

## Measurement of courtesy stigma: Systematic literature review

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### Abstract

This article aimed to conduct a literature review regarding the instruments used to measure the stigma of courtesy, in the databases related to the field of investigation (PsychNET, PubMed, Virtual Health Library Brazil – Biblioteca Virtual em Saúde [BVS] Brasil, Capes Publications Portal, Scientific Electronic Library Online [SciELO], and Electronic Journals in Psychology – Periódicos Eletrônicos em Psicologia [PePSIC]), using the descriptors courtesy stigma, affiliate stigma, and associative stigma. Five hundred and sixty-four articles were retrieved, and, after the exclusion criteria were evaluated, ten were selected. Positive correlations were noted between courtesy stigma and depression, anxiety, caregiver burden, burnout, awareness of public devaluation, and awareness of stigma. Quality of life, social support, self-esteem, quality of care, and social desirability presented negative correlations with the construct studied.

**Keywords:** social stigma, psychometrics, caregivers, family, systematic review

## MENSURAÇÃO DO ESTIGMA DE CORTESIA: REVISÃO SISTEMÁTICA DE LITERATURA

### Resumo

O presente artigo teve como objetivo realizar uma revisão de literatura a respeito dos instrumentos utilizados para mensurar estigma de cortesia, nas bases de dados relacionadas ao campo de investigação (PsychNET, PubMed, Biblioteca Virtual em Saúde [BVS] Brasil, Periódicos Capes, Scientific Electronic Library Online [SciELO] e Periódicos Eletrônicos em Psicologia [PePSIC]), utilizando-se os descritores *courtesy stigma*, *affiliate stigma* e *associative stigma*. Recuperaram-se 564 artigos e, após serem avaliados os critérios de exclusão, dez foram selecionados. Notaram-se correlações positivas entre estigma de cortesia e depressão, ansiedade, carga do cuidador, *burnout*, consciência da desvalorização pública e consciência do estigma. Qualidade de vida, suporte social, autoestima, qualidade do cuidado e desejabilidade social apresentaram correlações negativas com o constructo estudado.

**Palavras-chave:** estigma social, psicometria, cuidadores, família, revisão sistemática

## MEDICIÓN DEL ESTIGMA DE CORTESÍA: REVISIÓN SISTEMÁTICA DE LA LITERATURA

### Resumen

Este artículo tuvo como objetivo realizar una revisión de la literatura sobre los instrumentos utilizados para medir el estigma de cortesía en las bases de datos relacionadas con el campo de investigación (PsychNET, PubMed, Biblioteca Virtual en Salud Brasil – Biblioteca Virtual em Saúde [BVS] Brasil, Periódicos Capes, Scientific Electronic Library Online [SciELO] y Periódicos Electrónicos en Psicología – Periódicos Eletrônicos em Psicologia [PePSIC]), utilizando los descriptores *courtesy stigma*, *affiliate stigma* y *associative stigma*. Se recuperaron 564 artículos y, una vez evaluados los criterios de exclusión, se seleccionaron diez. Se observaron correlaciones positivas entre el estigma de cortesía y la depresión, la ansiedad, la carga del cuidador, el agotamiento, la conciencia de la devaluación pública y la conciencia del estigma. Calidad de vida, apoyo social, autoestima, calidad de la atención y deseabilidad social mostraron correlaciones negativas con el constructo estudiado.

**Palabras clave:** estigma social, psicometría, cuidadores, familia, revisión sistemática

According to Erving Goffman (1922–1982), social stigma is a trait or differentiation that places the individual in a position of inferiority when compared to hegemonic groups. This trait is a derogatory attribute that, by reinforcing the ideal of superiority of the normative character, causes the dehumanization and social exclusion of the stigmatized person. In this context, stigma can be classified in three ways depending on its origin: abominations of the body, when there is some type of physical deformity; blemishes of individual character, related to moral failure; and tribal stigma of race, nation, and religion, which refer to cultural aspects (Goffman, 1975).

The social construction of stigma takes place through the recognition and consequent devaluation of a difference or trait carried by the subject. Therefore, social or public stigma comes from the idea of the other in relation to the stigmatized person, so that when the marked subject becomes aware of this public perception, starts to agree with this negative view and apply it to themselves, a situation of internalized stigma arises (Ronzani et al., 2017). Also from this perspective, it can be observed that the internalization of this differentiation may be associated with harm to this individual, such as decreased self-esteem, intensification of negative emotions, and social withdrawal (Malagodi et al., 2019).

Recent studies (McCann & Lubman, 2017; Huang et al., 2016) have investigated the way social stigma interferes in the lives of people that live directly with individuals who carry this trait, such as family members and healthcare providers. This stigmatization process occurs when the family member or caregiver associated with this individual begins to experience situations of suffering and harm to their physical and mental health.

Mak and Cheung (2008) observed that the internalization of this negative view by caregivers of individuals with intellectual disabilities or mental illness is strongly associated with a greater subjective burden related to the act of caring and negativity in relation to this process, as well as an increase in the perception of inferiority and social withdrawal. It can, therefore, be said that courtesy stigma results from negative social perceptions in relation to the interaction between the marked subject and close people, while affiliation stigma would correspond to the internalization of these impressions (Mak & Cheung, 2008).

Accordingly, it is necessary to develop and adapt scales that aim to measure courtesy stigma and its internalization in family members of people who carry some type of derogatory trait, as well as in professionals whose work is directly related to the healthcare of these individuals. This study aimed to conduct a literature review on courtesy and affiliation stigmas, focusing on the validation of the instruments used to measure these constructs. This analysis of the state of the art aimed to establish a starting point for future studies.

### Method

The report of this systematic literature review was based on the Preferred Report Items for Systematic Reviews and Meta-Analyses (PRISMA) recommendations (Galvão et al., 2015), with the aim of increasing its future reproducibility. For this, a bibliographic search was carried out involving the concept of courtesy stigma as the main subject in articles indexed in the

PsycNET, PubMed, Virtual Health Library Brazil – VHL Brazil (Biblioteca Virtual em Saúde [BVS] Brasil), Capes Publications Portal (Portal de Periódicos Capes), Scientific Electronic Library Online (SciELO), and Electronic Journals in Psychology (Periódicos Eletrônicos em Psicologia [PePSIC]) databases. The keywords courtesy stigma, affiliate stigma, and associative stigma were used.

These databases were chosen because they are all recognized in the health areas and publish evidence-based, peer-reviewed studies. Although the keywords used are not included in the Health Sciences Descriptors (*Descritores em Ciências da Saúde* [DeCS]), the criteria for their selections were based primarily on the keyword courtesy stigma, maintained because it was a term initially used by Goffman, the original author in the area of stigma, while the keywords affiliate stigma and associative stigma were used later due to the conceptual approximation they establish with the first, and because they are also terms commonly found in articles.

With regard to the Boolean operators used in the search process, only the AND operator was chosen, with the search procedure for all databases carried out as follows: “Courtesy” AND “Stigma”, “Associative” AND “Stigma” and “Affiliate” AND “Stigma”. In the case of the Capes Publications Portal, no specific database was selected from among those that make up its collection, aiming to expand the screening process of articles related to the topic.

The inclusion criteria were articles published in English, Portuguese, or Spanish that had courtesy stigma as their central theme, were original studies of an empirical nature and analyzed the psychometric properties of instruments that measure courtesy stigma or similar constructs. No time period in relation to the year of publication of the articles was established. Articles until the year 2019 were included.

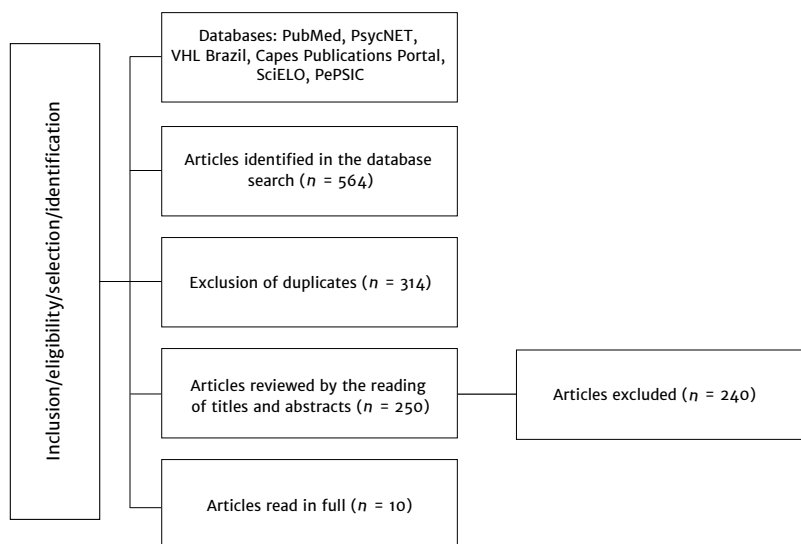
First, the titles and abstracts of the articles were read, and we observed whether they met the inclusion criteria proposed for this literature review, with the articles that did not meet these criteria being disregarded. Subsequently, the elimination of duplicate articles was conducted, and the remaining articles were read in full. To facilitate the process of analyzing the articles, descriptive categories were created based on the studied population, the condition of the people in need of care, name of the instrument used, absence or presence of translation, sample size, number of items and factors of these instruments, and types of validity and reliability employed in the study. During this article selection process, two researchers carried out the independent categorization of the articles, and, in situations in which there was no consensus, a third researcher made the final decision.

## Results

The electronic search in the databases resulted in a total of 564 abstracts, of which 314 were eliminated because they were duplicates. A total of 240 studies were excluded after reading the titles and abstract content, resulting in 10 full texts that fulfilled the inclusion criteria and were read in full. All the articles identified in the databases were published in English (Figure 1).

**Figure 1**

*PRISMA flowchart: Identification and selection procedures of the studies included in the systematic review*



Among the ten selected studies, a total of six instruments were detected that measure the courtesy stigma construct or the internalization of this type of stigma, named affiliation stigma, in the case of family members and close people who live with the stigmatized individual, or association stigma, when considering healthcare providers, namely: the Affiliate Stigma Scale (ASS); Clinician Associative Stigma Scale (CASS); Chinese Courtesy Stigma Scales (CCSS); Parents' Internalized Stigma of Mental Illness (PISMI); Lesbian, Gay, Bisexual Affiliate Stigma Measure (LGB-ASM); and the Affiliate Stigma Scale-Malay (ASS-M).

The ASS (Mak & Cheung, 2008) is an instrument developed in China used with a sample of family members of individuals with some type of mental illness or intellectual disability, with its data showing good stability and validity for these groups (Saffari et al., 2019).

The CASS (Yanos et al., 2017), a scale recently developed with mental health care providers in the United States of America (USA), measures the associative stigma of these professionals with people who need care in this area, having shown good internal consistency and convergent validity with other stigma indicators.

The CCSS (Liu et al., 2014) focuses on the stigma experienced by family members and caregivers of people with the human immunodeficiency virus (HIV). The study that originated this scale assumes that people that are seronegative may also experience a certain degree of stigma, as they are associated with people who are seropositive.

The PISMI (Zisman-Ilani et al., 2013), a scale based on the Internalized Stigma of Mental Illness (ISMI) scale (Ritsher et al., 2003), starts from the consideration that family members of

people with severe mental illnesses may also be target of stigma. Therefore, the elaboration of the PISMI was premised on presenting the same factor structure as the ISMI.

The LBG-ASM (Robinson & Brewster, 2016) was developed to understand the emotional and psychological impact of stigma among family and close friends of lesbian, gay, and bisexual (LGB) people and propose initiatives that offer them greater support. Finally, the ASS-M scale (Yun et al., 2018) was developed for the context of the population residing in Malaysia and is based on the ASS, mentioned above.

Regarding some general characteristics of the included studies, the samples used ranged from a minimum of 180 people to a maximum of 649, while the number of items present in the scales had a minimum of 12 and a maximum of 22. Concerning the number of factors, most of the scales are composed of three factors, except for the CASS and ASS-M scales, which have four factors each, and the CCSS scale, with only two factors (Table 1).

Some studies used translated versions of the instruments into Persian, Chinese, Hebrew, Arabic, and Malay. In these studies, the technique of translation into the language of research interest and back-translation into the original language, which in all cases was English, was adopted. In the specific case of the ASS scale, this instrument has already been translated into seven languages: Chinese (Mak & Cheung, 2008), Urdu (Farzand & Abid, 2013), Hebrew (Werner & Shulman, 2015), Hindi (Banga & Ghosh, 2017), Persian (Denahvi et al., 2011), Malay (Yun et al., 2018), and Amharic (Hailemariam, 2015) (Table 1).

**Table 1**  
*General characteristics of the selected studies*

References	Instrument	Country/language	Translation	Sample	Items	Factors
Saffari et al. (2019)	ASS	Iran/English	Into Persian	541	22	3
Mak and Cheung (2008)	ASS	China/English	Into Chinese	318	22	3
Lin et al. (2018)	CASS	China/English	Into Chinese	649	19	4
Yanos et al. (2017)	CASS	USA/English	-	472	18	4
Liu et al. (2014)	CCSS	USA/English	Into Chinese	512	22	2
Zismani-Ilani et al. (2013)	PISMI	Israel/English	Into Hebrew and Arabic	180	12	3
Chang et al. (2015)	ASS	Taiwan/English	-	453	22	3
Robinson and Brewster (2016 )	LGB-ASM	USA/English	-	572	17	3
Chang et al. (2016)	ASS	Taiwan/English	-	271	22	3
Yun et al. (2018)	ASS-M	Malaysia/English	Into Malay	372	21	4

*Note.* Affiliate Stigma Scale (ASS); Clinician Associative Stigma Scale (CASS); Chinese Courtesy Stigma Scales (CCSS); Parents' Internalized Stigma of Mental Illness (PISMI); Lesbian, Gay, Bisexual Affiliate Stigma Measure (LGB-ASM); Affiliate Stigma Scale-Malay (ASS-M).

Regarding the characteristics of the population studied, eight out of the ten selected studies considered family members and close people to be the main targets of courtesy stigma,

while only two studies addressed mental health care providers. Considering the contexts covered in the studies, half referred to mental illness, followed by dementia in two of the studies. The themes of people with mental illness or intellectual disability, human immunodeficiency virus (HIV), and LGB people appeared in one study each (Table 2).

**Table 2**

*Characteristics of the studied population*

<b>People who provide care</b>	<b>No./(%)</b>
Family members	5/(50%)
Family members and close people	3/(30%)
Mental health care providers	2/(20%)
<b>Condition of the person in need of care</b>	
Mental illness	5/(50%)
Dementia	2/(20%)
Mental illness or intellectual disability	1/(10%)
HIV	1/(10%)
Pessoas LGB	1/(10%)

Note. HIV – human immunodeficiency virus; LGB – lesbian, gay, and bisexual.

In relation to the reliability of the instruments, Cronbach's alpha values were considered, both for the scales as a whole and for their respective dimensions, establishing that values above 0.70 correspond to a good indicator of internal consistency (Souza et al., 2017). In almost all the studies, the alpha values were above 0.70, except for one, carried out with the CASS scale, in which the stereotype about the mental health of the professionals (SMHP) dimension had an alpha of 0.68, and another, with the PISMI scale, in which the social withdrawal (SW) and alienation (AL) dimensions had an alpha of 0.65 and 0.61, respectively. Three studies reported only the alpha values referring to the dimensions of the scale, and not the general alpha of the instrument (Table 3).

Concerning the stability of the scales, the test-retest statistical analysis and intraclass correlation coefficients (ICC) above 0.70 were considered to be recommended (Souza et al., 2017). Only two studies used this type of analysis and both ICC values were above 0.70, with an interval of two to three weeks between the first and second application of the instrument (Table 3).

To verify the factorial validity of the instruments, most studies used exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), with the principal component analysis (PCA) technique and the Rasch model adopted in some cases. A variance of 50% was considered the minimum cumulative percentage of the total variance extracted by successive factors to indicate an adequate factorial fit (Howard, 2016).

In the PISMI scale, the extraction of three factors accounted for 54.2% of the total variance, indicating an adequate fit to the model. A similar value was also found for the LGB-ASM scale, in

which the extraction of three factors represented 54.4%. For the CASS scale, only one article confirmed the four-factor structure through CFA. Other statistical techniques of EFA that were used combined with PCA did not report the percentage of variance extracted by each factor (Table 3).

For the CCSS scale, the two-factor model represented 83.0% of the extracted variance, which indicated a good fit to the model and the best extracted variance when compared to the other instruments found in this review. The factor structure of this scale was also confirmed using CFA (Table 3).

The ASS scale, in turn, had the three-factor model confirmed in two studies through CFA, while in the original study, in which the scale was developed, PCA indicated that the extraction of one factor was responsible for 49.03% of the total variance considering a sample of family members of people with intellectual disabilities and 43.87% for a sample of family members of people with mental illness, evidencing the impossibility of the scale having only one factor (Table 3).

Also, in relation to the ASS scale, a specific study used Rasch analysis to justify the unidimensionality of each of the three factors, confirming that they are separate domains. In this study, PCA also demonstrated that the extraction of one factor was only responsible for 46.28% of the total variance. Another study also used the Rasch analysis, however, aiming to assess the difficulty of the items in each factor. Finally, the ASS-M scale had its four-factor structure justified through EFA and CFA, although the study in question did not indicate the percentage of variance extracted by each factor (Table 3).

Regarding the convergent validity, the instruments Hospital Anxiety and Depression (Lin & Pakpour, 2017), Beck Anxiety Inventory (Beck et al., 1988), Zarit Burden Interview Scale (Rajabi-Mashadi et al., 2015), Caregiver Burden Inventory (Chou et al., 2002), the Oldenburg Burnout Inventory (Halbesleben & Demerouti, 2005), Collective Self-Esteem Scale (Luhtanen & Crocker, 1992), and the Stigma Consciousness Questionnaire (Pinel, 1999) demonstrated significant and positive correlations between affiliation stigma and depression, anxiety, caregiver burden, burnout, awareness of public devaluation, and awareness of stigma (Table 3).

In the discriminant validity, significant and negative correlations were found between affiliation stigma and quality of life, social support, self-esteem, quality of care, and social desirability, through the instruments: Short Form 12 (Montazeri et al., 2009), World Health Organization Quality of Life-BREF (Yao et al., 2002), Multidimensional Scale of Perceived Social Support (Bagherian-Sararoudi et al., 2013), Rosenberg Self-Esteem Scale (Shapurian et al., 1987), the Quality of Care Scale (Salyers et al., 2015), and the Balanced Inventory of Desirable Responding (Paulhus & Reid, 1991) (Table 3).

The validity of known groups was obtained through the hierarchical regression model, multiple linear regression analysis, the Rasch model or through simple correlations, such as Pearson's *r*. In this sense, one study with the ASS scale showed a significant association between the age of the caregiver of people with mental illness and the scale's total score. Another study, besides also having applied the ASS, used the Rasch model, in order to assess the difficulty of the



items, and suggested that men and women score the scale differently. Two other studies, in which the CASS scale was used, found that mental health care providers obtained different results in the total score of the scale due to age, gender, educational level, and professional occupation (Table 3).

**Table 3**

*Reliability and validity of the instruments*

References	Instrument	Cronbach's alpha – general/each factor	Test–retest	Factorial validity	Convergent validity	Discriminant validity	Known groups validity
Saffari et al. (2019)	ASS	0.94/ AF = 0.92; CG = 0.89; BH = 0.88.	ICC = 0.72 – 0.89, interval of two weeks.	CFA: adequate fit.	HADS ( $\beta$ = 0.35–0.46); ZBI ( $\beta$ = 0.35).	SF12 ( $\beta$ = –0.35–0.33 ); MSPSS ( $\beta$ = –0.60); RSES ( $\beta$ = –0.23).	–
Mak and Cheung (2008)	ASS	0.95; 0.94, two samples/N/A	–	EFA orthogonal rotation, PCA: single factor 49.03% and 43.87% of the variance for two samples.	–	–	Significant association with age in one of the samples.
Lin et al. (2018)	CASS	N/A/NSPE = 0.796; DD = 0.922; SMHP = 0.838; NSMI = 0.860.	–	CFA: good fit.	–	–	Significant association with age, educational level, profession.
Yanos et al. (2017)	CASS	N/A/NSPE = 0.77; DD = 0.84; SMHP = 0.68; NSMI = 0.76.	–	EFA orthogonal rotation; PCA.	Moderate and positive association with the OBI.	Weak and negative association with the QoCS.	Weak association with age and gender.
Liu et al. (2014)	CCSS	N/A/PS = 0.90; PPS = 0.88.	–	EFA oblique rotation, two factors: 83% of the variance; CFA: good fit.	–	–	–
Zismani –Ilani et al. (2013)	PISMI	0.76/DE = 0.78; SW = 0.65; AL = 0.61.	–	EFA orthogonal rotation, three factors: 54.2% of the variance.	–	–	–
Chang et al. (2015)	ASS	0.94/AF = 0.87; CG = 0.90; BH = 0.85.	–	PCA: first component 46.28% of the variance.	Moderate association with the BAI ( $r$ = 0.27–0.34).	Moderate association with the RSES ( $r$ = –0.50–0.46).	Gender associated with ASS scale score.
Robinson and Brewster (2016)	LGB-ASM	0.87/ASDS = 0.86; VAFS = 0.89; ASPS = 0.84.	ICC = 0.74–0.76, interval of two to three weeks.	EFA oblique rotation, three factors: 54.4% of the variance; CFA: adequate fit.	Modified versions of the stigma SCQ and CSES ( $r$ = 0.17–0.45; $r$ = 0.18–0.28).	BIDR subscale ( $r$ = –0.16–0.50).	–
Chang et al. (2016)	ASS	0.929/AF = 0.849; CG = 0.855; BH = 0.822.	–	CFA: satisfactory fit.	CBI ( $r$ = 0.290–0.628), TDQ ( $r$ = 0.391–0.612), BAI ( $r$ = 0.367–0.467).	Taiwanese version of the WHOQOL-BREF ( $r$ = –0.590–0.365).	–

**Table 3**  
*Reliability and validity of the instruments (continuation)*

References	Instrument	Cronbach's alpha – general/each factor	Test- retest	Factorial validity	Convergent validity	Discriminant validity	Known groups validity
Yun et al. (2018)	ASS-M	N/A/AF = 0.801; CG = 0.918; BH = 0.796; SE = 0.904.	–	EFA oblique rotation; CFA: good fit.	–	–	–

*Note.* Affective (AF); cognitive (CG); behavioral (BH); discomfort with disclosure (DD); stereotypes about the mental health of the professional (SMHP); negative stereotypes about people with mental illness (NSMI); negative stereotypes about professional efficacy (NSPE); public stigma (PS); perceived self-stigma (PSS); discrimination experience (DE); social withdrawal (SW); alienation (AL); affiliated stigma of public discrimination/rejection (ASDS); vicarious affiliated stigma (VAFS); affiliated stigma of public shame (ASPS); self-estimate (SE), intraclass correlation coefficient (ICC); Hospital Anxiety and Depression Scale (HADS); Zarit Burden Interview (ZBI); the Oldenburg Burnout Inventory (OBI); Beck Anxiety Inventory (BAI); Stigma Consciousness Questionnaire (SQC); Collective Self-Esteem Scale (CSES); Caregiver Burden Inventory (CBI); Taiwanese Depression Questionnaire (TDQ); Short Form 12 (SF-12); Multidimensional Scale of Perceived Social Support (MSPSS); Rosenberg Self-Esteem Scale (RSES); the Quality of Care Scale (QoCS); Balanced Inventory of Desirable Responding (BIDR); World Health Organization Quality of Life-BREF (WHOQOL-Bref); exploratory factor analysis (EFA); confirmatory factor analysis (CFA); principal component analysis (PCA); Pearson's correlation coefficient (*r*); Spearman's correlation coefficient (*r<sub>s</sub>*); standardized regression coefficient ( $\beta$ ).

**Discussion**

The instruments found in this literature review presented, in general, Cronbach's alpha values above 0.70, which indicates good internal consistency. However, it should be noted that these values are subject to the influence of the characteristics of the samples, the type of instrument, and the method of administration used, factors that were quite diverse in the studies analyzed (Roach, 2016). Another important point regarding the alpha coefficient refers to the fact that this value is strongly influenced by the number of items in the measurement instrument, and, although the scales considered in this review present a similar number of items, there were scales with a difference of up to ten items when compared to each other (Roach, 2016).

With regard to the test-retest statistical analysis, only two studies used this resource. It is important to consider that, although these studies presented satisfactory values (ICC above 0.70), it is necessary to reapply this method considering different periods between the first and second application, as test-retest reliability tends to decrease as the test reapplication is delayed (Nakagawa et al., 2017).

Regarding factorial validity, few of the studies included repeatedly evaluated the same instrument. The exception was the ASS scale, in which one study confirmed the data obtained from the original article on the development of the scale. This happened because, when analyzing the values obtained in the original study through the classical test theory (CTT) with modern statistical techniques, such as the Rasch model, a recent study confirmed the unidimensionality of each of the three scale factors (Chang et al., 2015). Two other studies were able, through the use of the Rasch model, to confirm the factorial structure of the scale, as well as its suitability for application to other populations besides caregivers of people with intellectual disabilities or mental illness (Saffari et al., 2019; Chang et al., 2016).

Considering convergent validity, the studies suggest that higher scores in the affiliation stigma scale are accompanied by an increase in scores in scales that measure the depression, anxiety, caregiver burden, burnout, awareness of public devaluation, and awareness of stigma variables. Similarly, in the discriminant validity analysis, high scores in the affiliation stigma scale suggested decreased scores in scales that measure quality of life, social support, self-esteem, quality of care, and social desirability (Saffari et al., 2019; Yanos et al., 2017; Chang et al., 2015; Robinson & Brewster, 2016; Chang et al., 2016).

Finally, the analysis of the validity of known groups for the CASS scale, through a study carried out with mental health care providers in China, verified that older professionals with a lower level of education and who worked in inpatient units were more subject to association stigma (Lin et al., 2018). Through analysis of the differential item function (DIF), one study on the ASS showed that women and men scored differently in relation to the affective and cognitive dimensions of the scale, which raises the hypothesis that this finding could be due to perceptions of gender roles in society (Chang et al., 2015; Su et al., 2013).

The analysis of the articles included in this review shows that there is still a lack of studies that assess the psychometric properties of instruments that measure courtesy stigma or similar constructs. Accordingly, despite many initiatives aimed at the development of new scales, most of the studies have low reproducibility, in the sense that there are no additional studies that allow the validation of the factor structures of the instruments included in this review or the generalization of their application to different cultures, population contexts, and health conditions. It is, therefore, necessary to develop and validate instruments that measure courtesy stigma, taking into account different population contexts and proposals that minimize the harmful effects of this type of stigma on societies.

## References

- Bagherian-Sararoudi, R., Hajian, A., Ehsan, H. B., Sarafraz, M. R., & Zimet, G. D. (2013). Psychometric properties of the Persian version of the multidimensional scale of perceived social support in Iran. *International Journal of Preventive Medicine*, 4(11), 1277–1281. <https://pubmed.ncbi.nlm.nih.gov/24404362/>
- Banga, G., & Ghosh, S. (2017). The impact of affiliate stigma on the psychological well-being of mothers of children with specific learning disabilities in India: The mediating role of subjective burden. *Journal of Applied Research in Intellectual Disabilities*, 30(5), 958–969. <https://doi.org/10.1111/jar.12311>
- Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, 56(6), 893–897. <https://doi.org/10.1037//0022-006x.56.6.893>
- Chang, C. C., Su, J. A., & Lin, C. Y. (2016). Using the Affiliate Stigma Scale with caregivers of people with dementia: Psychometric evaluation. *Alzheimer's Research & Therapy*, 8(1), 45. <https://doi.org/10.1186/s13195-016-0213-y>
- Chang, C.-C., Su, J.-A., Tsai, C.-S., Yen, C.-F., Liu, J.-H., & Lin, C.-Y. (2015). Rasch analysis suggested three unidimensional domains for Affiliate Stigma Scale: Additional psychometric evaluation. *Journal of Clinical Epidemiology*, 68(6), 674–683. <https://doi.org/10.1016/j.jclinepi.2015.01.018>
- Chou, K. R., Jiann-Chyun, L., & Chu, H. (2002). The reliability and validity of the Chinese version of the Caregiver Burden Inventory. *Nursing Research*, 51(5), 324–331. <https://doi.org/10.1097/00006199-200209000-00009>
- Dehnavi, S. R., Malekpour, M., Faramarz, S., & Talebi, H. (2011). The share of internalized stigma and autism quotient in predicting the mental health of mothers with autism children in Iran. *International Journal of Business and Social Science*, 2(20), 251–259.
- Farzand, M., & Abidi, M. (2013). Effects of mental illness stigma on social identity and social isolation among family caregivers of psychiatric patients. *International Journal of Medical and Pharmaceutical Sciences*, 4(1), 31–40.
- Galvão, T. F., Pansani, T. de S. A., & Harrad, D. (2015). Principais itens para relatar revisões sistemáticas e meta-análises: A recomendação PRISMA. *Epidemiologia e Serviços de Saúde*, 24(2), 335–342. <http://dx.doi.org/10.5123/S1679-49742015000200017>
- Goffman, E. (1975). *Estigma: Notas sobre a manipulação da identidade deteriorada* (M. B. de M. L. Nunes, Trans.). LTC.
- Hailemariam, K. W. (2015). The psychological distress, subjective burden and affiliate stigma among caregivers of people with mental illness in Amanuel Specialized Mental Hospital. *American Journal of Applied Psychology*, 4(2), 35–49. <https://doi.org/10.11648/j.ajap.20150402.13>
- Halbesleben, J. R. B., & Demerouti, E. (2005). The construct validity of an alternative measure of burnout: Investigating the English translation of the Oldenburg Burnout Inventory. *Work & Stress*, 19(3), 208–220. <https://doi.org/10.1080/02678370500340728>
- Howard, M. C. (2016). A review of exploratory factor analysis decisions and overview of current practices: What we are doing and how can we improve? *International Journal of Human-Computer Interaction*, 32(1), 51–62. <https://doi.org/10.1080/10447318.2015.1087664>
- Huang, C.-H., Li, S.-M., & Shu, B.-C. (2016). Exploring the relationship between illness perceptions and negative emotions in relatives of people with schizophrenia within the context of an affiliate stigma model. *The Journal of Nursing Research*, 24(3), 217–223. <https://doi.org/10.1097/jnr.0000000000000124>
- Lin, C.-Y., & Pakpour, A. H. (2017). Using Hospital Anxiety and Depression Scale (HADS) on patients with epilepsy: Confirmatory factor analysis and Rasch models. *Seizure*, 45, 42–46. <https://doi.org/10.1016/j.seizure.2016.11.019>
- Lin, X., Rosenheck, R., Sun, B., Xie, G., Zhong, G., Tan, C., Li, Z., Yu, M., & He, H. (2018). Associative stigma experienced by mental health professionals in China and the United States. *Social Psychiatry and Psychiatric Epidemiology*, 54(6), 745–753. <https://doi.org/10.1007/s00127-018-1643-6>

- Liu, H., Xu, Y., Sun, Y., & Dumenci, L. (2014). Measuring HIV stigma at the family level: Psychometric assessment of the Chinese Courtesy Stigma Scales (CCSSs). *PLoS One*, 9(3), e92855. <https://doi.org/10.1371/journal.pone.0092855>
- Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, 18, 302–318. <http://dx.doi.org/10.1177/0146167292183006>
- Mak, W. W. S., & Cheung, R. Y. M. (2008). Affiliate stigma among caregivers of people with intellectual disability or mental illness. *Journal of Applied Research in Intellectual Disabilities*, 21(6), 532–545. <https://doi.org/10.1111/j.1468-3148.2008.00426.x>
- Malagodi, B. M., Greguol, M., Carraro, A., & Serassuelo, H., Junior. (2019). Estigma internalizado de indivíduos em tratamento para dependência química e sua relação com a prática de atividade física. *Movimento*, 25, e25050. <https://doi.org/10.22456/1982-8918.84970>
- McCann, T. V., & Lubman, D. I. (2017). Stigma experience of families supporting an adult member with substance misuse. *International Journal of Mental Health Nursing*, 27(2), 693–701. <https://doi.org/10.1111/inm.12355>
- Montazeri, A., Vahdaninia, M., Mousavi, S. J., & Omidvari, S. (2009). The Iranian version of 12-item Short Form Health Survey (SF-12): Factor structure, internal consistency, and construct validity. *BMC Public Health*, 9, 341. <https://doi.org/10.1186/1471-2458-9-341>
- Nakagawa, S., Johnson, P. C. D., & Schielzeth, H. (2017). The coefficient of determination  $R^2$  and intra-class correlation coefficient from generalized linear mixed-effects models revisited and expanded. *Journal of the Royal Society Interface*, 14(134), 20170213. <http://dx.doi.org/10.1098/rsif.2017.0213>
- Paulhus, D. L., & Reid, D. B. (1991). Enhancement and denial in socially desirable responding. *Journal of Personality and Social Psychology*, 60, 307–317. <http://dx.doi.org/10.1037/0022-3514.60.2.307>
- Pinel, E. C. (1999). Stigma consciousness: The psychological legacy of social stereotypes. *Journal of Personality and Social Psychology*, 76(1), 114–128. <http://dx.doi.org/10.1037/0022-3514.76.1.114>
- Rajabi-Mashhadi, M. T., Mashhadinejad, H., Ebrahimzadeh, M. H., Golhasani-Keshtan, F., Ebrahimi, H., & Zarei, Z. (2015). The Zarit Caregiver Burden Interview Short Form (ZBI-12) in spouses of veterans with chronic spinal cord injury, validity and reliability of the Persian version. *The Archives of Bone and Joint Surgery*, 3(1), 56–63. <https://pubmed.ncbi.nlm.nih.gov/25692171/>
- Ritsher, J. B., Otilingam, P. G., & Grajales, M. (2003). Internalized stigma of mental illness: Psychometric properties of a new measure. *Psychiatry Research*, 121(1), 31–49. <https://doi.org/10.1016/j.psychres.2003.08.008>
- Roach, K. E. (2016). Measurement of health outcomes: Reliability, validity and responsiveness. *Journal of Prosthetics and Orthotics*, 18(6), 8–12. [https://journals.lww.com/jpojournal/fulltext/2006/01001/measurement\\_of\\_health\\_outcomes\\_\\_reliability,3.aspx](https://journals.lww.com/jpojournal/fulltext/2006/01001/measurement_of_health_outcomes__reliability,3.aspx)
- Robinson, M. A., & Brewster, M. E. (2016). Understanding affiliate stigma faced by heterosexual family and friends of LGB people: A measurement development study. *Journal of Family Psychology*, 30(3), 353–363. <https://doi.org/10.1037/fam0000153>
- Ronzani, T. M., Soares, R. G., Nery, F. C., & Silveira, P. S. (2017). Adaptação transcultural brasileira da escala de estigma internalizado de transtorno mental – ismi-br. *Gerais: Revista Interinstitucional de Psicologia*, 10(1), 25–34. [http://pepsic.bvsalud.org/scielo.php?script=sci\\_abstract&pid=S1983-82202017000100004](http://pepsic.bvsalud.org/scielo.php?script=sci_abstract&pid=S1983-82202017000100004)
- Saffari, M., Lin, C.-Y., Koenig, H. G., O'Garro, K.-N., Broström, A., & Pakpour, A. H. (2019). A Persian version of the Affiliate Stigma Scale in caregivers of people with dementia. *Health Promotion Perspectives*, 9(1), 31–39. <https://doi.org/10.15171/hpp.2019.04>
- Salyers, M. P., Fukui, S., Rollins, A. L., Firmin, R., Gearhart, T., Noll, J. P., Williams, S., & Davis, C. J. (2015). Burnout and self-reported quality of care in community mental health. *Administration and Policy in Mental Health*, 42(1), 61–69. <https://doi.org/10.1007/s10488-014-0544-6>
- Shapurian, R., Hojat, M., & Nayerahmadi, H. (1987). Psychometric characteristics and dimensionality of a Persian version of Rosenberg Self-esteem Scale. *Perceptual and Motor Skills*, 65(1), 27–34. <https://doi.org/10.2466/pms.1987.65.1.27>

- Souza, A. C., Alexandre, N. M. C., & Guirardello, E. B. (2017). Propriedades psicométricas na avaliação de instrumentos: Avaliação da confiabilidade e da validade. *Epidemiologia e Serviços da Saúde*, 26(3), 649–659. <https://doi.org/10.5123/S1679-49742017000300022>
- Su, C.-T., Wang, J.-D., & Lin, C.-Y. (2013). Child-rated versus parent-rated quality of life of community-based obese children across gender and grade. *Health and Quality of Life Outcomes*, 11, 206. <https://doi.org/10.1186/1477-7525-11-206>
- Werner, S., & Shulman, C. (2015). Does type of disability make a difference in affiliate stigma among family caregivers of individuals with autism, intellectual disability or physical disability? *Journal of Intellectual Disability Research*, 59(3), 272–283. <https://doi.org/10.1111/jir.12136>
- Yanos, P. T., Vayshenker, B., DeLuca, J. S., & O'Connor, L. K. (2017). Development and validation of a scale assessing mental health clinicians' experiences of associative stigma. *Psychiatric Services*, 68(10), 1053–1060. <https://doi.org/10.1176/appi.ps.201600553>
- Yao, G., Chung, C.-W., Yu, C.-F., & Wang, J.-D. (2002). Development and verification of validity and reliability of the WHOQOL-BREF Taiwan version. *Journal of the Formosan Medical Association*, 101(5), 342–351. <https://pubmed.ncbi.nlm.nih.gov/12101852/>
- Yun, Y. S., Jaapar, S., Fadzil, N. A., & Cheng, K. Y. (2018). Validation of the Malay version of the affiliate stigma scale among caregivers of patients with mental illness. *The Malaysian Journal of Medical Sciences*, 25(6), 127–136. <https://doi.org/10.21315/mjms2018.25.6.13>
- Zisman-Ilani, Y., Levy-Frank, I., Hasson-Ohayon, I., Kravetz, S., Mashiach-Eizenberg, M., & Roe, D. (2013). Measuring the internalized stigma of parents of persons with a serious mental illness: The factor structure of the parents' internalized stigma of mental illness scale. *The Journal of Nervous and Mental Disease*, 201(3), 183–187. <https://doi.org/10.1097/NMD.0b013e3182845d00>

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