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Development of Brief Aging Perception Questionnaire (B-APQ) Among Older Persons With Chronic Disease

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Purpose:

Self-perception on aging is a major predictor outcome of extended life expectancy and decreased mortality among older adults. Since the population aging is an unavoidable issue that every country has to face, a reliable and valid instrument is needed to measure the perceptions of aging to further tailor made an appropriate health policy. The APQ (Aging Perceptions Questionnaire) was developed by Barker, O'Hanlon, McGee, Hickey & Conroy (2007) research group. They followed the Leventhal's self-regulation model and developed APQ by testing the questionnaire in the UK. The APQ has been translated to multiple languages translations and applied in community-dwelling participants, such as Dutch, French, Turkish and Simplified Chinese. Since the original APQ included 32 items, and had been concerned with some respondent burden when older persons answer the questions. The McGee research group developed the B-APQ (Brief Aging Perception Questionnaire), which used a variety of questionnaire testing criteria and statistical approaches for scale revision by confirmatory factor analysis. It was translated to Persian version. The purpose of this study was to develop and validate the Chinese version of the Brief Aging Perception Questionnaire (B-APQ) for older persons with chronic disease.

Methods:

This study used a descriptive cross-sectional design. The participants were older persons with chronic disease recruited from the outpatient department and the community medical service in Southern Taiwan. After permission was granted by the original author, the B-APQ was adapted and adjusted for cultural appropriateness. The B-APQ was translated, back translated and adapt to Chinese. The mean content validity index was evaluated by 10 experts (5 academic experts, 2 clinical setting experts, 2 policy makers, 1 interdisciplinary expert). The inclusion criteria included the following: the participants (1) had no cognitive impairment and had the ability to be communicated in Mandarin Chinese or Taiwanese; (2) were aged 60 years old or above; (3) had one or comorbidity of chronic disease; (4) were willing to join this research. It is believed that the psychometric testing sample size should be 30-450 participants. A total of 415 participants answered the questionnaire. Confirmatory factor analysis (CFA) was applied to validate construct validity and the The Chinese version of the Physical Activity Scale for the Elderly (PASE-C) and WHOQOL were used for examining the criterion validity.

Results:

The content validity index showed 90-100% of agreement on the Chinese version of B-APQ. A total of 415 participants were included in the study. The average age was 71.34 years old (SD= 8.13), 55.66% were female, and each participant was with around two chronic diseases. All of the demographic data showed most participants were junior high school and blow in education level (75.66%), no occupation (67.95%), Taoist (74.70%), married (78.55%) and low income (55.90%). The validity examination of original model by CFA showed appropriate, but one item with lower factor loading. The new model with 17 items was re-structured after deleted the item 14 and added a new item from experts' suggestion. The critical ratio (CR) was significant, no floor and ceiling effect indicating the new model was excellent quality. The new model still presented good validity and reliability (Chi-square was 289.70, GFI was 0.93,

RMSEA was 0.063, and SRMR was 0.46; Cronbach's alpha: 0.77~0.9). Criterion validity was demonstrated by the significant correlation coefficient between the Chinese Version B-APQ and PASE-C and WHOQOL.

Conclusion:

The Chinese Version B-APQ showed good validity and reliability and can be applied to elderly with chronic disease in Taiwan.

Title:

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Keywords:

Brief Aging Perception Questionnaire, Chronic disease and Older persons

References:

Barker, M., O'Hanlon, A., McGee, H. M., Hickey, A., & Conroy, R. M. (2007). Cross-sectional validation of the Aging Perceptions Questionnaire: a multidimensional instrument for assessing self-perceptions of aging. *BMC Geriatr*, 7, 9. doi:10.1186/1471-2318-7-9

Chen, X., Hu, Y., Zhu, D., Li, J., & Zhou, L. (2016). Chinese version of the Aging Perceptions Questionnaire (C-APQ): assessment of reliability and validity. *Aging Ment Health*, *20*(6), 567-574. doi:10.1080/13607863.2015.1028332

Ingrand, I., Houeto, J. L., Gil, R., Mc Gee, H., Ingrand, P., & Paccalin, M. (2012). The validation of a French-language version of the Aging Perceptions Questionnaire (APQ) and its extension to a population aged 55 and over. *BMC Geriatr*, *12*, 17. doi:10.1186/1471-2318-12-17

Levy, B. R., Slade, M. D., Kunkel, S. R., & Kasl, S. V. (2002). Longevity increased by positive self-perceptions of aging. *J Pers Soc Psychol*, 83(2), 261-270.

Sadegh Moghadam, L., Foroughan, M., Mohammadi Shahboulaghi, F., Ahmadi, F., Sajjadi, M., & Farhadi, A. (2016). Validity and reliability of the Persian version of the Brief Aging Perceptions Questionnaire in Iranian older adults. *Clin Interv Aging*, *11*, 507-511. doi:10.2147/CIA.S101620

Sexton, E., King-Kallimanis, B. L., Morgan, K., & McGee, H. (2014). Development of the brief ageing perceptions questionnaire (B-APQ): a confirmatory factor analysis approach to item reduction. *BMC Geriatr.* 14, 44. doi:10.1186/1471-2318-14-44

Slotman, A., Cramm, J. M., & Nieboer, A. P. (2015). Validation of the Dutch Aging Perceptions Questionnaire and development of a short version. *Health Qual Life Outcomes*, *13*, 54. doi:10.1186/s12955-015-0248-y

Slotman, A., Cramm, J. M., & Nieboer, A. P. (2017). Validation of the Aging Perceptions Questionnaire Short on a sample of community-dwelling Turkish elderly migrants. *Health Qual Life Outcomes*, *15*(1), 42. doi:10.1186/s12955-017-0619-7

WHO. (2012). Process of translation and adaptation of instruments. . Retrieved from http://www.who.int/substance_abuse/research_tools/translation/en/

Abstract Summary:

Self-perception on aging is a major predictor outcome of extended life expectancy and decreased mortality among older adults. The purpose of this study was to develop and validate the Chinese version of the Brief Aging Perception Questionnaire (B-APQ) for older persons with chronic disease.

Content Outline:

- 1.Introduction:
- (1)Self-perception on aging is a major predictor outcome of extended life expectancy and decreased mortality among older adults.
- (2)Since the population aging is an unavoidable issue that every country has to face, a reliable and valid instrument is needed to measure the perceptions of aging to further tailor made an appropriate health policy.

2.Purpose:

The purpose of this study was to develop and validate the Chinese version of the Brief Aging Perception Questionnaire (B-APQ) for older persons with chronic disease.

- 3.Method
- (1) This study used a descriptive cross-sectional design.
- (2)The participants were older persons with chronic disease recruited from the outpatient department and the community medical service in Southern Taiwan.
- (3)After permission was granted by the original author, the B-APQ was adapted and adjusted for cultural appropriateness.
- (4)The B-APQ was translated, back translated and adapt to Chinese. The mean content validity index was evaluated by 10 experts.
- (5)Confirmatory factor analysis (CFA) was applied to validate construct validity and the The Chinese version of the Physical Activity Scale for the Elderly (PASE-C) and WHOQOL were used for examining the criterion validity.

Result

- (1) The content validity index showed 90-100% of agreement on the Chinese version of B-APQ.
- (2) A total of 415 participants were included in the study.
- (3)The validity examination of original model by CFA showed appropriate, but one item with lower factor loading. The new model with 17 items was re-structured after deleted the item 14 and added a new item from experts' suggestion.
- (4)The new model still presented good validity and reliability (Chi-square was 289.70, GFI was 0.93, RMSEA was 0.063, and SRMR was 0.46; Cronbach's alpha: 0.77~0.9).

(5)Criterion validity was demonstrated by the significant correlation coefficient between the Chinese Version B-APQ and PASE-C and WHOQOL.

Conclusion

The Chinese Version B-APQ showed good validity and reliability and can be applied to elderly with chronic disease in Taiwan.

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