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Chilean experimental version of the State-Trait Depression Questionnaire (ST-DEP): Trait sub-scale (T-DEP)[1]

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ABSTRACT. This instrumental study presents the first validity and reliability data for the Trait subscale (T-DEP) of the Chilean experimental version of the State and Trait Depression Inventory (ST-DEP): *Euthymia* and *Dysthymia*. The data were obtained from a sample of 300 university students. The internal consistency values for the T-DEP were high (.90). The test-retest values from eight weeks time interval (fifty six days) were elevated (.78). A factorial analysis of the principal components revealed a principal factor for all of the constructed items in this experimental version of the T-DEP. The last, promax rotation showed two clear main factors similar in size: negative affectivity (*Dysthymia*) and positive affectivity (*Euthymia*). The convergent validity indexes for the Beck Depression Inventory and the Zung Self Rating Depression Scale, were also high, with indexes ranging from .64 to .71. The correlation between State-Trait Anxiety Inventory and the depression scales used in this study was high (between .63 and .78), once again indicating the usual overlapping between anxiety and depression seen in most depression inventories.

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KEYWORDS. State. Trait. Depression. Instrumental study.

RESUMEN. Este estudio instrumental presenta los primeros datos de validez y fiabilidad de la sub-escala Rasgo (T-DEP) de la versión experimental chilena del Inventario de Depresión Estado y Rasgo (ST-DEP): *Eutimia* y *Distimia*. Los datos fueron obtenidos de una muestra de 300 estudiantes universitarios. La consistencia interna del T-DEP fue elevada (0,90). El valor del test retest para el T-DEP, con un intervalo de ocho semanas, fue elevado (0,78). Un análisis factorial de componentes principales presenta un factor principal constituido por todos los ítems redactados para la versión experimental chilena. La posterior rotación *promax* muestra dos claros factores principales: afectividad negativa (*Distimia*) y afectividad positiva (*Eutimia*). Índices de validez convergente en relación al Inventario de Depresión de Beck y la Escala de Depresión de Zung fueron altos, con índices que fluctuaron entre 0,64 a 0,71. La correlación entre la medida de ansiedad estado-rasgo y las medidas de depresión utilizadas muestran índices altos (entre 0,63 y 0,78), manifestando el solapamiento existente entre depresión y ansiedad.

PALABRAS CLAVE. Estado. Rasgo. Depresión. Estudio instrumental.

Depression is the most prevalent of the mental disorders, acquiring great proportions in the modern life (Dowd, 2004). In Chile the prevalence varies between 7.5 to 10%, registering the highest prevalence in the group from 20 to 45 years (Ministerio de Salud de Chile, 2001; Vicente, Rioseco, Saldivia, Kohn, and Torres, 2002). Studies with population's sample older than 15 years, estimate that the prevalence of this dysfunction is superior to that of many Latin American countries (Araya, Madariaga, Ureta, Tomé, and Bustos, 2002). Among the assisted in the primary attention level, 30% suffer from depressive symptoms (Ministerio de Salud de Chile, 2001). The detection of the depressive disorder and its hidden forms (for physical symptoms or diverse uneasiness) frequently produce confusion and frustration in the non specialist doctors and in the health teams, since it generates repeated medical consultations, exams, inadequate treatments or interconsultation which do not heal and elevate the costs (Ministerio de Salud de Chile, 2001). Gempp and Chesta (2007) outline that, in the historical development of the discipline, the psychological tests are a great technological advance, used in all the areas of the professional development. Nevertheless, it is crucial to systemize the psychometrically valid instruments for their correct use. This shows the importance of generating efficient, precise and useful methods for the evaluation of depression.

An important obstacle to achieve these objectives is the difficulty to understand the nature of depression itself. The majority of the scales tend to confuse state and trait scores in depression and the genuine symptoms that compose it, which increases the risk of emitting erroneous or imprecise diagnoses (Agudelo *et al*., 2005; Spielberger, Carretero-Dios, De los Santos-Roig, and Buela-Casal, 2002a, 2002b; Spielberger, Ritterband, Reheiser, and Brunner, 2003). The difficulties in evaluating depression, mentioned above, led Spielberger´s group to develop the State and Trait Depression Questionnaire (ST-DEP) which seeks to be constituted in a much more specific measure,

when limiting its content to the affective components of depression and the differentiation between positive affectivity and negative affectivity, in terms of both the occurrence or frequency (trait) and intensity at the moment of the evaluation (state) (Agudelo *et al.,* 2005).

In their investigations, two very strong factors were identified, which were defined by items that described the presence or absence of state and trait depression symptoms. The best depression-present (*Dysthymia*) and depression-absent (*Euthymia*) items were selected to form 20-item State (S-DEP) and Trait (T-DEP) depression scales, each with 10 items, 5 for *Dysthymia* and 5 for *Euthymia* subscales. The alpha coefficients for the S-DEP and T-DEP scales and subscales for the total sample, and in separate analyses for females and males, were .90 or higher, indicating strong internal consistency. The T-DEP scale was highly correlated with the Beck Depression Inventory (BDI) (Beck, Rush, Shaw, and Emery, 1979), Zung Self-Rating Depression Scale (SDS) (Zung, 1965), and Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977), (*Mdn.* $r = .80$), providing impressive evidence of concurrent validity (Spielberger *et al*., 2003). Krohne, Schumukle, Spaderna, and Spielberger (2002) report psychometric properties of the German version of the State Trait Depression Questionnaire (ST-DEP) in a sample of university students in comparison to the sample of American university students. No gender differences were found in this German sample. The correlation between de German version and the other depression measures was between .43 and .82 and the correlation of the Trait subscale and anxiety measure was .88 for the American sample and .83 for the German sample.

Spielberger *et al*. (2002a, 2002b) conducted the first known study in Spanish. This study presents the first Spanish validity and reliability data for the Trait subscale. The dimensional structure was replied, internal consistency values for the T-DEP were high (.95). The convergent validity indexes for the Beck Depression Inventory (Beck *et al*., 1979), the Zung Self-Rating Depression Scale (Zung, 1965), and the Peñate Basic Depression Questionnaire (Peñate, 2001) were also high, with indexes ranging from .68 to .82. The correlation between State-Trait Anxiety Inventory (Spielberger *et al*., 1970) and all scales used in this study was high, once again indicating the usual overlapping between anxiety and depression seen in most depression inventories (Agudelo *et al.,* 2005; Spielberger *et al.,* 2002a, 2002b).

For the diagnoses benefits of the ST-DEP and considering the high prevalence of depression in Chile, which makes it a public health issue, the objective of this instrumental study (Carretero-Dios and Pérez, 2007; Montero and León, 2007) is to report the psychometric properties of the Chilean experimental version of the adapted T-DEP, following the procedure of the original Spanish adaptation (Spielberger *et al.,* 2002a, 2002b) in a sample of university students.

Method

Participants

The subjects were 300 university students (186 females, 114 males) studying in different campus of Santiago of Chile (Chile). The mean age for women was 20.54

years with a standard deviation of 2.19. The mean age for men was 20.68 years with a standard deviation of 2.40.

Instruments

The Beck Depression Inventory (BDI)-Revised version (Beck, Rush, Shaw, and Emery, 1983) and Zung's Self-Rating Depression Scale (SDS) (Conde, Escriba, and Izquierdo, 1970a, 1970b; Zung, 1965) were selected, which according to Spielberger *et al*. (2003) evaluate a quality similar to trait as it is asked how frequent the symptoms have been in the past week including today (Beck and Steer, 1993; Vázquez and Sanz, 1997, 1999). Lastly, the *Trait* scale from the State-Trait Anxiety Scale (STAI) (Spielberger *et al*., 1970) was selected. The following section describes each one of the chosen instruments and the results obtained for the Chilean sample.

– Chilean Experimental Version for Trait depression evaluation (T-DEP). The Chilean experimental version was created from the Spanish final version of T-DEP (10 item) (Agudelo, 2005) and the original English version (Spielberger, 1999). For this purpose, alternative items were created from the Spanish version to reflect Chilean meaning differences, maintaining the English sense.

  The objective of the Trait scale of the inventory is to identify the occurrence frequency (trait) for the affective component of Depression. The area of content is the frequency of negative affectivity (*Dysthymia*) and positive affectivity (*Euthymia*). The instructions ask each subject to choose one of the numbers next to the "statement that people have used to describe themselves", and to "put a circle around the number of the statement that best indicates how he/she generally feels". The response options indicate frequency and offer four alternatives: 1 (*almost never*), 2 (*sometimes*), 3 (*often*), and 4 (*almost always*). In order to obtain the subject's score, the chosen response option (1, 2, etc.) is equivalent to the assigned scores for the items referred to *Dysthymia* (negative affectivity). The reverse score (1= 4; 2= 3; 3= 2; 4= 1) is given to the items which indicate *Euthymia*. The final score for the trait sub-scale is obtained by adding the values, with a possible range from 16 to 64. The experimental version of the test is composed of a total of 16 items, 8 for *Dysthymia* and 8 for *Euthymia*.
– Beck Depression Inventory (BDI)-Revised version (Beck *et al*., 1983). The scale contains a total of 21 items. Each item has four possible response options ranging from 0 (*depression absence*) to 3 (*maximum depression*), with a total test score ranging between 0 and 63. The instructions ask the subject to respond by circling the number (0, 1, 2, or 3) next to the statement in each group that describes best "how he/she has felt during the past week, and including the present day". The objective of the BDI is to evaluate the severity of the cognitive, affective, behavioural and physiological symptoms of depression (Alvarado, Vega, Sanhueza, and Muñoz, 2005; Beck, Steer, and Garbin, 1988; Ibáñez, Peñate, and González, 1997). The BDI reliability and validity have been widely substantiated in clinical, as well as normal samples (Spielberger *et al*., 2003).

An elevated alpha for internal consistency was observed in the Spanish validation of the test (Sanz and Vazquez, 1998), carried out in both clinical and normal populations, .83 and .90, respectively. The values of the test-retest range between .60 and .72 and the concurrent validity indexes range between .68 and .89. The Sanz and Vázquez (1998) study found low correlations for the divergent validity, ranging between .11 and .45, with different anxiety scales**.**

– Zung Self-Rating Depression Scale (SDS) (Conde *et al*., 1970a, 1970b; Zung, 1965). This scale is composed of 20 items and assesses the severity of depression. It analyzes affective components, as well as cognitive, psychomotor, and physiological/somatic components. The subjects completing this test should specify for each one of the items "How long has each situation affected your self-esteem at the present moment, or more, during this last week". A subject must rate themselves on a 4 point frequency scale: 1 (*none or little of the time*), 2 (*some of the time*), 3 (*good part of the time*), and 4 (*most or all of the time*). The subjects' response ratings from 1 to 4 are summed up for each of the 20 items, yielding a possible total score range from 20 to 80. The normal and clinical populations in the Spanish adaptation (Conde *et al.,* 1970a, 1970b; Conde and Esteba, 1975, 1976a, 1976b), support the test's high validity and reliability, reaching alpha values around .85, similar to the .86 value found by Ritterband and Spielberger (1996) for the normal sample. Spielberger *et al*. (2003) note a correlation of .77 with the BDI and .83 with the CES-D. Rivera, Corrales, Cáceres, and Piña (2007) describe the psychometric properties of the scale in a group of people that attend regularly the ambulatory centre for the Prevention and Attention to HIV/AIDS in the city of Hermosillo (Mexico), this scale shows an estimated reliability of .89, and in the construct validity the factorial analysis showed a structure of three factors.
– State-Trait Anxiety Inventory (STAI)-Trait sub-scale (Spielberger *et al*., 1970). The STAI evaluates state anxiety and trait anxiety by means of two sub-scales, each composed of 20 items, and each item has four response options. In the *Trait anxiety* sub-scale instructions, a subject should mark "the number from 0 to 3 that best indicates how you generally feel, in the majority of occasions" with the response options *almost never* (0), *sometimes* (1), *often* (2), and *almost always* (3). The statistical data concerning the original test support its use (Spielberger *et al.,* 1970). In the Spanish adaptation of this scale (Bermúdez, 1978a, 1978b), the internal consistency values for normal and clinical samples are similar to those of the original study, ranging between .82 and .92, which also occurs in the test-retest values between .70 and .80. The concurrent and divergent validity indexes obtained for the Spanish adaptation corroborate the STAI's high psychometric power (Bermúdez, 1978a, 1978b; Iglesias, 1982). The psychometric properties found in a sample of 1488 people between 13 and 60 years shows a Cronbach alpha for STAI-S of .92 and for STAI-R of .87, the analysis of the construct validity for this scale was evaluated through the confirmatory factorial analysis, in which two factors which explain 45.37% of the total variance were obtained (Vera-Villarroel, Celis-Atenas, Córdova-Rubio, Buela-Casal, and Spielberger, 2007).

Procedure

Participants were tested during normal class hours. The experimenter presented herself and then explained the objective of the study, providing each participant with the questionnaires with the consent form in the front page, if they accepted to participate they continued with the questionnaire below. Upon completion of the questionnaires, a separate series of questionnaires corresponding to the state sub-scale analysis were provided with the previously mentioned material. However, the results of these scales are not reported in this paper.

Results

The means, standard deviations, and alpha coefficients for the T-DEP and other depression scales are reported in Table 1. The results of the t-test analysis on gender differences are also reported**.** There are no significant gender differences for T-DEP neither for BDI ($p > .05$). Nevertheless, the females scored significantly higher than males on the SDS ($p < .01$).

The T-DEP alpha coefficients (.89 for male and .90 for female) indicate a high internal consistency. The values for the BDI (.77 for female and male) and the SDS (.83 for female and .79 for male) are equally high. The T-DEP reliability was also calculated by applying a test-retest on 78 subjects (26% of the total sample; 25 male and 53 female). The time interval for this test-retest was of eight week (fifty six days) and the resulting value was .78 ($p < .01$).

TABLE 1. Mean, standard deviation, alpha coefficients and t-tests for T-DEP, SDS and BDI.

	Total			*Female*			*Male*			
	Mean	SD	Alpha	Mean	SD	Alpha	Mean	SD	Alpha	t-test
T-DEP	27.9	7.5	.90	28.5	7.7	.90	27.0	7.	.89	-1.70[a]
BDI	7.83	5.9	.77	8.1	5.9	.77	7.4	5.9	.77	-.94[b]
SDS	37.3	8.4	.82	38.6	8.7	.83	35.2	7.3	.79	-3.56[c]

[a]$p = .08$; [b]$p = .34$; [c]$p = .000$

The correlations between the different depression measures can be observed in Table 2, with separated calculations for male and female. The T-DEP correlations with the remaining scales are significant ($p < .001$) for both genders, with values ranging between .59 and .73. The highest correlations are found for both genders between the T-DEP and the SDS (.73 for male and .70 for female).

TABLE 2. T-DEP Correlations with the BDI and SDS, for male and female.

		BDI	*SDS*
T-DEP	Total	.64**	.71**
	Female	.66**	.70**
	Male	.59**	.73**
BDI	Total	---	.70**
	Female	---	.70**
	Male	---	.71**

** $p < .01$

The data for the correlation among the different depression scales and the STAI *Trait anxiety* sub-scale are presented in Table 3. The correlation between T-DEP and STAI trait is highly significant (.71 for female, .73 for male; $p < .001$). The remaining depression measures are also significantly correlated with the STAI anxiety trait sub-scale for both men and women.

TABLE 3. Correlations between the STAI-T and the T-DEP, BDI and SDS for men and women.

		TDEP	*BDI*	*SDS*
STAI T	Total	.72**	.63**	.78**
	Females	.71**	.63**	.75**
	Males	.73**	.64**	.82**

** $p < .001$

Factor structure analysis

The results of the unrotated principal component factorial analysis on the pool of items constructed for the T-DEP experimental version are reported in Table 4. An important main factor that explains 38.15% was found, with a total solution of three factors that explain 50.29% of the variance. All the items of the experimental version of T-DEP saturated the first factor, except the item "Me siento desafortunado" ("I am unfortunate") which load was higher in the third factor

Three factors emerged from the oblique (promax) rotation. As can be seen in Table 5, the items referred to the positive affectivity component of depression (*Euthymia*) constitute one of these factors. The other one captures the more characteristic items of depression, the negative affectivity component (*Dysthymia*). Apart from the two main factors (*Euthymia* and *Dysthymia*), a factor with less weigh seems to exist saturated by a negative affectivity item ($p < .001$).

TABLE 4. Principal axis factor analysis of the Chilean experimental version T-DEP.

	Principal Components factor analysis		
	Factor		
Items	1	2	3
16. I am full of energy (Estoy lleno/a de energía)	.73		
3. I feel whole (Me siento pleno/a)	.73		
4. I feel lucky (Me siento dichoso/a)	.69		
13. I feel complete (Me siento completo/a)	.68		
10. I am full of energy (Me siento enérgico/a)	.66		
6. I feel down (Estoy decaído/a)	.65		
14. I feel depressed (Estoy deprimido/a)	.65	.41	
8. I am depressed (Estoy hundido/a)	.61		
1. I enjoy life (Disfruto de la vida)	.61		
12. I am fortunate (Me siento afortunado/a)	.60		
9. I am sad (Estoy triste)	.57		
7. I don't feel like doing anything (No tengo ganas de nada)	.57		
5. I am hopeful about the future (Tengo esperanza sobre el futuro)	.55		
15. I feel downhearted (Estoy abatido/a)	.52		
2. I am unfortunate (Me siento desgraciado/a)	.48		
11. I am unfortunate (Me siento desafortunado/a)	.40		.58

Note. The items are listed in descending magnitude according to their dominant salient loadings in the *Euthymia* factor.

TABLE 5. Saturation weights for the Promax rotation analysis and item-rest correlations for the *Euthymia* (Factor 1) and *Dysthymia* (Factor 2) factors.

	Promax Rotation			
	Factor			
Items	1	2	3	*r* item – total
16. I am full of energy (Estoy lleno/a de energía)	.80	.52		.79**
3. I feel whole (Me siento pleno/a)	.78	.41		.79**
4. I feel lucky (Me siento dichoso/a)	.75	.49	.44	.80**
13. I feel complete (Me siento completo/a)	.75	.41	.45	.80**
10. I am full of energy (Me siento enérgico/a)	.72	.47		.75**
1. I enjoy life (Disfruto de la vida)	.65	.44		.69**
12. I am fortunate (Me siento afortunado/a)	.58	.40	.54	.69**
5. I am hopeful about the future (Tengo esperanza sobre el futuro)	.52	.42	.40	.63**
14. I feel depressed (Estoy deprimido/a)	.43	.77		.80**
6. I feel down (Estoy decaído/a)	.51	.71		.76**
8. I am depressed (Estoy hundido/a)	.45	.69		.72**
9. I am sad (Estoy triste)		.67		.73**
7. I don't feel like doing anything (No tengo ganas de nada)	.46	.61		.70**
15. I feel downhearted (Estoy abatido/a)		.61	.41	.68**
2. I am unfortunate (Me siento desgraciado/a)		.49		.59**
11. I am unfortunate (Me siento desafortunado/a)			.74	

Note. The items are listed in descending magnitude according to their dominant salient loadings in the *Euthymia* factor.
** $p < .01$

The mean and standard deviation for each item formed by the two main factors found by oblique (promax) rotation, and the total score and two sub-scale scores (*Euthymia* and *Dysthymia*) of the T-DEP are reported in Table 6. In addition the alpha values for the T-DEP, *Euthymia*, and *Dysthymia* are also presented in Table 6.

TABLE 6. Means, standard deviations and alpha coefficients for the T-DEP, *Dysthymia-Euthymia* sub-scales and each one of the items found by promax rotation.

	Mean	*SD*	*Alpha*
T-DEP	26.51	7.19	.90
T-Euthymia	15.74	4.79	.77
T-Disthymia	10.77	3.23	.83
EUTIMIA			
16. I am full of energy (Estoy lleno/a de energía)	2.24	.84	.72
3. I feel whole (Me siento pleno/a)	2.12	.81	.72
4. I feel lucky (Me siento dichoso/a)	1.93	.82	.72
13. I feel complete (Me siento completo/a)	2.18	.89	.71
10. I am full of energy (Me siento enérgico/a)	2.33	.82	.73
1. I enjoy life (Disfruto de la vida)	1.58	.71	.87
12. I am fortunate (Me siento afortunado/a)	1.94	.82	.74
5. I am hopeful about the future (Tengo esperanza sobre el futuro)	1.54	.80	.75
DISTIMIA			
14. I feel depressed (Estoy deprimido/a)	1.51	.67	.79
6. I feel down (Estoy decaído/a)	1.87	.73	.80
8. I am depressed (Estoy hundido/a)	1.21	.49	.81
9. I am sad (Estoy triste)	1.75	.68	.80
7. I don't feel like doing anything (No tengo ganas de nada)	1.68	.76	.81
15. I feel downhearted (Estoy abatido/a)	1.42	.63	.81
2. I am unfortunate (Me siento desgraciado/a)	1.37	.60	.83
11. I am unfortunate (Me siento desafortunado/a)			

Note. The items are listed in descending magnitude according to their dominant salient loadings in the euthymia factor.

As can be clearly seen in Table 6, the T-DEP experimental version and its two subscales found by promax rotation, demonstrate high levels of internal consistency: .90, .77 and .83, respectively. The item-total correlations are significant ($p < .001$) in all the analyzed cases.

Discussion

This study presents the first reliability and validity data of Chilean experimental version of the State-Trait Depression Questionnaire (ST-DEP)-Trait sub-scale (Agudelo, 2005; Ritterband and Spielberger, 1996; Spielberger *et al*., 2002b).

The objective of this study is to report the psychometric properties of the Chilean experimental version of the Trait sub-scale (T-DEP) in a university student sample. With regard to the estimation of the reliability of the Chilean experimental version, the T-DEP is the instrument that has demonstrated the best internal consistency. Since the internal consistency is an index of the subject response stability throughout the test, it is possible that the values reflect a more homogenous content (Spielberger *et al.*, 2002a, 2002b). The reliability obtained in this study is similar to the one obtained by Spielberger *et al.* (2002b) with indexes of .95 (in a version of 52 items).

In relation to the temporary stability, after a period of 8 weeks, the T-DEP obtained a correlation of .78 that turned out to be superior to BDI and SDS, the other depression evaluations, what evidences a better capacity to evaluate trait, as expected, when considering that it is a test which separates trait and state. The results are similar to those obtained by Spielberger *et al.* (2002b) where the test-retest analysis with a broad time interval (three and a half months) revealed high T-DEP score stability (.71). The gender differences analysis were not significant, what keeps relationship with the results obtained for American sample (Spielberger *et al*., 2003), but which is contradicted with the Spanish results in previous studies with the same scale (Spielberger *et al*., 2002b) where the differences were significant. As well, studies with other depression scales in adolescents and university student's samples show significant gender differences in Spain (Figueras-Masip, Amador-Campos, and Peró-Cebollero, 2008; Matud, Guerrero, and Maties, 2006) and Chile (Cova, Labial, Aro, Bonifetti, Hernández, and Rodríguez, 2007) where women obtain direct punctuations superiors to the males.

In relation to T-DEP and the correlations among other depression scales, T-DEP obtained better correlation with the SDS (.71) than with the BDI (.64). This result is concordant with the theory, because the SDS is a clearer frequency measure that the BDI, which would mix frequency with intensity, since the instructions ask «how the subject generally feels and until today's day», and the answer is chosen among severity of symptoms. On the other hand, although the SDS refers to the presence, the subjects are forced to respond reflecting the frequency of occurrence of the symptoms, choosing between «hardly ever» to «almost always». Also, the SDS, in a similar way that the T-DEP, includes symptoms with positive and negative affectivity. These results are similar to those obtained by Spielberger *et al*. (2003), where better correlations were obtained for the SDS (.87 and .88 for women and men respectively) in comparison to the BDI (.78 and .81 for women and men respectively), contrary to what was found in the Spanish sample by Spielberger *et al*. (2002b), where the correlations with the BDI were higher for both sexes (.78) than the correlations with the SDS (.77 and .68, for women and men respectively).

As for the relationship between T-DEP and the anxiety measure (STAI Trait) it is important to point out that the correlations obtained with the STAI Trait turn out to be significant for all the depression measures. This was expected given the high overlapping between depression and anxiety which for more than 20 years even generated changes in the international classifications, as well as modifications in the conceptualization of the dysfunction of widespread anxiety and of the mayor depression depressive dysfunction (Spielberger *et al.*, 2002b; Spielberger *et al.,* 2003). It is also necessary to point out that

the STAI includes items that make direct allusion to depressive symptoms what contributes to the described results. The problem of high correlations between anxiety and depression measures has been observed in previous investigations conducted by Spielberger (1983).

In factorial analysis without rotation a unique factor which would explain a 38.5% of the variance is observed, saturated by most of the items, except «Me siento desafortunado» («I feel unfortunate») that could be related to a cognitive aspect of depression. This result is similar to the previous investigations where a unique factor was obtained, able to explain 47.6% of the variance for women and a 49.05% for men (Spielberger *et al*., 2002b). Three factors arise from the rotated solution. The first two of them, indicate the absence and presence of depression (euthyimia and dysthymia). Just one item showed high saturation in the third factor, «I am unfortunate» ("Me siento desafortunado"). Similar two factors were obtained in previous investigations, what gives preliminary construct validity (Spielberger *et al*., 2003). Finally, the analyses of the experimental Chilean version of the State-Trait Depression Questionnaire (ST-DEP)-Trait subscale confirm the appropriate psychometric properties of this questionnaire in Chilean university students. The estimation of the reliability by the internal consistency and temporary stability is similar to what has been informed in other investigations (Spielberger *et al.*, 2002b; Spielberger *et al.*, 2003). The construct validity, evaluated by exploratory factorial analysis confirms the existence of the factors of positive and negative affectivity found in previous investigations. Future investigations in clinical population to verify the concurrent properties of this scale with the clinical diagnosis and to understand better the relationship between depression and anxiety are necessary. Additionally, studies on other populations like adolescents are recommended, as previous Chilean studies, showed the relevance of these kind of samples (Barra, Cerna, Kramm, and Véliz, 2006; González and Méndez, 2006).

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