



## Original article

## Qualitative research on the importance and need for home-based telecare services for elderly people

Yung-Hung Wu, PhD<sup>a, b</sup>, Ya-Chen Lu, MS<sup>c, \*</sup><sup>a</sup> Superintendent Office, Taipei Veterans General Hospital, Taipei, Taiwan<sup>b</sup> Department of Business Administration, Takming University of Science and Technology, Taipei, Taiwan<sup>c</sup> Institute of Health Policy and Management, National Taiwan University, Taipei, Taiwan

## ARTICLE INFO

## Article history:

Received 24 December 2013

Received in revised form

21 March 2014

Accepted 6 April 2014

Available online 28 June 2014

## Keywords:

Aging society

Elderly

Health care

Telecare

## ABSTRACT

**Background/Purpose:** Aging society has become a worldwide issue in recent years. Elderly people are considered to have higher risks of contracting multiple chronic diseases and comorbidities, thus increasing the need for care. Currently, efforts to develop long-term care for elderly people thrives more than before. Telecare has the potential to improve intractable problems in health care, such as limited access, uneven quality of care and cost inflation. The main purpose of this research is to investigate the key service items of home-based telecare that are important to elderly people and to identify their needs to make a more specific blueprint for future development.

**Methods:** A qualitative study was conducted by applying the expert panel method and a questionnaire survey. The purpose of the expert panel was to clarify and unify the scope and the main objectives of this research which would help to develop the structure of the questionnaire so as to manipulate and conduct analysis in the research.

**Results:** Through the expert panel, 15 service items and products were selected and unified. The average showed that the present performance was generally considered good. There were some differences between the scores of the three members of the panel, which revealed the existence of contrary opinions to each stakeholder's party.

**Conclusion:** The study provided a closer inspection of the issue of the nonegalitarian reality of telecare. Based on the INA matrix, service items and products were narrowed down to eight, which is half of the original service items and products provided. In addition, it was easy to observe the priorities among service items and products when providing service items and products to elderly people.

Copyright © 2014, Asia Pacific League of Clinical Gerontology & Geriatrics. Published by Elsevier Taiwan LLC. Open access under CC BY-NC-ND license.

## 1. Introduction

Aging society has become a worldwide issue in recent years. According to the definition of the World Health Organization (WHO), a country is considered to be an aging society when the proportion of the population over 65 reaches 7%, as aged society when the proportion reaches 14%, and as superaged society at 20%. Due to economic growth and medical improvements, Taiwan now faces dramatic demographic changes. The percentage of elderly people in Taiwan exceeded 7% in 1993, and reached 11% in 2011. It is estimated that Taiwan will become an aged society in 2018 and super-aged in 2025.<sup>1,2</sup>

Elderly people are considered to have higher risks of contracting multiple chronic diseases and comorbidities, thus increasing the need for care. Many study results show that age is one of the major affective factors in health care utilization.<sup>3,4</sup> Based on reports from the Department of Health in Taiwan, elderly outpatients over 65 years old accounted for 33% of total services. In addition, the annual health care expenditure of the 60–69-year-old group in Taiwan was 81,677 NT dollars (approximately 2720 U.S. dollars) in 2006, which is almost twice that of the 50–59-year-old group, or four times more than the 40–49-year-old group. Both health care utilization and expenditure in Taiwan are consistent with these findings.

In this climate, development of long-term care for elderly people thrives more than before. In the 1960s, European countries proposed the idea of aging in place. The concept was to let elderly people stay in a familiar environment as long as possible in order to slow down malfunctioning. Community and home-based care

\* Corresponding author. Institute of Health Policy and Management, National Taiwan University, Number 17, Xu Zhou Road, Taipei 100, Taiwan, ROC.

E-mail address: r01848014@ntu.edu.tw (Y.-C. Lu).

gradually earned its own value and prestige in many countries. Taiwan also followed this trend and transitioned to long-term care policy adopting community and home-based care. In 1999, the Department of Health in Taiwan declared that long-term care policies should focus on community and home-based development. Community and home-based care is the future goal in Taiwan.

According to the report conducted by the UN in 2005, it was shown that living with a child or grandchild is the most common type of living arrangement among older persons in Latin America and the Caribbean, Asia, and Africa. In particular, living with a child is considered the top preference of living arrangements in Taiwan, Japan, and South Korea. In Taiwan, this preference has remained the same since 2005.<sup>5</sup> The overview of elderly people's living status in 2011 shows that the ideal living status for an elderly person is living with a child; living with a spouse takes second place. Living in institutions accounts only for 3% of preferences. In this given situation, most elderly people who keep or wish to keep their daily lives at home need different degrees of health care. Some may need mild assistance such as medication guides, whereas others may need multiple functions to sustain their basic activities of daily living. However, the environment at home, unlike in institutions which have sufficient facilities and well-trained staff, cannot always provide professional help in time and can consequently influence health maintenance.<sup>6</sup>

Due to technological innovation, there are more and more applications available across different expert fields, and the medical field is no exception. Home-based telecare was first developed for patients with chronic diseases such as heart failure, diabetes, asthma, and chronic obstructive pulmonary disease (COPD).<sup>7</sup> Thereafter, its application was expanded to include other vulnerable populations.<sup>8</sup> Considering the close relationship between care needs and underlying medical conditions, we adopt an extended definition of home-based telecare. In this paper, we regard home-based telecare as all kinds of integrated health care services that use information and communication technology (ICT) to maintain safety and autonomy in the living environment.<sup>9–11</sup> Telecare may combine all kinds of assistive or enabling technologies to provide a total care package that requires very little of the person-to-person interaction currently associated with care in and by the community.<sup>12</sup>

With the rise in the home-based care population in recent decades, many companies and organizations in the health care field have become prosperous through emerging service items and products that target elderly people. According to a report by the Ministry of Economic Affairs in Taiwan, profit from the application of wireless health care in America continues to increase from 0.3 billion United States dollars in 2009 to 4.4 billion United States dollars. In Taiwan, Executive Yuan also launched a Health cloud project in 2013, whose aim was to create a ubiquitous health care environment by connecting associated systems among the medical, care, health protection, public health promotion, and disease control services. Rising demand for combined ICT technology and personalized health care services has created a huge business market for home-based telecare.<sup>13</sup> In view of this trend, the main purpose of this research is to discover the key service items of home-based telecare that are important to elderly people in the hope of identifying their needs so as to make a more specific blueprint for future development.

## 2. Methods

A qualitative study was conducted by applying the expert panel method and a questionnaire survey approach. The expert panel was to clarify and unify the scope and main measure objectives of this research and help to construct the questionnaire. The expert panel

was then asked to fill in the questionnaire in order to manipulate and conduct analysis in the research.

### 2.1. Expert panel

Service items and products were first collected through secondary data by reviewing published research papers. Other available documents such as industry reports were also taken into account as reference.<sup>14–17</sup> However, service items and products were developed and manufactured individually. Consequently, it brought to light the fact that similar types of service items or products provided roughly the same service contents, but each had some distinct details when closely inspected. In order to provide a basic widespread concept toward each home-based telecare service and to ensure the consistent conception and definition of each service item or product, the expert panel method was introduced and applied in this research. Expert panels are used to systematically solicit, organize, and structure collective judgments and opinions on particularly complex subject matters by an authoritative group. In accordance with the essence of the expert panel, a heterogeneous group provides comprehensive perspectives and reduces bias.<sup>18,19</sup> Therefore, diversity stakeholders in telecare should be taken into consideration. Three distinguished but associated authorities were assembled in the expert panel. They were product manufacturers in the industry, medical suppliers in the health care system, and the end-users – elderly people. Two senior managers who work in one of the major companies in telecare in Taiwan agreed to represent their field in our interview. Three medical directors of geriatrics and gerontology in one of the largest medical centers in Taiwan were represented in this research. Two elderly people who had experience and constantly used one of those service items or products over the past 2 years were presented as end-users. However, it should be noted that selection of our panel members was not random, but designed to enhance collective knowledge. Two researchers reviewed and revised expert panel open-ended questions until an agreement was reached. Each panel received a manuscript that contained descriptions of the others. Panel members were contacted individually when researchers needed clarification regarding their comments.

### 2.2. Data analysis

Based on the results of the previous stage, a provisional questionnaire was constructed to determine the importance and degree of need for all service items and products. The questionnaire was developed with a likert-type scale to discover the difference in importance of and the degrees of need for service items. In this research, importance was defined as the value or influence of a particular item when providing health care to elderly people. However, the definition of the degrees of need was the perception of lack of a particular item for elderly people. Open-ended questions were also included in the questionnaire to record responses and details that were not reflected on the scale. After finishing interviews, we applied a descriptive statistic method to analyze the score of the likert-type scale questionnaire. As there is little known about the different perspectives of the three parties in previous studies in the area of telecare, descriptive statistics were suitable for exploratory investigation and provided a grasp of the new field. Secondly, we developed an importance-need analysis matrix (INA) based on the average score of each item and product. Through the INA matrix, service items were relocated to corresponding positions. By this means, we could explain more thoroughly the relationship between importance and the degree of need of each service item and determine individual value and actual performance as perceived by the expert panel.

Download English Version:

<https://daneshyari.com/en/article/3325810>

Download Persian Version:

<https://daneshyari.com/article/3325810>

[Daneshyari.com](https://daneshyari.com)