



Korean Society of  
Nursing Science

Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

## Asian Nursing Research

journal homepage: [www.asian-nursingresearch.com](http://www.asian-nursingresearch.com)



### Research Article

# Psychometric Validation of the Korean Version of the Camberwell Assessment of Need for the Elderly in Individuals with Dementia

Q1

Q8

Q23

Q4

Myonghwa Park, PhD, RN,<sup>1</sup> Sun Kyung Kim, PhD, RN,<sup>2,\*</sup> Miri Jeong,<sup>1</sup> Song Ja Lee,<sup>3</sup>  
Seon Hwa Kim,<sup>3</sup> Jinha Kim,<sup>3</sup> Dong Young Lee<sup>4</sup>

<sup>1</sup> Research and Education Center for Evidence Based Nursing Knowledge, College of Nursing, Chungnam National University, Daejeon, Republic of Korea

<sup>2</sup> Department of Nursing, Mokpo National University, Jeonnam, Republic of Korea

<sup>3</sup> Seoul Metropolitan Center for Dementia, Seoul, Republic of Korea

<sup>4</sup> Department of Neuropsychiatry, Seoul National University Hospital, Seoul Metropolitan Center for Dementia, Seoul, Republic of Korea

### ARTICLE INFO

#### Article history:

Received 26 June 2017

Received in revised form

20 March 2018

Accepted 4 April 2018

#### Keywords:

dementia  
needs assessment  
patient-centered care  
validation studies

### ABSTRACT

**Purpose:** The prevalence of dementia has increased rapidly with an aging Korean population. Compared to those without dementia, individuals with dementia have more and complex needs. In this study, the Korean version of the Camberwell Assessment of Need for the Elderly (CANE-K) was evaluated to determine its suitability for individuals with dementia in Korea.

**Methods:** The CANE-K was developed following linguistic validation. The reliability of the measurement was examined with Cronbach  $\alpha$  coefficient. The factor structure and construct validity were evaluated by performing exploratory factor analysis and confirmatory factor analyses. Pearson's correlation coefficients with related measures were used to ensure concurrent validity.

**Results:** Four factors extracted with exploratory factor analysis and confirmatory factor analyses validated the model structure ( $\chi^2 = 367.25, p = .000$ , goodness-of-fit index = .84, adjusted goodness-of-fit index = .80, root mean square error of approximation = .07, and comparative fit index = .83). Items on the CANE-K loaded on the four factors in a range between .40 and .80. The output of Pearson's correlation coefficient with cognitive impairment, behavioral problems, activities of daily living, and caregiver burden showed acceptable concurrent validity.

**Conclusion:** The CANE-K showed a reasonable degree of reliability and validity. Therefore, it has good potential to appropriately measure the needs and unmet needs of those with dementia.

© 2018 Korean Society of Nursing Science, Published by Elsevier Korea LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

### Introduction

Korea has become one of the fastest aging societies in the world, and the prevalence of dementia has increased rapidly to be one of the highest among all diseases [1]. Considering the complexity of this disease, people with dementia have more needs than those without dementia. In addition, dementia challenges health-care providers as they often exhibit problematic behavior that occurs when their needs are not met [2]. A need presents when a significant problem requires proper interventions that can be met with

an appropriate intervention; in contrast, a need remains unmet when assistance was not helpful or no help existed for the problem [3]. Analyzing an individual's evaluation of their need, health providers are better guided about whether their services were appropriate. Efficient and evidence-based care has prompted service allocation based on need assessment [4]. Thus systematic need assessment for individuals with dementia to identify the majority of their unmet needs can enable health-care providers to better assign appropriate resources.

Researchers have developed various instruments that measure health-care and support-system needs. They include the Camberwell Assessment of Need [5], the Elderly Health Care Needs Assessment Questionnaire (EHCNAQ) [6], Health Needs Assessment Tool [7], the Need of Support and Service Questionnaire [8], and the Montreal Assessment of Needs Questionnaire [9]. These tools, except the EHCNAQ, target health visitors in general and were not designed to measure needs in the elderly. In addition, the EHCNAQ

\* Correspondence to: Sun Kyung Kim, PhD, RN, Department of Nursing, Mokpo National University, 1666 Yeongdan-ro, Cheonggye-myeon, Muan-gun, Jeonnam, 58554, Republic of Korea.

E-mail addresses: [mhpark@cnu.ac.kr](mailto:mhpark@cnu.ac.kr), [skkim@mokpo.ac.kr](mailto:skkim@mokpo.ac.kr), [miri9912@naver.com](mailto:miri9912@naver.com), [song8627@citizen.seoul.kr](mailto:song8627@citizen.seoul.kr), [ksh05211@naver.com](mailto:ksh05211@naver.com), [dementia76@naver.com](mailto:dementia76@naver.com), [selfpsy@snu.ac.kr](mailto:selfpsy@snu.ac.kr)

<https://doi.org/10.1016/j.anr.2018.04.001>

p1976-1317 e2093-7482/© 2018 Korean Society of Nursing Science, Published by Elsevier Korea LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

measures self-reported health by obtaining information focused on health-related complaints in elders [6].

The Camberwell Assessment of Need was adapted especially for older adults and geriatric populations with psychological issues and modified to the Camberwell Assessment of Need for the Elderly (CANE) in the UK. The CANE is a structured and multidimensional need-assessment tool that consists of detailed questions about the nature and severity of problems in each dimension. The CANE is a comprehensive and person-centered instrument developed to avoid inadequate and inappropriate use of the health-care system. Understanding the complexity of needs in older adults with dementia, the CANE investigates the nature of needs, the extent of assistance received for those needs, and the degree of satisfaction with that assistance. On a multidisciplinary team, health-care providers can use the CANE to incorporate the perspectives of a patient's associates (caregivers and health professionals) as well as people with dementia themselves. The CANE questionnaire helps in identifying where an individual has unmet clinical needs and possible gaps or shortcomings in health-care provision in health-care settings [10].

When individuals with dementia have some degree of cognitive decline, their caregiver's rating gathers valid information regarding the elders' needs [11]. The CANE acquires information about elders from a variety of individuals—older adults themselves, staff members at care facilities, and caregivers—with the aim of incorporating this information into possible person-centered interventions and care plans [10]. For community-residing individuals with dementia, family caregivers account for the largest share of care provision and often become the source of information on unmet needs. The tasks of dementia caregivers encompass all domains from assisting with daily activities to making decisions on economic and health-care issues [12].

One advantage of the CANE is that it provides the opportunity to identify areas where needs arose but were met with sufficient support, formally and informally. Moreover, using the CANE, needs remained unmet when interventions did not provide support or solutions [10]. The CANE evaluates needs in 24 areas and determines whether “needs” were met or remained unmet. Use of the CANE would enable health-care providers to construct more effective service plans. This assessment provides the domain of identified problems as well as perceived level of need and whether individuals were satisfied with the help received [10]. Using the CANE, possible gaps and shortcomings of current health service can be identified along with individual clinical needs.

The CANE has been translated into various languages and previous research showed good validity. The German version of the CANE was useful in identifying needs in depressed elderly [13]. The CANE was useful in identifying areas where needs were met and unmet among people with dementia and caregivers in the UK [4]. In a study conducted in The Netherlands, validity and feasibility were evaluated in a large sample of people with dementia and their caregivers [14]. In addition, CANE was used to compare caregivers' needs according to the type of dementia [15].

Despite the increasing body of research that demonstrated many unmet needs in care provision for individuals with dementia [1,7,8], awareness of its importance among the Korean population is quite limited. In Korea, much of existing measurements evaluate needs based on disability and severity of symptoms, determining if individuals with disease also suffer from certain levels of disability and assumes needs for certain interventions. Therefore, evaluation of need using the CANE can guide health providers to allocate resources more effectively.

To examine the appropriateness of the Korean version of the CANE, this study was conducted to translate the CANE and confirm its reliability and validity. Although the original version of the CANE

did not identify latent variables, previous studies classified the items into four factors with varying content and formation. Four-factor construction was suggested in previous studies, categorizing items into environmental, physical, psychological, and social needs [10,13]. In contrast, a validation study by van der Roest [14] clustered the same items into three categories of (1) autonomy; (2) physical; and (3) psychological, emotional, and social needs. Thus, by conducting factor analysis, this study examined whether these factors can be applicable in a Korean population using the Korean version of CANE (CANE-K). A CANE-K may help health professionals and health-care policymakers identify areas where older adults with health issues have the highest unmet needs.

The purpose of the present study was to examine the psychometric properties of the CANE-K among family caregivers of individuals with dementia. We evaluated construct validity and reliability of the CANE-K examining internal consistency, latent structure, and concurrent validity.

## Methods

### Study design

A methodological study was conducted to examine validity and reliability of the translated CANE-K.

### Participants and study design

This study used data obtained as part of the Seoul Dementia Management Survey (SDMS). The SDMS is a cross-sectional and multidimensional investigation of individuals with dementia and their caregivers on the status of dementia management. The SDMS was conducted from June to August, 2014. The sample was obtained from the randomly selected 656 patients–caregiver dyads who registered on the online database, owned and managed by Seoul Metropolitan Center for Dementia. Of the population registered in the online database, family caregivers for individuals with dementia at home were chosen, and a total of 360 responses were obtained from those who agreed to participate. Excluding questionnaires with missing data, data from 359 primary caregivers were analyzed. Using a structured questionnaire, trained nurses administered face-to-face or telephone interviews. Except for examinations for disease severity, most information, including answers to the CANE tool, was provided by family caregivers. Individuals with dementia were those with a clinical diagnosis of dementia, based on the minimal state examination (MMSE) [16] and Clinical Dementia Rating [17], implemented by expert psychiatrists.

### Ethical considerations

Ethical approval was obtained from the institutional review board of a university hospital (Approval No. H-1404-075-572). The authors were authorized to access online data resources by the Seoul Metropolitan Center for Dementia.

### Instruments

The CANE-K was obtained after completion of the following standard procedures. An adaptation measure ought to show content equivalence, establishing that the domain of items is relevant and appropriate for the culture where the tool was adopted, while maintaining content parity [18]. Linguistic validation was achieved through three steps in the translation process. To adapt the original CANE to the Korean culture, first we had two bilingual specialists (one bilingual nurse and one linguist) translate the original CANE questionnaire into Korean. Second, another pair consisting of a

Download English Version:

<https://daneshyari.com/en/article/8567774>

Download Persian Version:

<https://daneshyari.com/article/8567774>

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