Original

On the priority of needs for home care services of older adults in Taiwan, as based on Maslow's hierarchy of needs

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K.H. Wang, H-G Chen, G. Chen. On the priority for needs of home care services of older adults in Taiwan, as based on Maslow's hierarchy of needs. Gerontechnology 2016; 14(4):239-243; doi:10.4017/gt.2016.14.4.006.00 **Background** As a result of trends including an increase in the elderly population, declining birth rates, and changes in lifestyle, 'aging in place' is currently the first choice of the elderly with respect to their old age planning. Moreover, home care service is the key to the success of aging in place. This study explores Taiwan elderly home care service industry in depth to understand the connotations, types, and importance of the home care service needs of the elderly people. Method Data collection used Modified Delphi method to determine the relevant criteria for evaluation and selection. In total 16 experts participated in this study. Results The result shows that the most important needs of the elderly were physiological (0.296), followed subsequently by security (0.276), esteem (0.172), love and belonging (0.153), and self-actualization (0.103). Amongst the need factors of the elderly, food (0.091) was most important, with the top five in order being a need for health and security (0.088), caring for oneself and life (0.07), overcoming psychological stress of illness (0.057), and personal safety (0.056). The priority of home care services needs provide a reason for service providers to arrange their resources and efforts for serving better services to elderly people.

Keywords: elderly needs, Maslow's hierarchy of needs, home care services, elderly

The population of elderly individuals around the world is growing, and an aging population structure is now an irreversible trend in societal development. Taiwan officially became an 'aging society' in 1997¹. According to census surveys conducted by the Ministry of the Interior of the Executive Yuan in 2011², elderly individuals aged 65 or older accounted for 11.33% of the population. According to estimates by the Council for Economic Planning and Development of 2012³, it is expected that by 2018, the proportion of the population aged 65 or older will reach 14.6%, thus meeting the WHO definition for an 'aged society'⁴. By 2025, the proportion will grow even higher to 20%, officially making Taiwan a 'superaged society⁴.

As a result of these trends including an increase in the elderly population, declining birth rates, and changes in lifestyle, 'aging in place' is currently the first choice of the elderly when it comes to their old age planning. Moreover, home care service is a key factor to the success or failure of 'aging in place'. In the past, Taiwan's home care services were positioned at the level of social welfare and only provided elderly individu-

als with services to meet the most basic of needs. Such services were unable to address needs at other levels. In order to prepare for the arrival of an aged society, it is necessary to learn deeply about the various needs of the elderly in their lives and to enhance the contents of home care services. Only by doing so can the future societal changes be met and dealt with appropriately. To this end, the present study relied on Maslow's hierarchy of needs⁵ as a foundational structure, and through the viewpoints of gerontology. The purpose of this research is to explore the connotations, types, and priority of home care service needs of elder adults in Taiwan.

AGING AND NEEDS

During the course of aging, because of influential factors such as decline in physiological function, changes in societal roles, and changes in economic conditions, the elderly experience various problems and needs relating to physiology, psychology, and societal environment. These problems can include meals and daily living, lifestyle assistance, health and wellness, disease treatment, retirement and care, economic support, family counseling, and psychological counseling.

Because of dispersion across different levels, the complexity of their needs is high⁶.

According to statistics compiled by the Ministry of the Interior of the Republic of China in 2000⁴, the elderly have a relatively high need for medical healthcare (72%), economic subsidies (70%), leisure activities (52%), elderly retirement institutions (32%), psychological counseling and guidance (29%), opportunities for further study (25%), home services (24%), and employment guidance (17%). In addition, according to a survey conducted by the Industrial Technology Research Institute Service Center in 2007⁷ of the needs of 222 elderly individuals, life needs of the elderly are most urgent in relation to health (74%), followed leisure/entertainment (59%), psychology (39%), and finances (19%). However, the need for clothing was found to be the least important (4%).

Regarding the characteristics of elderly needs, according to surveys conducted by Jian and Yang⁸, as a result of changes in societal values and educational levels, as well as improvements to economic capabilities, the elderly have experienced trends of gradual diversification, securitization, and upgrading of life needs. As part of this, diversification refers to a gradual increase in demands on the part of the elderly for a quality life, with a progressive transition from obligatory consumption to non-obligatory consumption and a transition from 'hard' consumption to 'soft' consumption (such as consumption related to leisure, communication, labor replacement, and information). Securitization refers to the elderly having an intense need for products as a risk hedge, such as for insurance and bonds amongst other items of economic security and assistive devices, security equipment, home care, and similar health and safety merchandise⁸. Upgrading refers to the gradual increase in needs for high-end merchandise, for example, the purchase of health foods to maintain one's own health, and the purchase of precious metals to highlight one's own accomplishments⁸.

According to another research⁹, the most important life need of the elderly in Taipei is food, followed by the needs for medical healthcare, socializing, education, leisure, housing, clothing, and transportation. The results of the present study highlight the fact that the majority of life expenses of the elderly are spent to meet the need for food for the older generation or others, the need for medical healthcare, as well as the need to socialize.

NEEDS CATEGORIZED

Xie⁶ categorized elderly needs into five aspects of (i) health, (ii)economic security, (iii) education

and leisure, (iv) psychology and societal acclimatization, and (v) home and retirement care. The degree of importance of these needs will adjust along with changes in the greater societal environment. Furthermore, Zhang¹⁰ specially noted that at different stages in old age, the elderly have varying degrees of urgency for different needs. For example, elderly individuals who have just turned 65 and who are in good health have no immediate need for medical treatment but have strong needs for economic as well as retirement care. However, as they age, physiological function progressively declines, and in such instances, there are immediate needs for medical treatment that will continue until the end of life.

From another perspective, the hierarchy of needs proposed by Maslow⁵ divides human needs into five separate levels. From the lowest order of physiological needs, security needs, love and belonging needs, and esteem needs to the highest order needs of self-actualization. After people satisfy the lower order needs, they will then pursue the needs at higher orders. The same situation applies to the elderly. Due to the special nature of the physiological function, values, and habits of the elderly, different needs are generated as compared to those generated for other people. For example, the needs for healthcare and economic stability will be greater than those for other individuals. According to work compiled by Wang¹¹, the needs of the elderly were differentiated into five categories, namely elderly physiological needs, elderly security needs, elderly love and belonging needs, elderly esteem needs, and elderly self-actualization needs.

Generally, as a result of multiple influences such as a decline in physiological function, elderly individuals exhibit a significant variance in their types of needs as compared to those exhibited by other people. For example, their needs for medical care and economic support are more pressing than those of young persons. Additionally, as a result of changes in societal values and educational levels, as well as improvements to economic capabilities, the characteristics of elderly needs are gradually shifting toward diversification, securitization, and upgrading of life needs. However, the focus, type, and importance of needs can always be adjusted as per changes in society as well as physiological function.

METHODOLOGY

This study adopted a modified Delphi method¹². The Delphi begins with an open-ended question-naire that is given to a panel of selected experts to solicit specific information about a subject or content area. In subsequent rounds of the procedure, participants rate the relative importance of

individual items and also make changes to the phrasing or substance of the items. Through a series of rounds the process is designed to yield consensus¹².

The modified Delphi method is similar to the full Delphi¹³ in terms of procedure (i.e., a series of rounds with selected experts) and intent (i.e., to predict future events and to arrive at consensus). The major modification consists of beginning the process with a set of carefully selected items. In this case, these pre-selected items may be drawn from various sources including synthesized reviews of the gerontology literature, and interviews with selected content experts. The primary advantages of this modification to the Delphi is that it (i) typically improves the initial round response rate, and (ii) provides a solid grounding in previously developed work¹³.

Two rounds of the modified Delphi method were conducted in this research. The first round included first collating the opinions of experts in the elderly home care services field to determine the type and framework of elderly home care service needs. The second round then sought out factor structures for elderly home care service needs and clarified their relationships and priorities. Each round presented an instrument to panel experts who completed and returned it to the researcher. The responses were analyzed and compiled to build the next round's instrument.

Our study relied on relational sampling to expand theoretical concepts. Participants were influential experts involved in the home care service industry in Taiwan. The final sample consisted of 16 participants from 3 home care services, 3 government institutions from the Department of Social Welfare and 3 long-term care centers, 4 professors at faculties related to aging field, and 3 research organization research personnel.

In terms of material analysis method, this study utilized a content analysis method to organize the expert opinions, while employing the Analytic Hierarchy Process (AHP) to compare structures and factors¹². Through pairwise comparison, the professional software Expert Choice was used to conduct calculations and to clarify the priority and importance of elderly home care service needs.

RESULTS

Concerning the needs of the elderly for home care, the results found that elderly needs could be categorized into five categories of elderly physiological needs, namely elderly needs for security, elderly needs for love and belonging, elderly needs for esteem, and elderly needs for self-actualization, as well as into 19 factors.

Physiological needs

The physiological needs of the elderly include six need factors of (i) extending old age, (ii) acclimatizing one's body to natural aging, (iii) facing non-natural aging of the body, (iv) food, (v) clothing, and (vi) housing. The need to extend old age is the extension of the aging process, as well as the slowing of the progress of chronic illnesses. The need to acclimatize one's body to natural aging includes acclimatizing one's body to changes (i) in physiological composition, (ii) as a result of organ system aging, (iii) in one's ability to comprehend external information, and (iv) in sleep patterns. Facing the needs of nonnatural aging of the body includes facing acute and chronic illnesses, as well as how to find medical assistance. Ingredients are needed to prepare meals. Clothes are needed to adjust to the physical changes resulting from old age. Appropriate housing amenities are needed to adjust to the changes resulting from old age.

Security

Elderly security needs include five types of need factors: (i) health and security, (ii) safety and happiness, (iii) economic security, (vi) household security, and (v) personal safety. Health and security includes maintaining effective living habits and keeping in good health. Personal safety is the need for safety when going out and returning home as well as when moving around.

Love and belonging

The love and belonging needs in old age include three need factors: (i) psychological adjustments to natural aging, (ii) overcoming the psychological stress of illness, and (iii) adjustments to the new life of old age. The need for psychological adjustments to natural aging includes: (i) health education during the course of aging, (ii) seeking the acceptance of family members, (iii) encouragement and identification of family and siblings, (iv) company and support of peers, and (v) tolerance and care of the community and neighbors. The need to overcome the psychological stress of illness includes: (i) acceptance of oneself as ill, (ii) identifying health education for illnesses, (iii) caregiver assistance and support, (iv) family member acceptance and support, (v) the encouragement and identification of family and siblings, (vi) the company and support of peers, and (vii) tolerance and care of the community and neighbors. The need to acclimatize to the new life of old age includes: (i) one's body in retirement and old age, (ii) life adjustments during the empty nest stage, (iii) role transition, (iv) facing loneliness after the passing of loved ones, (v) support and life adjustments after losing a spouse, as well as (vi) psychological preparation to face death.

Esteem

The esteem needs in old age include three need factors: (i) how others view oneself, (ii) how the elderly view themselves and life, and (iii) bidding farewell to life. The elderly still need self-respect when seeing how people treat them, especially their own children and grandchildren, even if they are lying sick on a bed. In terms of the need to treat oneself well and how the elderly view themselves, even if one's body is gradually deteriorating, the elderly still hope to be useful people and have a need to appropriately bid farewell to life, including the need for hospice care and funeral arrangements.

Self-actualization

The needs of the elderly for self-actualization include two need factors:
(i) learning and creativity and (ii) societal responsibilities and obligations.
When the elderly achieve societal responsibilities and obligations, they feel that they are valuable people who can offer the wisdom of the elderly.

Summarizing needs

Summarizing the above types of elderly needs, this study has arranged the framework of types of elderly home care service needs (*Table 1*).

Concerning the importance of the needs of elderly care services, through the results, it was found that the most important home care service needs of the elderly (*Table 1*) were physiological (0.296), followed subsequently by the needs for security (0.276), esteem (0.172), love and belonging (0.153), and self-actualization (0.103).

Amongst the home care service need factors of the elderly (*Table 1*), food was most important (0.091), with the top five in order being the need for health and security (0.088), caring for oneself and life (0.070), overcoming the psychological stress of illness (0.057), and personal safety (0.056).

Furthermore, through a comparison of the structure of each need, it was found that amongst physiological needs, the need for food was relatively important (0.320); in the structure of

Table 1. Needs and need factors of home care services for elderly and their relevance

Need category and its factors	Weightage	
Physiological		0.296
Extending old age	0.034	
Acclimatizing to natural aging	0.052	
Facing non-natural aging	0.045	
Food	0.091	
Clothing	0.031	
Housing	0.044	
Security		0.276
Health and security	0.088	
Safety and happiness	0.026	
Economic security	0.055	
Household security	0.050	
Personal safety	0.056	
Love and belonging		0.153
Psychological adjustment to natural aging	0.048	
Overcoming psychological stress of illness	0.057	
Adjustment to a new life	0.049	
Esteem		0.172
How others view oneself	0.054	
Elderly's view on themselves and life	0.070	
Bidding farewell to life	0.048	
Self-actualization		0.103
Learning and creativity	0.051	
Societal responsibilities and obligations	0.052	

security needs, health and security needs were relatively important (0.311); in the structure of love and belonging needs, the need to overcome the psychological stress of illness was relatively important (0.414); in the structure of esteem needs, the need to care for oneself and life was relatively important (0.393); in the structure of needs for self-actualization, the need for societal responsibilities and obligations was relatively important (0.548).

DISCUSSION AND CONCLUSION

Based on the above study results, it is clear that physiological needs are still the most essential and most important type of need of the elderly, and the need for food is a necessary condition in their lives. Other needs such as esteem needs are becoming increasingly important to the elderly, and such needs must be given attention by the government and industry workers. Therefore, the priority of home care service needs provide a reason for service providers to arrange their resources and efforts for serving better services to elderly people. Finally, it is recommended that in future there be more in-depth and improved services and products developed to achieve the aims of successful aging-in-place for the elderly.

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References

- Ministry of the Interior. Scheme to Enhance Elderly Care Services (in Chinese). Taipei: Ministry of the Interior; 2005
- 2. Statistical Office of the Ministry of the Interior (in

- Chinese). Statistical Bulletin of the Ministry of the Interior. Taipei: Ministry of the Interior; 2011
- Council for Economic Planning and Development. Population Projection for Taiwan (in Chinese). Taipei: Ministry of the Interior; 2012
- Statistical Office of the Ministry of the Interior. Elderly Condition Survey Report (in Chinese). Taipei: Ministry of the Interior; 2000
- Maslow AM. A Theory of Human Motivation. Psychological Review 1943;50:370-396; doi:10.1037/ h0054346
- Xie G. Planning and Integration Striding Toward 21st Century Social Welfare: Preliminary Assessment Report of Elderly Welfare Needs (in Chinese). Taipei: Ministry of the Interior; 1994
- Industrial Technology Research Institute Service Center. Enjoying Being Old- Catering to the Needs of the Senior Market (in Chinese). Silver and Healthcare Industry Trends Seminar. Chutung (Taiwan): ITRI; 2007
- Jian W, Yang Z. Comprehensive Analysis of a Broadband Society's Care Service Development and Taiwan's Industrial Opportunities (in Chinese).

- Taipei: Ministry of Economic Affairs, Department of Industrial Technology; 2003
- Xue C. Taiwan Family Changes and Elderly Lifestyles: Present and Future (in Chinese). Community development journal quarterly 2008(121):47-56
- Zhang C. Current State and Trends of the Home Medical Care Industry (in Chinese). Hsinchu: Industrial Technology Research Institute IEK Biomedical and Life Group; 2003
- Wang KH. Opportunities and Challenges of Home Care Services Industry for Older Adults in Taiwan (in Chinese). Industry and Management Forum 2013;15(2):60-79
- Dalkey NC, Helmer O. An experimental application of the Delphi method to the use of experts. Management Science 1963;9(3):458-467; doi:10.1287/mnsc.9.3.458
- 13. Custer RL, Scarcella JA, Stewart BR. The modified Delphi technique a rotational modification. Journal of Career and Technical Education 1999;15(2); https://ejournals.lib.vt.edu/index.php/JCTE/article/view/643/688; retrieved April 29, 2016