

Developing a Measure of Loneliness

DAN RUSSELL, LETITIA ANNE PEPLAU, and MARY LUND FERGUSON
University of California, Los Angeles

Summary: Research on loneliness has been hindered by the lack of a simple and reliable assessment technique. The development of the UCLA Loneliness Scale, a short, 20-item general measure of loneliness is reported. The measure has high internal consistency (coefficient $\alpha = .96$) and a test-retest correlation over a two-month period of .73. Concurrent and preliminary construct validity are indicated by correlations with self-reports of current loneliness and related emotional states, and by volunteering for a "loneliness clinic."

Loneliness is a common problem for many Americans (see reviews by Donson & Georges, 1967; Gordon, 1976; Weiss, (1973). Weiss (1973) concludes that "loneliness is a condition that is widely distributed and severely distressing" (p. 9). Despite the pervasiveness of loneliness, however, very little empirical research has been directed at the problem. Little is known about the causes of loneliness, the subjective experience of loneliness, or effective interventions to alleviate loneliness.

A major hindrance to research on loneliness has been the lack of a simple and reliable method of assessment. Two approaches to measuring loneliness have been used by previous researchers. Some have sought to develop general scales of overall loneliness (e.g., Bradley, 1969; Eddy, 1961; Sisenwein, 1964). Others have attempted to identify different components or types of loneliness (e.g., Belcher, 1973; Schmidt, 1976). To date, none of these loneliness scales has been published or received general acceptance as a standard measure of loneliness.

Previous measures of loneliness suffer from a variety of problems. The scales are typically lengthy, ranging from 38 to over 75 items. Internal consistency has varied widely. For instance, Eddy (1961) found a split-half reliability of only .67 for his scale, while Schmidt (1976) reported KR-20s ranging from .90 to .94 for 60-item and 100-item versions of her scale. Finally, a recurrent problem in as-

sessing loneliness has been the lack of adequate external validity criteria. Eddy (1961) and Sisenwein (1964) both relied exclusively on a single self-report question about current loneliness to validate their scales. This is problematic since self-report measures may be easily affected by social desirability concerns. Other researchers have sought to validate loneliness scales by group comparisons. Belcher (1973) compared loneliness scale scores of "normal" college students and students receiving counseling for "severe emotional problems" (not necessarily loneliness). Bradley (1969) compared college students and prison inmates. Unfortunately, the groups used in these comparisons may differ on many dimensions (such as pathology), and do not clearly distinguish lonely and nonlonely populations. The present article reports the development of a short and highly reliable general loneliness scale that appears to have concurrent and construct validity, based on several criteria.

Method

Participants

A total of 239 young adults were recruited at UCLA as part of a larger investigation of loneliness. Participants were recruited in three different ways: (a) *Clinic Sample:* In response to ads placed in the student newspaper directed at students who had been "feeling lonely," 12 people participated in a three-week clinic/discussion group on loneliness. (b) *Comparison Sample:* A group of 35 volunteers from a Social Psychology class were tested concurrently with the Clinic Sample. (c) *Student Sample:* A

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group of 192 undergraduate students in Introductory Psychology classes participated in order to satisfy a course requirement, and were tested separately from the two other groups.

Procedure

An initial pool of 25 items was selected from the 75-item loneliness scale developed by Sisenwein (1964). His items were based on statements written by 20 psychologists describing the experience of loneliness, and also on statements from Eddy's (1961) earlier scale. For the present study, 25 items were selected to preserve diversity yet exclude very extreme statements (e.g. "Death will be my only companion"). Items selected included such statements as "I cannot tolerate being so alone" and "No one really knows me well." Participants responded on the 4-point scale used by Sisenwein, ranging from "I never feel this way" to "I often feel this way." For each participant, a total loneliness scale score was computed based on the simple sum of responses to the 25 items. (This contrasts with Sisenwein's scoring procedure, which gave different weights to individual items to arrive at a weighted total loneliness score.)

In addition to completing the loneliness scale, participants filled out other questionnaires. These included a subjective self-report measure of current loneliness similar to those used by Eddy (1961) and Sisenwein (1964) as an external validity criterion. Specifically, participants indicated the degree of their current loneliness on a 5-point scale ranging from "much less lonely than others" to "much more lonely than others." In addition, students described their current mood

and feelings by rating each of 25 adjectives (e.g., "restless," "empty," "depressed," and "bored"). These included adjectives selected from the literature on loneliness (e.g., Belcher, 1973; Gordon, 1976; Weiss, 1973) to reflect feelings hypothesized to accompany loneliness.

Data analysis addressed several issues. First, a revised loneliness scale was developed from the initial 25-item pool, based on the correlation of each item to the total loneliness scale score. Second, internal consistency of the revised scale was assessed by calculating the alpha coefficient (Cronbach, 1960). Finally, the validity of the revised scale was assessed in several ways. Scores on the loneliness scale were correlated with the self-report question about current loneliness. Comparisons were made between the loneliness scale scores of participants in the Clinic Sample and the Comparison Sample. Finally, participants' self-ratings on feelings believed to be associated with loneliness were correlated with the loneliness scale score.

Results and Discussion

Based on the correlation of each item to the total loneliness score, 20 of the initial 25 items were selected for the final UCLA Loneliness Scale. These items all had correlations of over .50 with the total score found by summing responses to the initial 25 items.

The UCLA Loneliness Scale.

The 20 items comprising the final loneliness scale are presented, along with instructions for participants and the response scale:

The UCLA Loneliness Scale

Indicate how often each of the statements below is descriptive of you. *Circle* one letter for each statement:

- O indicates "I *often* feel this way"
- S indicates "I *sometimes* feel this way"
- R indicates "I *rarely* feel this way"
- N indicates "I *never* feel this way"

1. I am unhappy doing so many things alone. O S R N
2. I have nobody to talk to. O S R N
3. I cannot tolerate being so alone. O S R N
4. I lack companionship. O S R N

5. I feel as if nobody really understands me.	O	S	R	N
6. I find myself waiting for people to call or write.	O	S	R	N
7. There is no one I can turn to.	O	S	R	N
8. I am no longer close to anyone.	O	S	R	N
9. My interests and ideas are not shared by those around me.	O	S	R	N
10. I feel left out.	O	S	R	N
11. I feel completely alone.	O	S	R	N
12. I am unable to reach out and communicate with those around me.	O	S	R	N
13. My social relationships are superficial.	O	S	R	N
14. I feel starved for company.	O	S	R	N
15. No one really knows me well.	O	S	R	N
16. I feel isolated from others.	O	S	R	N
17. I am unhappy being so withdrawn.	O	S	R	N
18. It is difficult for me to make friends.	O	S	R	N
19. I feel shut out and excluded by others.	O	S	R	N
20. People are around me but not with me.	O	S	R	N

Reliability

The UCLA Loneliness Scale shows high internal consistency for a scale of only 20 items. For the total sample of 239 students, coefficient alpha was .96. It is important to note that this level of coefficient alpha exceeds Nunnally's (1967) criterion for a measure to be used in an applied clinical setting. Data are available from Jones (Note 1) regarding the test-retest reliability of the 20-item UCLA Loneliness Scale. Based on a sample of 102 University of Tulsa student volunteers assessed over a 2-month period, a test-retest correlation of .73 was found. This suggests that there is some stability in the measure over time, despite changes in an individual's level of loneliness that might be expected to occur in a two-month period.

Validity

The UCLA Loneliness Scale was examined in relation to several validity criteria. The correlation between the subjective self-report question about current loneliness and the loneliness scale score was highly significant ($r(45) = .79, p < .001$). High scorers on the loneliness scale described themselves as more lonely than other people. Loneliness scores of people who were sufficiently troubled by loneliness to volunteer for a 3-week clinic/discussion program differed dramatically from scores of students in a comparison group who were tested concurrently. The mean lone-

liness scale score of clinic participants was 60.1 compared to a mean of 39.1 for the comparison sample ($t(41) = 5.09, p < .001$).

Further validation is provided by evidence linking scores on the UCLA Loneliness Scale to other emotional states. It has been suggested (e.g., Belcher, 1973; Leiderman, 1969; Ortega, 1969) that loneliness is associated with depression and with anxiety. In the present study, scores on the UCLA Loneliness Scale correlated with participants' self-ratings of being "depressed" ($r[131] = .49, p < .001$) and "anxious" ($r[131] = .35, p < .001$). In a separate study of students at the University of Tulsa, Jones (Note 1) found that the UCLA Loneliness Scale correlated significantly with the Beck (1967) depression scale ($r[47] = .38, p < .01$) and with the anxiety subscale of the Multiple Affect Adjective Checklist (Zuckerman & Lubin, 1965) ($r[65] = .43, p < .01$).

Data available from 133 participants in the present study provided further information about the correlates of loneliness scale scores. Consistent with the view of loneliness as an exceedingly unpleasant experience (e.g., Sullivan, 1953; Weiss, 1973), loneliness scale scores were associated with low self-ratings of "satisfaction" ($r = -.43, p < .001$) and being "happy" ($r = -.40, p < .001$). Specific emotional correlates of loneliness suggested by Gordon (1976) and Weiss (1973) were also confirmed. Scores on

Table 1

Statistics for the UCLA Loneliness Scale from Two University Samples

	UCLA Sample		Tulsa Sample		Total
	Males	Females	Males	Females	
Sample size	76	151	130	135	492
Mean Scale score	38.7	40.2	38.6	37.8	38.9
Standard Deviation	11.0	12.4	9.4	9.7	10.6
Median	38	37	38	37	37
Mode	36	33	42	35	35
Range	20-69	20-76	20-61	20-65	20-76

Note: The UCLA Sample includes participants in the "Comparison" and "Student" groups, but excludes participants in the "Clinic" sample. The Tulsa Sample is comprised of undergraduates at the University of Tulsa tested by Jones (Note 1).

the UCLA Loneliness Scale were significantly (all $p < .001$) correlated with feeling "empty" ($r = .58$), "self-enclosed" ($r = .54$), "awkward" ($r = .46$), "restless" ($r = .38$) and "bored" ($r = .36$). Lonely students were also more likely to describe themselves as "shy" ($r = .45, p < .001$) and to rate themselves less "attractive" ($r = -.30, p < .001$). Finally, it is worth noting that loneliness scores did not correlate with self-ratings on such irrelevant adjectives as "hard-working" and having "wide interests," providing some evidence of the scale's discriminant validity.

In summary, the validity of the UCLA Loneliness Scale is indicated in several ways. The content of individual items provides face validity for the scale. Concurrent validity is shown by the relationship of scale scores to self-reports of current loneliness and to volunteering for a loneliness "clinic." Finally, correlates of scores on the UCLA Loneliness Scale support theoretical views linking loneliness to emotional states such as depression, anxiety, or feelings of boredom and emptiness.

Normative Data

Although no attempt has been made to collect representative normative data

for the UCLA Loneliness Scale, some data on college samples are available from the current investigation and from research presently underway at the University of Tulsa (Jones, Note 1). Summary statistics for loneliness scale scores of students in these two samples are shown in Table 1. As can be seen from the table, no regional or sex differences were found.

In conclusion, loneliness is a serious mental health problem, and the lack of research concerning its causes and possible treatment is disturbing. It is hoped that the adequacy and convenience of the UCLA Loneliness Scale will spur new research into this important topic.

Reference Note

1. Jones, W. H. Personal communication, May, 1977.

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Letitia A. Peplau
 Dept. of Psychology
 University of California
 Los Angeles, CA 90024

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