Chilean validation of the frustration discomfort scale: relation between intolerance to frustration and discomfort and emotional intelligence

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Abstract

Background: The Frustration Discomfort Scale (FDS) is a self-report instrument that was developed as a multidimensional measure of intolerance to frustration: discomfort intolerance, entitlement, emotional intolerance, and achievement. This study aimed to validate a Chilean version of this scale. *Method:* The sample comprised 1,187 Chilean respondents (693 women and 494 men) between 18 and 96 years of age (M = 40.05, SD = 19.80). A reverse translation and a multi-sample confirmatory factor analysis were conducted. Afterwards, the relation with other instruments (self-esteem, emotional intelligence, and flourishing) was studied, and the validity and reliability of the scale for each dimension were assessed. *Results:* Relations between FDS and self-esteem, emotional intelligence, and flourishing were found significant. Results showed that the Chilean version had adequate internal consistency (α = .92; ω = .92). The confirmatory factor analysis (CFA) showed that a four-factor structure obtained adequate goodness of fit indexes with acceptable (χ^2 = 960.68; CFI = .94; TLI = .94; RMSEA = .05; SRMSR = .04) and significant factor loadings (greater than .38, $p <$ .001). This factorial solution was invariant across genders. *Conclusion:* The Chilean FDS validation presents adequate psychometric properties and could be used as an instrument to measure frustration intolerance.

Keywords: frustration; discomfort; chilean validation; factorial validity; adult population.

Frustration is an emotion that we experience daily in situations where the expected rewards do not correspond to those obtained. Although it is evident that not all individuals respond in the same way to the same experience, most of us react in a similar way to intense stressors. However, there is immense inter-individual variability for moderate stressors such as frustration (Cuenya et al., 2013). Studies on frustration began in the late 1920s (Tinklepaugh, 1928) and is a focus of interest today, since it is a feeling that we all experience throughout life and that can undermine the performance of coping skills and realistic assessment of tasks (DiGiuseppe, Doyle, Dryden, & Backx, 2015). In psychology, frustration has been studied from two main approaches: the Dollard, Doob, Miller, Mowrer, and Sears (1939) model and the Amsel model (1958, 1992). The first defines it as a stimulus (an interference) between a sequence of responses that are directed towards a goal and has been induced under laboratory conditions through different experimental procedures. The second defines it as the response of the organism (cognitive, physiological, and behavioral) to stimuli that imply a decrease, omission, or interference of reinforcers, and analyzes it through the study of the different individual reactions in situations related to the non-fulfillment of expectations.

In this context, the theoretical background of the formation of the concept of Frustration and Discomfort Intolerance (FDI) is based on Rational Emotive Behavioral Therapy (REBT, Ellis & Blau, 1998), which was the first therapy that explicitly described FDI and incorporated it into a systematic cognitive model (Harrington, 2011). The REBT established that they are not the facts or actions themselves that disturb or generate discomfort, but the judgments/beliefs about them. These beliefs can be expressed in the form of wishes or preferences (rational beliefs) or as an obligation,

46 imperative, or requirement (irrational beliefs). Therefore, intolerance to frustration and
47 discomfort is an irrational belief and can be observed in emotional problems related to
48 self-esteem (Ellis, 2003).

49 Harrington's (2005) Frustration Discomfort Scale (FDS) was based on REBT
50 theory, and it was, to our best knowledge, the first instrument to measure FDI precisely.
51 Some of the previous scales, such as the Belief Scale (Malouff & Schutte, 1986) or the
52 Survey of Personal Beliefs (Demaria et al., 1989) measure FDI as a one-dimensional
53 construct and provide general scores with little utility in predicting self-control
54 problems (Kendall et al., 1995). Other scales, such as the Dysfunctional Attitude Scale
55 (Weissman & Beck, 1978), the Multidimensional Improvement Scale (Frost et al.,
56 1990), and the General Attitude and Belief Scale (DiGiusepee et al., 1988), evaluate
57 FDI together with other beliefs related to self-esteem without clearly differentiating
58 these constructs. Also, the content range is somewhat limited, and the items are very
59 similar. However, the FDS (Harrington, 2005), whose construct validity and
60 psychometric properties have been verified, collects the range of irrational beliefs
61 related to FDI described in the REBT theory.

62 The FDS evaluates four levels: 1) discomfort intolerance (i.e., beliefs associated
63 with intolerance to discomfort, effort, or inconvenience): represents the belief that life
64 should be easy, comfortable, and free from hassles and efforts; 2) entitlement (i.e., a
65 desire for justice; gratification must be satisfied immediately): it refers to frustration
66 with other people, and represents the belief that other people should please us and not
67 frustrate our desires; 3) emotional intolerance (i.e., beliefs about the unbearableness of
68 thoughts and feelings that disturb us emotionally and should therefore be relieved as
69 soon as possible or avoided): it reflects the belief that uncertainty and the thoughts and

feelings associated with the emotional distress it causes should be avoided, and 4) achievement frustration (i.e., perfectionist beliefs that should not be frustrated): perfectionist achievement beliefs related to a task (Harrington, 2005).

The factor analysis supported the hypothesis that the FDI is a multidimensional construct showing high internal consistency. The FDS was designed for a Scottish population and has already been validated in countries such as Serbia (Stanković & Vukosavljević-Gvozden, 2011), whose results support the multidimensional model of intolerance to frustration, as well as Turkey (Ozer et al., 2012) and Argentina (Medrano et al., 2018). In Italy (Tripaldi et al., 2018), the multifactorial structure was confirmed, although with a different number of factors compared with the original scale.

Furthermore, the Italian validation examined the factorial structure of one factor, three factors, and four factors of the original FDS. Emotional intolerance was ruled out as a factor. These results are likely to be related to a limited range of scores. The authors concluded that this fact considerably influenced the factor structure of the scale (Tripaldi et al., 2018). On the other hand, the French validation data suggested a one-dimensional structure (Chamayou et al., 2016). For the Turkish version of the FDS, the authors removed four problematic items due to low correlation. The poor loadings of these items might reflect the particular characteristics of the Turkish sample population (Ozer et al., 2012). Additionally, the Argentinian validation of FDS (Medrano et al., 2018) provided the most extensive set of fit with a four-factor CFA first order and one-factor CFA second order.

However, it is challenging to establish further differences between the validations of the scale since the FDI has not been related to the same variables, except for self-esteem. For example, the Italian validation measured depression (Tripaldi et al.,

2018), the Serbian validation measured depression, anger, and anxiety (Stanković & Vukosavljević-Gvozden, 2011), the French validation measured emotional regulation and perceived stress (Chamayou et al., 2016), and the Turkish, procrastination (Ozer et al., 2012). On the other hand, the relationship between FDI and unhealthy emotions and assertive behavior (Filippello et al., 2014) and emotional problems (Jibeen, 2013) has been studied, along with addiction to the internet (Kewalramani & Pandey, 2020), tendency to drug abuse (Adroom et al., 2016) or emotional regulation, and stress (Chamayou et al., 2016). Intolerance to the inevitable annoyances associated with goal-seeking or adjustments to goals implies a decline in life satisfaction; that is, discomfort beliefs impair life satisfaction because they reduce commitment to long-term goals, which require more effort (DiGiuseppe, 1991). Frustration generates negative emotions in such a way that its expression, magnitude, and duration may be related to the processes of emotion regulation (Gross, 2002). Therefore, a significant relationship could be found between the FDS scale and emotional skills (i.e., emotional intelligence). With another frustration scale, this relation has been shown (Kumari & Gupta, 2015). However, the majority of the previous FDS validations did not study the relationships with personal resources (such as emotional intelligence) and positive life events (such as flourishing) that have been shown to be protectors of discomfort and facilitators of well-being and happiness (Cordeiro et al., 2016; Tejada-Gallardo et al., 2020).

To the best of our knowledge, there are no studies on the FDI in Chile, nor are there studies that have used other scales to measure constructs similar to the FDI. Only a few studies that use the Basic Psychological Needs Satisfaction Frustration Scale (BPNSFS; Chen et al., 2015) have been conducted in Chile. This instrument measures

psychological needs (autonomy, competence, and relatedness) defined by the self-determination theory and understands frustration as the opposite of satisfaction when experiencing negative feelings for not meeting those needs. Validation of the instrument was carried out with Chilean university students (Del Valle et al., 2018). Also studied, with the BPNSFS, was the relationship between the satisfaction of needs and materialism, attitudes, and well-being in Chilean workers (Unanue et al., 2017).

Given that there are no instruments to specifically study FDI, it is crucial to have a validated scale to evaluate it. The purpose of the present study was to validate the FDS using a Chilean adult population and to examine relationships between these construct and emotional variables that could eventually have a protector role against frustration and discomfort.

Method

Participants

From our analysis, we determined that to achieve power = .95 to detect a medium effect size (Faul et al., 2007), we would need a sample of 220 participants. Even so, the sample of participants for this non-probabilistic study was composed of 1,187 Chilean university students (whose personal information was removed for blind review), their relatives and acquaintances, and they were surveyed applying snowball sampling. They came from different regions of Chile, although the regions were not homogeneously represented. Eighty-nine percent of the sample was from the Bío Bío region, which is one of the most densely populated in the country. The socioeconomic status was self-reported and was based on the last family income statement declared in the national CASEN survey (Ministerio de Desarrollo Social y Familia, 2017). It

141 defines the following socioeconomic status: low (family income from 626,021 to
142 1,252,041 Chilean pesos for a household of four people), medium (from 1,252,041 to
143 1,878,062 Chilean pesos), and high (from 1,252,041 to 2,504,083 Chilean pesos). Also,
144 marital status, age, and educational demographics were diverse. The age range was 18
145 to 96 years. Participants sociodemographic data are listed in Table 1.

146 **Table 1.** Sociodemographic characteristics

		n	%
Marital status	Single	655	55.2
	Married	396	33.4
	Divorced	53	4.5
	Widowed	83	7.0
Academic level	Non-completed primary	95	8.0
	Primary	161	13.5
	Secondary	711	60.0
	University	220	18.5
Economic status	Low	210	17.7
	Medium	928	78.2
	High	49	4.1

147
148

149 **Instruments**

150 Sociodemographic data. A brief questionnaire collected information on age, sex,
151 marital status, educational level, and economic status.

152 The Frustration Discomfort Scale (FDS; Harrington, 2005) consists of 28 items
153 with four subscales of seven items each: discomfort intolerance, entitlement, emotional
154 intolerance, and achievement. The items are written in terms of intolerance to
155 frustration ("I cannot stand/tolerate/endure"). Respondents estimate the strength with
156 which they feel distressed or frustrated in a particular situation using a 5-point Likert

scale (1 = *absent*, 5 = *very strong*) (Appendix 1). Higher scores indicate a greater intolerance to frustration. The lowest and highest scores were 28 and 140. The instrument had acceptable subscale reliabilities (as is shown below), with Cronbach's alpha coefficient of .88 to .92 for the subscales. In addition, its factorial or construct validity was corroborated in other validation studies and scale adaptation to other languages (Chamayou et al., 2016; Medrano et al., 2018; Tripaldi et al., 2018).

The Rosenberg Self-Esteem Scale consists of 10 items using a 4-point Likert scale (1 = *strongly agree*, 4 = *strongly disagree*), with no subscales. Total scores ranged from 10 to 40, where the higher the score, the higher the level of self-esteem. The original scale showed good internal reliability ($\alpha = 0.87$) (Rosenberg, 1989). The Chilean version of the scale has good internal reliability (Mestre & Guil, 2003). For this study, the Cronbach alpha scale is good ($\alpha = .81$).

The Trait Meta-Mood Scale (TMMS-24; Fernandez-Berrocal, Extremera, & Ramos, 2004; validated in Chile by Espinoza et al., 2015), developed by Salovey et al. (1995), measures emotional intelligence. It consists of 24 items and evaluates three dimensions (eight items per factor): attention to feelings, emotional clarity, and emotional repair. These are scored on a 5-point frequency response scale (1 = *never*, 5 = *very often*). The instrument assesses how people reflect on their moods. Scores for each dimension ranged from 10 to 40. The original version obtained alphas ranged from .86 to .90 (Fernandez-Berrocal et al., 2004). The Chilean version has shown acceptable internal consistency and satisfactory test-retest reliability (Espinoza et al., 2015). For this study, the Cronbach alpha scale range from .89 to .87.

The Flourishing Scale (FS; Diener et al., 2009; adapted to Spanish by Ramírez-Maestre et al., 2017) was created to measure the degree of perceived psychological

well-being. It consists of eight items on a 5-point Likert scale (1 = *totally disagree*, 5 = *totally agree*) with no subscales. Scores can range from 8 (strong disagreement with all items) to 56 (strong agreement with all items). The Cronbach alpha of the original scale is good (α = .87). The Spanish version showed adequate internal consistency (α = 0.89) (Ramírez-Maestre et al., 2017). For this study, the Cronbach alpha scale is good (α = .86).

Procedure

The authors used Google Forms for data collection through a shared link, either sent by the researcher himself to university students or by the students to their acquaintances and/or relatives. Thus, a snowball sampling technique was implemented for data collection. These questionnaires were answered in the presence of the researcher if they were students. The questionnaires included a description of the objectives of the study. It was predicted that the questionnaire survey would take approximately 40 minutes to be completed. Data were collected anonymously. Only participants who signed informed consent were included in the study. They were no incentives given for participation.

The adaptation of the FDS to the Chilean population was carried out following the guidelines of the International Test Commission (Bartram & Muniz, 2016). The FDS was translated by a bilingual expert in REBT and by an English translator. The differences were then discussed by a panel of three psychologists who are experts in Chilean REBT. They verified the adequacy of the final translation and its appropriateness to the Chilean culture. Finally, a pilot test of the scale was conducted amongst a sample of 50 university students who were asked to answer the questions and comment on their understanding of the items. They confirmed that questions were clear

and easy to understand, so no modifications were required. Appendix 1 lists the items (in Spanish). The survey was then carried out and the results were analyzed.

Data analysis

The statistical package SPSS Version 25.0 was used to calculate descriptive statistics. Regression and correlation analyses were performed to test for convergent and divergent validity. Internal consistency was calculated using Cronbach's α coefficient (Taber, 2018), and the omega coefficient (Green & Yang, 2015) was used to observe factor reliability. To test the factor structure of the scale, a confirmatory factor analysis (CFA) was performed with AMOS 22. Maximum likelihood estimation was used for analysis. To test model fit, a chi-squared test, degrees of freedom (df), the comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMSR) were used following the criteria for the good fit: CFI > .90, TLI > .90 RMSEA < .08, and SRMSR < .05 (Marsh et al., 2020). To examine the factorial invariance across gender groups, a multiple-group confirmatory factor analysis (MG-CFA) was conducted through configural, metric, and scalar factorial invariance (Ariely & Davidov, 2012). This step invariance process compares each model to the previous one. For this, the RMSEA and CFI are used, and variations in the fit of the models are compared and are quantified through ΔCFI and ΔRMSEA. Given a well-fitting configural model, differences in CFI greater than .01 and differences in RMSEA and SRMR greater than .015 are suggested to be an indication of substantial differences between models (Chen, 2007).

Results

Reliabilities and Associations Between FDS and Related Variables

Cronbach's alpha value for the subscales showed satisfactory internal consistency: discomfort intolerance (α = .76), entitlement (α = .80), emotional intolerance (α = .80), and achievement (α = .75). The correlations between FDS total scores and subscale scores were positive. Construct validity was tested using Pearson product-moment correlations. Pearson correlation values between each item and the total score were significant with a rank between .35 and .66. All correlation indexes were significant (2-tailed) ($p < .01$).

The relationship between dimensions and total FDS with self-esteem, emotional intelligence dimensions, and flourishing scores were examined using Pearson's correlation coefficient. As Table 2 indicates, the present results revealed a negative correlation (r = -.133) between FDS and self-esteem, which was weaker but in the expected direction. The correlations between the FDS score and the score in the attention to feelings dimension were positive (r =.165). Negatively significant correlations were also found between the discomfort intolerance and emotional intolerance with flourishing (r = -.101; r = -.113). To further explore the convergent and divergent validity, multiple regression analyses were performed using FDS total and subscales as predictor variables, and the self-esteem, attention to feelings, emotional clarity, emotional repair, and flourishing as outcome. Results highlight total FDS predictor power over self-esteem (β = -.133) and attention to feelings (β = .165). Also, discomfort intolerance (β = -.101) and emotional intolerance (β = -.113) showed a significant negative predictor effect over flourishing. Lastly, emotional intolerance showed a significant negative predictor effect over emotional clarity (β = -.095) and emotional repair (β = -.080).

Table 2. Internal consistencies, correlations and regression between the dimensions of the FDS and other variables

		Self-esteem	Attention to feelings	Emotional clarity	Emotional repair	Flourishing	Mean (SD)
Discomfort intolerance	*R*	-.129***	.132***	-.047	-.042	-.101***	20.34
	R^2	.017	.017	.002	.002	.010	(5.08)
	B	-.053	.160	-.054	-.048	-.087	
	SE	.012	.036	.034	.034	.025	
	β	-.129	.132	-.047	-.042	-.101	
	p	.001	.001	.114	.156	.001	
Entitlement	*R*	-.097***	.119***	-.019	-.027	.007	21.95
	R^2	.009	.014	.000	.001	.000	(5.64)
	B	-.036	.130	-.019	-.028	.006	
	SE	.011	.032	.031	.030	.023	
	β	-.097	.119	-.019	-.027	.007	
	p	.001	.001	.530	.365	.802	
Emotional intolerance	*R*	-.128***	.184***	-.095**	-.080**	-.113***	21.56
	R^2	.016	.034	.009	.006	.013	(5.60)
	B	-.048	.203	-.100	-.084	-.087	
	SE	.011	.032	.031	.031	.023	
	β	-.128	.184	-.095	-.080	-.113	
	p	.001	.001	.001	.006	.001	
Achievement	*R*	-.105***	.121***	.032	.074*	.056	23.18
	R^2	.011	.015	.001	.006	.003	(5.23)
	B	-.042	.143	.036	.083	.047	
	SE	.012	.035	.033	.033	.024	
	β	-.105	.121	.032	.074	.056	
	p	.001	.001	.273	.012	.055	
FDS full scale	*R*	-.133***	.165***	-.043	-.024	-.048	86.93
	R^2	.018	.027	.002	.001	.002	(18.74)
	B	-.059	.218	-.053	-.030	-.045	
	SE	.013	.039	.038	.037	.028	
	β	-.133	.165	-.043	-.024	-.048	
	p	.001	.001	.157	.423	.108	
Mean (SD)		22.95 (2.98)	25.35 (7.06)	26.04 (6.72)	26.76 (6.71)	32.31 (5.01)	

Notes: * p < .05, ** p < .01, *** p < .001, SD: standard deviation; B: beta non standardized; SE: standard error β: beta standardized; R: Pearson correlation; R^2: Square regression index.

Gender Differences

Results shows that women scored slightly higher than men in three subscales (discomfort intolerance, entitlement, and emotional intolerance) and in the total FDS score, but the differences were only significant in the emotional intolerance dimension

(t = –2.43, p = .015), with a small effect size (d = .14). The women's average scores were more significant than the men's.

Table 3. Comparative coefficients for male and female sample

	Group	N	Mean	Median	SD	SE	*t*	*d*
Discomfort intolerance	Male	484	20.15	20	5.10	0.23	-1.05	0.05
	Female	685	20.47	21	5.07	0.19		
Entitlement	Male	485	21.75	22	5.61	0.25	-1.01	0.05
	Female	688	22.09	22	5.67	0.21		
Emotional intolerance	Male	488	21.08	21	5.46	0.24	-2.43*	0.14
	Female	684	21.89	22	5.67	0.21		
Achievement	Male	484	23.22	23	5.17	0.23	0.24	0.01
	Female	680	23.14	23	5.28	0.20		
Full scale	Male	468	86.06	86	18.49	0.85	-1.31	0.08
	Female	665	87.54	87	18.91	0.73		

Confirmatory Factor Analysis (CFA)

According to previous studies, a series of CFA models were compared. The results showed that Model 1 (one-factor model with "items" residual uncorrelated) did not fit the data well (see Table 4). In the same way, unidimensional Model 2 (one factor with "items" residual correlated) exhibited a questionable fit. Similarly, Model 3 (four-factor uncorrelated with "items" residual uncorrelated) and Model 4 (four-factor correlated with "items" residual correlated) demonstrated an inappropriate fit. In contrast, Model 5 (four-factor correlated with "items" residual correlated) structure showed a good model fit.

Table 4. Goodness-of-fit statistics

Model	X^2 (df)	CFI	TLI	RMSEA	SRMR	Standardized factor loading (range)
Model 1	3052.98 (350)	.779	.761	.081	.06	.28 - .79
Model 2	2546.74 (336)	.819	.796	.074	.04	.27 - .78
Model 3	5593.95 (350)	.571	.537	.112	.04	.13 - .70
Model 4	2747.54 (344)	.803	.784	.077	.06	.22 - .68
Model 5	960.68 (217)	.940	.940	.058	.04	.38 - .83

Note: Model 1: One factor, "items" residual uncorrelated; Model 2: One factor, "items" residual correlated; Model 3: Four factors uncorrelated and "items" residual uncorrelated; Model 4: Four factors correlated and "items" residual uncorrelated; Model 5: Four factors correlated and "items" residual correlated.

As shown in Figure 1, the target factor loadings for the items ranged from .38 to .83, and all were statistically significant. The omega coefficient reliability indicated high factorial reliability for the full scale (ω = .92) and adequate internal consistency (α = .92). The results are in keeping with those found in the original study and other validation studies of the FDS.

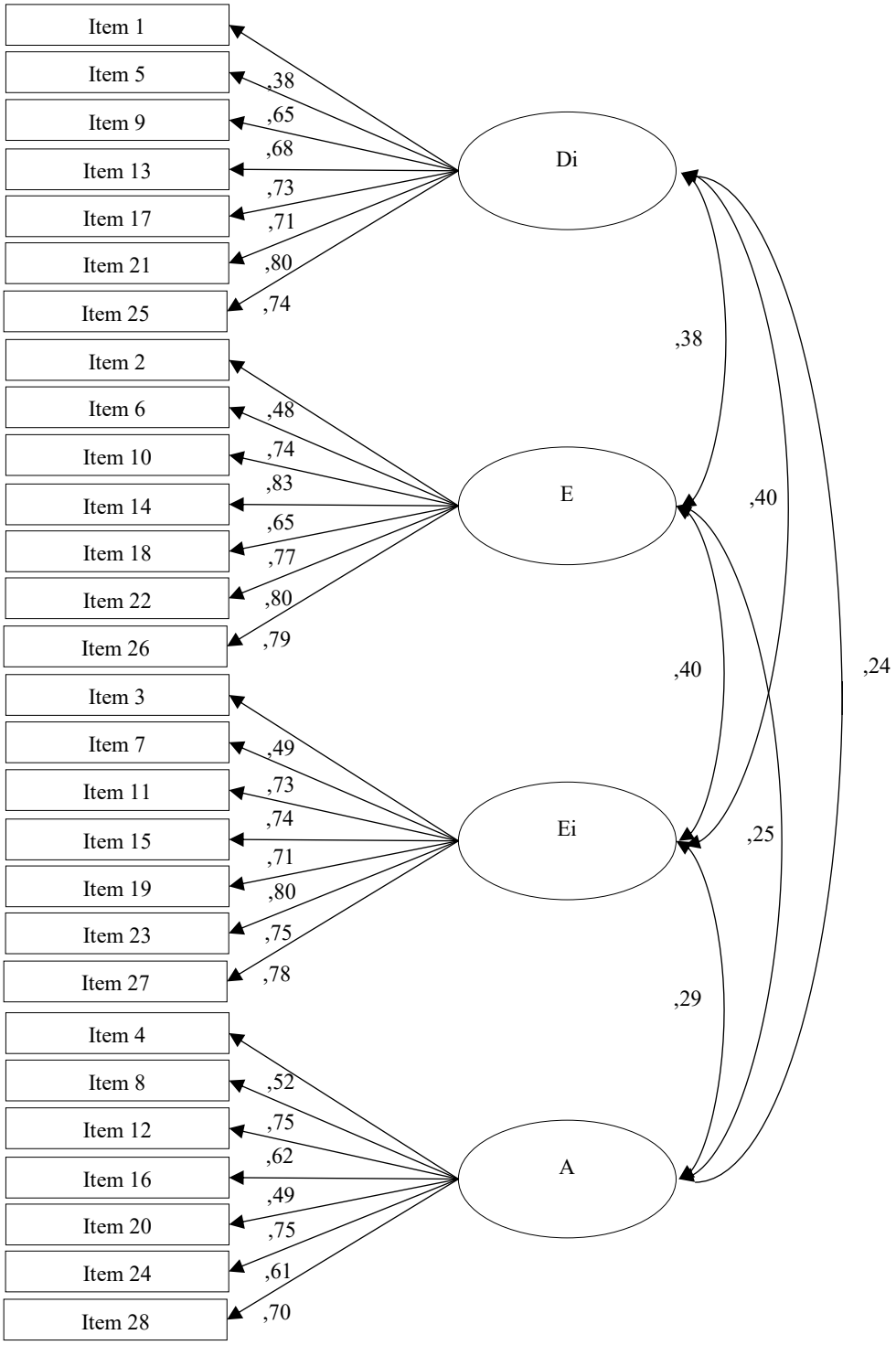

Figure 1. Standardized factor loadings estimated of CFA model for FDS scale validation

Note: All significant < .001. Di = Discomfort intolerance; E = Entitlement; Ei = Emotional intolerance; A = Achievement. Items 1-28 can be seen in Annex 1.

Multi-group Confirmatory Factor Analysis (MG-CFA)

The MG-CFA Model 1 examined configural invariance by four-factor structure across gender groups (Table 5). The results showed that Model 1 configural invariance fitted very well, and all factor loadings were significant ($p < .05$). Next, a metric invariance model was tested by factor loadings constrained to be equal across groups. The results showed a good Model 2 fit, and no significant changes were found when compared to a configural invariance model. This indicated that factor loadings were invariant across gender groups. Finally, intercepts and factor loadings were constrained to be equal across gender groups to examine the scalar invariance. The results of the scalar model invariance also showed a good fit of Model 3. When Model 2 was compared, no significant changes occurred. Therefore, intercepts and factor loadings were invariant across gender groups. The results of the invariance test revealed that gender differences in the model were not significant. Consequently, the model was consistent across the sexes.

Table 5. Results of the tests of measurement and structural invariance for the multi-group model of FDS across gender

Model	X^2	df	CFI	RMSEA	Comparison	ΔCFI	ΔRMSEA
Males vs Females							
Model 1. Configural	1338.10	434	.927	.042	-	-	-
Model 2. Metric	1357.45	458	.928	.041	2 vs 1	.001	.001
Model 3. Scalar	1425.30	486	.924	.040	3 vs 2	.004	.002

Discussion

This is the first study to examine the validity and reliability of the FDS amongst Chilean adults. The Chilean FDS has similar psychometric properties to the original (Harrington, 2005), is theoretically consistent with the original, and reaches comparable psychometric standards. The results presented suggest that the scale can be applied to the Chilean population. The total FDS score and the subscale scores showed adequate internal consistency, which is consistent with other versions (Chamayou et al., 2016; Filippello et al., 2014; Medrano et al., 2018; Ozer et al., 2012; Stanković & Vukosavljević-Gvozden, 2011; Tripaldi et al., 2018); it also showed that the four-factor structure kept the original distribution (Harrington, 2005), and measurement invariance across gender groups was confirmed.

The correlation results revealed associations between total FDI and other variables. Negative correlations were obtained between FDS scores and self-esteem, in line with the British, Turkish, Argentinian, and Serbian validations (Harrington, 2005; Medrano et al., 2018; Ozer et al., 2012; Stanković & Vukosavljević-Gvozden, 2011). This may be because people who get frustrated easily often have evasive personalities with low levels of personal worth (Harrington, 2005). Regarding the relation FDI-EI, we found a positive association between attention to feelings (*TMMS-24*; Fernandez-Berrocal et al., 2004) and FDI. Consequently, the role of EI as a protector of discomfort could not be observed in our population. This conclusion is in line with the study of Chamayou et al. (2016), where in their validation, the FDI was modeled as a unitary concept. They suggested that the feeling of frustration would be an independent concept of the adapted management of emotions (emotional regulation). On the other hand, we did find a negative correlation between two dimensions of FDS (emotional intolerance

and discomfort intolerance) and flourishing. There are examples in the literature of this relation. For instance, it was observed that need satisfaction and need frustration would have different effects, the first over the well-being and the latter over the ill-being (Cordeiro et al., 2016).

Concerning the gender score, the present study has found significant sex differences in emotional intolerance scores of the FDS. Females showed high intolerance in the emotional aspect similar to the findings of the Argentinian and the Turkish validation (Medrano et al., 2018; Ozer et al., 2012). This result may be explained by the fact that females in certain cultures could be more sensitive to emotional information processing (Craig et al., 2009).

The CFA revealed that the Chilean FDS shares the four-factor structure with the original version, which demonstrates its psychometric strength and indicates that the factors represent an underlying multidimensional FDI construct. Finally, the factors corresponding to the dimensions of the FDS were moderately interrelated, supporting the assumption that they are correlated, measuring different aspects of the same construct. The evaluation of the translation indicated that the Spanish language version of the FDS is equivalent to the original. Our four-factor structure results are also consistent with the Turkish version of the FDS (Ozer et al., 2012) as well as with the Argentinian (Medrano et al., 2018). The Serbian and Italian validations of FDS (Stanković & Vukosavljević-Gvozden, 2011; Tripaldi et al., 2018) also present the multifactorial structure. Only the validation results from France showed a one-dimensional structure (Chamayou et al., 2016).

The analysis of the multi-group invariance CFA model revealed that there were no differences in most respects; no significant differences were found between male and

361 female, as occurred in the original scale, Argentinian and Italian validation (Harrington,
362 2005; Medrano et al., 2018; Tripaldi et al., 2018). This suggests that the FDS can be
363 reliably applied to Chilean female and male adults.

364 The present study has several limitations. Firstly, the findings should be
365 confirmed since a method of sampling for convenience (snowball sampling) was used.
366 Therefore, representativeness can be questioned, and results are sensitive to sampling
367 bias. Secondly, we used a sample that was not geographically homogenous. It would be
368 interesting to use a random sampling method for generalizing our outcomes. However,
369 since Chile is a country that is culturally homogenous except for small areas with a
370 greater percentage of the indigenous population, we believe that the results could be
371 extended to the whole country.

372 Despite these limitations, the present study has important practical implications.
373 The Chilean validation of the FDS offers additional support for the strength of the FDI
374 construct among language groups (in this case, Spanish), and allows researchers to
375 further study frustration in this specific population. The use of this easily administrable
376 scale, together with other reliable and valid scales, will allow checking the predictive
377 power of the FDI and its relationship with other variables. Moreover, the Chilean
378 version of the FDS that we have obtained also contributes to carrying out cross-cultural
379 studies in which theoretical models and training programs can be validated to improve
380 tolerance to frustration in different cultures, especially in Spanish-speaking countries.
381 On the other hand, Chilean professionals in the clinical and educational field can also
382 count on a reliable and valid evaluation instrument that helps to make accurate
383 diagnoses, as well as verify the effectiveness of their therapies and training in both adult
384 women and men. For the first time, as far as we know, a relationship has been found

between FDI and the dimension “attention to feelings” of the EI. Furthermore, a negative correlation was observed for flourishing and FDI, indicating that it would be a protector of discomfort and facilitator of well-being. In conclusion, the present study provides promising evidence that the FDS is a reliable and valid instrument for evaluating FDI within the Chilean population.

Data

The data that support the findings of this study are available from the corresponding author on reasonable request.

Conflict of Interest

On behalf of all authors, the corresponding author states that there is no conflict of interest.

Compliance with Ethical Standards

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent

Informed consent was obtained from all individual participants included in the study.

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Apendice 1

Frustration Discomfort Scale Chilean version

A continuación, se enumeran una serie de pensamientos recurrentes o habituales que pueden tener las personas cuando se sienten angustiadas o frustradas. Por favor, lea cada enunciado y decida qué tan bien describe realmente sus propios pensamientos en esas situaciones. Marque el número que mejor describa su situación [Listed below are a number of common thoughts and beliefs that people may have when they are distressed or frustrated. Please read each statement and decide how well this usually describes your own beliefs. Circle the number that best indicates the strength of this belief].

Escala de calificación: nunca = 1 un poco = 2 regular = 3 bastante = 4 mucho = 5 [Rating scale: absent = 1 mild = 2 moderate = 3 strong = 4 very strong = 5]

1. Necesito solucionar los problemas rápidamente; no soporto pasar un mal rato [I need the easiest way around a problem; I can't stand making a hard time of it]
2. No soporto esperar para conseguir lo que quiero [I can't stand having to wait for things I would like now]
3. Necesito deshacerme rápidamente de sentimientos molestos; no soporto tenerlos [I absolutely must be free of disturbing feelings as quickly as possible; I can't bear if they continue]
4. No soporto que se me impida lograr todo mi potencial [I can't stand being prevented from achieving my full potential]
5. No soporto enfrentarme a tareas demasiado difíciles [I can't stand doing tasks that seem too difficult]
6. No soporto cuando las personas actúan en contra de mis deseos [I can't stand it if people act against my wishes]
7. No soporto sentir que estoy perdiendo el juicio [I can't bear to feel that I am losing my mind]
8. No soporto el sentimiento de frustración cuando no logro mis objetivos [I can't bear the frustration of not achieving my goals]
9. No soporto hacer tareas cuando no me apetece [I can't stand doing tasks when I'm not in the mood]
10. No soporto que otras personas se interpongan en mi camino [I can't bear it if other people stand in the way of what I want]
11. No soporto ciertos pensamientos que tengo [I can't bear to have certain thoughts]
12. No soporto renunciar a mis principios, incluso cuando sería lo más fácil [I can't tolerate lowering my standards even when it would be useful to do so]
13. No soporto tener que esforzarme siempre para hacer ciertas tareas [I can't stand having to push myself at tasks]
14. No soporto que no se me valore [I can't tolerate being taken for granted]
15. No soporto ponerme en situaciones donde pudiera sentirme incómodo [I can't stand situations where I might feel upset]
16. No soporto cuando en el trabajo tengo que dejar las cosas mal hechas [I can't bear to move on from work I'm not fully satisfied with]
17. No soporto cuando tengo que hacer las cosas inmediatamente [I can't stand the hassle of having to do things right now]
18. No soporto tener que ceder a las exigencias de otros [I can't stand having to give into other people's demands]
19. No soporto tener sentimientos desagradables [I can't bear disturbing feelings]
20. No soporto hacer un trabajo si no soy capaz de hacerlo bien [I can't stand doing a job if I'm unable to do it well]
21. No soporto hacer cosas que conllevan muchas molestias [I can't stand doing things that involve a lot of hassle]
22. No soporto tener que rectificar cuando son otros los que tienen la culpa [I can't stand having to change when others are at fault]
23. No puedo sentirme bien con mi vida, o ser feliz, si las cosas no cambian [I can't get on with my life, or be happy, if things don't change]
24. No soporto la idea de no estar al día con mi trabajo [I can't bear to feel that I'm not on top of my work]
25. No soporto no poder abandonar tareas desagradables [I can't stand having to persist at unpleasant tasks]
26. No tolero las críticas, especialmente cuando sé que tengo razón [I can't tolerate criticism especially when I know I'm right]
27. No soporto no poder controlar mis sentimientos [I can't stand to lose control of my feelings]
28. No tolero tener ningún tipo de flaqueza en mi autodisciplina [I can't tolerate any lapse in my self-discipline]

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