The *Thum-jai* (Acceptance) Scale: Development and Psychometric Properties

Andrew C. Mills, Choochart Wong-Anuchit, Jidapa Poogpan, Darunee Rujkorakarn*

Abstract: Life's adversities out of our control can create stress and suffering. Examples might include chronic disease, terminal illness, bereavement, and regrettable decisions. When problem-focused coping strategies fail to repair a loss of control or restore health, a sense of futility and desperation may provoke negative emotions. In facing the inevitable, people may turn to emotional-approach coping strategies, such as accepting the situation so life can go on. In Thailand, *Thum-jai* (acceptance) is a culturally embedded, positive emotional-approach coping strategy used by people who experience an overwhelming life crisis they cannot control. To help Thai people improve their psychological well-being, nurse clinicians/researchers find it beneficial to measure psychological concepts; however, no instrument exists to measure *Thum-jai*. The three aims of the methodological and developmental study were to 1) develop a self-report instrument measuring *Thum-jai*, 2) assess the scale's psychometric properties, and 3) retain a concise set of items measuring the concept. After an etic-emic process to generate scale items, we used two nonprobability sampling methods to obtain a sample of 541 participants in Thailand who completed an online survey. The mean age was 42.1 years. The majority were female and Buddhists.

Principal axis factoring revealed 12 items that were congruent with themes that had been uncovered in previous qualitative research about the meaning of *Thum-jai*. Results indicate the 12-item *Thum-jai* (Acceptance) Scale is a self-report instrument that shows acceptable reliability and validity with a level of cultural authenticity. We propose that *Thum-jai* mediates health outcome variables when determining its effects on psychological states, such as depression, hopelessness, resilience, self-efficacy, sense of coherence, and stress. Using the scale, psychiatric-mental health nurses may wish to appraise a person's psychological readiness for enhanced coping after sustaining a life crisis.

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Introduction

The stress of inescapable adversities and misfortunes can overwhelm a sense of well-being and psychological balance. Whether caused by events,

conditions, or perceived situations or brought on by circumstances of one's own making or another's, people attempt to contend with whatever challenges befall them by constructing psychological strategies for coping and survival.[1] A few examples of what might engender internal stress and negative emotions include the certainty of aging, regrettable decisions, a debilitating or terminal disease, bereavement, catastrophic events, or anything that causes psychological disequilibrium. Beyond one's control, these emotionally upending events act as internal stimuli for people to appraise the situation and seek solutions to their problems.

Problem-focused coping strategies are plans to find resolution, to fix the situation, to repair a loss of control, to restore health or regain a sense of normality that has been disrupted.[2] However, when problem-focused coping strategies fail or are factually unrealistic, a sense of futility and desperation may provoke debilitating, reactionary emotions. Examples might include insecurity, intense fear, intractable anger, bitter resentment, guilt, despair, withdrawal, and hopelessness. Negative emotions with life altering events are often part of the human fabric and impossible to avoid, yet when they become unmanageable and the circumstances are perceived to be unending, the results can lead to suffering, mental instability, the adoption of deleterious behaviors, and a sense of hopelessness or depression. However, problem-focused coping strategies are not the only available psychological resource.

Rather than trying to solve the inescapable adverse situation that brings mental and psychological imbalance and suffering, people may use emotional-approach coping strategies. As a subset of emotion-focused coping strategies, emotional-approach coping strategies allow people to confront what is happening in their lives, identify what is realistic, actively process their emotions, and undertake reflective thought and action to grapple with the adversity and suffering of the circumstance.[3] Acceptance is one emotional-approach coping strategy that may have beneficial effects.[4] Over time, as people internally navigate from problem-focused to emotional-approach coping strategies, they re-appraise their situation, recognize what cannot be achieved, and learn to accept the inevitable. Although acceptance might be mistakenly characterized as succumbing to life's adversities when facing no alternatives, it is better described as a positive emotional-approach coping strategy that refocuses conscious attention to the self in relation to the how, what, and why of the perceived or actual experience that has altered a person's thinking and existence.[5]

In Thailand, *Thum-jai* (acceptance) is a culturally embedded, positive emotional-approach coping strategy used by Thai people who experience an overwhelming life crisis or major stressful event that they cannot control.[6] For Thais, the "key" is to recognize there is no further ambiguity or uncertainty in the situation. It is the cognitive appraisal that a person no longer has the ability through reasoned action to alter, fix, rectify, remove, or reverse a perceived or actual negative circumstance that has brought anxiety, stress, and possibly, a mental health crisis. *Thum-jai* is to release the suffering and redirect the attention toward a positive future. *Thum-jai* still requires mental capacity (strength), cognitive effort, time, and action. In Western culture, however, learning to deal constructively with seemingly intractable stress or suffering often requires therapeutic intervention and directed counseling to re-orient the person away from the dominant, rational-empirical approach toward the seeming paradox of acceptance to find relief.

As part of the human experience, acceptance is a psychologically accessible, emotional-approach coping strategy. But in Thailand, rather than its being a learned response or re-orientation, acceptance (*Thum-jai*) is a culturally embedded concept that underlies a person's capacity to reframe a perceived or actual negative condition or situation by restructuring their awareness of the situation. *Thum-jai* means to accept what has happened; withstand or endure the

suffering; acknowledge "whatever will be, will be"; and move on to more psychologically healthy and productive living. *Thum-jai* has been defined as a

> *"cognitive and emotional system from which individuals draw psychological strength when confronted with an adverse, verifiable truth – experiential or evidential – that they cannot change. It involves emotional regulation through cognitive reframing or the inhibition of emotions to not only grapple with the situation but to accept it and endure or thrive"* (pp. 240-241).[7]

Although it is a culturally embedded concept, the extent to which *Thum-jai* is readily accessible among Thai people varies, as do all emotional responses differ among humans. As with many psychological concepts, researchers want to develop instruments to measure concepts by quantifying them, to understand their validity and reliability with different populations, and to monitor and describe their influence on health outcomes. Nurses and other clinicians often seek tools to assist with understanding their clients to improve their well-being. No instrument currently exists that fully measures *Thum-jai* (acceptance), although an eponymously similar scale in English, the Acceptance and Action Questionnaire-II, assesses experiential avoidance and acceptance as psychological flexibility.[8] The instrument was developed within a Western culture's psychotherapeutic framework. Because there are no quantitative studies that report the use of *Thum-jai*, a culturally based, valid, and reliable instrument to measure *Thum-jai* would provide the needed empirical referent lacking in the aforementioned concept analysis and give explanatory power to the concept.

Theoretical and Thematic Underpinnings

Coping and Emotion Theory[1] hypothesizes that when a person evaluates or appraises a circumstance to be distressful, an emotional reaction stimulates a coping response. As a person's appraisal of a situation changes, so does the coping response; conversely, the coping response alters the cognitive appraisal. Thus, strategies to cope with the situational distress mediate the emotional response and alter the appraisal of the distress. Multiple instruments on coping have been developed in the Western context to study how coping mediates its effect on emotions. The intent of this type of instrument development has been to understand the coping-emotion relationship to improve a person's well-being.

An extensive literature review about the effective use of *Thum-jai* among Thai people caught in the morass of grief and suffering has been reported elsewhere.[6] More recently, the concept has been described as a positive, culturally-embedded coping strategy that mothers of adult children with schizophrenia use to alter their thinking by accepting their situation.[9] The concept of *Thum-jai* has possibly gone unidentified or unnamed in previous research, such as a recent study of Thai women who had made a regrettable decision to have a nontherapeutic abortion.[10] The qualitative themes uncovered through extensive interviews resonate strongly with what is known about the concept of *Thum-jai*, in that the Thai women experienced what seemed to be unending hopelessness and suffering. They learned to accept what happened through a sense of empowerment, strategic thought and action, and social support. The result was a restoration of their sense of well-being and peace of mind.

Thematic analysis of *Thum-jai*, as a Thai coping strategy, has shown the importance that acceptance has in the lives of Thai people and how they experience it as a cultural phenomenon.[7] The concept is described as a cognitive process that needs to occur with concerted action to accept the negative situation and transform people's lives (theme: thought-action). The process takes time and effort and is bolstered from past life experiences (theme: time-experience-effort). The support of family and friends sustains Thais on the transformative journey to overcome suffering (theme: social-moral support). A sense of inner peace or feeling

connected to the universe gives guidance during the turbulent times (theme: religious-spiritual ethos). They discover that accepting "what will be, will be" takes them to where they hope to be (theme: acceptance-hope). *Thum-jai*, as a positive emotional-approach coping strategy, brings Thais out of suffering to find their lives renewed (theme: survive-thrive). These themes, within the framework of the Coping and Emotion Theory, provided a foundation of how we proceeded with instrument development.

Study Aims

The three aims were to 1) develop a self-report instrument measuring *Thum-jai* (acceptance) among Thai people, 2) assess the scale's psychometric properties, and 3) retain a concise set of items measuring the concept.

Methods

Design: Methodological and developmental design to construct and test an instrument.

Instrument Development: We followed a highly rigorous, three-step process in assessing content validity of the *Thum-jai* (Acceptance) Scale: 1) Identification of content domain, 2) item generation, and 3) item placement in a usable form.[11] To identify the content domain (Step 1), we reviewed the Thai and English literature to learn how the concept has been used. This included contextual events and personal reactions that people reported due to negative events or disturbing circumstances.[6] A formal concept analysis determined the structural antecedents and consequences related to *Thum-jai*.[12] Subsequent research identified themes that were used for item generation.[7]

To generate items (Step 2), we searched existing measurement instruments for items possibly related to the aforementioned themes. These included instruments of acceptance, psychological flexibility, resilience, self-efficacy, social networks, social support, and spirituality. This began the research team's starting from an etic ("outside") orientation and later transitioning to an emic ("inside") perspective, but not for the purpose of cross-cultural equivalency. The non-Thai investigator was the outsider looking at *Thum-jai* through a Westerner's "conceptual lens" of possibly relevant English items.[13,14]

We started with a large item pool because *Thum-jai* is a somewhat elusive concept that had hitherto had no Thai empirical referents. Seventy-seven items in English were either newly generated or contextually modified from 11 sources. A group of eight bicultural/bilingual (Thai-English) experts assessed the 77 English statements as to their relevance in measuring *Thum-jai*. They were "expert" in that *Thum-jai* is culturally and psychologically embedded in Thai society,[7] and they were fluent in English, either currently living in the U.S. or having studied/lived in the U.S. several years.

The eight Thai "experts" quantified their judgments independently whether each of the 77 statements was applicable to a person's ability to *Thum-jai* by selecting from a 4-point response option: 1 (*Not Relevant*), 2 (*Somewhat Relevant*), 3 (*Quite Relevant*), and 4 (*Very Relevant*). They endorsed the items using a web survey tool (www.Qualtrics.com). A total of 24 English items met the criterion of ≥ 85.7% agreement from the eight experts on the combined percentages for both *Quite* and *Very Relevant* ratings.[11] The six conceptual themes from Step 1 remained intact with the 24 items, reflecting construct homogeneity (*Thum-jai*), yet thematically heterogeneous.

Placing items into a usable form (Step 3) required an initial translation process. Although conceptualized and developed in English and assessed by bilingual Thais to be relevant to *Thum-jai*, the items needed to be translated to the Thai language. This forward translation process would be an appropriate first step for establishing cross-cultural equivalence used in an etic approach to capture a language's meanings.[15] However, cross-cultural equivalence was not our intent. A back-translation process of the English statements was deemed not only unnecessary but

misguided because the concept of *Thum-jai* originates in Thai culture. In addition, we had the desire to transition from what originally began as an etic perspective of studying *Thum-jai* as a cultural phenomenon from a Western (English-speaking) perspective to an emic approach of examining the phenomenon within the Thai culture. We considered the latter to be more authentic in determining the empirical referents derived from the concept analysis.[7]

The process began by having a professional linguist translate the 24 items from English to Thai. A bicultural-bilingual nurse produced a second translation using a more common Thai vernacular. A third person provided feedback to the non-linguist, and they reached consensus on their desired wording in Thai. At this stage in the process, the research team had moved fully to an emic perspective.[13,14] Word changes and all oral discussions were in Thai with the non-Thai investigator acting as facilitator-observer.

Seven adult native Thais voted independently on their preferences between the 24-paired translated items, that is choosing between the professional linguist or non-linguist vernacular Thai versions. They endorsed the Thai items based on clarity, succinctness, readability, and "good" Thai language. Their levels of education ranged from master's to doctoral degrees. Eleven items met the criterion of ≥ 85.7% agreement.[11] We sought feedback from a monolingual, native Thai educator with advanced degrees in Thai language. In his professional opinion, none of the items reflected an erudite, literary Thai style. However, the educator acknowledged that either the professional linguist or vernacular Thai versions would be understood by the public.

Preferring the vernacular version, the three Thai co-investigators made minor word changes and rewrote one item entirely. A new group of eight adult Thais, with a primary or secondary education, reviewed independently the full 24-item vernacular survey for readability/understandability. Because they did not reach ≥ 85.7% agreement on all items, a Thai co-investigator conducted two focus groups with them to ask for suggestions. After lengthy, nuanced discussion, the eight Thais accepted the 24 items; the three Thai co-investigators gave final approval. Each item had a 4-point response option: 1 (Strongly disagree), 2 (Disagree), 3 (Agree), and 4 (Strongly agree).

Sample: To determine an adequate sample size for data analysis based on the communalities (item variances explained by the factor),[16] we conducted a preliminary test on data from a group of 29 Thai adults. Communalities ranged from > .44 to < .86, which are lower magnitudes typical of social sciences data.[17] Therefore, we targeted 500 surveys to compensate for communalities < .50 to 1) to reduce and stabilize the factor analysis solution, 2) more accurately reflect the population's structure from the sample,[16] and 3) increase the generalizability of the factor analysis solution.[18] In anticipation of missing data, an extra 10% of completed surveys were obtained. The sample size was appreciably larger than the minimum numbers often recommended for determining the adequacy of sample size for factor analysis.[19,20]

Ethical considerations: Prior to their possible participation, prospective respondents were informed in writing of the study's purpose, voluntary nature and anonymity of participation, digital data security and confidentiality, no penalty for withdrawing, and lack of financial incentive. Initiating and completing the online survey was at the respondent's discretion and choice of setting for privacy. The Mahasarakham University Human Ethics Committee for Research Involving Human Subjects approved the study (#148/2020).

Data collection: To obtain a large sample across Thailand, we used two nonprobability sampling methods: virtual snowball sampling (chain-referral) technique and purposive sampling. There were no stated inclusion/exclusion criteria; participants could self-select to respond based on their willingness and ability to read and comprehend Thai, use a computer/mobile device, and indicate their consent. Invitation

messages to participate were sent initially by email and messenger apps (www.line.me) to colleagues and friends. We posted an invitation message on one social media platform (www.facebook.com). Recipients received a link to complete the online survey (www.qualtrics.com) and were encouraged to forward the invitation to their friends, families, and colleagues. Data were captured automatically and saved in a usable format.

Data analysis: To extract a reduced set of items, we conducted principal axis factoring (PAF) with a Promax rotation, assuming all items might be interrelated. It was not the study's purpose to explore for latent concepts, although we did assess eigenvalues and the scree plot's configuration.[23] During the exploratory phase of factor analysis, we tested the data matrices for significant correlations, linear dependencies, ill-conditioning, and sampling adequacy. Measures included the determinant, Bartlett's test of sphericity, Kaiser-Meyer-Olkin (KMO), and individual measures of sampling adequacy (MSA). The PAF factor loadings on the structure matrix were evaluated first, then compared with loadings on the pattern matrix and their communalities.[19]

We assessed for convergent validity by examining the relationship between the summed scores of the *Thum*-jai (Acceptance) Scale (post PAF) and the 10-item Rosenberg Self-esteem Scale (Thai translation[24]). Because the self-esteem scale has been shown to correlate with positive coping mechanisms,[25] a positive coefficient was expected. We further explored whether scores on the *Thum-jai* (Acceptance) Scale predicted the extent (percentage) that respondents self-identified they could *Thum-jai* within two years after a life crisis or major stressful event; a positive coefficient was expected. The final *Thum-jai* (Acceptance) Scale's internal consistency was measured using the Cronbach's alpha coefficient. The IBM® SPSS® software version 27 was used for data analysis.

To examine test-retest reliability for temporal stability, a separate group of 29 Thai adults participated in completing the items twice between a two-week interval. After the second week, we compared means of each of the summated items of the two rounds using both Pearson's correlation and the intraclass correlation (ICC) with a two-way random effects model with absolute agreement. As the less biased statistic, the ICC measures the agreement of values within cases or between two or more quantitative measurements. Our approach to using means of summated items was based on Likert's method that items within a measured concept contain approximately the same proportion of information and contribute equally to the total scale score.[21] Because we used item means, but wished to generalize to a future single respondent, we report ICCs for both single and average measures.[22]

Results

Calculating a response rate was impossible because of the sampling technique. There were 541 respondents who consented and completed the preliminary (prior to PAF) 24 items of the *Thum-jai* (Acceptance) Scale and 537 who also completed the Rosenberg Self-esteem Scale. Although the age mean was 42.1 years (SD = 13.68), inspection of the age histogram showed the distribution was bimodal with a lower mean of 21.8 years (SD = 2.14) and median of 22 years (n = 127); the upper age mean was 48.5 years (SD = 8.64) with the median of 48 years (n = 404). Ten respondents declined to give their ages. The proportions of respondents who identified as female and male were 73.8% and 22.6%, respectively; 3.6% held other gender identities. The highest levels of education were at the baccalaureate (37.1%) and graduate (35.9%) degree levels. Most respondents were Buddhists (86.0%), followed by Muslims (8.9%) and Christians (2.4%); others declined to respond. The median time to complete the survey was 7.2 minutes.

Initially, PAF showed the data matrix system was ill-conditioned (determinant = .000). After the

deletion of two items because of low MSAs, the matrix was more stable (determinant = .001). Items with PAF factor loadings ≥ .60 on the structure matrix were retained for comparison with loadings on the pattern matrix **(Table 1).** Following iterations of PAF, the number of items was reduced from the preliminary 24 to 12 items with structure factor loadings ranging from .600 to .730 and pattern matrix factor loadings ranging from .439 to .734. The vast majority (90.1%) of the individual factor loadings were either good, very good, or excellent, as interpreted by the following cut points and labels: .45 (fair), .55 (good), .63 (very good), .71 (excellent).[19] The 12 items represented each of the previously mentioned six qualitative themes. The scree plot showed four components, with the first component holding most of the variance **(Figure 1).** The eigenvalues of components III and IV barely met a minimum cutoff value of 1.00 **(Table 1).** Because examining for latent concepts was not relevant to the study's purpose, the labels attached to the components are preliminary and combine the original qualitative themes: I=Survive–Thrive–Effort, II=Thought–Action–Spiritual, III=Acceptance–Hope, IV= Social–Moral Support. The internal consistency of the 12-item *Thum-jai* (Acceptance) Scale was .778, as measured by the Cronbach's alpha coefficient. The test-retest reliability for both single and average measures were ICC=0.677 (95% CI: 0.184, 0.896; $p < .002$) and ICC=0.808 (95% CI: 0.311, 0.945; $p < .002$, respectively. An ICC coefficient between ≥ 0.5 and < 0.75 is considered moderate reliability, and ≥ 0.75 and < .90 is good reliability.[26] The more biased Pearson *r* was .739 ($p = .006$).

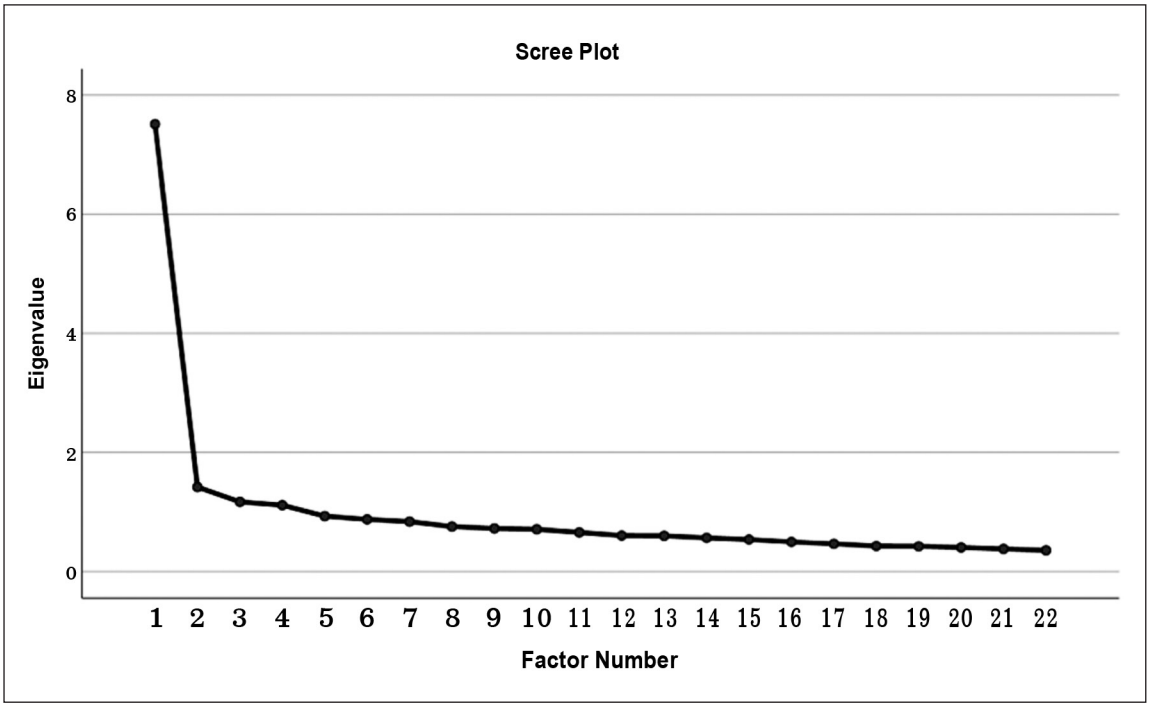

Figure 1 Scree plot of the *Thum-jai* (Acceptance) Scale showing four components/factors

Table 1 Comparison of item factor loadings on structure and pattern matrices from principal axis factoring with Promax rotation

Scale items in original Thai English translation [a] (Qualitative Themes [6])	Component Loadings [b, c]							
	I		II		III		IV	
	Structure Matrix	Pattern Matrix	Structure Matrix	Pattern Matrix	Structure Matrix	Pattern Matrix	Structure Matrix	Pattern Matrix
เมื่อเผชิญกับสถานการณ์อันยากลำบากอย่างแสนสาหัสฉันก็ยังมั่นใจว่าฉันจะประสบความสำเร็จ In the face of a terrible difficult situation, I am still confident that I'll succeed (Survive–Thrive)	.712	.750						
ฉันจะเอาชนะความท้าทายต่าง ๆ ในอนาคตได้สำเร็จ I will overcome various challenges in the future. (Survive–Thrive)	.649	.688						
ฉันรู้ว่าฉันเป็นคนที่สามารถเปลี่ยนมุมมองของตนเองได้ I know I am someone who can change my perspective (Survive–Thrive)	.646	.502						
ไม่ว่าจะเกิดสิ่งใดขึ้นกับฉัน ฉันเชื่อว่าฉันสามารถควบคุมตนเองได้ No matter what happens to me, I believe I can control myself. (Time–Experience–Effort)	.602	.452						
ฉันมักจะรู้ว่าควรทำสิ่งใดเพื่อให้ชีวิตของฉันดำเนินต่อไป I always knew what I should do to keep my life going. (Thought–Action)			.698	.684				
ฉันแสวงหาความสงบสุขในชีวิตของฉันอย่างมีสติ I consciously seek peace in my life. (Religious–Spiritual Ethos)			.606	.439				
โดยปกติแล้วฉันมีวิธีการที่หลากหลายในการแก้ไขปัญหา Usually, I have a variety of ways to fix the problem. (Thought–Action)			.602	.610				
ส่วนใหญ่ฉันตัดสินใจเรื่องสำคัญได้โดยมีเหตุผลเพื่อการเปลี่ยนแปลง For the most part, I make important decisions with reasons for change (Thought–Action)			.600	.578				

Table 1 Comparison of item factor loadings on structure and pattern matrices from principal axis factoring with Promax rotation (Continued)

Scale items in original Thai English translation [a] (Qualitative Themes [6])	Component Loadings [b, c]							
	I		II		III		IV	
	Structure Matrix	Pattern Matrix	Structure Matrix	Pattern Matrix	Structure Matrix	Pattern Matrix	Structure Matrix	Pattern Matrix
เมื่อฉันประสบกับภาวะวิกฤต ฉันเชื่อว่า “อะไรจะเกิดก็ต้องเกิด” When I’m in crisis, I believe, “Anything’s going to happen.” (Acceptance–Hope)					.676	.732		
ฉันมีคนที่เชื่อใจได้ที่ฉันจะพูดคุยปัญหาต่าง ๆ I have someone who can trust me to discuss my problems. (Social–Moral Support)							.730	.734
ฉันสามารถรับความรักจากผู้อื่นได้ I can take love from others. (Social–Moral Support)							.639	.682
ฉันมีคนที่จะขอคำแนะนำเกี่ยวกับการจัดการปัญหาในครอบครัวได้ I have someone who (I) can ask for advice on how to deal with family issues. (Social–Moral Support)							.621	.522
Principal axis factoring eigenvalues	7.51		1.42		1.17		1.12	
Percent variance explained by component	34.2%		6.5%		5.3%		1.1%	

[a] Thai–English translation from https://www.translate.com/thai–english

[b] The determinant = .001; KMO measure of sampling adequacy = .927; Bartlett test for sphericity = 3911.5 (p < .001). Individual measures of sampling adequacy ranged from > .880 to < .960 (diagonals on the anti–image correlation matrix). Communalities h^2 ranged between > .364 and < .540.

[c] Component labels: I=Survive–Thrive–Effort, II=Thought–Action–Spiritual, III=Acceptance–Hope, IV=Social–Moral Support

The mean score on the summated 12–item *Thum–jai* (Acceptance) Scale with a 4–response option was 39.0 (SD = 4.09, median = 38). The minimum and maximum scores were 25–48 with normal skewness (.374) and kurtosis (–.206), although the Kolmogorov–Smirnov test (D[541] = .121, p < .001) indicated some data maldistribution. Observation of the histogram distribution showed no observed evidence of floor or ceiling effects, in that the data did not cluster on the minimum or maximum values.

The summated *Thum–jai* (Acceptance) Scale scores did not differ between male–female gender identities (t = –.623, p = .534) nor on whether respondents had a life crisis in the prior two years (t = –.009, p = .992). Of those who identified having had a life crisis, 60.7% said they were at ≥ 75% level of acceptance. Older respondents had a somewhat higher percentage of acceptance (M = 79.6%) after two years of a life crisis than younger respondents (M = 70.3%; t = 4.73, p < .001). *Thum–jai* (Acceptance)

Scale scores were lower for younger respondents than older people based on bimodal age distributions (≤ 28 years: M = 38.5, SD 3.74; and ≥ 29 years: M = 39.2, SD = 4.17) but the difference did not reach statistical significance (t = -1.94, p = .053). No significant differences were found in scale scores across the three religions (Kruskal-Wallis $H_{[df=2]}$ = 1.77, p = .413, n = 526).

The level of highest education achieved by respondents influenced their *Thum-jai* (Acceptance) Scale scores (Kruskal-Wallis $H_{[df=2]}$ = 57.4, p < .001, n = 537). A series of post-hoc Mann-Whitney tests showed that scale scores increased significantly with higher levels of education. For example, high school graduates had higher scores than those who only completed elementary school education (Mann-Whitney U = 772.5, p = .005); those earning a bachelor's degree had higher scores than high school graduates (U = 8,808.0, p = .017); and those with graduate/post-graduate degrees scored higher than those earning a bachelor's degree (U = 14,971.0, p < .001).

Scores on the 12-item *Thum-jai* (Acceptance) Scale correlated positively with the self-reported percentage level of *Thum-jai* (acceptance) within two years following a life crisis or major stressful event (r = .378, p < .001, n = 521); however, the strength of the correlation was low.[19] The *Thum-jai* (Acceptance) Scale also correlated positively with the Rosenberg Self-esteem Scale (r = .614, p < .001, n = 537); the strength of the correlation was moderate.[19]

For additional findings, we conducted exploratory backward stepwise multivariable regression[27] whether the *Thum-jai* (Acceptance) Scale predicted the extent of acceptance (percentage) respondents indicated they had after two years of a life crisis (**Table 2**). The results corroborated the bivariate results. Although the bivariate correlation was low, the scale scores predicted an increase in the extent the respondents could *Thum-jai* following their reported life crisis. Other predictors of an increased level of acceptance were the age of the adults (≥ 29 years old), the respondents' education (beyond the primary school level), and their self-esteem. Neither religion nor male-female gender identities were significant in predicting the level of acceptance. The four explanatory variables in the model accounted for 25% of the variance.

Table 2 Results of an exploratory backward multivariable regression whether the *Thum-jai* (Acceptance) Scale scores predicted the extent *Thum-jai* (acceptance) within two years following a life crisis or major stressful event

Variables	***B Coeff.* (*SE*)**	**95% CI**	***p*-value**
Constant	-1.38 (7.177)	-15.49, 12.74	.848
Binary age groups (1= ≤ 28 years, 2= ≥ 29 years)	6.73 (1.688)	3.42, 10.05	< .001
Binary highest level of education (1=Primary school, 2=higher)	11.46 (3.869)	3.86, 19.97	.003
Self-esteem score	0.89 (0.237)	0.42, 1.35	< .001
Thum-jai (Acceptance) Scale score	0.95 (0.231)	0.49, 1.40	< .001

Model's adjusted R^2 = .250

B Coeff. = Unstandardized beta regression coefficient

SE = Standard error of the coefficient

CI = Confidence interval

Discussion

We report the development of a culturally based instrument that measures the concept of *Thum-jai* (acceptance) specific to the Thai context. Previous qualitative findings on *Thum-jai* revealed six themes describing how Thai people experience and react to a major life crisis or negative circumstance over which they have no control.[6] The 12-item *Thum-jai* (Acceptance) Scale incorporates the six themes to measure the breadth of its meaning in Thai people's lives. The culturally based scale now becomes the empirical referent that was missing in a formal concept analysis reported elsewhere.[7]

The *Thum-jai* (Acceptance) Scale appears to be gender neutral, showing no difference in scores between male and female respondents. Similarly, religion has no noticeable influence on how Thais respond to the scale. This is important because, although Buddhism is the dominant religion in Thailand, both Islam and Christianity are culturally relevant. However, the 25% variance of the exploratory model indicates there is more in the respondents' lives yet to be studied that contributes to how they draw upon *Thum-jai* after devasting life experiences over which they have no control.

There is a link between a person's self-esteem and the readiness or capacity to *Thum-jai*. Self-esteem acts as a protective factor against mental health problems.[28] It enhances positive coping skills to reduce the risks and challenges associated with stress and well-being. Whether self-esteem is a necessary condition for a person to begin the *Thum-jai* journey or whether its perception is heightened during the time and effort put into psychological growth process to survive is an empirical question for further investigation.

Questions in nursing and social science research often arise whether some variables during quantitative analysis may moderate or mediate a study's outcome variable.[29] *Thum-jai* may introduce a latent response bias in a research study, like dissimulation and social desirability,[30] by inflating or deflating outcome measures. Because the Coping and Emotions Theory posits that coping is a mediator,[1] we propose for future research that *Thum-jai* mediates health outcome variables when determining the effects on one or more of the following psychological states: anxiety, depression, hope/hopelessness, resilience, self-efficacy, sense of coherence, and stress. The *Thum-jai* (Acceptance) Scale should be useful to nurse researchers when incorporating other measurement instruments related to outcome measures. For example, Wong-Anuchit et al.[31] thought that lower levels of self-stigma among Thai people compared to other nationalities may have been influenced by the cultural phenomenon of *Thum-jai*. Without an empirical measure, the researchers were unable to confirm their belief.

Limitations

The nonprobability sampling methods and use of an online survey tool may have biased the results. The higher number of females compared to the number of men may have altered the results, although we found no difference between the male-female gender identities. Also, the respondents were more highly educated than the general Thai population. Generalizability to all populations in Thailand needs to be done with caution.

The scale's psychometric properties should be further tested through additional descriptive, correlational, and predictive studies, including different Thai populations and those who are in the emotional chaos of an inescapable adverse situation. Studies should investigate the extent to which individuals incorporate *Thum-jai* as a positive emotional-approach coping strategy, its efficacy and effectiveness, and the relationship between their capacity to *Thum-jai* and health outcomes. Relationships between *Thum-jai* and self-esteem or possibly similar concepts (such as psychological flexibility) should also be explored.

Conclusion and Implications for Clinical Practice

The *Thum-jai* (Acceptance) Scale is a concise, self-report instrument that shows preliminary acceptable reliability and validity. Its development began from an etic (outside) orientation then transitioned to an emic (inside) perspective, creating a conceptual measure with not only the appropriate psychometric statistics but also a high level of cultural authenticity. The scale's use is specific to the Thai culture in that it is not a generic, cross-cultural scale that measures the concept of acceptance.

Psychiatric-mental health nurses, clinicians, or therapists are aware that clients need to be receptive and motivated for interventions to be effective. They may wish to appraise a person's capacity or psychological readiness for enhanced coping after sustaining a life crisis that has caused suffering. The scale may aid their quest in making a clinical judgment. If the capacity or desire to *Thum-jai* can be ascertained, one therapeutic approach for coping and resolving a person's sense of hopelessness and suffering might be through acceptance and commitment therapy.[32] Using eclectic methods made easier by the culturally embedded, emotional-focused approach of *Thum-jai*, nurses/clinicians may work carefully with Thai clients to stay aware of their present emotions, avoid reliving their trauma, gently accept the situation that is/was out of their control, build self-esteem and empowerment, and choose new culturally meaningful paths to well-being.

Thum-jai or acceptance is not always the foremost consideration in all human anguish. Victims may suffer devastating crises, widespread loss during pandemics, political oppression and violence, enslavement, rape, and other unspeakable brutalities. Multiple strategies to restore mental and physical health will be required in the aftermath of such terror and sorrow before psychological balance is feasible. There is no emotional or spiritual imperative to force *Thum-jai*, although the eventual acceptance of personal trauma and tragedy may ultimately bring recovery and healing.

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The copyrighted scale is free to use with permission after contacting Dr. Choochart Wong-Anuchit at choochart.d@gmail.com to receive a copy of the re-ordered scale items. We would appreciate that nurse researchers, clinicians, and others inform us how the scale will be used in their research projects

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การพัฒนาและการศึกษาคุณสมบัติการวัดทางจิตวิทยาของแบบวัดการทำใจ (การยอมรับ)

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บทคัดย่อ: ความยากลำบากในชีวิตที่ควบคุมไม่ได้ทำให้เกิดความทุกข์ เช่น ความเครียดที่เกิดจากโรคเรื้อรัง ความเจ็บป่วยระยะสุดท้าย การสูญเสียบุคคลที่รัก เมื่อกลยุทธการเผชิญปัญหาล้มเหลว ความรู้สึกไร้ประโยชน์ และความสิ้นหวังกระตุ้นอารมณ์ทางลบ ทำให้คนอาจหันมาใช้กลยุทธการเผชิญปัญหาด้วยอารมณ์ โดยยอมรับสถานการณ์เพื่อให้ชีวิตดำเนินต่อไปได้ ในสังคมไทย การทำใจ ถูกฝังตัวทางวัฒนธรรม เป็นกลยุทธการเผชิญปัญหาทางบวกซึ่งผู้เผชิญสถานการณ์วิกฤติของชีวิตนำมาใช้ยกระดับสภาวะจิตใจ การวัดแนวคิดทางจิตวิทยา จะเป็นประโยชน์ช่วยคนไทยให้มีความผาสุกทางจิตใจดีขึ้น แต่ในปัจจุบันยังไม่มีเครื่องมือวัดการทำใจเพื่อใช้ประเมินการตอบสนองทางจิตวิทยา ดังนั้น การวิจัยนี้จึงมีจุดมุ่งหมายเพื่อ 1) พัฒนาแบบวัดการทำใจ 2) ประเมินคุณสมบัติการวัดทางจิตวิทยา และ 3) จัดทำแบบวัดที่มีความสั้นกระชับ ภายหลังการใช้กระบวนการ etic-emic approach ผู้วิจัยสำรวจออนไลน์โดยสุ่มตัวอย่างแบบไม่ใช้ความน่าจะเป็นได้ตัวอย่าง 541 คน อายุเฉลี่ย 42.1 ปี ส่วนใหญ่ เพศหญิง นับถือศาสนาพุทธ จากผลการแยกตัวประกอบแกนหลัก เหลือข้อคำถาม 12 ข้อที่มีความสอดคล้องกับผลการวิจัยเชิงคุณภาพก่อนหน้านี้ เกี่ยวกับความหมายของการทำใจ ผลการวิจัยชี้ว่าแบบวัดการทำใจ เป็นแบบรายงานตนเองที่สั้นกระชับ มีความเที่ยงความตรงเป็นที่ยอมรับและสอดคล้องกับวัฒนธรรมอย่างแท้จริง ซึ่งผู้วิจัยเสนอว่าการทำใจสามารถเป็นตัวแปรส่งผ่านไปสู่ตัวแปรผลลัพธ์ด้านสุขภาพที่มีผลกระทบต่อภาวะทางจิตใจ เช่น ความซึมเศร้า ความสิ้นหวัง ความเข้มแข็งในการมองโลก พยาบาลจิตเวช อาจใช้แบบวัดการทำใจเพื่อประเมินความพร้อมก่อนที่จะยกระดับการเผชิญปัญหาหลังจากทนทุกข์อยู่ในวิกฤตชีวิต

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คำสำคัญ : การยอมรับ การเผชิญปัญหา วัฒนธรรม คนวงนอก-คนวงใน การพัฒนาเครื่องมือ การประเมินคุณสมบัติการวัดทางจิตวิทยา ความตรง แบบวัด ความเที่ยง

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