Child Psychiatry & Human Development (2019) 50:83–94
https://doi.org/10.1007/s10578-018-0822-8

ORIGINAL ARTICLE

The Parents' Self-Stigma Scale: Development, Factor Analysis, Reliability, and Validity

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Published online: 28 June 2018
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Abstract

For parents of children with a mental health disorder, self-stigma can negatively impact their self-esteem and empowerment. Although measures of self-stigma exist, these have not been created in consultation with parents of children with a mental health disorder. Thus, the aim of this study was to construct a new scale based on parents' experiences and developed in partnership with parents through participatory action research (PAR). Draft items that reflect parents' self-stigmas were drawn from qualitative research. A PAR group further developed these items for conceptual and experiential representativeness, and wording suitability and interpretability. With data from 424 parents of children with a mental health disorder, factor analyses indicated three factors: self-blame, self-shame, and bad-parent self-beliefs. These factors were negatively correlated with self-esteem and empowerment. Internal consistencies were acceptable. In sum, parent self-stigma is best operationalised as including self-blame, self-shame, and bad-parent self-beliefs. A valid, PAR-informed measure is provided to promote consistent, authentic, and sensitive measurement of these components.

Keywords Mental illness · Self-stigma · Shame · Blame · Bad-parent

Introduction

The stigmatisation of childhood mental health disorders is a pervasive issue [1]. Stigmas about the parents of these children are similarly rife in society, perhaps due to their close emotional, social, and/or biological relationship [2]. For example, research from around the world has found that parents of children with a mental health disorder are stigmatised as incompetent, blameworthy, and shameful [3–9]. Parents are at risk of stigmatising themselves in similar ways [4, 10, 11]. This is known as self-stigma [12, 13]. Parents who experience self-stigma describe it as painful and distressing [4].

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Research on self-stigma in parents of children with a mental health disorder is hampered by a lack of comprehensive measures that were developed specifically for this population of parents. Moreover, existing measures [8, 14] were not formed in collaboration with parents or informed by qualitative work on parents' self-stigma, as is recommended for the development of measures of stigma [15, 16]. Such methods are needed in order to form sensitive measures with sound content validity [15]. Thus, the aim of this study is to develop a measure of self-stigma for use with parents of children with a mental health disorder that overcomes these limitations. To do this, items were derived from a recent qualitative study with parents [4]. These items reflect parents' comments on their self-stigmas and represent the various forms of self-stigma as evidenced in qualitative [4, 10, 11] and conceptual work [8]. Substantial input was sought from a parent-led participatory action research group (PARG) on the development of these items. The present study examines the construct validity and psychometric properties of the resulting scale.

Qualitative research with parents of children with a mental health disorder has documented parents' narratives in which they describe their self-stigma as presenting in three key ways: bad-parent self-beliefs, self-blame, and self-shame

[4, 10, 11]. First, bad-parent self-beliefs are held by parents who perceive that they are not meeting their own internal and perceived others' standards of 'good' parenting [4, 9, 17]. These parents believe that they fail to provide sufficient support to their child, have little knowledge of how best to handle the child's behaviours, or make the child's problem worse [11]. Hence, they feel like 'bad' parents [10, 11]. Second, parents self-blame for causing their child's disorder [4, 5, 18, 19]. They attribute self-blame through hereditary transmission, by failing to identify symptoms or intervene early enough [10], and/or by exposing their child to stressors such as parent separation. Guilt is felt as a result [4]. Finally, self-shame occurs when parents are embarrassed by and ashamed of their association with their stigmatised child [4]. In one study, mothers of children with attention-deficit/hyperactivity disorder (ADHD) were embarrassed due to being a parent of a child with ADHD and ashamed of their parent-self because they felt this way [11]. Others have theorised that self-shame occurs when parents internalise stigma which transfers from the child to the parent (i.e., courtesy stigma) and which results in the social discrediting of, and loss of social status for, the parent (e.g., [8, 20]).

Taken together, this research indicates that the dominant self-stigmas held by parents include: bad or incompetent parent self-beliefs, self-blame, and self-shame. However, the two existing measures of parents' self-stigma do not account for all of these forms. For example, the Affiliate Stigma Scale has been found to be unidimensional [8, 21, 22], and with most items assessing shame from others and self-shame (i.e., shame from the self), especially due to loss of social status (e.g., "my reputation is damaged…," and "I am lesser to others…;" [8, p. 538]), it lacks items that assess parents' self-blame and bad-parent self-beliefs. Potentially, this incongruence arises because the scale development sample contained predominantly mothers ($n = 210$) of children with an intellectual disability [8], which tends to attract a different type of stigma (more pity and discomfort than blame; [23]). Although the sample also contained caregivers of children with a mental health disorder ($n = 108$), parents constituted only 42% of this total alongside spouses, siblings, and offspring. Stigma and thus, self-stigma differs by caregiving role, with parents experiencing parent-blaming and accusations of failing to be good enough parents [2, 24], which may not be sufficiently represented in a measure covering a broad range of caregiver types. Also, 'children' included young children (< 12 years) through to adolescents. The close and highly dependent nature of a young child on a parent makes stigma—and potentially self-stigma—more likely.

More recently, the Parents' Internalised Stigma of Mental Illness Scale (PISMIS; [14]) was adapted from the Internalised Stigma of Mental Illness Scale for adults with a mental health disorder [16] to measure self-stigma in parents of adult offspring with a mental health disorder. Consistent with the Affiliate Stigma Scale, the PISMIS includes items to tap self-shame; however, it does not tap parents' self-blame or bad-parent self-beliefs. As such, it also omits key forms of parents' self-stigma evident in qualitative research. Factor analysis of the PISMIS indicated a three-factor model: discrimination experience ($\alpha = 0.78$), social withdrawal and alienation ($\alpha = 0.65$), and stereotype endorsement ($\alpha = 0.61$) [14]. Of these factors, only stereotype endorsement overlaps with self-stigma; discrimination experience taps awareness of stigma (a precursor to self-stigma), and social withdrawal is a behavioural consequence of both stigma and self-stigma [25–27]. Thus, neither are self-stigma per se. Moreover, the stereotype endorsement items feature a mix of stereotypes about the child, as well as about parents of children with a mental health disorder generally, and about the parent himself or herself specifically. A focussed assessment of the latter is more consistent with the way self-stigma is measured in other populations (e.g., in adults with mental health disorders) and is the preferred means by which the individual's negative *self*-attributions are assessed [26, 28].

Given that qualitative research suggests a broader spectrum of the ways parents' self-stigma manifests than has been incorporated into existing measures, a new scale is needed. To achieve this aim, Corrigan [15] recommended a grounded approach. Such an approach starts with a participatory action research (PAR) framework, whereby a research team is formed and includes people who have lived experience with the phenomenon of interest (i.e., a PARG; [15, 29]). PARG members offer unique insights into the phenomenon, and collaboratively drive decision-making on how best to reach, and then conduct research sensitively and appropriately with individuals of the target population [30, 31]. Participant involvement in a PAR capacity is not only recommended as formative for the research, but it also serves to recognise participants' expert status [32].

Once formed, the PARG can begin with the preliminary task of formulating a qualitative inquiry, which aims to derive a comprehensive summary of the phenomenon of interest [33]. This is considered an essential first step in developing measures, so as to amply sample the breadth and depth of the phenomenon [15]. Directed by this summary, specific content (i.e., narrative excerpts) can then be transformed into candidate items [34]. In using the language and terminology of those interviewed, the common lexicon is preserved, supporting item interpretability and meaning [35]. Moreover, the PARG can provide valuable advice on refinements that optimise the representativeness and suitability of these items [15]. The researcher can then employ quantitative methods to examine the structure, reliability, and validity of the items [15, 36].

Thus, using such an approach, the aim of the present study was to develop a measure of self-stigma for parents of children with a mental health disorder that is informed by

parents' lived experiences. To do so, a PARG was formed to collaboratively develop scale items. In a previous qualitative study, the PARG developed an interview protocol, which directed semi-structured interviews with parents of children with a mental health disorder regarding their self-stigma experiences [4]. As described in the present study, item content was then drawn from these interviews, and further shaped by the PARG. The psychometric properties of the resulting scale, including its factor structure, is examined. Convergent validity is evaluated through correlations of self-stigma with parents' self-esteem and empowerment. Based on past research with adults with mental health disorders, higher self-stigma is expected to be associated with lower self-esteem and empowerment (e.g., [16, 28, 37]).

Method

Participants

PARG

The call for PARG members was put out via flyers, social media posts, parent newsletters, and word-of-mouth in the Perth, Western Australia metropolitan area. Parents of a child aged 4–12 years diagnosed with a mental health disorder, were asked to respond to the first author with their expression of interest. Prospective PARG members were informed that participation would require two initial 2-h meetings, followed by subsequent meetings as the program of research progressed.

The PARG was comprised of four mothers (M_{age} = 46.12, SD = 5.28, range 39–56 years) of a child (M_{age} = 9.5, SD = 2.74, range 4–12 years) with a mental health disorder: ADHD, an anxiety disorder, oppositional defiant disorder. Further PARG demographics are provided in Eaton et al. [4].

Online Survey

The PARG led to qualitative identification of scale items, which were then placed in an online survey alongside demographics and other measured variables. Parents of children aged 4–12 years with a mental health disorder were invited to complete the survey. The survey was advertised by word-of-mouth, social media, and information flyers distributed to parent support groups across Australia and New Zealand.

A priori estimation of the required sample size, based on a participant to item ratio of 10:1 [38], indicated 110 participants per factor analysis. With two factor analyses to be completed, the total required was n = 220. The obtained sample size exceeded this estimate, with 424 parents (414 female, 10 male; M_{age} = 37.90, SD = 6.59, range 21–62 years) of a child diagnosed with a mental health disorder (75.3% male, 24.5% female, and 0.2% preferring no label; M_{age}= 8.58, SD = 2.12, range: 4–12 years). Child demographics are provided in Table 1. Most participants were biological parents (95.3%), with a minority identifying as foster—(2.6%), step—(0.9%), grand—(0.7%), and adoptive—(0.5%) parents. Parents resided in Australia or New Zealand and reported their primary cultural group as: Australian (73.7%), New Zealander (13.2%), European (8.2%), Māori (1.9%), Aboriginal and Torres Strait Islander (1.4%), Asian (1.2%), South African (0.2%), and Canadian (0.2%). Most parents were married or living together (73.4%), with the remainder separated or divorced (15.5%), never married (10.6%), or widowed (0.5%). Parent education varied widely, from a university degree (46%), apprenticeship or technical college qualification (28.5%), to a high school certificate (25.5%). Parents were employed outside the home (57%), not outside the home (34.7%), or were students (8.3%). The mean family yearly income in Australian dollars (85,020.80, SD = 60,588.63, range: 11,000–350,000) is representative of middle socio-economic status nationwide in Australia and is somewhat lower than the national median ($1734.00 per week) [39, 40].

Development of the Parents' Self-Stigma Scale Using PAR

The PARG were instrumental in commencing work on developing candidate items for the Parents' Self-Stigma Scale (PSSS), which began with a qualitative study into the lived experiences of 12 parents of children with a mental health disorder [4]. In the Eaton et al. [4] study, the PARG developed an interview protocol, which was then used to direct semi-structured interviews with parents. Interview data were thematically analysed. The themes and associated subthemes were presented to the PARG for feedback on representativeness and comprehensiveness as well as for direction on formulating themes into the final thematic construction. The thematic results of this qualitative study have previously been reported [4].

In commencing the current study, 15 draft candidate items were drawn from these interview data and reflect parents' own comments about how they experienced self-stigma. The PARG then reviewed and revised these items to optimise item representativeness of the key forms of self-stigma and how each form is experienced by parents as documented in parents' qualitative narratives: self-shame ("I am embarrassed to be a parent of a stigmatised child"), self-blame ("my child's problem is my fault"), and bad-parent self-beliefs ("I am not a good parent") [4, 10, 11]. The PARG further adapted items to improve clarity in expression and aid in interpretability, as well as to ensure sensitivity in item wording. Three draft items were removed due to ambiguity or item overlap. For example, "I am to blame for my child's problem" was seen by the PARG

Table 1 Child demographic characteristics reported by survey respondents

Primary diagnosis (%)		Treatment type(s)[b] (*n*)	
ADHD	69.8	No treatment	10.0
An anxiety disorder	15.3	Medication	287.0
ODD	9.0	Psychotherapy	209.0
Conduct disorder	1.7	Home-based behaviour strategies[c]	254.0
PTSD	1.7	Parenting program	54.0
A mood disorder	1.4	Occupational therapy	106.0
Foetal alcohol syndrome	0.9	Education support	150.0
An eating disorder	0.2	Other[d]	25.0
Comorbid diagnosis[a] (%)	64.9	Duration of treatment (%)	
Time since diagnosis (%)		Under 1 year	38.9
1–2 years	27.9	1–2 years	19.1
Under 1 year	26.2	2–3 years	18.2
2–3 years	19.4	3–4 years	13.4
3–4 years	14.7	4 years or more	10.4
4 years or more	11.8		
Diagnosing professional (%)			
Paediatrician	59.0		
Psychologist	25.9		
Psychiatrist	12.0		
General practitioner	3.1		

ADHD attention-deficit/hyperactivity disorder, *ODD* oppositional defiant disorder, *PTSD* post-traumatic stress disorder

[a]Comorbid diagnoses included: anxiety, mood, conduct, oppositional defiant, autism spectrum, post traumatic, reactive attachment, and sensory processing disorders, gender dysphoria, ADHD

[b]Child may be engaged in none, one, or more treatment types

[c]Home-based behavioural strategies included: clinician developed/parent-led time-out, routines, and reward systems

[d]Other treatments included: speech therapy, diet changes, exercise, and naturopathy

as overlapping with "my child has his/her problem because of me" and "I deserve to be blamed for my child's problem." The former was removed. The PARG changed one additional item, "I am a bad parent," to "I am not a good enough parent," as it was felt that social desirability bias and a difficulty to admit that one was a bad parent, even to the self, may influence participants' responses to the former. As an outcome of the PARG refinement of the draft items, 11 items were finalised and form the PSSS. These items were rated on a 5-point Likert scale ranging from *never* (1) to *almost all the time* (5). Example items include: "my child has his/her problem because of me" and "I am ashamed that my child has his/her problem." A lead-in statement orients respondents: "Right now, how often do you have the following thoughts in parenting your child"? Higher scores indicate more self-stigma.

Additional Measures

Self-Esteem

The Rosenberg Self-Esteem Scale (RSES; [41]) is a widely-used 10-item measure of self-esteem rated on a 4-point Likert scale. Example items include: "I feel that I have a number of good qualities" and "I feel I do not have much to be proud of." Higher scores indicate higher self-esteem. Internal reliability was excellent, $\alpha = 0.88$ ($M = 2.69$, $SD = 0.54$).

Empowerment

The power-powerlessness and optimism/control over the future subscales of the Empowerment Scale (ES; [42]) were used to measure parents' empowerment. These two subscales were selected as the content measured by the remaining subscales was either captured elsewhere (e.g., self-esteem/self-efficacy was captured by the RSES), or was less relevant to parents, given that the ES was developed for and with adults with a mental health disorder [42]. One item, "you can't fight city hall," was removed as this phrasing is not common in the Australasian vernacular. Thus, 10 items were presented on a 4-point Likert scale and summed to obtain a total score. Example items include: "I feel powerless most of the time" and "I am generally optimistic about the future." Higher

scores indicate greater empowerment. Internal reliability was moderate, α = 0.62 (*M* = 2.63, *SD* = 0.38).

Procedure

Ethics approval was granted by our university's ethics review board. The procedure for the qualitative study from which the draft items were drawn has been reported previously [4]. The PARG meetings to further develop the PSSS items occurred at our university, facilitated by the first author. The PSSS and the other measured variables and demographics were completed online via Qualtrics, an internet-based survey platform. Participants indicated consent by clicking on the consent button before continuing on to the survey. Participation was voluntary, with withdrawal permitted at any point, without repercussion. If there was more than one child with a mental health disorder in the family, parents were asked to keep in mind the child whose birthday was closest in answering questions. On completing the survey, participants were invited to enter a prize draw to win one of 15 gift cards valued at $50 (AUD or NZD).

Analytic Strategies

The aim was to determine the factor structure underlying the PSSS items and examine the reliability and convergent validity of the resultant scale. To do so, missing values were first identified and addressed. Bivariate correlations, analysis of variance (ANOVA), and *t*-tests were conducted as indicated between measured variables (i.e., empowerment and self-esteem) and demographics. To examine the factor structure of the PSSS items, the dataset was then randomly split into two subsets to conduct first an exploratory factor analysis (EFA), and then a partial confirmatory factor analysis (PCFA). Test assumptions were checked for each split. Reliability and validity were then examined, along with relationships between the PSSS and demographics. All analyses were completed in SPSS, version 23.0 [43].

Results

Prior to splitting the data, a missing values analysis revealed 6.8% missing data, which were found to be missing completely at random, as indicated by a nonsignificant Little's missing completely at random test ($\chi^2 = 1804.11$, $df = 1708$, $p = .053$). Missing values were imputed using the expectation maximisation method as Mardia's tests for multivariate skewness and kurtosis indicated multivariate non-normality [44].

As survey respondents resided in Australia or New Zealand, demographics and measured variables were compared by country of residence. On demographics, differences were nonsignificant. On measured variables, participants residing in Australia reported significantly lower levels of self-esteem (*M* = 2.67, *SD* = 0.54) compared to those in New Zealand (*M* = 2.82, *SD* = 0.51), *t*(422), −2.15, *p* = .032, *d* = 0.29, 95% CI [−.29, −0.01], as well as significantly lower levels of empowerment (*M* = 2.60, *SD* = 0.35) than those in New Zealand (*M* = 2.77, *SD* = 0.38), *t*(422), −3.55, *p* < .001, *d* = 0.46, 95% CI [−0.26, −0.07].

In randomly splitting the dataset into two subsets, there were no significant differences on any variables between the two.

EFA

Skewness and kurtosis values on Split 1 ranged from −0.49 to 1.52 and −0.87 to 2.44 respectively, which were within normal limits [45]. Based on the criteria of Tabachnick and Fidell [46], four univariate and four multivariate outliers were identified. These were retained to prevent artificial range restriction and loss of data [47, 48]. Mardia's tests for multivariate skewness and kurtosis indicated multivariate non-normality [44].

Using Split 1 (*n* = 212), an EFA was conducted on the 11 PSSS items. As data were multivariate non-normal, principal axis factoring extraction was used [49] with direct oblimin rotation. The Kaiser–Meyer Olkin measure of sampling adequacy (KMO; [50]) was good at 0.80, and Bartlett's test of sphericity [51] was significant, χ^2 (55) = 934.49, *p* < .001, indicating that correlations were sufficiently large for factor analysis. All items correlated at least at 0.30, but not more than 0.81 with at least one other item.

The scree test indicated three factors with eigenvalues greater than one, and in combination explained 66.71% of the variance (whole scale α = 0.82, *M* = 2.56, *SD* = 0.64). Table 2 illustrates the factor loadings after rotation. The first factor, *self-blame* (α = 0.77, *M* = 2.70, *SD* = 0.77), represents parents' sense of guilt and responsibility for the child's disorder. The second factor, *self-shame* (α = 0.82, *M* = 2.21, *SD* = 0.94), represents parents' shame and sense of embarrassment due to being a parent of a child with a mental health disorder. The third factor, *bad-parent self-beliefs* (α = 0.80, *M* = 2.67, *SD* = 0.90), represents the extent to which parents believe themselves to be bad or ineffective parents. The item, "I am not a good enough parent," cross-loaded on Factor 1 (0.43) and Factor 3 (−0.36). Costello and Osbourne [52] suggest removing cross-loaded items when factor loadings exceed 0.32 across two or more factors. However, doing so reduced the whole-scale alpha from 0.82 to 0.79 and left Factor 3 with only two items. Thus, the item was retained for the PCFA.

Correlations between the subscales were significant and small-to-moderate in size, in the expected direction: self-blame with bad-parent self-beliefs, *r* = .53, *p* < .001,

Table 2 Loadings (after rotation) for EFA with direct oblimin rotation of PSSS items

	Factor		
	1 (Self-blame)	2 (Self-shame)	3 (Bad-parent)
My child has his/her problem because of me	**0.85**	−0.01	0.14
The way I have raised my child has contributed to his/her problem	**0.64**	0.12	−0.18
I feel guilty that my child has his/her problem	**0.55**	0.17	0.04
I deserve to be blamed for my child's problem	**0.52**	0.13	−0.18
It is not my fault that my child has his/her problem (r)	**0.49**	−0.21	−0.07
I am not a good enough parent	**0.43**	0.15	−0.36
I am embarrassed that my child has his/her problem	−0.01	**0.86**	−0.05
I am ashamed that my child has his/her problem	−0.08	**0.86**	−0.05
I am self-conscious about being a parent of a child with problems	0.14	**0.61**	−0.01
I am the best parent I can be (r)	−0.07	0.00	**−0.88**
I am a good parent, no matter what others say (r)	0.08	0.00	**−0.83**
Eigenvalues	4.17	1.90	1.27
% of variance	37.90	17.30	11.51

Factor loadings over 0.40 appear in bold

r reverse scored items

self-blame with self-shame, $r = .27$, $p < .001$, and self-shame with bad-parent self-beliefs, $r = .27$, $p < .001$.

PCFA

Skewness and kurtosis values on Split 2 ($n = 212$) ranged from −0.48 to 1.05 and −0.94 to 0.51 respectively, which were within normal limits [45]. Based on the criteria of Tabachnick and Fidell [46], three univariate and four multivariate outliers were identified, but retained. Mardia's tests for multivariate skewness and kurtosis indicated multivariate normality [44].

To cross validate the EFA, a PCFA [53] was conducted. PCFA is used for assessing dimensionality and is an intermediary technique situated between an unrestricted EFA and a restricted confirmatory factor analysis (CFA) [53]. PCFA is recommended where factor analysis is still exploratory [53], as was the case for the present study due to the cross-loading of one item ("I am not a good enough parent") in the EFA. PCFA is similar to EFA in that item-loadings are applied to factors and, thus, does not restrict the cross-loadings of items to one factor (as would be the case for CFA; [54]). In keeping with CFA, though, close-fit indices are calculated for the proposed PCFA solution [53]. For the current analysis, the chi square (χ^2) goodness-of-fit index and the root-mean-square error of approximation (RMSEA) were calculated. The χ^2 is to be nonsignificant [55], and a RMSEA < 0.05 indicates excellent fit, whereas 0.05 to 0.06 indicates adequate fit [56]. Additionally, incremental close-fit indices compare the Chi square (χ^2) data drawn from the null and implied models. For the present study, the normed-fit index (NFI), the Tucker–Lewis index (TLI), and the comparative fit index (CFI) were calculated. Values for the NFI, TLI, and CFI > 0.95 indicate excellent fit and 0.90 to 0.95 indicate adequate fit [57].

Using Split 2, the PCFA was completed with three factors specified, maximum likelihood extraction, and direct oblimin rotation. The KMO [50] was good at 0.79, and a significant Bartlett's test of sphericity [51], χ^2 (55) = 1105.04, $p < .001$, indicated that correlations were sufficiently large for factor analysis. All items correlated at least 0.30, but not more than 0.81, with at least one other item.

The three-factor model was confirmed and consisted of *self-blame* (five items, α = 0.81), *self-shame* (three items, α = 0.86), and *bad-parent self-beliefs* (three items, α = 0.84). The three factors explained 70.21% of the variance (whole scale α = 0.84). Each of these factors were comprised of items consistent with those observed in the EFA. The item, "I am not a good enough parent," which exhibited cross-loading in the EFA on factors 1 and 3, no longer cross-loaded, but instead loaded onto Factor 3. Table 3 provides item factor loadings after rotation. The χ^2 was nonsignificant, $\chi^2(25) = 30.71$, $p = .199$, and the RMSEA, in combination with the incremental close-fit indices, indicted a good fit between the expected model and the observed data (RMSEA = 0.03; NFI = 0.97; TLI = 0.99; CFI = 0.99).

To further investigate the adequacy of a three-factor model, parallel analysis and Velicer's minimum average partial test (MAP; [58]) were conducted and indicated that a three-factor structure was appropriate, supporting both the EFA and PCFA.

In keeping with the findings of the EFA, correlations between the subscales were significant and in the expected direction; self-blame with bad-parent self-beliefs, $r = .46$,

Table 3 Loadings (after rotation) for PCFA with direct oblimin rotation of PSSS items

	Factor		
	1 (Self-blame)	2 (Self-shame)	3 (Bad-parent)
My child has his/her problem because of me	**0.99**	−0.14	0.07
The way I have raised my child has contributed to his/her problem	**0.69**	−0.03	0.00
I deserve to be blamed for my child's problem	**0.65**	0.16	−0.03
I feel guilty that my child has his/her problem	**0.61**	0.08	−0.02
It is not my fault that my child has his/her problem (r)	**0.44**	−0.05	−0.20
I am embarrassed that my child has his/her problem	0.00	**0.98**	0.08
I am ashamed that my child has his/her problem	0.07	**0.82**	−0.01
I am self-conscious about being a parent of a child with problems	−0.05	**0.67**	−0.09
I am the best parent I can be (r)	−0.04	−0.02	**−0.89**
I am a good parent, no matter what others say (r)	−0.03	0.03	**−0.85**
I am not a good enough parent	0.25	0.11	**−0.54**
Eigenvalues	4.26	2.04	1.37
% of variance	38.70	18.52	12.46

Factor loadings over 0.40 appear in bold

r reverse scored items

Table 4 Summary of intercorrelations for scores on the PSSS (total scale and subscales), RSES, and ES

	RSES	ES
PSSS total	−0.57*	−0.34*
PSSS factor 1 self-blame	−0.48*	−0.27*
PSSS factor 2 self-shame	−0.24*	−0.20*
PSSS factor 3 bad-parent	−0.58*	−0.33*

PSSS Parents' Self-Stigma Scale, *RSES* Rosenberg Self-Esteem Scale, *ES* Empowerment Scale, effects of country of origin on empowerment and self-esteem have been controlled for; *$p < .001$

$p < .001$, self-shame with bad-parent self-beliefs, $r = .33$, $p < .001$, and self-blame with self-shame, $r = .22$, $p = .002$.

Convergent Validity

To explore the relationship of each PSSS subscale with self-esteem and empowerment, partial correlations (controlling for the effect of country of origin on self-esteem and empowerment) were conducted. Findings indicated that all three of the PSSS subscales were significantly and negatively correlated with self-esteem and empowerment, indicating that increases in self-shame, self-blame, and bad parent self-beliefs are related with lower self-esteem and empowerment. Table 4 provides information on these correlations.

Simultaneous multiple regressions were then used to establish the amount of variance each PSSS subscale accounted for in both self-esteem and empowerment. The three PSSS subscales were first regressed onto self-esteem and then onto empowerment. Results indicated that bad-parent self-beliefs ($\beta = -0.45$, $t = -7.03$, $p \leq .001$) and self-blame ($\beta = -0.26$, $t = -4.24$, $p \leq .001$), but not self-shame ($\beta = -0.03$, $t = -0.47$, $p = .641$) accounted for a significant proportion of unique variance in self-esteem (i.e., 39%); $R^2 = 0.39$, $F(3, 208) = 43.85$, $p \leq .001$. Bad parent self-beliefs ($\beta = -0.25$, $t = -3.26$, $p = .001$), but not self-blame ($\beta = -0.13$, $t = -1.75$, $p = .081$) or self-shame ($\beta = -0.07$, $t = -1.01$, $p \leq .313$) accounted for a significant proportion of unique variance in empowerment (i.e., 13%); $R^2 = 0.13$, $F(3, 208) = 10.11$, $p \leq .001$.

Self-Stigma and Demographics

Results indicated significant relationships between the three PSSS subscales and three of the demographics variables. Younger parents experienced greater self-blame ($r = -.15$, $p = .026$) and bad-parent self-beliefs ($r = -.22$, $p < .001$). Self-blame was also significantly and negatively correlated with the length of time since diagnosis ($r = -.14$, $p = .038$), and the length of time the child had been in any form of treatment ($r = -.15$, $p = .031$), indicating that parents feel lower self-blame with increased time since the child was first diagnosed and began treatment.

PSSS Subscale Comparisons

To examine differences in self-stigma scores across each subscale, a repeated measures ANOVA with a Greenhouse–Geisser correction was conducted. Findings indicated that means across each of the PSSS subscales significantly differed, $F(1.81, 382.71) = 16.33$, $p < .001$, $\eta_p^2 = 0.07$. Paired samples *t*-tests revealed that scores on the bad-parent self-beliefs subscale were significantly higher than scores on both

the self-blame subscale, $t(211) = -2.23$, $p = .027$, $d = 0.15$, 95% CI [−0.26, −0.02] and the self-shame subscale, $t(211) = 5.49$, $p < .001$, $d = 0.43$, 95% CI [0.26, 0.56]. Scores on the self-blame subscale were significantly higher than scores on the self-shame subscale, $t(211) = 3.34$, $p = .001$, $d = 0.29$, 95% CI [0.11, 0.43]. Thus, parents' self-stigma was most commonly reported as bad-parent self-beliefs, followed by self-blame, and self-shame. Mean self-stigma scores and standard deviations are presented in Table 5.

Discussion

Parents of children with a mental health disorder express that experiencing self-stigma is painful [4]. Previous self-stigma scales were developed with or for adults, or parents of adult offspring, affected by mental health and/or intellectual disabilities, rather than specifically for parents of children with a mental health disorder. Hence, this study aimed to develop and provide psychometric information on a self-stigma scale for these parents. Scale items were derived from qualitative research into parents' self-stigma experiences [4]. Moreover, a PARG refined and decided on items, so that item generation was participant-centred, rather than researcher-centred. As the PARG shaped items to best represent the way parents experience the key forms of self-stigma, items are experientially and theoretically grounded [59, 60]. Factor analyses of these items indicated that, as expected, parent self-stigma is comprised of three intercorrelated components: self-blame, self-shame, and bad-parent self-beliefs. A total of 70% of the variance in the PSSS items was accounted for by the three factors, which is deemed excellent in factor analysis [61].

In developing PSSS items using the exact language and terminology used by parents, and by adhering to the advice of the PARG regarding item refinement, the PSSS closely represents parents' lived experiences of self-stigma. The PARG's recommendations for temperance in the items used to assess bad-parent self-beliefs, positively framing items (e.g., "I am the best parent I can be"), and avoiding the term 'bad parent' were adhered to. Given the sensitive nature of this topic, taking the PARG's direction was critical in ensuring a meaningful and respectful scale.

During factor analysis, the item "I am not a good enough parent" (reworded from "I am a bad parent") exhibited low-to-moderate cross-loading in the EFA on both the self-blame and bad-parent self-beliefs factors. However, in the PCFA, the item no longer cross loaded, but loaded onto the bad-parent self-beliefs factor. Results of the PCFA indicated that this item should be retained under this factor. Conceptually, this item is better represented by the bad-parent self-beliefs factor, given its reference to parents' sense of failing to be a good enough parent. The intercorrelations between these two factors was small-to-moderate, indicating no substantial overlap in the content of the facet represented by each factor. Moreover, the results of the PCFA, parallel analysis, and MAP test further suggest that the identified factor structure is likely to be supported in a subsequent CFA [54].

A three-factor solution to the PSSS is broadly consistent with Corrigan and Miller [24] and Corrigan et al. [28], who argue that self-stigma is a multifaceted construct. More specifically, the three key forms identified by qualitative research (i.e., bad-parent self-beliefs, self-blame, and self-shame) were confirmed using a quantitative approach. Thus, all three are part of the self-stigma experience for parents of a child with a mental health disorder [4]. This helps to clarify the operational definition of self-stigma amongst these parents. The first factor, self-blame, is in keeping with Moses [10] who defined parents' self-blame as parents' sense of responsibility and guilt for 'causing' their child's disorder. The second component, bad-parent self-beliefs, is defined by parents' self-view as a 'bad' parent, and is broadly consistent with the way that parents have described their negative self-evaluation as a failed or bad parent in previous studies (e.g., [5, 9, 11, 18, 62, 63]). The third factor, self-shame, is defined by parents feeling ashamed and embarrassed to be associated with their stigmatised child. This is consistent with an existing operational definition of self-stigma (affiliate stigma), which sees self-shame as the internalisation of the loss of social status which occurs due to being associated with a stigmatised individual [8, 21]. Research on affiliate stigma has largely been conducted within collectivist (particularly Asian) cultures (e.g., [8, 64, 65]), where shame holds significance due to its association with loss of face [66]. Our findings indicate that self-shame is also an integral part of self-stigma in Australian and New Zealander parents (albeit, to a lesser extent than self-blame and bad-parent self-beliefs).

Table 5 Means and standard deviations of PSSS total and subscale scores (Split 2; n = 212)

	PSSS self-blame	PSSS self-shame	PSSS bad-parent	PSSS total
M	2.67	2.40	2.80	2.63
SD	0.87	1.02	0.85	0.68
95% CI	2.55, 2.79	2.26, 2.53	2.70, 2.92	2.54, 2.72

PSSS Parents' Self-Stigma Scale; Mean scores are based on average scores to account for unequal number of items across subscales

Whereas some previous research has considered bad-parent self-beliefs and self-blame as one and the same (e.g., [17, 63]), our findings indicate that these are separate but related components of parents' self-stigma. This supports the proposition that one can occur without the other; that is, parents might self-blame, but not believe themselves to be bad parents. Although self-blaming, parents may simultaneously evoke a sense of being a good parent through their efforts to protect their child and advocate for support on his or her behalf [4, 67, 68]. Alternatively, parents may reject responsibility for the onset of the disorder [9, 69], but still feel like bad parents due to feeling unable to remediate the child's socially discordant behaviour [62, 70]. Still, intercorrelations between the subscales indicated that self-blame and bad-parent self-beliefs are moderately correlated, whereas they shared small relations to self-shame. It is possible that a sense of blame for the child's disorder could also create a sense of shame. Some argue that guilt, which is a derivative of self-blame is not entirely distinct from shame, instead both are possibly different intensities of the same emotion [71, 72]. However, in this case, shame is conceptualised as being ashamed of characteristics of the self [73], whereas for the PSSS shame is conceptualised as a sense of shame due to parents' association with their stigmatised child. Moreover, given that items were derived from parents' own narratives and were revised to reflect the key forms of self-stigma reported by parents, findings of the factor analyses, and the correlations between the subscales would suggest that parents see self-blame and bad-parent self-beliefs as separate to self-shame. Furthermore, there are differences in whether the focus of the stigma is the parent or the child. Self-blame and bad-parent self-beliefs are both characterised by the discrediting of the parent-self; that is, the parent is the focus. On the other hand, self-shame is a consequence of parents' association with their stigmatised child [8]; that is, the child is the focus.

Convergent validity of the PSSS was investigated by examining relationships of parent self-stigma with self-esteem and with empowerment, as these are often considered to be the obverse of self-stigma [28]. Consistent with research on self-stigma in other populations (e.g., adults with mental illness), self-stigma was associated with self-esteem and empowerment [16, 28]. Specifically, all three PSSS factors were negatively correlated with self-esteem and empowerment. These findings add to previous research in which affiliate stigma (self-shame) in family caregivers was found to be associated with reduced self-esteem [22]. In the present study regression analyses indicated that self-shame was not a significant predictor of lower self-esteem or empowerment when self-blame and bad-parent self-beliefs were included. Again, this finding might be explained by whether the stigma focus is the parent (self-blame/bad-parent) or the child (self-shame), and suggests that self-stigma that focuses on the parent-self may be most important in predicting reduced self-esteem and empowerment. However, the relationship between self-shame and self-esteem as well as empowerment requires further investigation, particularly as trait-shame (i.e., self-shame) has been conceptually linked to lower self-esteem [74].

All three PSSS subscales were negatively associated with parent age. Whilst this finding is in contrast to Mak and Cheung [8] who found that affiliate stigma (self-shame) tends to increase with age in Asian caregivers of offspring with intellectual disabilities and/or mental health disorders, it is consistent with qualitative findings that self-blame and self-devaluation lessen over time [4, 75, 76]. These qualitative studies have shown that parents tend to redefine their parenting ideal to account for the uniqueness of their situation, which supports their rejection of others' stigma, and encourages the re-enfranchisement of their parenting identity; all to the benefit of reducing self-stigma [4, 75, 76]. Such changes often occur in response to receiving a non-blaming explanation for the child's disorder, and/or due to positive changes in the child [11, 17, 63]. Our findings showing that lower self-blame was related to longer time since diagnosis and commencement of treatment bolsters this proposition. Perhaps self-shame, which is due to a focus of stigma on the child, follows a different path.

The current study should be interpreted in the context of some limitations. First, data multivariate non-normality necessitated the use of the expectation maximisation method to address missing data. Although an acceptable approach for use with non-normal data, this method can result in biased parameter estimates and underestimated standard errors [77, 78]. Multivariate non-normality also necessitated the use of principal axis factoring for the EFA. Whilst this method is preferred in cases of data non-normality [79], it precludes the obtainment of fit indices [49]. Second, in examining the concurrent validity of the PSSS, the internal consistency of the ES was low. Although others have similarly found adapted versions of the ES to exhibit low internal consistency (e.g., $\alpha = 0.44$; [80]), it is still used as a reliable (negative) correlate of self-stigma. Future studies might consider using an alternative measure that is specific to the parenting context. Third, discriminant validity remains to be tested. Fourth, parent mental illness was not established in the current study. It is possible that parents' psychopathology might influence the extent to which they self-stigmatise. For example, a negative view of the self is a distinguishing feature of depression [81]. However, PSSS items are framed to assess parents' view of their *parent*-self, rather than parents' view of their own mental health difficulties.

Finally, the majority of participants in the current study were mothers. Although there was no significant effect of gender on any measured variable including the PSSS, the low percentage of fathers (i.e., 2.4%) does limit the power

to detect a true effect. A low response rate from fathers in parenting research is not uncommon [82], and is a problematic feature of self-stigma research with parents (e.g., [14, 65, 83]). Experts have drawn attention to the disparity and argued that although historically mothers and fathers (and mothering and fathering) have been conceptualised as distinct, in the modern era of parenting, there are more similarities than differences [82, 84]. There is an increasing convergence in parenting practices, behaviours, and involvement with children between mothers and fathers [85–87]. With regards to self-stigma research, whilst some have found that fathers report less stigma [19, 88, 89], others have found that self-stigma is similar regardless of parent gender [8, 10]. In the qualitative study from which the PSSS items were drawn, the one father noted similar issues to the mothers [4]. In retaining the fathers in the current sample, we aim to take a gender-neutral conceptualisation of parenting, as has been emphasised by Fagan et al. [82].

The current results have clinical implications. It has been suggested that clinicians should expect that most, if not all parents of children with a mental health disorder are likely to be struggling with self-stigma to some extent [20, 73]. The current findings indicate that parents' self-stigma is experienced as self-blame, self-shame, and bad-parent self-beliefs. Therefore, in supporting parents, intervention may be best targeted at helping parents to address such negative self-attributions. In this regard, narrative enhancement and cognitive therapy may hold promise [90, 91]. The aim of such therapy is to support the restructuring of negative self-beliefs through the shaping of a more empowered self-narrative [90–92]. Focussing on self-blame, self-shame, and bad-parent self-beliefs may optimise such therapy for addressing parents' self-stigma.

Summary

In conclusion, self-stigma is a self-view that the parent-self is fundamentally flawed. Factor analytic results of the current study indicated that parent self-stigma is characterised by three separate, but related factors: self-blame, self-shame, and bad-parent self-beliefs. The PSSS reflects parents' lived experiences and accounts for the multidimensional facets underlying parental self-stigma. Thus, the PSSS provides a brief tool to assess parent self-stigma more comprehensively than existing parental self-stigma scales. The PSSS may help to further develop understanding of the genesis and effects of parents' self-stigma, and could also be used to assess outcomes of parent self-stigma interventions. In supporting parents to address their self-stigma, clinicians should consider parents' self-blame, self-shame, and bad-parent self-beliefs.

Acknowledgements We extend our sincerest gratitude to the parents, individuals, organisations, and groups who have contributed to and supported this research.

Funding This research was funded by the Australian Government Research Training Program Scholarship, and The University of Western Australia School of Psychological Science.

Compliance with Ethical Standards

Conflict of interest The authors declare no potential conflicts of interest.

Ethical Approval This research was conducted in accordance with the ethical standards of The University of Western Australia, Human Research Ethics Office.

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