations [4].

Conclusion

The main goal of our review article is to alter those factors influencing healthcare utilization, such as education level, health concepts or accessibility to medical care, to prevent elderly living in different areas from ignoring their illness and delaying in seeking out care. Programs are needed that emphasize the importance of self-care and seeking early treatment. This article provides an important contribution to the knowledge base of Asian elders.

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