Psychometric Properties of the Thai Internalized Stigma Scale (TIS-LCH) for Care Home Residents

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ABSTRACT

Objectives: Living in a care home is a source of stigma in Thai culture, although there is currently no measurement tool in the Thai language specifically designed to assess internalized stigma in care home residents. The Thai Version of Internalized Stigma of Living in a Care Home (TIS-LCH) scale was developed and tested for its psychometric properties among Thai older residents.

Methods: The Thai version of Internalized Stigma of Mental Health Illness (ISMI) Scale was revised into the TIS-LCH by replacing the word of “mental health illness” to “living in a care home.” Content validity of the TIS-LCH was determined through expert review (n = 6), and reliability testing was undertaken with older care home residents (n = 128).

Results: The TIS-LCH showed good internal consistency, with a Cronbach’s alpha of .87. Test-retest reliability coefficient of TIS-LCH was excellent for the full scale (ICC = .90).

Conclusions: The Thai version of IS-LCH (TIS-LCH) is a valid and reliable measurement tool for assessing internalized stigma in Thai care home residents.

Clinical Implications: The IS-LCH will be a useful research tool to assess internalized stigma in older adults living in care settings. Understanding stigma will help health and social care professionals to plan interventions aimed at reducing or preventing negative emotional reactions and negative behavioural responses toward stigma, which are known to be associated with mental illness and particularly depression among this population.

Introduction

Stigma is generally identified as negative characteristics attributed to or perceived by individuals or groups (Gaebel, Roessler, & Sartorius, 2017); internalized stigma (IS) occurs when stigmatized individuals ascribe negative attributes to themselves (Corrigan & Watson, 2002). Internalized stigma may negatively impact on care home residents’ wellbeing, resulting in lowered self-esteem, social isolation, self-harm, and depression. There is a need for further research around stigma in Thai care home settings, but there is currently no Thai measurement to assess IS among older adults. A measurement tool available in Thai language may encourage further research on stigma in this cultural setting. Furthermore, it would assist health and social care professionals in the clinical assessment of stigma in the care home population. Being able to assess stigma in older care home residents may help to target problem areas that may be alleviated by supportive or educational intervention. In this study, a Thai version of the Internalized Stigma of Living in a Care Home Scale (TIS-LCH) was developed and tested for psychometric properties.

Methods

In this article, we describe the development of the TIS-LCH through the adaptation of the Internalized Stigma of Mental Health Illness (ISMI) Scale, and we report on the psychometric properties of the TIS-LCH in a sample of Thai older adults living in care homes. The validation procedures are presented in part one: developing the TIS-LCH Scale and in part two: testing the reliability of the TIS-LCH Scale.
Part 1: Developing the TIS-LCH Scale

The Original Instrument: The Thai version of ISMI
TIS-LCH was originally adapted from the Thai version of Internalized Stigma of Mental Illness (ISMI) Scale (Wong-Anuchit et al., 2016) (hereinafter TISMI), which was used to assess IS among psychiatric outpatients in Thailand. The original ISMI (29 items) was designed to measure the subjective experience of stigma. Specialized versions were developed for people with depression, schizophrenia, leprosy, smoking and caregivers of people with mental illness, showing validity and reliability across a wide range of languages, cultures and writing systems (Boyd, Adler, Otilingam, & Peters, 2014). Therefore, TISMI was selected to guide the adaptation and development of psychometric properties in TIS-LCH.

The Adaptation Procedure
After obtaining copyright permission in July 2015 for adapting the TISMI to the TIS-LCH, the TISMI scale was revised into the TIS-LCH by replacing the words “mental health illness” in the statement with “living in a care home: พักอาศัยอยู่ในสถานสงเคราะห์คนชรา.” The content validity process involved a panel of three professional experts and three lay experts, as recommended by Rubio, Berg-Weger, Tebb, Lee, and Rauch (2003). The lay experts were three volunteer residents living in a care home in North Eastern Thailand. They helped to clarify the phrasing and any unclear terms, using culturally appropriate terminology. The lay experts were consenting Thai citizens aged 60 and over, who were fluent in Thai language (speaking, reading and writing skills), with no severe cognitive impairment or psychological disturbance that may prevent comprehension of the participant information sheet and the questionnaire. Of the 128 residents, the first 15 were invited to conduct test-retest of the scale by completing the scale a second time after a time-delay.

Data Collection
Ethical approval for the study was obtained from a University Institutional Review Board in the UK (Ref: OVSa16042015 SoHS) and a Hospital Institutional Review Board in Thailand (Ref: 053/2015). The data were collected as part of a research study for which procedures are described elsewhere (Tosangwarn, Clissett, & Blake, 2017). Figure 1 illustrates the process of developing the psychometric properties of the TIS-LCH.

Part 2: Testing the Reliability of the TIS-LCH Scale
The final revised scale was tested for internal consistency and test-retest reliability between 7 and 14 days from the first administration, within a structured interview.

Setting and Population
The reliability testing was conducted with 128 residents in two care homes in North Eastern Thailand over approximately four months, between July and November 2015. The inclusion criteria were: aged 60 and above, fluent in Thai language, with no severe cognitive impairment or psychological disturbance that may prevent comprehension of the participant information sheet and the questionnaire. Of the 128 residents, the first 15 were invited to conduct test-retest of the scale by completing the scale a second time after a time-delay.

Data Analysis
Descriptive statistics were used to summarize the demographic data from the study (percentage,
mean, medium and standard deviation). Internal consistency reliability was determined by Cronbach’s alpha coefficient to determine whether constituent items measured the same domain (Rattray & Jones, 2007). Test-retest reliability was assessed by calculation of the Intraclass Correlation Coefficient (Pallant, 2016).

Results

Demographic Characteristics of Participants

Participants were aged between 61 and 96 years (mean age, 76.86 years, SD 7.78, n = 128). Sixty-three percent (n = 80) were female, and 37% (n = 48) were male. Nearly half of the participants (48.44%, n = 62) were widowed. Almost all were Buddhists (98.44%, n = 126). Nearly one-fifth of participants (18.75%, n = 24) had no formal education, and only 2.34% (n = 3) of residents had earned a Bachelor’s degree or higher. All had been living in the care home for between one month and 36 years. Approximately one-third of residents had received no visitors at the care home since they became residents (33.59%, n = 43). Seventy percent (70.31%, n = 90) reported being diagnosed with one or more diseases, notably hypertension (47.66%, n = 61) and diabetes mellitus (17.97%, n = 23). The majority of residents (87.50%, n = 112) self-reported comorbidities (having one or more health problems), over half (52.34%, n = 67) experienced difficulties with vision, and nearly half (43.75%, n = 56) experienced difficulties with mobility.

Validity of the Scale

The final version of TIS-LCH consisted of 26 items, with reported CVI = .80; three items were omitted from the scale following lay and expert review because they were considered inappropriate or offensive for Thai older adults living in a care home and reported with I-CVI (Item-Level Content Validity Index) ≤ .80. These items included Item 6: Older adults who live in a care home shouldn’t get married (Stereotype Endorsement) I-CVI = .33, Item 20: I stay away from social situations in order to protect my family or friends from embarrassment (Social Withdrawal) I-CVI = .33 and Item 25: Nobody would be interested in getting close to me because I live in a care home (Perceived Discrimination) I-CVI = .67.

The revised scale includes five subscales: Alienation, Stereotype Endorsement, Perceived Discrimination, Social Withdrawal and Stigma Resistance. These are measured using Likert-type responses ranging from “strongly disagree” (1) to “strongly agree” (4). The score can be calculated by adding up the score from all of the items, after reverse-scoring five items in the Stigma Resistance subscale, and then dividing the sum by the number of total items. Higher scores indicate greater internalized stigma. IS scores can be divided into four categories: minimal to no internalized stigma (score, 1.00–2.00), mild internalized stigma (score, 2.01–2.50), moderate internalized stigma (score, 2.51–3.00), and severe internalized stigma (score, 3.01–4.00) (Lysaker, Roe, & Yanos, 2007).
**Internal Consistency Reliability**

The internal consistency of the entire TIS-LCH scale was high, with a Cronbach’s alpha of .87. Acceptable levels of internal consistency were found in most sub-scales, with Cronbach’s alpha values of .77, .62, .69 and .69 for Alienation, Stereotype Endorsement, Discrimination Experience, Social Withdrawal and Stigma Resistance, respectively.

**Test-Retest Reliability**

Preferable levels and acceptable levels of test retest reliability were found in most subscales, with the second completion of the scale taking place 7 to 14 days after the first completion. Reported Cronbach’s alphas were .83, .73, .80, .84, and .67 for Alienation, Stereotype Endorsement, Discrimination Experience, Social Withdrawal and Stigma Resistance, respectively. The details of reliability of the scale are provided in Table 1. In addition, Table 2 shows the details of correlated item-to-total correlation and Cronbach’s alpha coefficient if the item is deleted from the TIS-LCH. The correlated item-to-total correlation is used to indicate the degree to which an item correlates with the total score. A score lower than .3 indicates that the item is measuring something different from the scale as a whole (Pallant, 2016). For TIS-LCH subscales, alpha values of .59 and .62 for Stereotype Endorsement and Discrimination Experience (respectively) were quite low.

In each subscale, the value of the correlated item to the total correlation of the two items in the Stereotype Endorsement subscale scored lower on the correlated item-to-total correlations: Item 18: *People can tell that I live in a care home by the way I look* (.24) and Item 19: *Because I live in a care home, I need others to make most decisions for me* (.17). Removing Item 19 from the subscale increased the value of alpha in the overall subscale to .60, although this is still considered to indicate low internal consistency.

As shown in Table 2, the value of the correlated item to the total correlation of one item of the Discrimination subscale Item 3: *People discriminate against me because I live in a care home* demonstrated a low score (.24) on the correlated item-to-total correlation. Removing this item from the subscale increased the value of the overall subscale to .66, which increased the value of Cronbach’s alpha coefficient to reach a nearly acceptable level of internal consistency.

**Discussion**

The Thai version of Internalized Stigma of Mental Illness (TISMI) was adapted into the Thai version of Internalized Stigma of Living in a Care Home (TIS-LCH), for which psychometric properties were tested. The findings indicate that the TIS-LCH had good overall internal consistency, with an overall Cronbach’s alpha of .87. This level of reliability is comparable with the original TISMI (.88), which was tested amongst 390 psychiatric clinic patients in Thailand (Wong-Anuchit et al., 2016).

The result of test-retest reliability coefficient of TIS-LCH was excellent for the full scale (ICC = .90). In addition, the subscales demonstrated acceptable to good test-retest reliability for Alienation (ICC = .83), Stereotype Endorsement (ICC = .73), Discrimination Experience (ICC = .80), Social Withdrawal (ICC = .84) and Stigma Resistance (ICC = .67), comparable with the TISMI, which was found to be good to excellent for all subscales. The total score testing with 20 sample participants yielded the following results: total TISMI (ICC = .81), Alienation (ICC = .93), Stereotype Endorsement (ICC = .79), Discrimination Experience (ICC = .80), Social Withdrawal (ICC = .84) and Stigma Resistance (ICC = .67).

| Table 1. Reliability of TIS-LCH. |
|---------------------------------------------------------------|
| **Reliability of sub-scale** | **Internal consistency (Cronbach’s alpha) (n = 128)** | **Test-retest reliability (ICC) (n = 15)** |
|整體尺度 | .87 | .90 |
|異位 | .77 | .83 |
|偏見認同 | .59 | .73 |
|歧視經驗 | .62 | .80 |
|社交孤獨 | .69 | .84 |
| stigma抵禦 | .69 | .67 |
Experience (ICC = .79), Social Withdrawal (ICC = .89) and Stigma Resistance (ICC = .85) (Wong-Anuchit et al., 2016).

Overall, TIS-LCH demonstrated excellent internal consistency for the full scale and acceptable to good internal consistency for all five subscales. The stereotype endorsement subscale of the Thai version of IS-LCH had weaker Cronbach’s alpha than the other four subscales, but it showed an acceptable level of ICC for test-retest reliability.

**Limitations**

This study was conducted in a single region of Thailand, which may limit the representativeness of the findings. Further reliability testing is recommended with samples in other areas of Thailand or Thai older people in countries with similar cultural contexts.

Validity for those subscales with low internal consistency reliability (Stereotype Endorsement and Discrimination Experience) should be investigated further in order to determine the contribution of individual items within each subscale theme.

**Conclusion**

The TIS-LCH is a valid and reliable tool for measuring internalized stigma of living in a care home amongst older Thai adults.
Clinical Implications

- The Thai version of the IS-LCH (TIS-LCH) has adequate internal consistency reliability and good test-retest reliability.
- The IS-LCH is a useful research tool for assessing internalized stigma in older Thai care home residents.

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References

Boyd J. E., Adler, E. P., Otingam, P. G., & Peters, T. (2014). Internalized Stigma of Mental Illness (ISMI) scale: A multinational review. Comprehensive Psychiatry, 55(1), 221–231. doi:10.1016/j.comppsych.2013.06.005

Corrigan, P. W., & Watson, A. C. (2002). The paradox of self-stigma and mental illness. Clinical Psychology: Science and Practice, 9(1), 35–53. doi:10.1093/clipsy.9.1.35

Gaebel, W., Roessler, W., & Sartorius, N. (2017). The stigma of mental illness—End of the story? Cham, Switzerland: Springer Nature.

Lysaker, P. H., Roe, D., & Yanos, P. T. (2007). Toward understanding the insight paradox: Internalized stigma moderates the association between insight and social functioning, hope, and self-esteem among people with schizophrenia spectrum disorders. Schizophrenia Bulletin, 33(1), 192–199. doi:10.1093/schbul/sbl016

Pallant, J. (2016). SPSS survival manual: A step by step guide to data analysis using IBM SPSS. Maidenhead, UK: Open University Press/McGraw-Hill Education.

Polit, D. F., Beck, C. T., & Owen, S. V. (2007). Is the CVI an acceptable indicator of content validity? Appraisal and recommendations. Research in Nursing & Health, 30(4), 459–467. doi:10.1002/nur.20199

Rattray, J., & Jones, M. C. (2007). Essential elements of questionnaire design and development. Journal of Clinical Nursing, 16(2), 234–243. doi:10.1111/jcn.2007.16.issue-2

Rubio, D. M., Berg-Weger, M., Tebb, S. S., Lee, E. S., & Rauch, S. (2003). Objectifying content validity: Conducting a content validity study in social work research. Social Work Research, 27(2), 94–104. doi:10.1093/swr/27.2.94

Tosangwarn, S., Clissett, P., & Blake, H. (2017). Predictors of depressive symptoms in older adults living in care homes in Thailand. Archives of Psychiatric Nursing. (In press).

Wong-Anuchit, C., Mills, A. C., Schneider, J. K., Rujkorakarn, D., Kerdpongbumchote, C., & Panyayong, B. (2016). Internalized stigma of mental illness scale—Thai version: Translation and assessment of psychometric properties among psychiatric outpatients in Central Thailand. Archives of Psychiatric Nursing, 30(4), 450–456. doi:10.1016/j.apnu.2016.01.012
### Appendix: The Thai version of Internalized Stigma of Living in a Care Home (IS-LCH) scale

แบบวิเคราะห์รูปแบบภายนอกในใจตนเองของการพักอาศัยอยู่ในสถานสงเคราะห์คนชรา

ตาราง:

| คำถาม | ไม่เห็นด้วย  | เห็นด้วย  | ไม่เห็นด้วย | อย่างยิ่ง  |
|--------|-------------|-----------|-------------|------------|
| 1. สิ่งใดที่คิดผิดว่าเกิดขึ้นเป็นไปไม่ได้ในสถานสงเคราะห์คนชรา  | 1 | 2 | 3 | 4 |
| 2. สิ่งใดที่คิดผิดว่าเกิดขึ้นเป็นไปไม่ได้ในสถานสงเคราะห์คนชรา  | 1 | 2 | 3 | 4 |
| 3. สิ่งใดที่คิดผิดว่าเกิดขึ้นเป็นไปไม่ได้ในสถานสงเคราะห์คนชรา  | 1 | 2 | 3 | 4 |
| 4. สิ่งใดที่คิดผิดว่าเกิดขึ้นเป็นไปไม่ได้ในสถานสงเคราะห์คนชรา  | 1 | 2 | 3 | 4 |

คำอธิบาย:

- โปรดทำการเครื่องหมายกลมล้อมรอบตัวเลขที่ตรงกับความรู้สึกของคุณมากที่สุดในแต่ละข้อคำถาม ตามระดับความคิดเห็นต่อไปนี้: ไม่เห็นด้วยอย่างยิ่ง (1) ไม่เห็นด้วย (2)เห็นด้วย (3) หรือ เห็นด้วยอย่างยิ่ง (4)