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A multi-perspective focus-group approach to revise items in a dietary self-efficacy scale for older Taiwanese adults

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Summary
Aim: To revise items in the Cardiac Diet Self-Efficacy Scale, Chinese version (CDSE-C) using focus groups.
Background: There is limited literature on using focus groups with older adults as well as nursing and nutrition professionals to revise a questionnaire.
Methods: A qualitative research with multi-perspective focus-group approach was used from February through June 2009. Four serial focus groups were conducted including two focus groups of older adults from Taipei County ($n = 6$) and Yilan County ($n = 6$), one group of 5 nursing professionals, and one group of 4 nutritionists.
Results: Serial focus group discussions added one category to the CDSE-C (reducing salt) and 3 items, resulting in an 18-item scale with six categories: healthy eating behaviors, reducing fat and cholesterol, resisting relapse, increasing fiber and vegetable, reducing sugar, and reducing salt.
Conclusions: This revised measure can serve as a reliable tool for assessing older Chinese adults' healthy eating self-efficacy to evaluate and improve nutritional status in this population.

Introduction

Food is central to life among elderly Chinese adults and is strongly related to their cultural background and traditional beliefs (Chan, Kao, Chin, & Lee, 2002; Chen, Acton, & Shao, 2010). For example, older Taiwanese adults have described their eating habits as ''upholding old customs.''

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Table 1 Cardiac Diet Self-Efficacy Scale-original version (Hickey et al., 1992).

Very little				Quite a lot	Please rate the amount of confidence you feel for each item below from 1 (very little) to 5 (quite a lot)
1	2	3	4	5	1. Reaching my ideal body weight by eating healthy food
1	2	3	4	5	2. Decreasing the amount of fat and cholesterol in my diet
1	2	3	4	5	3. Staying on a healthy diet when I am busy or in a rush
1	2	3	4	5	4. Staying on a healthy diet when no one at home is on it
1	2	3	4	5	5. Staying on a healthy diet when I eat at a restaurant
1	2	3	4	5	6. Staying on a healthy diet when I am not at home to eat
1	2	3	4	5	7. Staying on a healthy diet on special occasions or holidays
1	2	3	4	5	8. Knowing what foods I should eat on a healthy diet
1	2	3	4	5	9. Cutting out unhealthy snacks during the day or evening
1	2	3	4	5	10. Increasing the amount of fiber and vegetable in my diet
1	2	3	4	5	11. Staying at my ideal body weight once I have reached it
1	2	3	4	5	12. Knowing how to cook healthy meals
1	2	3	4	5	13. Preparing a healthy meal for myself when I eat alone
1	2	3	4	5	14. Limiting the number of egg yolks I eat in a week
1	2	3	4	5	15. Knowing what food to buy at the store
1	2	3	4	5	16. Decreasing the amount of sugar and sweets in my diet

(Chen & Shao, 2012). Indeed, culture has been compared to a map through which people interpret their environment (Bowman & Singer, 2001). When older adults and healthcare professionals come from different cultural backgrounds, older adults may not follow the providers' dietary recommendations. Another factor influencing people's ability to follow dietary recommendations is their nutritional self-efficacy, i.e., their confidence in following recommendations. The positive relationship between nutritional self-efficacy and ability to follow dietary recommendations is based on Bandura's theory (Bandura, 1977; Mead, Gittelsohn, De Roose, & Sharma, 2010), and empirical results on dietary self-care (Nouwen et al., 2011). Bandura argued that individuals believing in the effectiveness of recommendations (response efficacy) would not likely act unless they feel confident they can carry out the behavior (self-efficacy) (Bandura, 1997, p. 283).

A measure of dietary self-efficacy for cardiac patients, the Cardiac Diet Self-Efficacy (CDSE) scale (Table 1, Hickey, Owen, & Froman, 1992) was developed in the US. The 16-item CDSE is based on Bandura's (1997) self-efficacy theory and measures self-efficacy regarding healthy dietary behavior. Items are scored from 1 (very little) to 5 (quite a lot). Total scores are obtained by summing the item scores; the greater the score, the greater the confidence in one's ability to engage in healthy dietary behaviors. The CDSE demonstrated acceptable content validity among 525 cardiac rehabilitation subjects. Internal consistency was also demonstrated (Cronbach's alpha values of .89 to .92), and test-retest stability correlation of .86 (Hickey et al., 1992).

The CDSE was chosen in this study because a comparable scale was not available in Taiwan to assess the healthy eating self-efficacy of older adults. Although the application of the CDSE scale across different cultures has been limited, it has been suggested (Hickey et al., 1992) for use with any individuals who seek to incorporate healthy dietary behavior into their lives, and the content of the CDSE is compatible with the type of information expected from the elderly in Taiwan, including healthy eating behavior skill, reducing fat and cholesterol, resisting relapse, increasing fiber and vegetable, and reducing sugar. Thus, the CDSE scale was translated and back-translated to develop the Chinese version CDSE (CDSE-C), which was tested in 156 Taiwanese elderly (Chen & Shao, 2009; Chen et al., 2010). The results showed some items presented problems when administered to Taiwanese older adults. Thus, using this tool without refinement might have led to questionable nutritional assessments.

To refine the items of this tool, we chose focus groups, a versatile research approach increasingly used in numerous fields (Krueger, 1995; Nassar-McMillan & Borders, 2002), including health and nutrition (Padula et al., 2003). Although focus groups represent a well-established method of getting participants' perspectives on certain issues through discussions (Krueger, 1988; Plummer-D'Amato, 2008a, 2008b), and have been recommended for developing questionnaires (Konradi & Anglin, 2003), this methodology has not been used to develop or revise a scale to assess seniors' nutritional self-efficacy. Therefore, this investigation used a multi-perspective focus-group approach to revise items on the CDSE-C as a potential tool for assessing healthy eating behaviors in older Chinese adults.

Methods

Aim

The aim of this study was to revise items in the Cardiac Diet Self-Efficacy Scale, Chinese version (CDSE-C) using focus groups.

Design

A multi-perspective focus-group approach was used to revise CDSE-C items.