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Research on Older Adults' Willingness to Enroll in Health Care Services based on Andersen Behavioral Model

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Abstract: Ageing has increasingly become a severe social problem nowadays, resulting in burden for both whole society and each family unit. Jiangsu is a typical aging province in China with dramatically increasing aging population. This paper analyzed Andersen behavioral model theoretically and empirically, and made an overview about older adults' healthcare services utilization behavior from three aspects, namely, predisposing characteristics, enabling resources, and need factors. This paper revealed that it is significant to apply Andersen behavioral model in older adults' healthcare services utilization in Jiangsu to understand older adults' healthcare enrollment behavior, and provide evidence for healthcare services providers and policy makers to better manage and allocate social resources to improve services quality thus relieve family pressure brought by aging society.

Keywords: Andersen Behavioral Mode; Healthcare Services; Older Adults.

1. Introduction

According to the United Nations, aging population over 60 years old is about to reach 0.96 billion, which will account for about 15% global population. Notably, the number keeps increasing at a rate of 3% year by year. It is estimated that aging population worldwide will increase to 1.4 billion in 2030, 2.1 billion in 2050, and 3.1 billion in the 22nd century (United Nations, 2017).

Although the overwhelming aging society has contributed to "silver economy", together with opportunities in other industries as a new consumption engine, it has resulted in numbers of threats to the society. To be specific, total social demand may suppress, developmental human resources will decline. Worse still, both the society and each family units have to bear great burden for taking care of the elderly.

On the basis of literature review, this paper analyzes the theoretical framework of Andersen behavioral model to give insight of older adults' healthcare utilization enrollment willingness, so as to provide reference for aging relief of society.

2. Aging Situation in Jiangsu

Particularly, China has witnessed accelerating pace of aging in recent years. Based on statistics from the 7th national census in China, population aged over 65 years old has accounted for 16.2% of the whole population. Specifically, Jiangsu ranked the fifth in aging within China, and has undoubtedly stepped into deep aging society (Zhu et al., 2022). Nantong, Zhenjiang, Wuxi, Taizhou, and Yangzhou are among high-level aging cities in Jiangsu province.

China is a traditional nation with long history. Chinese people have long been influenced by the notion like "raising up children in case of older caring" "Giving birth to children can guarantee blessings when parents are ageing", and children are expected as important guarantee for parents' elderly caring. Scholars have stressed on the fact that home-based, or known as family-based elderly caring still take the dominant role in China, and adult children are expected the shoulder the duty of elderly caring. Chinese families have been undergoing shrinking family sizes, multi-structures, reducing family generations and other changes.

Since the implementation of one-child policy three decades ago, nuclear families have become the typical family structure during that time, resulting in decreasing number of kids. Staying in the decision-making position in each family, adult children are bearing great burden between aging parents and dependent children. Furthermore, scholars have categorized care providers' burden into objective and subjective aspects respectively. On one hand, care providers have to input time, energy, and money for caring. On the other hand, care providers may undergo psychological experience like pressure, anxiety, worrying, and guilty caused by care providing procedure (Montgomery, Gonyea & Hooyman, 1985). That is to say, in addition to working pressure, adult children in Chinese families suffer burden of children raising and elderly caring, physically and psychologically.

Jiangsu has stepped into aging society comparatively early, and the overall elderly services have developed rapidly. According to Wang (2021), there have been almost 2500 elderly caring institutions and more than 18 thousand community-based elderly services available in Jiangsu by the end of the year 2020. Despite the sufficient support from medical hospitals, communities, and institutions, older adults in Jiangsu province still prefer to stick to home-based caring. That is, influenced by the traditional Chinese notion of "raising up children for elderly caring", the elderly in Jiangsu put family caring on the priority.

3. Methodology

The methodology applied in this paper is literature review from previous articles. Database such as CNKI and Google Scholar are adopted as relevant research searching means. “Andersen behavioral model” “aging in China” “predisposing characteristics” “enabling resources” “need factors” are chosen as keywords for searching. Considering degree of content relevance and range years from 2012 to 2023, more than 50 articles are collected. With further evaluation of scope and abstract, about 20 papers are selected for reviewing the specific theoretical model.

4. Anderson Behavioral Model

Originally developed in the 1960s, Andersen aimed to investigate reasons motivating older adults’ decision of choosing health services from personal perspectives, and thus to optimize policies to promote access to health services. Andersen behavioral model has undergone four phases. The first phase focuses on three components of individual-level factors pushing them to choose health-related services, namely, predisposing characteristics, enabling resources, and need factors. In the second phase, health-related services are further classified according to type, site, purpose, time interval and so on. In addition to health-related services utilization, customer satisfaction is added as well. The third phase model emphasizes on the significance of external environment, and effect of personal practice, such as diet, exercise, and self-care factors are taken into consideration. When it comes to the fourth phase, health-related services outcome, including feedback loops, is included in the model. To be specific, environment and population characteristic directly lead to health behavior, and health behavior directly leads to health outcome.

Andersen behavioral model has developed into several phases, and in each phase, the model stresses on specific research purposes. In order to get an insight of individual-level factors influencing older adults’ health-related services utilization, the original Andersen behavioral model has been widely applied in various research contexts.

5. Factors Influencing Healthcare Services Utilization in Jiangsu

5.1. Predisposing Characteristic

As was originally explained by Andersen and Newman (1973), predisposing characteristics in Andersen behavioral model refer to individual characteristics existing prior to specific health-related behavior. To be specific, predisposing characteristics are demographic and social-related factors, varying from individual to individual. Although these factors seem irrelevant to deteriorating of diseases, they tend to stimulate or inhibit individuals’ tendency of health-related services utilization. Specific demographic characteristics may include age, gender, ethnicity, marital status and so on, socioeconomic characteristics may include factors like educational attainment, social class, and employment status, as well as health beliefs like attitudes, values, and knowledge of health and health service.

However, in empirical researches, different dimensions of predisposing characteristics may be chosen to study. For example, Jiang et al. (2020) studied demographic and social characteristics as predisposing characteristics covering age, gender, nationality, marital status, employment status and educational attainment, together with health belief. Jiang et al. (2020) stressed on the importance of health belief as predisposing characteristics since it may direct affect individual’s attitude towards health-related services utilization. In Kattan and Abduljawad’s (2019) study which targeted on diabetic patients with hypoglycemia, besides age, gender and ethnicity, dementia, depression, and living practice like tobacco use, alcohol use and drug abuse were also included as predisposing characteristics considering the specific research objectives. Chao et al (2020) studied older Chinese immigrants’ intention of enrolling in health-related services in New York city, predisposing characteristics include age, gender, and educational attainment, staying year in community.

All in all, different selections about sub dimensions in predisposing characteristics within Andersen behavioral model may probably result from by different research objectives, social cultural context, availability of data or information and so on in different researches.

5.2. Enabling Resources

According to Aday and Andersen (1974), enabling resources in Andersen behavior model mean factors enhancing or inhibiting health-related services utilization for those who have already been equipped with predisposing characteristics, and can also be understand as factors which may be changed by individuals or social efforts. Specifically, health insurance, income level and financial status are most widely used enabling factors within Andersen behavioral model (Babitsch et al., 2012). These factors may influence individuals’ ability as well as accessibility of achieving healthcare management. For example, financial status has been considered among the most realistic factors causing different degree of health services utilization among the elderly. Older adults with better financial status, with better medical insurance, may have better access to health-related services.

In actual empirical studies, enabling resources have been expressed in different sub-dimensions according to different research objectives and contexts. For instance, enabling factors chosen in the study conducted by Suntai, Noh, and Won (2022) included living arrangement, parental status, social network, and income level. Specifically, parental status was categorized as number of children, and social network was examined through number of people in an older adult’s social network. According to the study carried out by Kattan and Abduljawad (2019), medical insurance type, socioeconomic status, access to medical resources like geographical location of the patient and geographical location of the hospital area were considered as enabling resources owing to the evidence that all these variables have repeatedly shown have a strong influence on utilization among patients with hypoglycemia. Moreover, Jiang et al (2020) selected factors like income level, insurance status, living arrangements, as well as accessibility to medical resources, that is, transportation to emergency department, distance to emergency department and distance to the nearest alternative medical institution as enabling resources within Andersen behavioral model.

Selection of sub dimensions in enabling resources vary due to different research objectives, social cultural context, availability of data or information.

5.3. Need Factors

Need factors directly influence individual's decision in enrolling in health-related services. They are usually considered as combination of perceived and assessed needs. According to Andersen and Newman (1973), perceived needs refer to how individuals view their overall health status, severity of their disease, necessity of using health-related services, while assessed needs are based on professional evaluation. Andersen (1995) illustrated that individual's perceived needs and other personal requirements may strongly predict their health-related services utilization behavior.

Researchers select different dimensions of need factors within Anderson behavioral model in different study contexts. For example, self-assessed health status, activities of daily living (ADL), feelings of loneliness were tested as main need factors in the empirical study conducted by Wei and Zhang (2020). Meanwhile, Mou, Xu, and Lyu (2021) tested perceived health and other chronic diseases as need factors subjectively and objectively in their study. Similarly, Hu et al (2021) measured need factors by either individuals or by health professionals. Number of chronic diseases, self-rated health, self-reported quality of life satisfaction, feeling fearful or anxious, and feeling depressed are frequently adopted sub-dimensions of need factors. Apart from subjective and objective health states, emotional and well-being related factors were also taken into consideration. Many empirical studies have disclosed that the elderly suffering more diseases were more likely to enroll in healthcare services. Therefore, number of chronic diseases suffered by participant is expected to be an important predictor of healthcare choosing behavior.

6. Significance and Advantages of Applying Andersen Behavioral Model

6.1. Providing a Scientific Framework for Older Adults' Healthcare Utilization Behavior

Anderson's model is a widely-accepted analytical framework for studies of utilization behavior of medical and health services. However, health care services are a kind of service that users cannot obtain from informal relationships, and is obviously different from elderly services. The elderly care service is essentially the transfer of the original function of the family to the society, and the elderly's service utilization behavior will be restricted by the original care mode and its social significance. As a result, Andersen behavioral model provides a scientific framework for healthcare utilization behavior among the elderly, which helps people better understand explanation of people's healthcare services seeking behavior, and can effectively weigh accessibility of health-related services.

6.2. Providing Evidence for Policy Making Concerning Healthcare Services for Older Adults

Classification and analysis about healthcare services utilization among the elderly based on Andersen behavioral model helps to provide evidence for policy making. To be specific, studies based on Andersen behavioral model reflects older adults' accessibility to healthcare services, as well as cost-effectiveness ratio of healthcare services. Government and policy-makes can have a better understanding about older adults' care service choice determinants, thereby increase support in policies, utilize various social resources, improve institutional guarantees and service facilities to ease the burden of elderly caring for the whole society. Specifically, Andersen behavioral model reveals caring services needs from the perspective of older adults, and the local government as well as policy makers would be able to get a comprehensive view of the picture and allocate social resources so as to relieve pressure brought by aging society.

7. Conclusion

To summarize, Andersen behavioral model has been proved effective in exploring older adults' willingness to enroll in healthcare services. From literature review, predisposing characteristics, enabling resources, and need factors are discussed as three main factors within the theoretical model. Further researches are needed to explore specific sub-dimensions of the model in different research contexts, so as to provide reference for aging-relieving relevant problems.

References

[1] United Nations, Department of Economic and Social Affairs, Population division. (2017). Retrieved from https://www.un.org/en/development/desa/population/publications/pdf/aeing/WPA2017_Report.pdf

[2] Zhu, S., Jaing, X., & Tang, Y. (2022). Design strategy of institutional elderly care service based on context awareness. Packaging Engineering, 43(18), 136-143.

[3] Montgomery, R. Gonyea, J., Hooyman, N. Caregiving and the experience of subjective and objective burden [J]. Family Relation, 1985 (34): 19-26.

[4] Wang, H. (2021). Current Status and Suggestions in Jiangsu Elderly Caring Services under the Background of Aging Population [J]. Population and Health. 2021, 30(06): 11-19.

[5] Andersen, R., & Newman, J. F. (1973). Societal and individual determinants of medical care utilization in the United States. The Milbank Memorial Fund Quarterly. Health and Society, 95-124.

[6] Jiang, L., Ye, L., Dai, M., Zhou, J., & Li, Q. (2020). Use Andersen's behavior model to explain non-urgent visits in emergency department: A single center study in southwest China. International Emergency Nursing, 52, 100845.

[7] Kattan, W. M., & Abduljawad, A. A. (2019). Predicting different factors that affect hospital utilization and outcomes among diabetic patients admitted with hypoglycemia using structural equation modeling. Diabetes research and clinical practice, 153, 55-65.

[8] Chao, Y. Y., Seo, J. Y., Katigbak, C., & Chang, Y. P. (2020). Utilization of mental health services among older Chinese immigrants in New York City. Community mental health journal, 56(7), 1331-1343.

[9] Aday, L. A., & Andersen, R. (1974). A framework for the study of access to medical care. Health services research, 9(3), 208.

[10] Babitsch, B., Gohl, D., & Von Lengerke, T. (2012). Re-revisiting Andersen's behavioral model of health services use: A systematic review of studies from 1998-2011. GMS Psycho-Social-Medicine, 9, 1-15.

[11] Suntai, Z., Noh, H., & Won, C. R. (2022). Examining racial differences in the informal discussion of advance care planning

among older adults: Application of the Andersen model of health care utilization. Journal of Applied Gerontology, 41(2), 371-379.

[12] Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: does it matter? Journal of health and social behavior, 1-10.

[13] Wei, Y., & Zhang, L. (2020). Analysis of the influencing factors on the preferences of the elderly for the combination of medical care and pension in long-term care facilities based on the andersen model. International Journal of Environmental Research and Public Health, 17(15), 5436.

[14] Mou, C., Xu, M., & Lyu, J. (2021). Predictors of undiagnosed diabetes among middle-aged and seniors in China: Application of Andersen's behavioral model. International Journal of Environmental Research and Public Health, 18(16), 8396.

[15] Hu, H., Jian, W., Fu, H., Zhang, H., Pan, J., & Yip, W. (2021). Health service under-utilization and its associated factors for chronic diseases patients in poverty-stricken areas in China: a multilevel analysis. BMC Health Services Research, 21(1), 1-14.