

The Interpersonal Needs Questionnaire for Spanish Speakers

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Significance

- Suicide rates among US Hispanics have risen drastically in the last decade
- Identifying theory-based suicide risk factors can inform the develop of effective suicide screening and prevention interventions for this population
- Spanish-language measures of relevant risk factors remain lacking
 - Concerning for NY where Spanish is the top non-English language spoken (~14% of population)

Objective

- The current study sought to translate the Interpersonal Needs Questionnaire (INQ) into Spanish (INQ-S) and evaluate its psychometric properties

Method

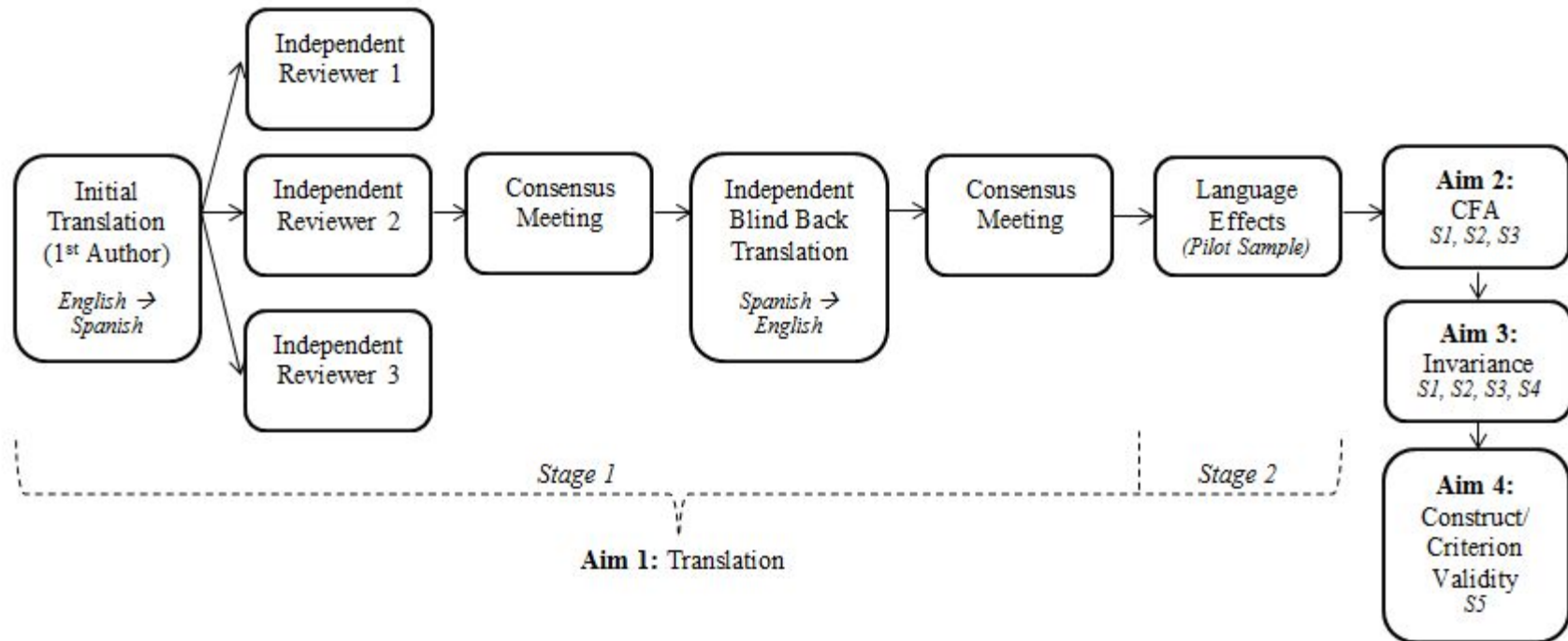


Figure 1. Flow chart of translation and validation procedures. Pilot Sample = USA bilingual college students; S1 = Sample 1 (USA college students); S2 = Sample 2 (Spain college students); S3 = Sample 3 (Mexico psychiatric inpatients); S4 = Sample 4 (Mexico college students); S5 = Sample 5 (USA Spanish-speaking adults).

INQ-S

Interpersonal Needs Questionnaire – Spanish

Las siguientes preguntas le piden que usted piense en sí mismo/a y en otras personas. Por favor responda a cada pregunta según sus propias creencias y experiencias actuales, NO según lo que usted crea que es verdad en general, o pueda ser verdadero para otras personas. Por favor base sus respuestas en cómo se ha sentido recientemente. Use la escala de calificación para encontrar el número que mejor corresponda a cómo se siente usted y circule ese número. No hay respuestas correctas o incorrectas: nosotros estamos interesados en lo que *usted* piensa y siente.

		Nada verdadero para mí	2	3	En parte verdadero para mí	4	5	6	Muy verdadero para mí	7
1.	Estos días, la gente en mi vida estaría mejor si yo no estuviera aquí	1	2	3	4	5	6	7		
2.	Estos días, la gente en mi vida sería más feliz sin mí	1	2	3	4	5	6	7		
3.	Estos días, pienso que soy una carga para la sociedad	1	2	3	4	5	6	7		
4.	Estos días, pienso que mi muerte sería un alivio para la gente en mi vida	1	2	3	4	5	6	7		
5.	Estos días, pienso que la gente en mi vida desearía poder deshacerse de mí	1	2	3	4	5	6	7		
6.	Estos días, pienso que yo empeoro las cosas para la gente en mi vida	1	2	3	4	5	6	7		
7.	Estos días, otras personas se preocupan por mí	1	2	3	4	5	6	7		
8.	Estos días, siento que pertenezco	1	2	3	4	5	6	7		
9.	Estos días, raramente interactúo con gente que se preocupa por mí	1	2	3	4	5	6	7		
10.	Estos días, soy afortunado/a en tener muchos amigos que se preocupan por mí y me apoyan	1	2	3	4	5	6	7		
11.	Estos días, me siento desconectado/a de otras personas	1	2	3	4	5	6	7		
12.	Estos días, a menudo me siento como un extraño/a en las reuniones sociales	1	2	3	4	5	6	7		
13.	Estos días, siento que hay gente a la que yo puedo acudir en tiempos de necesidad	1	2	3	4	5	6	7		
14.	Estos días, me siento cerca a otra gente	1	2	3	4	5	6	7		
15.	Estos días, tengo por lo menos una interacción satisfactoria cada día	1	2	3	4	5	6	7		

Nota: Los ítems 7, 8, 10, 13, 14, y 15 se codifican de forma inversa.

Method

- Participants

	Sample	<i>N</i>	Gender	<i>M</i> Age
Pilot	US Bilingual College Students	56	82% female	22.57
Sample 1	US College Spanish-Speakers	281	78% female	22.20
Sample 2	Spain College Students	1,016	75% female	33.02
Sample 3	Mexico Inpatients	181	91% male	27.06
Sample 4	Mexico College Students	239	73% female	21.64
Sample 5	US Spanish-speaking Adults	104	61% male	34.63
Sample 6	Upstate NY Outpatients	15	71% female	49.75

Results: AIM 1

- Correlations
 - Corresponding correlations for items completed in Spanish at both time points were all large and significant
 - The correlations between corresponding burdensomeness and thwarted belongingness total scores were all large and significant regardless of language across time points
- Reliability
 - Good to excellent and similar in both languages for perceived burdensomeness (PB) and thwarted belongingness (TB) at baseline (English PB $\alpha = .95$, TB $\alpha = .88$; Spanish PB $\alpha = .96$, TB $\alpha = .78$)

Results: AIM 1

- 1-Week Test-Retest Reliability
 - In Spanish, the ICC was excellent for perceived burdensomeness (ICC = .98, 95% CI = .92-.99, $p < .001$) and good for thwarted belongingness (ICC = .89, 95% CI = .67-.96, $p < .001$)
- Language Effect
 - No significant effect for language, order of administration, or their interaction for perceived burdensomeness or thwarted belongingness

Results: AIM 2 (CFA)

Table 1

Fit Statistics for Confirmatory Factor Analysis Two-Factor Models for Sample 1, 2, and 3

INQ-S-15	χ^2	<i>df</i>	<i>p</i>	CFI	TLI	RMSEA [90% CI]	SRMR
Sample 1 (USA; <i>N</i> = 281)	228.44	89	.00	.86	.83	.08 [.06, .09]	.07
Sample 2 (Spain; <i>N</i> = 1,016)	669.17	89	.00	.85	.82	.08 [.07, .09]	.09
Sample 3 (Mexico; <i>N</i> = 181)	229.34	89	.00	.78	.74	.09 [.08, .11]	.11
INQ-S-9							
Sample 1 (USA; <i>N</i> = 281)	32.26	26	.18	.99	.98	.03 [.00, .06]	.05
Sample 2 (Spain; <i>N</i> = 1,016)	71.74	26	.00	.97	.96	.04 [.03, .05]	.04
Sample 3 (Mexico; <i>N</i> = 181)	32.86	26	.17	.98	.97	.04 [.00, .07]	.05

Note. CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root-mean square error of approximation; CI = confidence interval; SRMR = standardized root-mean-square residual. INQ-S-9 removes perceived burdensomeness subscale item 1 and thwarted belongingness subscale items 1, 2, 3, 5, and 6.

Results: AIM 3 (Invariance)

Table 3

Tests of Measurement Invariance for INQ-S-9 for Sample 1, 2, and 3 compared to Sample 4 (Mexico)

Group/variable		χ^2	<i>Df</i>	MLR Scaling	YB χ^2_{diff}	Δdf	CFI	ΔCFI	TLI	RMSEA [90% CI]	SRMR
Sample 1 (USA)											
Equal	Form	61.93	52	1.66			.99		.99	.03 [.00, .05]	.04
	Factor Loadings	75.66	59	1.90	11.10	7	.98	.007	.98	.03 [.00, .05]	.06
	Indicator Intercepts	81.81	66	1.81	4.20	7	.98	-.001	.98	.03 [.00, .05]	.06
Sample 2 (Spain)											
Equal	Form	146.53**	52	1.62			.91		.87	.09 [.07, .10]	.05
	Factor Loadings	135.13**	59	1.95	6.10	7	.93	-.017	.91	.07 [.06, .09]	.06
	Indicator Intercepts	145.96**	66	1.87	7.67	7	.92	.003	.92	.07 [.06, .09]	.06
Sample 3 (Mexico)											
Equal	Form	62.18	52	1.48			.99		.98	.03 [.00, .06]	.04
	Factor Loadings	75.99	59	1.50	13.38	7	.98	.008	.98	.04 [.00, .06]	.06
	Indicator Intercepts	98.02*	66	1.45	26.94**	7	.96	.017	.96	.05 [.03, .07]	.06

Note. MLR = robust maximum likelihood; YB χ^2_{diff} = Yuan-Bentler scaled χ^2 difference; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root-mean-square error of approximation; CI = confidence interval; SRMR = standardized root-mean-square residual. YB χ^2_{diff} reflects the nested difference tests between the previous and more restrictive solution (i.e., equal forms vs equal factor loadings; equal factor loadings vs. equal indicator intercepts).

* $p < .05$; ** $p < .001$.

Results: AIM 4 (Construct Validity)

- Internal Consistency

- Perceived burdensomeness ω [95% CI] = .95 [.91, .98]
- Thwarted belongingness ω [95% CI] = .88 [.84, .92]

- Test-retest Reliability

- Excellent for perceived burdensomeness (ICC = .97, 95% CI = .95-.99, $p < .001$)
- Acceptable for thwarted belongingness (ICC = .75, 95% CI = .58-.85, $p < .001$)

Results: AIM 4 (Convergent/Divergent Validity)

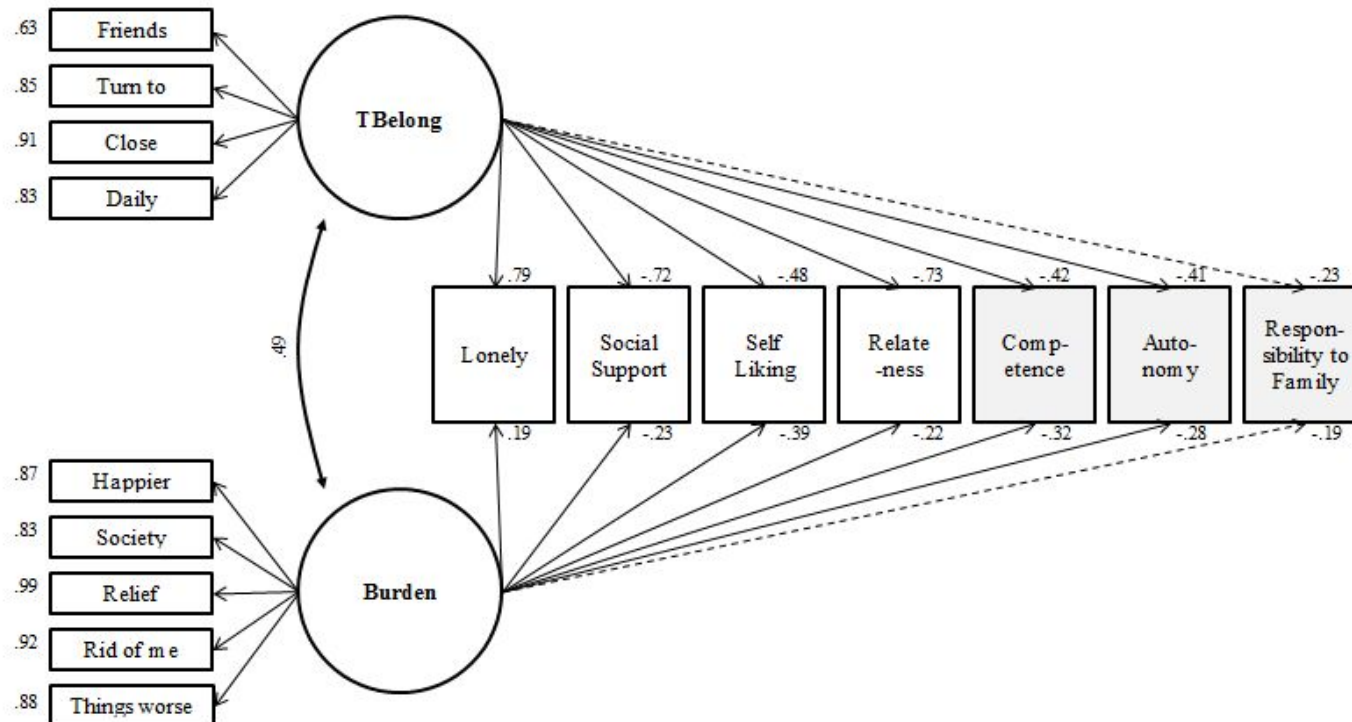


Figure 2. Structural equation model results examining construct validity in Spanish-speaking U.S. adults (sample 5). Lonely = Revised UCLA Loneliness Scale; Social Support = Multidimensional Scale of Perceived Social Support; Self-Liking = Rosenberg Self-Esteem Scale; Relatedness, Competence, Autonomy = same-named satisfaction subscales of the Basic Psychological Needs Satisfaction and Frustration Scale; Responsibility to Family = subscale of the Reasons for Living Scale. Standardized loadings appear on the lines; dotted lines indicate statistically insignificant loadings; all other loadings are significant at $p < .05$. Gray-shaded boxes (observed variables) were positioned to be more strongly related to perceived burdensomeness, while the unshaded boxes (excluding the measurement indicators) were positioned to be more strongly related to thwarted belongingness.

Results: AIM 4 (Criterion Validity)

- Greater odds of reporting suicide ideation were associated with higher levels of both the thwarted belongingness (odds ratio [OR] = 2.52, $p < .001$) and perceived burdensomeness (OR = 2.92, $p < .001$) latent variables
- Examining severity of suicide ideation, higher BSS scores were concurrently associated with greater scores on the perceived burdensomeness subscale (95% CI of incidence rate ratio [IRR] [1.08, 1.30], $p < .001$) and thwarted belongingness subscale (95% CI of IRR [1.05, 1.26], $p < .01$)

Results: Qualitative

- Belonging conceptualized as “being a part of”
- Thematic analyses highlighted belonging as a sense of home and cultural identity
 - Lack of belonging was characterized by feeling isolated and different from the local Hispanic community

Discussion

- A 9-item INQ-S provided acceptable to good fit across Spanish-speakers in the U.S., Spain, and Mexico
 - Multiple group analyses supported generalizability across the samples, although indicated potential differential item functioning. PB and TB subscales demonstrated concurrent associations with related constructs and suicide ideation, supporting convergent/criterion validity
- The current study is the first to develop and evaluate a Spanish-language version of the INQ, which can be adapted and examined by researchers and practitioners. We recommend that the resulting instrument (INQ-S) be further examined in independent samples (e.g., testing the 9- and 15-item solutions).

Discussion

- Qualitative results indicated that developing items that may capture the latent constructs more accurately in Spanish or removing items that do not culturally reflect the constructs should be considered
 - Research is also needed to examine the divergent and predictive validity of the INQ-S
- The INQ-S can further suicide research by facilitating the testing of theoretical and etiological models of suicidal behaviors among millions of people in the U.S. and around the world

Thank You

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