

LONELINESS AMONG PORTUGUESE ADOLESCENTS

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The purpose of this study was to investigate the psychometrics characteristics of the revised UCLA Loneliness Scale with Portuguese adolescents. Adolescents from the public schools of Porto were presented with the UCLA Loneliness Scale, with the Self-Consciousness Scale, with the Clinical Self-Concept Inventory, and also responded some additional questions. The Loneliness Scale proved satisfactory on various criteria with adolescents. No gender and sociocultural differences were found. A negative correlation was found with public self-consciousness, total self-concept and their dimensions, and self-rated physical attractiveness. Positive correlations were found with social anxiety and shyness. The psychological variables that best predicted loneliness were happiness, social anxiety, social acceptance and public self-consciousness. The factorial structure of the UCLA Loneliness Scale tended to support the multidimensionality of the scale. The obtained results provided evidence supporting the validity and reliability of the scale with Portuguese adolescents.

Loneliness has received considerable attention last two decades from empirical researchers in United States (e.g., Peplau & Perlman, 1982; Hojat & Crandall, 1989), but has been largely neglected in other countries. Several measures of loneliness have been developed (for an overview see Russell, 1982). The most common scale on loneliness used in United States is the Revised UCLA Loneliness Scale of Russell, Peplau, and Cutrona (1980). It has been already provided a Portuguese adaptation of this measuring instrument (Neto, 1989a; 1989c).

The present investigation, using our Portuguese adaptation of the UCLA Loneliness Scale, was intended to further explore the "construct validity" and "external validity" of loneliness, by examining its relations with various personality measures and some socio-demographic factors and by using this measure with adolescents and not just with college students as has been done when the Portuguese adaptation of this scale has been done. Most of the interconnections have been investigated in prior US-based research, but recently in Europe, German data have been presented (Lamm & Stephan, 1987).

METHOD

SUBJECTS

Subjects were 217 adolescents from the public schools of Porto, Portugal (99 boys and 118 girls), ranging in age from 14 to 17 years ($M=14.7$; $SD=1.2$)

INSTRUMENTS

The participants were presented with an omnibus questionnaire whose various parts will be described in the following.

(a) The Portuguese version of the Revised UCLA Loneliness Scale has been described in Neto (1989a, 1992). The subject is asked to indicate how often she or he feels that way (never/rarely/sometimes/often).

(b) The Portuguese version of the Self-Consciousness Scale (Fenigstein, Scheier & Buss, 1975) has also been described (Neto, 1989b). This measure (SCS) included the three subscales of private self-consciousness, public self-consciousness and social anxiety. It was scaled from 0 (means the statement does not describe you at all) to 4 (means it describes you very well).

(c) For measuring the self-concept we have used the Clinical Self-Concept Inventory (Vaz Serra, 1986). Further a total self-concept, this scale evaluates four dimensions: social acceptance, self-efficacy, psychological maturity and impulsivity. The questionnaire comprises 20 statements each with five response alternative (1, very uncharacteristic; 5, very characteristic).

(d) *Other self-report measures.* After filling the three questionnaires mentioned before, the subjects were asked to answer some additional questions designed to yield self-report data on various psychological attributes: self-assessment of loneliness during the preceeding two months (seven-point rating scale ranging from "almost never lonely" to "almost always lonely"); self-assessment of physical attractiveness (seven-point rating scale ranging from "not attractive to all" to "highly attractive"); self-assessment of shyness (seven-point rating scale ranging from "not shy at all" to "highly shy"); self-assessment of happiness (seven point rating scale ranging from "not happy at all" to "highly happy").

(e) *Demographical* data were collected concerning age, sex and socio-cultural level. The sociocultural level was assessed by the method reported by Lautrey (1980; Neto, 1986) in which it is a joint function of parental occupation and education. In cases where the educational/occupational levels of the parents differed, the child was assigned on the basis of the higher level.

ADMINISTRATION

These instruments were collectively administered during the school period by the teachers themselves. The work field was conducted in first semester 1991.

RESULTS AND DISCUSSION

MEANS AND RELIABILITY ON THE LONELINESS SCALE

The total loneliness was 32.2 (SD=7.0), which is lower than the data reported in Neto (1989a) on a Portuguese college population (36.7). There were no sex differences here ($M=32.0$ for girls and 32.4 for boys: $t=.37$, $df=215$, $p=.72$), as in Neto (1989a) study (37.0 and 36.3, respectively), nor sociocultural differences ($M=32.8$ for low sociocultural level and 31.5 for middle/high sociocultural level: $t=1.34$, $df=215$, $p=.18$). These results on gender differences are quite consistent with the analysis presented by Boris and Perlman (1985).

The reliability of the scale was estimated using Cronbach's alpha. The internal consistency reliability was .82, which is close to the data reported on a student population (Neto 1989a).

CORRELATIONS WITH OTHER MEASURES

Global current loneliness correlated significantly with the loneliness score ($r=.46$, $p<.001$), which is consistent with other findings (Russell et al., 1980; Neto 1989b; Lamm & Stephan, 1987) and can be considered as evidence for the validity of the scale with adolescents (table 1).

TABLE 1
CORRELATIONS BETWEEN LONELINESS AND OTHER VARIABLES

Variable	Correlation
Private self-consciousness	-.08
Public self-consciousness	-.16*
Social Anxiety	-.47**
Social acceptance	.48**
Self-efficacy	-.23**
Psychological maturity	-.33**
Impulsivity-activity	-.30**
Total self-concept	-.49**
Loneliness self-rating	.46**
Physical attractiveness	-.27**
Shyness	.41**
Happiness	-.49**

* $p<.01$; ** $p<.001$.

Significant negative correlations were found with public self-consciousness, total self-concept and their dimensions, self-rated physical attractiveness (cf. Jones et al., 1981; Lamm & Stephan, 1987; Moore & Schultz, 1983) and happiness (Moore & Schultz, 1983).

Significant positive correlations were found with social anxiety (Neto, 1989a; Moorre & Scultz, 1983; Moroi, 1985) and shyness (Jones et al., 1981; Maroldo, 1981).

Because many of the psychological variables were also correlated with one another, a regression analysis was performed. Stepwise multiple regression was used to determine which psychological variables best predicted loneliness as is indicated in table 2.

TABLE 2

STEPWISE REGRESSION OF PSYCHOLOGICAL MEASURES ON LONELINESS

Step	Variable	Multiple R	R ²	Beta	t
	Happiness	.49	.24	-.49	-8.32**
2	Social anxiety	.61	.37	.37	6.6**
3	Social acceptance	.66	.43	-.27	-4.7**
4	Public self-consciousness	.67	.44	-.13	-2.3*

* $p < .05$; ** $p < .01$.

Note: Beta and t-values are for the step at which the variables was entered.

As may be seen, happiness made the largest contribution to the prediction of loneliness with social anxiety, social acceptance and public self-consciousness also yielding significant predictability. These four variables accounted for .44% of the variance in loneliness scores.

FACTORIAL STRUCTURE OF THE UCLA SCALE

Although results from previous research (see Russell, 1982) were supportive of the internal consistency of the UCLA Loneliness Scale, some researchers have found the scale to be multidimensional (Austin, 1983; Hojat, 1982; Zakani & Duran, 1982). To investigate the factor structure of the UCLA Loneliness Scale the data were subjected to SPSS factor analysis with iteration and orthogonal (varimax) rotation (Nie et al., 1975). The following criteria were applied for the selection of factors: a minimum eigenvalue loading of 1.00 or greater, followed by a two-items-on-a-factor test utilizing a minimum loading of .40.

The factor analysis yielded a five-factor solution which accounted for 54.5% of the variance. This factor structure is very similar to that pointed by Hojat (1982). The following items were loaded heavily on

Factor I: "I feel left out", "People are around me but not with me", "I feel isolated from others", "I lack companionship", "I feel part of a group of friends", "I am unhappy being so withdrawn". The content of these items leads one to call it *Isolation and Withdrawal*. Items such as "There are people who really understand me", "There are people I can talk to", "There are people I can turn to", "There are people I feel close to", "I can find companionship when I want it", which were loaded on Factor II convey a sense of not having a social network to connect with". It seemed to denote *Social Others*. Items such as "I feel in turn with the people around me" and "I have a lot in common with the people around me" which had high loadings on Factor III seemed to involve the concept of *Sharing* with others. Items such "I am no longer close to anyone", "no one really knows me well", and "I am an outgoing person" with high loadings on Factor IV seemed to be related to *Absence of Affiliation*. And, finally items such as "There is no one I can turn to", and "My interests and ideas are not shared by those around me", which loaded on Factor V seemed to be related to *Absence of an Intimate Person*.

Thus, the identified factorial structure of the UCLA Loneliness Scale supports a multidimensional concept of loneliness.

CONSTRUCTING A BRIEF SCALE OF LONELINESS

The six items which loaded substantially on Factor I are indicators of perceived social isolation, and they are representative of the essence of loneliness as defined by the difference between desired and actual social contact. We summed these items to form a new short-form measure of loneliness, the ULC-6. The correlation between the longer scale and ULS-6 was .87. We obtained an acceptable reliability index ($\alpha=.77$). Also, we obtained significant correlations with each of the other psychological measures very similar to that of the longer scale (global loneliness: $r=.48$; private self-consciousness: $r=.06$; public self-consciousness: $r=.13$; social anxiety: $r=.43$; social acceptance: $r=.43$; self-efficacy: $r=.29$; psychological maturation: $r=.27$; impulsivity: $r=.28$, total self-concept: $r=.46$; attractiveness: $r=-.26$; shyness: $r=.37$, happiness: $r=-.49$). On these counts we can conclude that we have an economic measure of loneliness with acceptable reliability and with the same validity as the longer scale.

CONCLUDING DISCUSSION

The overall results of this study concerning the measurement characteristics of the UCLA Loneliness Scale confirm the appropriateness of this scale in measuring the extent of feeling loneliness among Portu-

guese adolescents. The statistical findings appeared to indicate what could be judged as adequate internal consistency reliability of the UCLA Loneliness Scale for Portuguese adolescents, as well as concurrent, construct and external validity of the scale. The presence of multidimensional factorial structure indicated a somewhat complex pattern of constructs embedded in the scale. An six-item-short-form of loneliness, ULS-6, was proposed on the basis of results from exploratory factor analysis. With respondents' time at a premium in most research, the ULS-6 is a practical alternative to the longer scale with adolescents.

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