

## **Development of the Thai Family Support Scale for Elderly Parents (TFSS-EP)**

*Patcharee Komjakraphan, Sang-arun Isalamalai, Umaporn Boonyasopun, Joanne K. Schneider*

**Abstract:** Family is a major resource of support for elderly Thai parents. Although international research has shown several functional aspects of family support, little is known about the functional aspects of family support in the Thai culture. Therefore, the purpose of this study was to develop an instrument for assessing family support for elderly Thai parents.

Both quantitative and qualitative approaches were employed in the development and testing of the Thai Family Support Scale for Elderly Parents (TFSS-EP). Items were derived, based on a literature review and interviews with 35 elderly parents, addressing perceptions about types of family support provided by adult children. Factor and item analysis were conducted, with 500 subjects, to determine the structural domains of the instrument. Test-retest reliability of the instrument was determined among 10 elderly parents. Construct validity was determined by comparing differences in the total TFSS-EP's score between two groups of elderly parents [those living with children (n =30) and those living in a shelter home (n = 30)].

The final instrument contained 61 items that explored family support. Exploratory factor analysis revealed a 3-factor solution, which accounted for 57.03 % of the total variance. Test-retest reliability was stable, between 2 times among 10 respondents over one week, indicating a high degree of stability for all TFSS items. It was noted that elderly parents, who were living with their adult child, had higher scores on the instrument, compared with those living in a shelter home. Thus, the TFSS-EP appears to be a reliable and valid instrument for measuring family support for elderly Thai parents.

*Thai J Nurs Res 2009; 13(2) 118 - 132*

**Key words:** family support, perception of family support, elderly Thai parents

### **Introduction**

Over the past three decades, improvement in life expectancy and reductions in birth and death rates have led to a remarkable increase in the older population worldwide, including Asia. Among the southeastern Asian countries that have experienced rapidly growing older populations, the population of Thailand is aging faster than many

*Correspondence to: Patcharee Komjakraphan, PhD Candidate, RN, Faculty of Nursing, Prince of Songkla University, Hat Yai, Songkhla, Thailand. E-mail: patchakomjak@gmail.com*  
*Sang-arun Isalamalai, PhD, RN, Assistant Professor, Department of Public Health Nursing, Faculty of Nursing, Prince of Songkla University, Hat Yai, Songkhla, Thailand.*  
*Umaporn Boonyasopun, PhD, RN, Assistant Professor, Department of Public Health Nursing, Faculty of Nursing, Prince of Songkla University, Hat Yai, Songkhla, Thailand.*  
*Joanne K. Schneider, PhD, RN, Associate Professor, School of Nursing, Saint Louis University, St. Louis, Missouri, USA.*

of the other countries. The proportion of Thais age 60 years and over is projected to increase from 9% in 2002, to 15% in 2020, and to 30% in 2050.<sup>1</sup>

At the same time, Thailand has faced rapid social and economic changes, moving from an agricultural society to one that is highly industrialized. There have been consequences to these changes, i.e. migration of young people to cities in search of jobs, smaller family size, changing life styles, economic constraints and more women entering the formal workforce.<sup>2-4</sup> These consequences place a strain on the traditional forms of family support for elderly parents. Since Thailand has limited governmental facilities and services for older adults, the main institution responsible for support and care of elderly Thai parents is the family.

Although family is a major resource of support for elderly Thai parents, little is known about the actual supportive relationship within Thai families. Researchers who have investigated support for Thai older adults traditionally have used living arrangements as indicators for family support.<sup>5,6</sup> However, living arrangements in itself does not indicate whether elderly parents are receiving care and support.<sup>7</sup> In light of such changes, examining the quality of family support is an important and timely undertaking. Although research has revealed various functional aspects of family support,<sup>8-14</sup> there has been limited investigation regarding the functional aspects of family support in the Thai culture. Functional aspects of family support may vary across cultures because norms of intergenerational contact affect the meaning the respective culture attaches to family and care responsibilities.<sup>15</sup> Therefore, cultural context may be important in shaping the provision of specific support. Based on the assumption that Thai culture and society are different from Western cultures, there is a need to examine family support in the Thai culture.

Assessment of family support is crucial, since it would provide information to guide the Thai government in developing policies regarding support for the elderly, as well as the provision of effective services and programs. However, in order to conduct appropriate research, regarding family support for elderly parents, valid and reliable instruments are needed.

## **Background**

Understanding the multidimensionality of the family support construct is useful when identifying specific kinds of family support that may be beneficial for elderly Thai parents. For the purposes of this study, family support was defined as the provision of information that leads subjects to believe their basic social needs are gratified through interaction with their family.<sup>14</sup>

Support can be categorized into structural and functional aspects.<sup>16</sup> Structural aspects of support are concerned with integration of the person within the support network, while functional aspects of support are concerned with the function or role served (i.e. what actually is gained or believed to be gained). Functional aspects of family support refer to the type or nature of family support and can be classified into 4 domains: instrumental support, emotional support, informational support and social integration.<sup>9, 14, 17, 20</sup> Instrumental support refers to tangible assistance that others may provide, such as helping with housekeeping and the provision of transportation or money.<sup>11, 18</sup> Emotional support refers to the experience of feeling liked, admired, respected or loved,<sup>19</sup> while informational support involves the provision of information during the time of stress.<sup>11, 18</sup> Belonging to a group whose members share a common interest and activity describes social integration.<sup>20</sup> These domains, subsequently, were used to develop an interview guideline, in this study, to explore the

family support domains within the context of elderly Thai parents.

Five published instruments, which measure functional aspects of family support, were located. They were the: 1) Perceived Social Support Scale;<sup>21</sup> 2) Personal Resource Questionnaire;<sup>22</sup> 3) Social Provision Scale (SPS);<sup>10</sup> 4) Norbeck Social Support Questionnaire (NSSQ);<sup>23</sup> and, 5) Family Environmental Scale (FES).<sup>24</sup> All these instruments were developed for use with adults or adolescents who were well-educated, middle class and residing in the United States. However, no instruments, developed for use with an older adult population nor sensitive to the measurement of family support for elderly parents in the Thai culture, could be located.

Norms governing the nature of relationships is known to differ across cultures.<sup>25-27</sup> In addition, differences in expectations and norms between individuals and the social network are likely to affect how and whether they seek and use support.<sup>28, 29</sup> Thus, persons from different cultures might have differences regarding expectations and behaviors in the family support system. Since the construct of family support also may differ among cultures, using an instrument from one culture to another is neither sufficient nor appropriate in cross-cultural studies. The Thai culture has its own unique norms and values. Therefore, the major purpose of this study was to develop and evaluate the psychometric properties of the Thai Family Support Scale for Thai Elderly Parents (TFSS-EP).

## **Method**

**Sample:** The primary researcher used both a qualitative and quantitative approach to develop the Thai Family Support Scale for elderly parents. Criteria for subject inclusion, for both approaches, included being: (a) Thai; (b) 60 years of age or

older; (c) able to communicate in Thai; and, (d) willing to participate.

For the qualitative portion of the study, 35 subjects, from the four major regions of Thailand, were obtained by purposive sampling. The subjects were identified by way of the list of elderly who attended the local community health center or by the snowball technique. The method of locating potential participants was personal contact. Data were collected in a setting mutually agreed upon by the researcher and the participants. Among the participants, 14 lived in the north, northeast or central areas of Thailand and 21 lived in the southern area. They had an average age of 71.05 years (SD = 5.5), were Buddhists and primarily female (n = 30; 85.7%). Most (n = 27; 77.1%) were in fair to good health and had been living with their children either in their own home or the home of one of their children.

For the quantitative portion of the study, 500 subjects were obtained from Songkhla province in southern Thailand. Because Thailand is a congruent culture, no major differences in cultural aspects exist among the four regions. Subjects were obtained from a Geriatric Health Center and an out-patient clinic. The head of the Geriatric Health Center granted permission for the study to be conducted at the Center, and provided names of 650 elder clubs members who had been invited to participate in the Center's first and second monthly conferences. Three hundred fifty of the elders met the selection criteria and agreed to participate in the study. Since 350 was an insufficient number of subjects for the study, additional permission was obtained to collect data in the out-patient clinic of the Geriatric Health Center. As a result, an additional 150 subjects, who met the selection criteria, were found. These subjects were located from the clinic's patient appointment list and were being seen, on a follow-up basis, for existing health care problems. All 150 subjects, when

approached, agreed to participate. The final sample consisted of 500 subjects who were predominantly married (n = 332; 66.4%), female (n = 338; 67.6%), Buddhists (n = 482; 96.4%) and educated at the elementary school level (n = 281; 56.2%).

Given that questionnaire validation requires a sufficiently large sample size in order to avoid magnifying small differences in correlation coefficients, and that Polit<sup>30</sup> recommends between 5 and 10 participants, with 10 per each item highly preferable, the questionnaire validation process involved 100 items in the first version of the instrument and ended with 61 items in the final version. Thus, the sample size of 500 was sufficient for this purpose.

The sample for the known group technique was composed of two groups of elderly Thai parents purposively recruited from the 500 subjects. In order to use a two sample t-test, to determine if there was a significant difference between the means of the groups, data from each group must follow a normal distribution, be independent and of equal size.<sup>31</sup> The first group was comprised of 30 subjects residing with at least one of their adult children, while the second group consisted of 30 who were living in a shelter home. Of the 60 subjects, 32 were female (53.3%) and 28 were male (46.7%). The mean age was 70.7 years (SD = 6.1). All were Buddhist, with the majority being widowed (n = 38; 63.3%) and holding an elementary school level education (n = 40; 66.3%).

The sample for evaluating test-retest reliability of the instrument involved 10 of the 30 subjects who were from the group living in a shelter home. These 10 subjects were obtained by way of convenience sampling. They were informed, upon completion of the questionnaire, they would be contacted in a few weeks to complete the questionnaire again. The mean age of the 10 subjects was 73.1 years (SD = 6.0). All were widowed, predominantly female (n = 6; 60%) and educated

at the elementary school level (n = 8; 80%).

**Procedure:** Approval to conduct the study was obtained from the Research Ethics Committee of the primary researcher's university, as well as from the Director of the hospital and the Director of the homeless shelter where subjects were obtained and data were collected. Each potential subject was informed regarding the: study's purpose; participant involvement activities; maintenance of confidentiality and anonymity; and, right to withdraw, at any time, without negative repercussions. Subjects involved in the qualitative portion of the study were provided this information in person, while those participating in the quantitative portion of the study were informed via a letter with the accompanying instrument and demographic data sheet.

**Instrument development and psychometric evaluation:** The instrument was created using a two-phase process: development (Phase 1) and psychometric evaluation (Phase 2).

**Phase 1:** During instrument development, the primary researcher wrote a set of 111 items related to how an elderly parent perceived family support. Items were developed based on a review of the literature on family support and interviews with 35 subjects.

The semi-structured guidelines, used during each interview, consisted of two sections. The first section sought to obtain data regarding each subject's: age, religion, gender, living arrangements and perceived health status. The second section consisted of six open-ended questions related to each elder's activities of daily living, types of support received, expectation and need for support, and opinion about "good" Thai children. These areas of focus were based upon the four family support domains of: instrumental support, emotional support, informational support and social integration.<sup>9, 14, 17, 20</sup> Examples of the questions were: (a) What do you think it means to have "good children"?; (b) How would you describe what

“good children” do to support their elderly parent(s)?; and, (c) What do you think “good children” do to provide emotional support to their elderly parent(s)?

Analysis of content obtained from the interviews focused on the participants’ perceived meaning and perception of family support. Each interview was reviewed line by line, and the meaningful segments of data were assigned a code. In accord with Miles and Huberman’s procedure,<sup>32</sup> codes were placed into categories, sorted, matched and condensed into domains. Two members of the

research team discussed and refined the domains until 100% agreement occurred. The domains were examined, by the subjects, for accuracy, validity and cultural congruency. The resulting four specified domains included: financial support; emotional support; instrumental support; and, companionship. These domains became the conceptual framework for the development of the TFSS-EP. Comparison of the four specified domains, resulting from the interviews, with the pre-specified domains, taken from the literature review and used to guide the interview process, is shown in **Table 1**.

**Table 1** Pre-specified and specified domains of family support

<b>Pre-specified domains</b>	<b>Specified domains</b>
1. <i>Instrumental support</i>	1. <i>Financial support</i>
1.1 Task assistance	1.1 Financial assistance
1.2 Financial assistance	2. <i>Instrumental support</i>
1.3 Personal care	2.1 Task assistance
1.4 Transportation	2.2 Material possession and facility
2. <i>Emotional support</i>	2.3 Recreation
2.1 Comforting	2.4 Transportation
2.2 Reassuring of worth	3. <i>Emotional support</i>
2.3 Affection	3.1 Affection
2.4 Intimacy	3.2 Respect
2.5 Companionship	4. <i>Companionship</i>
3. <i>Informational support</i>	4.1 Involvement
3.1 Guidance	4.2 Communication
3.2 Advice	4.3 Being with
3.3 Suggestion	
3.4 Direction	
4. <i>Social integration</i>	
4.1 Response or feedback	
4.2 Social belonging	

Item generation commenced after the four specified domains were identified. Initially, the emerged themes and existing constructs of family support were compared. Then, the specified domains were examined through the processes of concept analysis, synthesis and derivation. Next, concept operationalization, involving concept mapping, formulating variable definitions, and identifying variable dimensions and observable indicators, was conducted. Finally, the blue print of item matrix was created and a pool of 111 items was generated. The four domains of family support were measured through use of: 26-items for instrumental, 34-items for emotional, 27-items for financial, and 24-items for companionship.

Once the pool of items was completed, a three-point Likert-like scale was utilized to measure the level of family support for each item. The descriptors of the rating scale ranged from 1 to 3, with 1 = "somewhat like me"; 2 = "much like me"; and, 3 = "absolutely like me." The sum of the individual item scores yielded the total score and was interpreted as the existing level of family support. Higher scores suggested a higher perception of family support.

The items generated then were subjected to content validity assessment by five experts in instrument development and care of the elderly. Based upon the experts' suggestions, 44 items were reworded for clarity of meaning and 11 were deemed irrelevant and deleted from the instrument (two from the instrumental domain and nine from the companionship domain). This left a total of 100 items, with 14 to 35 items in each domain. Next the content validity index (CVI) of the 100 items (first version of the TFSS-EP) was rated, by the experts, as quite relevant or very relevant, providing a CVI of 0.90%.

The first version of the TFSS-EP then was reviewed, for instrument feasibility, by 5 subjects who were available and part of the original

interview process. They found it to be feasible. Using 30 elderly parent subjects, pilot testing of the items was conducted. Item analysis was performed to determine which items needed to be retained, revised or deleted, as well as to estimate the required sample for factor analysis. The item to subscale correlations of the first version of the TFSS-EP showed there was a low correlation between some items and their respective subscale, and a negative correlation between other items and their respective subscale. Further examination of each item revealed 24 items had an item-subscale correlation lower than 0.4 or a negative correlation with their respective subscale. Examples of items posing problems included: "My children give me money unwillingly," and "My children manage things in the family without telling me." These items were negatively worded and, subsequently, created confusion for the subjects. Thus, the problem items were deleted, leaving 76 usable items.

The second version of the instrument (TFSS-EP-V2), therefore, consisted of 19 items for financial; 18 items for instrumental; 28 items for emotional; and, 11 items for companionship. Items were reordered and the names of the respective domains were removed prior to data being obtained for Phase 2 (evaluation phase).

**Phase 2:** Psychometric testing of the instrument occurred during phase 2. The approaches used in this phase included: 1) construct validity evaluation (exploratory factor analysis, known-group technique and item analysis); and, 2) reliability evaluation (stability and internal consistency).

Data, from 500 subjects, on the 76-item TFSS-EP-V2 were subjected to an exploratory factor analysis, as well as to item-subscale score and subscale-total score correlations using Pearson's correlation coefficient.<sup>33</sup> As a result of these analyses, the TFSS-EP-V2 was reduced to 65 items prior to being subjected to another round of factor and correlational analyses that lead to it

being reduced to 61 items. Reductions in the number of items were due to the result of both the factor analyses and the presence of redundancy and poor correlations found among the items. Thus, the final version of the instrument (TFSS-EP) consisted of 61 items.

Using known group technique, construct validity of the TFSS-EP was investigated by comparing total scores between two different groups of subjects with known differences in levels of family support (living with children versus living in a shelter home). In addition, the stability (test-retest reliability) of the TFSS-EP was tested twice, using 10 subjects, during a one week period. Correlations between the TFSS-EP administration scores then were assessed using the kappa correlation method.<sup>34</sup> Finally, internal consistency of the TFSS-EP was tested, using Cronbach's alpha reliability.

## **Results**

To establish construct validity, exploratory factor analysis was performed on the research instrument items.<sup>35</sup> Factor structure of the TFSS-EP was determined through a series of steps. Prior to factor analysis, frequencies on all items were examined to identify problematic items. A principle components factor analysis technique, with varimax rotations, was performed to examine the factor loadings and the Eigenvalues. Scale items were examined according to: (a) factor loadings; (b) Eigenvalues; (c) proportion of variance; and, (d) scree tests. To be retained, scale items had to:

have a factor loading greater than or equal to 0.40; have an Eigenvalue greater than 1; and, account for more than 5% of the variance in the scale.<sup>36</sup> Factor loadings of less than 0.30 to 0.40 generally are considered not important and frequently are omitted from factor structures.

Based on examination and interpretation of possible factor solutions, a three-factor solution, with varimax rotation, was the most interpretable and parsimonious solution. Examination of the scree plot further revealed the data were largely consistent with a three-factor solution. The scree criterion recommends the point at which the plotted graph of the factors should be entered into the factor structure.<sup>37</sup> The factor structure and factor loadings are presented in **Table 2**. All items had factor loadings greater than 0.40 and, therefore, were retained in the TFSS-EP.

For the components of the TFSS-EP, the three factors corresponding 61 items had factor loadings ranging from 0.43 to 0.82 and displayed a total variance of 57.03 % (See **Table 2**). The resulting three factors included: Factor I ("Paying attention to my daily life"), with factor loading ranging from 0.51 to 0.65, which displayed a total of 22 % of the variance and an eigenvalue of 14.3 (30 items); Factor II ("Financial and material assistance"), with factor loadings ranging from 0.43 to 0.82, which displayed a total of 17.6% of the variance and an eigenvalue of 11.4 (17 items); and, Factor III- ("Reassuring and emotional resources"), with factor loadings ranging from 0.46 to 0.63, which displayed a total of 17.3% of the variance and an eigenvalue of 11.2 (14 items).

**Table 2** Exploratory factor analysis of the Thai family support scale for elderly parents (TFSS-EP)  
(n = 500)

Statements	Factor 1	Factor 2	Factor 3
1) Feeling proud that my children bring me to my favorite places for vacation	.60		
2) Inviting me to go out together when I am free from work	.51		
3) Asking for my opinion about how to set up the family's activities	.62		
4) Taking good care of me	.46		
5) Taking me out when I demand it.	.44		
6) Taking me out when I request it	.48		
7) Paying attention to make regular conversation with me	.58		
8) Paying attention to my health	.55		
9) Paying attention when talking with me about my daily life	.58		
10) Loving to hear me talk about my past	.64		
11) Expressing being proud of me	.65		
12) Feeling proud that my children pay attention to me	.61		
13) Feeling proud that my children are concerned about me	.54		
14) Feeling proud that my children keep visiting me	.52		
15) Encouraging me to be involved in family activities	.65		
16) Using appropriate words when talking to me	.53		
17) Being considerate when dealing with me	.60		
18) Accepting of what I have to teach	.65		
19) Staying with me when I need companionship	.51		
20) Listening to my problems	.61		
21) Being present if I want companionship	.61		
22) Telling me about useful health information	.62		
23) Encouraging me to do things that are good for my health	.66		
24) Telling me about things in which I am interested.	.73		
25) Telling me about useful information.	.76		
26) Feeling proud when they introduce another person to me	.62		
27) Being told about what is going on in my family member's life	.65		
28) Discussing the news with me	.72		
29) Giving me useful information in time of need	.59		
30) Giving me recommendations which I have never known	.56		

*Development of the Thai Family Support Scale for Elderly Parents (TFSS-EP)*

**Table 2** (continued)

Statements	Factor 1	Factor 2	Factor 3
31) Asking if I needed money		.72	
32) Taking care of my non-essential expenses (traveling costs)		.81	
33) Taking care of my necessary expenses (food, clothing)		.82	
34) Giving me money before I ask for it		.65	
35) Feeling proud that my children give me money		.57	
36) Feeling proud that my children give me as much money as I need		.73	
37) Helping me, with as much money as I need, for paying a bill		.76	
38) Giving me money with good feelings		.59	
39) Paying me back the money I spent on raising my children		.70	
40) Being able to rely on my children for money		.74	
41) Solving my money problems		.67	
42) Helping me with money every time that I get in trouble		.71	
43) Feeling safe and secure about giving me money		.60	
44) Paying attention and helping me to live well		.64	
45) Gladly helping me with transportation		.43	
46) Helping/managing my housework		.45	
47) Feeling proud that they provide the means for living comfortably		.54	
48) Feeling proud that I have children who are grateful			.59
49) Willing to help me if I cannot live by myself			.60
50) Feeling proud that my children will help me for the rest of my life			.50
51) Feeling proud that my children help me with pleasant feelings			.51
52) Following my orders with respect			.63
53) Giving me a hand as soon as I need it			.63
54) Visiting me regularly			.46
55) Paying attention to me on special days			.49
56) Loving to see me around			.46
57) Feeling that I'm a part of my family			.55
58) Giving me honor			.58
59) Making me feel safe			.52
60) Refusing to take me to another place			.60
61) Feeling proud when hearing about my children's good news			.58
Eigenvalue	14.3	11.4	11.2
Variance (%)	22.0%	17.6%	17.3%

**Factor 1:** Paying attention to daily life and special events.

**Factor 2:** Financial and material assistance.

**Factor 3:** Reassuring and emotional resource

To determine construct validity of the TFSS-EP, scores of two groups of subjects known to be high and low in the characteristic of functional aspects of family support were compared. When the mean TFSS-EP scores of 30 subjects residing with their children and 30 subjects living in a shelter home were compared,

by way of a t-test, those living with children were found to have higher scores (See **Table 3**). Results indicate the TFSS-EP differentiated those with a higher perception of support (residing with children) from those with a lower perception of support (living in the shelter home). These findings supported the construct validity of the TFSS-EP.

**Table 3** Means, standard deviations and t-values of the TFSS-EP total scores of elderly parent groups (n = 60)

Groups of Elderly Parents	n	$\bar{X}$	SD	t	p
Elderly parent living with their children	30	160.06	12.77	29.60*	.000
Elderly parent living in shelter home	30	65.16	12.04		

Item analysis was performed by computing the correlated item-total correlations for the total scale and the three subscales. Correlations between item-subscale scores and subscale-total scores are shown in **Table 4**. Analysis of the internal consistency for each of the subscales and

the overall scale can be found in **Table 5**. The test-retest reliability of the TFSS-EP (administered twice over a one week period) revealed a coefficient of 0.96. Thus, it appeared the TFSS-EP was relatively stable.

**Table 4** Correlations between items and subscales, and subscales and total scores for each of the three TFSS-EP subscales (n = 500)

Subscales	Item-subscale score correlations	Subscale-total score correlations
1	.63-.76	.97
2	.52-.81	.96
3	.58-.78	.94

**Table 5** Cronbach's alpha coefficients of subscales and total items of the TFSS-EP (n=500)

Subscales	Number of Items	Cronbach's Alpha
Paying attention to daily life and special events	30	0.97
Financial and material assistance	17	0.96
Reassuring and emotional resources	14	0.94
Total	61	0.98

## **Discussion**

This study was undertaken to produce a valid and reliable instrument to measure family support for elderly Thai parents. The TFSS-EP was developed through a literature review and a qualitative study. Four specified domains of the TFSS-EP were identified by synthesizing data from the interviews, as well as from published information about existing, pre-specified, domains. The four specified domains, financial support, emotional support, instrumental support and companionship, became the conceptual framework for the development of the items for the TFSS-EP.

The specified financial support domain, unlike the pre-specified domain, emerged as a crucial component of Thai family support, and was congruent with findings from prior research on family support of elderly Thais.<sup>38-40</sup> By contrast, findings from Western countries have revealed limited involvement regarding the routine transfer of money between adult children and their elderly parents.<sup>41-44</sup> Therefore, financial support was assumed to be an essential family support for elderly Thai parents.

Emotional support, mentioned as “affection” and “respect,” emerged, as a specified domain, from the interview process and considered a vital support mechanism for the subjects. This finding was consistent with prior studies,<sup>5, 45-47</sup> wherein respect and care from adult children gave purpose and/or value to their elderly parents.

In this study, instrumental support demonstrated differences from the pre-specified descriptors of this domain. Similarly recreation, material and facility components emerged within the specified domain. However, personal care, found in the pre-specified domain, was not found within the specified domain. Most likely personal care was not present with the study subjects, since they indicated: being healthy, not having physical

disabilities, being able to meet their own requirements of daily living and not feeling a need for personal care (i.e. instrumental support). In contrast, recreation probably was mentioned by most participants, since it is considered a good activity for healthy people.

Unlike the pre-specified domains, companionship emerged from the interview process as one of the four specified domains. There is evidence that companionship is the result of a multigenerational household,<sup>48</sup> which is the typical living arrangement for elderly within the Thai culture. The majority of subjects resided with their adult children. Therefore, companionship from family was a relevant and specific component of family support.

The content validity of the TFSS-EP was established by way of five experts who reviewed the conceptual definition of Thai family support. The CVI of the newly generated instrument items was found to be at an acceptable level.

The presence of the three factors that emerged from the factor analysis was congruent with the specified domains of Thai family support and demonstrated the multidimensionality of the Thai family support construct. Emotional support was found to be the first factor, “Paying attention to my daily life.” Financial support and instrumental support emerged as two important domains that were combined to create the second factor, “Financial and material assistance.” Companionship was found to constitute factor three, “Reassuring and emotional resources.” Since the specified domains emerged from the interview, in the qualitative portion of the study, they were considered relevant to elderly parents living within the Thai culture.

For a newly developed instrument, the TFSS-EP was found to have adequate psychometric properties. Internal consistency with adequate Cronbach coefficient alphas, for the three factors and the overall scale, were found. The scores were

very acceptable for a 61-item scale. Stability of the instrument, using test-retest reliability, was more than 0.80. The fact that a significant difference in the instrument's total scores, between two groups with different family support, was found enhanced the validity of the TFSS-EP. The correlations between the sub-scales of the TFSS-EP were moderate to high, indicating redundancy among the sub-scales may be prevalent. For example, the following two questions, under factor 1, may be asking for the same type of information: Question 9, "Paying attention when talking to me about my daily life," and Question 20, "Listening to my problems." In addition, under factor 2, two questions may be addressing similar data: Question 40, "Being able to rely on my children for money," and Question 41, "Solving my money problems." Thus, one can assume the concepts measured by the subscales are not entirely distinct.

### Limitations

Findings of this study suggest the need for future inquiry. Correlations of the TFSS-EP sub-scales ranged from 0.69 to 0.83, which are considered moderate to high,<sup>31</sup> and indicate potential redundancy among the sub-scales. Thus, items within the subscales may not be distinct. Items within the subscales should be further examined, using a multi-trait-multi-method approach. Moreover, the TFSS-EP was psychometrically tested using subjects from one province in southern Thailand. They may have different characteristics from elderly parents in other areas of Thailand. Thus, a need exists to further test, throughout Thailand, the psychometric properties of the TFSS-EP.

### Conclusions

The final version of the 61-item, three-dimensional TFSS-EP is a self-report questionnaire which measures perceived family support among elderly Thai parents. An adequate sample was used to eliminate subject variance and to test the psychometric properties of the instrument. Results indicate minimal levels of reliability and validity were met. Therefore, future studies are needed to refine the instrument and strengthen its psychometric properties.

### Acknowledgement

The primary author expresses gratitude to the Royal Thai Government for the scholarship support she received.

### References

1. United Nations Population Fund. Population aging in Thailand: Prognosis and policy response [monograph on internet]. Bangkok: United Nations Population Fund; 2006. [cited 2008 Sep 12]. Available from: [http://thailand.unfpa.org/documents/thai\\_ageing\\_englishversion.pdf](http://thailand.unfpa.org/documents/thai_ageing_englishversion.pdf)
2. Caldwell JC. The theory of fertility decline. New York (NY): Academic Press; 1982.
3. Mason KO. Family change and support of the elderly in Asia: What do we know? *Asia Pac Pop J.* 1992; 7:13-32.
4. Martin L. Living arrangements of the elderly in Fiji, Korea, Malaysia and the Philippines. *Demography.* 1989; 26:627-43.
5. Chayovan N. Elderly woman in Thailand: Their role, status and family support. *Australas J Aging.* 1994; 13:182-85.

*Development of the Thai Family Support Scale for Elderly Parents (TFSS-EP)*

6. Knodel J, Chayovan N, Siriboon S. The familial support of Thai elderly: An overview. *Asia Pac Pop J.* 1992; 7:105-26.
7. Boonchalaksi W. Family size and elderly care [dissertation]. Bangkok (Bangkok): Mahidol Univ.; 2006.
8. Barrera M, Sandler IN, Ramsay TB. Preliminary development of a scale of social support: Studies on college students. *Am J Community Psychol.* 1986; 9:435-577.
9. Cobb S. Social support as a moderator of life stress. *Psychosom Med.* 1976; 38:300-14.
10. Cutrona CE, Russell DW. The provisions of social relationships and adaptation to stress. *Adv Personal Relations.* 1987; 1:37-67.
11. House J. Work stress and social support. Reading (MA): Addison-Wesley; 1981.
12. Kanh RL, Antonucci TC. Conyoys over the life course: Attachment, roles and social support. In: Baltes P, Brim O, editors. *Life span development and behavior* (vol. 3). Sandiago: Academic; 1980. p. 234-86.
13. Schaefer C, Coyne J, Lazarus R. The health related function of social support. *J Behav Med.* 1981; 4:381-3.
14. Thoits PA. Conceptual, methodological, and theoretical problems in studying social support as a buffer against life stress. *J Health Soc Behav.* 1982; 23: 145-59.
15. Choi NG. Long-term elderly widows and divorcees: Similarities and differences. *J Women Aging.* 1995; 7:62-92.
16. Belgrave FZ. Psychosocial aspects of chronic illness and disability among African Americans. Dover (MA): Auburn House; 1998.
17. Brillhart B. Family support for the disabled. *Rehabil Nurs.* 1988; 13:316-9.
18. House J, Kahn R. Measures and concepts of social support. In: Cohen S, Syme, S, editors. *Social support and health.* Orlando: Academic Press; 1985. p. 83-108.
19. Norbeck J. Social support: A model for clinical research and application. *Adv Nurs Sci.* 1981; 3:43-59.
20. Weiss RS. The provisions of social relationships. In: Rubin Z. editor. *Doing unto others.* Englewood Cliffs: Prentice-Hall; 1974. p. 17-26.
21. Procidano ME, Heller K. Measures of perceived social support from friends and from family: Three validation studies. *Am J Community Psychol.* 1983; 11:1-24.
22. Brandt P, Weinert C. The PRQ-A Social Support Measure. *Nurs Res.* 1981; 30:277-80.
23. Norbeck J, Linsey A, Carrieri V. The development of an instrument to measure social support. *Nurs Res.* 1981; 30:264-69.
24. Moos RH, Moos BS. *Family Environment Scale manual.* Palo Alto (CA): Consulting Psychologists Press; 1981.
25. Markus HR, Kitayama S. Culture and self: Implications for cognition, emotion, and motivation. *Psychol Rev.* 1991; 98:224-53.
26. Shweder RA, Bourne EJ. Does the concept of the person vary cross-culturally? In: Shweder R, LeVine, R, editors. *Culture theory: Essays on mind, self, and emotion.* Cambridge: Cambridge University Press; 1984. p.158-199.
27. Triandis HC. The self and social behavior in differing cultural context. *PsycholRev.* 1989; 96:506-20.
28. Fiske AP, Kitayama S, Markus HR, Nisbett RE. The cultural matrix of social psychology. In: Gilbert D, Fiske D, Lindzey G, editors. *Handbook of social psychology.* New York: McGraw-Hill; 1998. p. 915-18.
29. Kim H, Markus HR. Deviance or uniqueness, harmony or conformity: A cultural analysis. *J Pers Soc Psychol.* 1999; 77:785-800.
30. Polit DF. *Data analysis and statistics for nursing research.* Stamford (CT): Appleton & Lang; 1996.
31. Cohen J. *Statistical power analysis for the behavioral sciences.* 2<sup>nd</sup> ed. Hillsdale (NJ): Lawrence Erlbaum Associates; 1988.
32. Miles MB, Huberman AM. *Qualitative data analysis.* 2<sup>nd</sup> ed. Thousand Oaks (CA): Sage; 1994.
33. Kline PA. *Handbook of test construction: Introduction to psychometric design.* London (England): Methuen; 1986.
34. Yen M., Lo LH. Examining test-retest reliability. *Nurs Res.* 2002; 51:59-62.
35. De Villis R. *Scale development: Theory and applications.* Thousand Oaks (CA): Sage; 2003.
36. Nunally JC, Bernstein IH. *Psychometric theory.* 3<sup>rd</sup> ed. New York (NY): McGraw-Hill; 1994.

37. Cattell RB. The scree test for the number of factors. *Multi Behav Res.* 1966; 1: 245-76.
38. Chayovan N, Wongsith M, Seangtienchai C. Socioeconomic consequences of the aging population: Thailand. Bangkok (Bangkok): Chulalongkorn University Press; 1988.
39. Rojanasinwilai P. Required and actual support from children of the Thai elderly. [dissertation]. Bangkok (Bangkok): Mahidol Univ.; 1995.
40. Knodel J, Chayovan N. Family support and living arrangements of Thai elderly. *Asia Pac J.* 1997; 12:51-68.
41. Eggebeen DJ. Family structure and intergeneration exchange. *Res Aging.* 1992; 12: 3-35.
42. Glaser K. Family structure and intergenerational transfers: A comparison of 55-63 year olds in the U.S. and Britain [dissertation]. Ann Arbor (MI): Univ. of Michigan; 1996.
43. McGary K, Schoeni R. Transfer behavior in the Health and Retirement Study: Measurement and the redistribution of resources within the family. *J Human Res.* 1995; 30:184-226.
44. Spitze G, Logan JR. Helping as a component of parent-adult child relations. *Res Aging.* 1992; 14:291-312.
45. Nillert S. Relationship between adult child support and quality of life in older adult living in Supanburi Province [dissertation]. Bangkok (Bangkok): Mahidol University; 1996.
46. Nuichan S. Study of family's role in providing care for the elderly: Case study of the family that use service from the elderly social service center in Dindang and the family that is a membership of the elderly club of the Priest Hospital [dissertation]. Bangkok (Bangkok): Thammasat Univ.; 1987.
47. Sukpurana D. Family role in caring for aging people in an elderly club in Maharach Hospital, Nakhonrachasima province [dissertation]. Maha Sarakam (MahaSarakam): Mahasarakam Univ.; 2004.
48. Anderson KL, Allen W. Correlates of extended household structure. *Phylon.* 1984; 45:44-57.

# การพัฒนาเครื่องมือวัดการได้รับการสนับสนุนจากครอบครัว สำหรับบิดามารดาสูงอายุ

พัชรี คมจักรพันธ์, แสงอรุณ อิศระมาลัย, อุมพร ปุญญโสภณ, Joanne K. Schneider

**บทคัดย่อ:** ครอบครัวเป็นแหล่งสนับสนุนที่สำคัญของบิดามารดาสูงอายุไทย ถึงแม้ว่างานวิจัยนานาชาติได้แสดงถึงการประเภตต่างๆ ของการสนับสนุนจากครอบครัว แต่ลักษณะของประเภตต่างๆ ของการสนับสนุนจากครอบครัวไทยยังขาดการศึกษาและความเข้าใจอย่างถ่องแท้ ดังนั้นวัตถุประสงค์ของการวิจัยครั้งนี้ เพื่อสร้างเครื่องมือวัดการได้รับการสนับสนุนจากครอบครัวตามการรับรู้ของบิดามารดาสูงอายุไทย

ระเบียบวิธีวิจัยทั้งเชิงคุณภาพและเชิงปริมาณได้นำมาใช้ในการสร้างและพัฒนาเครื่องมือวัดการได้รับการสนับสนุนจากครอบครัวของบิดามารดาสูงอายุไทย ข้อคำถามได้มาจากการทบทวนวรรณกรรมและสัมภาษณ์บิดามารดาสูงอายุไทยจำนวน 35 คน ในเนื้อหาที่เกี่ยวข้องกับประเภตและลักษณะของการสนับสนุนที่ได้รับจากบุตร ทดสอบความเที่ยงของเครื่องมือด้วยการวัดซ้ำในบิดามารดาสูงอายุจำนวน 10 คน วิเคราะห์องค์ประกอบในกลุ่มตัวอย่างจำนวน 500 คน เทคนิคการเปรียบเทียบระหว่างกลุ่มถูกนำมาใช้เพื่อเปรียบเทียบความแตกต่างระหว่างค่าคะแนนรวมระหว่างกลุ่มของผู้สูงอายุที่อยู่รวมกันกับบุตร ( $n = 30$ ) และกลุ่มผู้สูงอายุที่อยู่เพียงลำพัง ( $n = 30$ )

ผลพบว่าเครื่องมือวัดการได้รับการสนับสนุนจากครอบครัวมีทั้งสิ้น 61 ข้อ แบ่งเป็น 3 องค์ประกอบ โดยมีค่าความแปรปรวนรวมที่ 57.03% ค่าความเที่ยงมีความคงที่ในการวัดซ้ำ 2 ครั้งในกลุ่มตัวอย่าง 10 คน ในระยะเวลาห่างกัน 2 สัปดาห์ นอกจากนี้ยังพบว่าค่าคะแนนรวมของกลุ่มผู้สูงอายุที่อยู่อยู่รวมกันกับบุตรสูงกว่าค่าคะแนนรวมของกลุ่มผู้สูงอายุที่อยู่เพียงลำพัง กล่าวโดยสรุปเครื่องมือที่สร้างมีคุณภาพและสามารถนำมาใช้วัดการได้รับการสนับสนุนจากครอบครัวไทยของบิดามารดาสูงอายุได้

วารสารวิจัยทางการแพทย์ 2009; 13(2) 118 - 132

**คำสำคัญ:** การสนับสนุนจากครอบครัว การรับรู้การสนับสนุนจากครอบครัวไทย บิดามารดาสูงอายุ

ติดต่อที่: พชรี คมจักรพันธ์, PhD Candidate, RN, คณะพยาบาล-  
ศาสตร์ มหาวิทยาลัยสงขลานครินทร์ หาดใหญ่ สงขลา ประเทศไทย  
E-mail: patchakomjak@gmail.com  
แสงอรุณ อิศระมาลัย, PhD, RN, ผู้ช่วยศาสตราจารย์ ภาควิชาการพยาบาล-  
สาธารณสุข มหาวิทยาลัยสงขลานครินทร์ หาดใหญ่ สงขลา ประเทศไทย  
อุมพร ปุญญโสภณ, PhD, RN, ผู้ช่วยศาสตราจารย์ ภาควิชาการพยาบาล-  
สาธารณสุข มหาวิทยาลัยสงขลานครินทร์ หาดใหญ่ สงขลา ประเทศไทย  
Joanne K. Schneider, PhD, RN, Associate Professor, School of  
Nursing, Saint Louis University, St. Louis, Missouri, USA.