

An Analysis of Loneliness and the Contributing Variables Among College Students

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Abstract

Background: Loneliness is a different experience for every individual, but it is an issue that is high in prevalence and associated with negative mental and physical health outcomes, including anxiety, depression, and suicidal ideation (2, 3). An individual experiences loneliness when their perception of their relationships with others is less than their desired level of social connection. An extensive review of the literature yielded 18 different contributing variables of loneliness, such as social anxiety, life transitions, and social exclusion. College students are particularly vulnerable to experiencing loneliness because of these factors, as the transition into college exposes an individual to several of these variables that can lead to feelings of loneliness (1). Considering the serious risks that loneliness is to an individual's mental and physical health, it is important to understand the issue of loneliness from the students' perspectives. The purpose of the present study is to better define and understand the concept of loneliness both in terms of degree and causal factors. **Methods:** Participants completed two loneliness instruments, the R-UCLA Loneliness Instrument and the Student Social Capital Instrument (SSCI), and then created a concept map of the causal variables of loneliness. **Results:** The study found significant differences in the rankings of contributing factors between lonely and non-lonely individuals. For this sample, state loneliness was prevalent in 28.1% of the population, with 12.4% in the high loneliness category, with differences found in different demographic variables. **Conclusion:** Potential implications include developing a more consistent operational definition for the concept of loneliness, validating the SSCI, and identifying individuals who pose a higher risk for experiencing increased levels of loneliness. Based on the findings of the present study, it is recommended that further research attempts to establish the reliability and validity of the SSCI as well as work to develop loneliness interventions.



(Hello I'm Nik, 2021)

Introduction and Research Questions

Loneliness is a well-known feeling that individuals are likely to experience at some point in their life; however, loneliness that is severe and persistent poses risks to an individual's mental health. Loneliness is highly prevalent, with most studies reporting about 20% of people in the population experiencing loneliness, which can either decrease or increase depending on the age group, instrument used, and country (2, 5, 6). For these reasons, this research aims to gain a greater understanding of loneliness by identifying factors that most contribute to loneliness. This is a first of its kind study on examining the definition and degree of loneliness using both explicit and implicit cognitive techniques. The study's purpose is to measure the subjective and direct levels of loneliness within the participants. There are three main research questions being investigated:

- 1) Which participants are lonely versus non-lonely?
- 2) Do lonely & non-lonely students differ in their rank-ordered list on the loneliness CB?
- 3) What causal variables do lonely people implicitly believe contribute the most to loneliness?

Methods

Participants

Currently, the data gathered represents a sample of 249 undergraduate students at Liberty University. To be included in the study, students had to be 18 years of age or older, a residential student, and enrolled in a residential, undergraduate psychology course.

Study Design

This study utilizes a quantitative, cross-sectional survey research design. Students were recruited through brief presentations given by researchers in psychology classrooms. Data collection began in the semester of Fall 2020 and continued until Fall 2021.

Procedures

Students were asked to come to a residential research lab, where they would first submit their electronic informed consent. Then, the participants completed a brief demographics survey, as well as the Revised UCLA Loneliness Scale (R-UCLA) and the Student Social Capital Instrument (SSCI). Following completion of the surveys, the students were asked to construct a concept map with the Concept Builder (CB) software (1). Once finished, students were able to ask additional questions or leave the research lab. Participants received compensation in the form of three psychology activity credits. The R-UCLA and SSCI are employed to measure explicit data on feelings of loneliness. The concept mapping activity via the CB software gives students an opportunity to make connections between perceived causal factors of loneliness from an individual perspective. The goal of this activity is to obtain implicit data.

Table 1
Descriptive Statistics for the R-UCLA LS, SSCI, and Loneliness Right Now Instruments

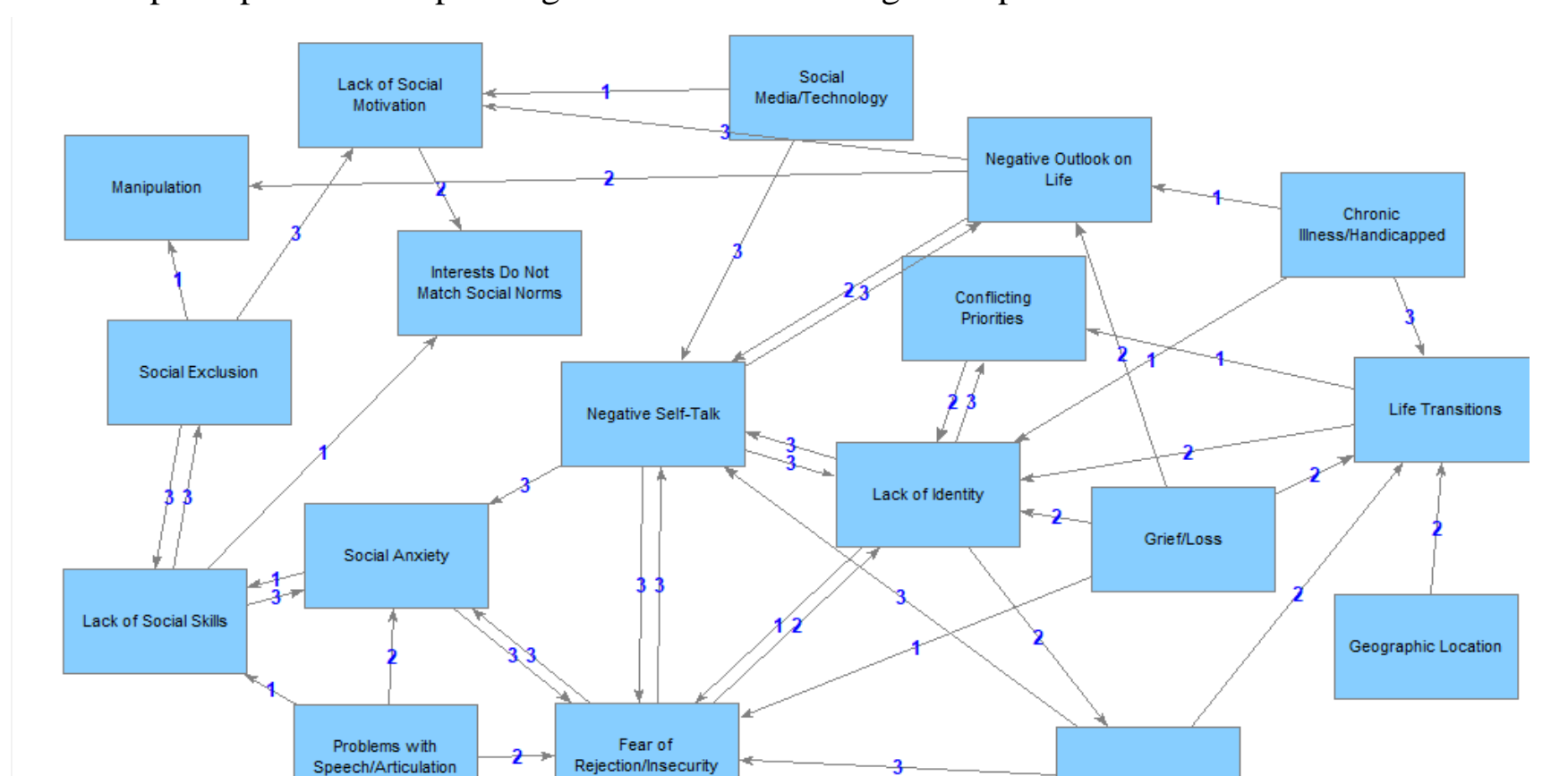
Instrument	Statistic	Output
R-UCLA LS	Mean	23.242
	Median	21.5
	Std. Deviation	11.751
	Minimum	0
	Maximum	53
SSCI	Mean	61.679
	Median	58
	Std. Deviation	18.585
	Minimum	24
	Maximum	110
Loneliness Right Now	Mean	4.016
	Median	4
	Std. Deviation	2.282
	Minimum	1
	Maximum	10

Table 2
Correlations Between the R-UCLA LS, SSCI, and Loneliness Right Now Instruments

Instrument	R-UCLA LS	SSCI	Loneliness right now
R-UCLA LS	1	0.803	0.768
SSCI	0.803	1	0.71
Loneliness right now	0.768	0.71	1

Figure 2

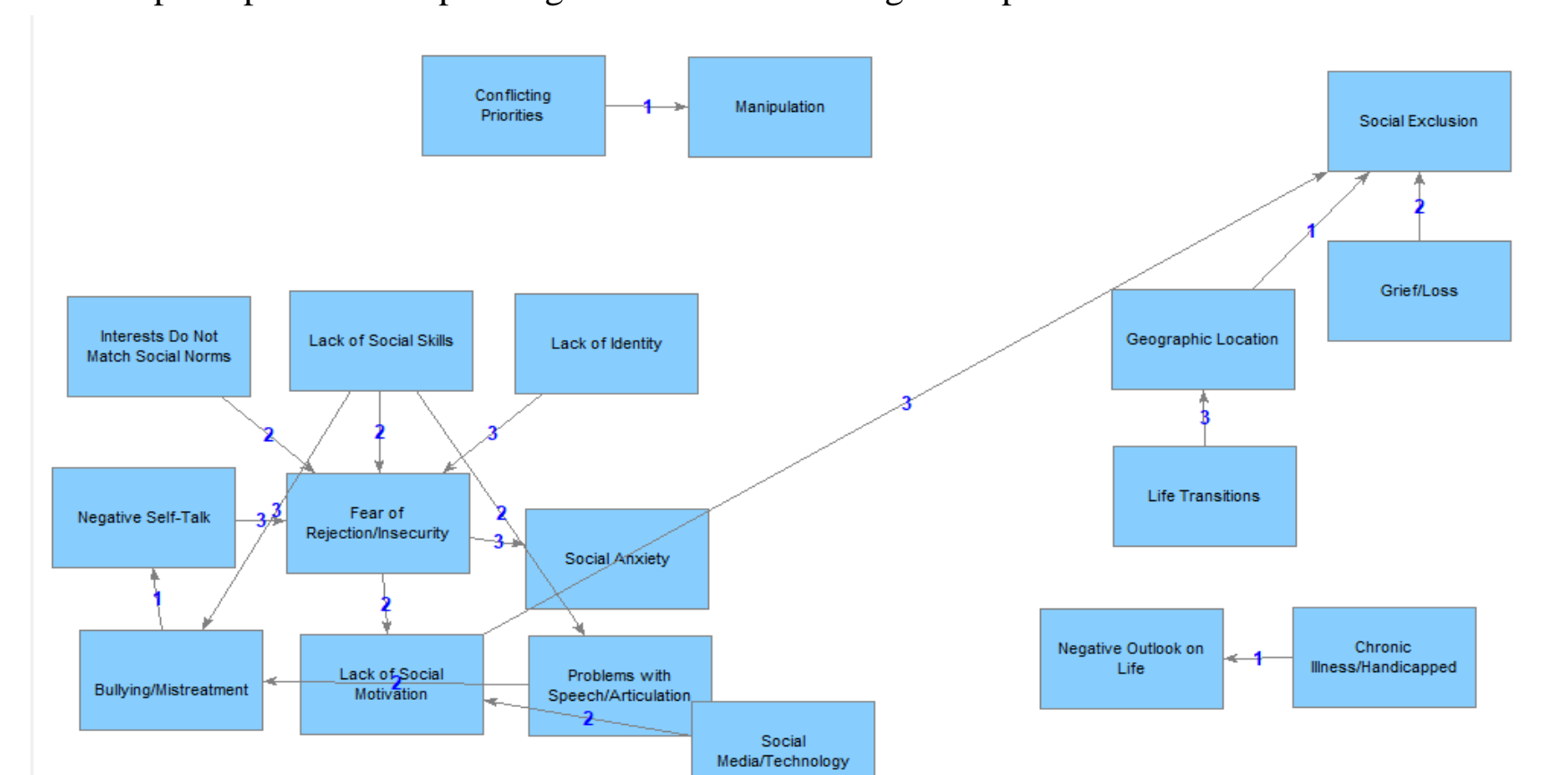
Concept Map and Corresponding Determinant Ranking Example



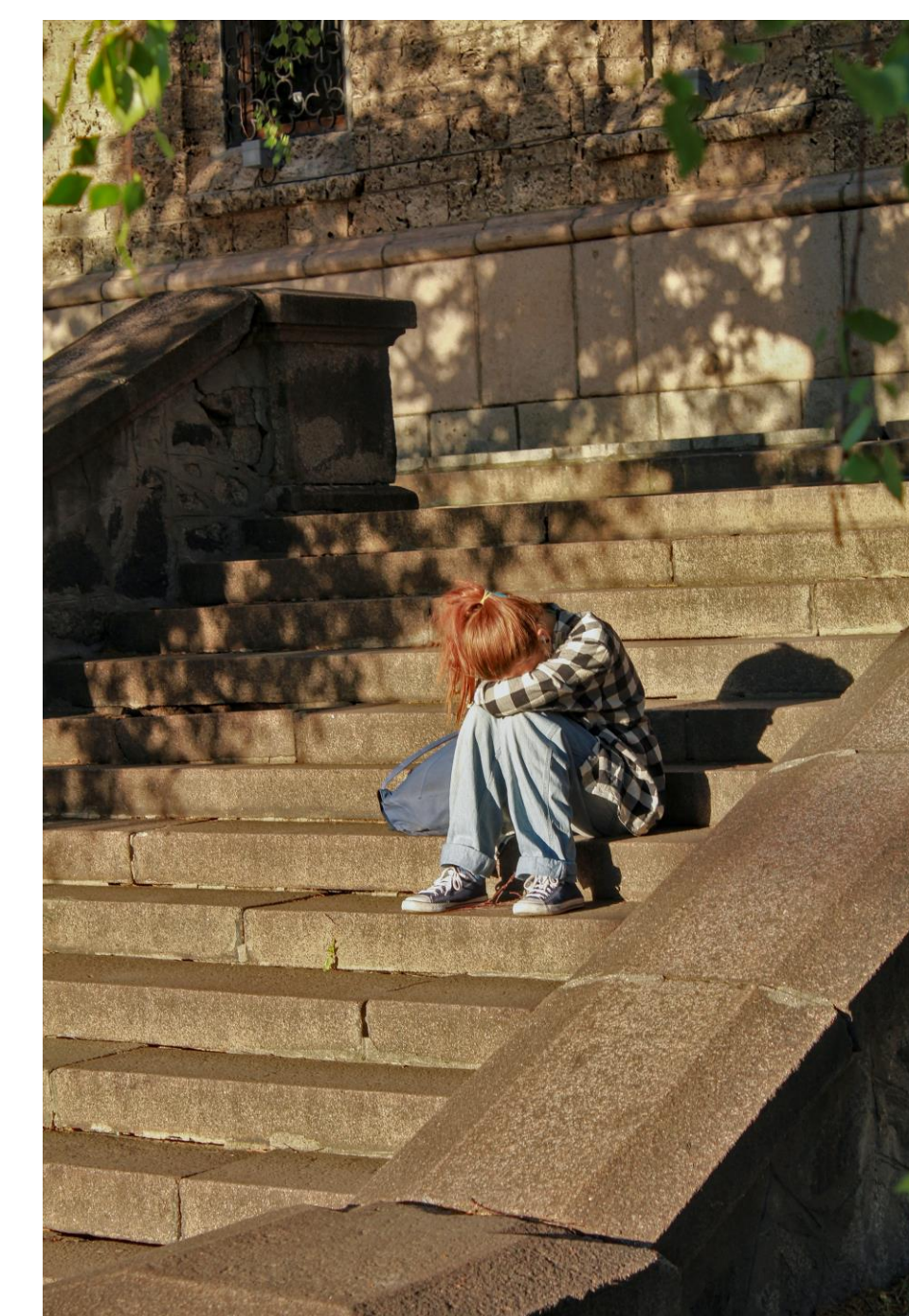
Rank	Contributing Factor
1	Negative Self-Talk
2	Lack of Identity
3	Bullying/Mistreatment
4	Fear of Rejection/Insecurity
5	Grief/Loss
6	Social Media/Technology
7	Social Anxiety
8	Problems with Speech/Articulation
9	Life Transitions
10	Chronic Illness/Handicapped
11	Negative Outlook on Life
12	Conflicting Priorities
13	Lack of Social Skills
14	Social Exclusion
15	Geographic Location
16	Lack of Social Motivation
17	Interests Do Not Match Social Norms
17	Manipulation

Figure 3

Concept Map and Corresponding Determinant Ranking Example



Rank	Contributing Factor
1	Lack of Social Skills
2	Problems with Speech/Articulation
3	Bullying/Mistreatment
4	Lack of Identity
4	Negative Self-Talk
5	Interests Do Not Match Social Norms
6	Fear of Rejection/Insecurity
7	Social Media/Technology
8	Life Transitions
9	Lack of Social Motivation
10	Grief/Loss
12	Geographic Location
12	Chronic Illness/Handicapped
13	Conflicting Priorities
13	Social Anxiety
13	Social Exclusion
13	Manipulation
13	Negative Outlook on Life



(Minkov, 2021)

Table 4
Average Ranking of Determinants for Severely Lonely Participants

Rank	Contributing Factor
1	Social Anxiety
2	Bullying/Mistreatment
3	Chronic Illness/Handicapped
4	Lack of Social Skills
5	Social Media/Technology
6	Negative Outlook on Life
7	Fear of Rejection/Insecurity
8	Interests do not Match Social Norms
9	Grief/Loss
10	Problems with Speech/Articulation
11	Life Transitions
12	Lack of Identity
13	Negative Self-Talk
14	Social Exclusion
15	Manipulation
16	Geographic Location
17	Conflicting Priorities
18	Lack of Social Motivation

Note. The ranking of determinants that lead to loneliness, as determined by participants who were severely lonely (>=40 on the R-UCLA LS)

Table 5
Determinants of Loneliness for Moderately Lonely People

Rank	Contributing Factor
1	Bullying/Mistreatment
2	Chronic Illness/Handicapped
3	Lack of Social Skills
4	Social Media/Technology
5	Social Anxiety
6	Life Transitions
7	Fear of Rejection/Insecurity
8	Geographic Location
9	Interests do not Match Social Norms
10	Problems with Speech/Articulation
11	Grief/Loss
12	Social Exclusion
13	Negative Self-Talk
14	Lack of Identity
15	Lack of Social Motivation
16	Conflicting Priorities
17	Negative Outlook on Life
18	Manipulation

Note. The ranking of determinants that lead to loneliness, as determined by participants who showed moderate to low loneliness (>20 but <40 on the UCLA LS)

Table 6
Determinants of Loneliness for Non-Lonely People

Rank	Contributing Factor
1	Bullying/Mistreatment
2	Lack of Identity
3	Geographic Location
4	Problems with Speech/Articulation
5	Social Media/Technology
6	Chronic Illness/Handicapped
7	Grief/Loss
8	Interests do not Match Social Norms
9	Lack of Social Skills
10	Negative Self-Talk
11	Life Transitions
12	Fear of Rejection/Insecurity
13	Social Anxiety
14	Lack of Social Motivation
15	Conflicting Priorities
16	Manipulation
17	Social Exclusion
18	Negative Outlook on Life

Note. The ranking of determinants that lead to loneliness, as determined by participants who were not lonely (<=10 on R-UCLA LS)

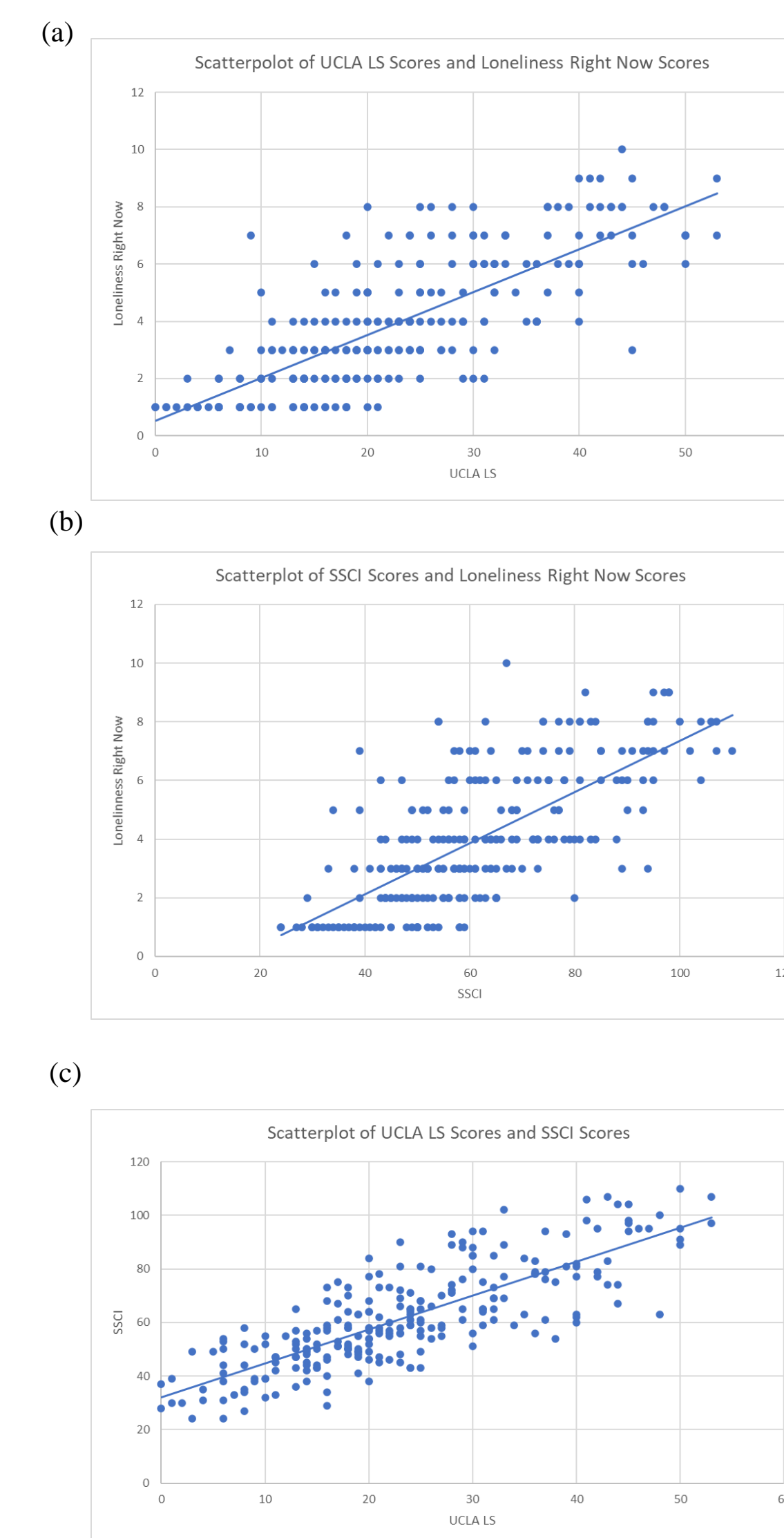
Table 3
Performance on Loneliness Instruments by Demographics

Instrument	Statistic	On Campus		Off Campus	
		n	Mean	n	Mean
R-UCLA LS	Mean	172	23.273	76	23.171
	Median	22	20	20	20
	Range	53	47	47	47
SSCI	Mean	61.174	62.408	61.174	62.408
	Median	58	59.5	58	59.5
	Range	83	86	83	86
Loneliness Right Now	Mean	4.064	3.895	4.064	3.895
	Median	4	3.5	4	3.5
	Range	8	9	8	9

Note. Descriptive statistics for performance on the R-UCLA LS, SSCI, and Loneliness Right Now instruments based on demographics (a) living location; (b) employment status; (c) number of semesters at Liberty; and (d) sex.

Figure 1

The Relationship Between Each Instrument



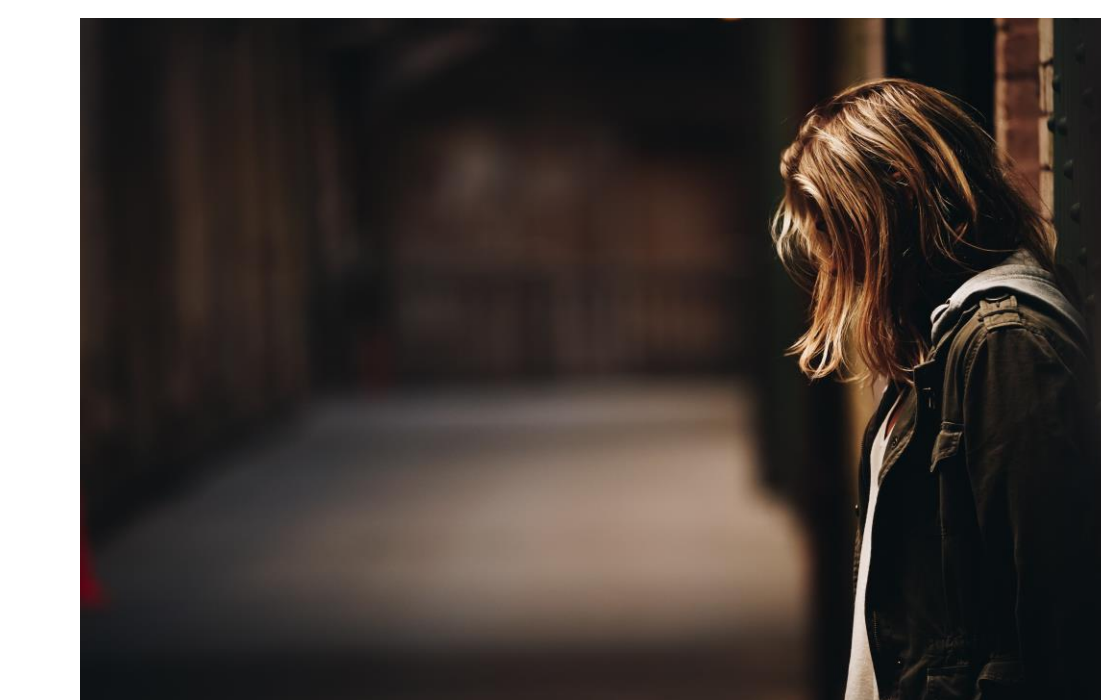
Note. Scatterplot with a line-of-best-fit of the relationship between the (a) R-UCLA LS and Loneliness Right Now instruments; (b) SSCI and Loneliness Right Now instruments; and (c) SSCI and R-UCLA LS instruments.

Results

The current results on participant demographics show that 244/249 (98%) of the participants are age 18-24, 174/249 (70%) are female, 173/249 (69.5%) are living on campus, 121/249 (48.6%) have attended the university for 1-2 semesters, and 97/249 (40.2%) are employed part-time, with 206/249 (83.1%) are Caucasian/White, and 137/249 (55%) were School of Behavioral Sciences majors. For the loneliness instruments, descriptive analyses yielded the following results: 1) R-UCLA LS (M=23.242, Mdn=21.5, SD=11.751), 2) SSCI (M=61.679, Mdn=58, SD=18.585), and 3) Loneliness Right Now (M=4.016, Mdn=4, SD=2.282). Descriptive statistics were also calculated based on certain demographic criteria and can be observed in table 3 (a-d). Correlation coefficients were then calculated to determine the relationship between the different loneliness instruments. Between the R-UCLA LS and SSCI, a r=.803 was found, between the R-UCLA LS and Loneliness Right Now, a r=.768 was found, and between the SSCI and Loneliness Right Now, a r=.71 was found. The prevalence of state loneliness in this sample is 70/249 (28.1%) and 24/249 (9.6%) fell within the high loneliness category. This is compared to the findings of the R-UCLA LS, where 70/249 (28.1%) of the sample were found to be moderately lonely and 31/249 (12.4%) were within the severely loneliness category. The concept mapping rank-ordered list of the contributing factors to loneliness can be found in Table 4 (for severely participants), Table 5 (for moderately lonely participants), and Table 6 (for non-lonely participants). **Anticipated Results:** A nonparametric statistical test will be conducted to determine if there is a statistical difference between how lonely vs non-lonely people rank-order the contributing factors to loneliness in the concept map. Further psychometric analyses will be performed on the SSCI, specifically an exploratory factor analysis and Cronbach's alpha will be performed. A correlation analysis between the contributing factors on the SSCI stated explicitly and the contributing factors on the concept map stated implicitly will also be conducted.

Conclusions

Preliminary Conclusions: Some of the possible conclusions from this research study are included in the following list: 1) The present research found that more than one fourth of sampled participants were experiencing moderate levels of loneliness, and approximately one eighth of the sample experienced severe loneliness. This finding indicates the importance of loneliness research, and the need for new intervention and prevention methods. 2) The SSCI has demonstrated convergent validity with both the R-UCLA LS and single item rating of loneliness. Future validation involving discriminant validity testing and a measure of test-retest reliability is still needed, however the current phase of validity testing is promising. 3) With further validation, the SSCI will be a useful tool for both loneliness research and for identification of individuals experiencing high levels of loneliness. This will improve both understanding and prevention. 4) There is an important relationship between participants' rank ordered lists of determinants from concept map data and their levels of loneliness. Severely lonely people and non-lonely people expressed very different views regarding the causes of loneliness. This raises concerns that non-lonely people trying to prevent and treat loneliness may fail to address the most pertinent issues. 5) The rank ordered lists of determinants generated by this study represent the averages of three groups of participants and do not necessarily represent the opinions of the individual participants.



(Ward, 2017)

Discussion

Limitations

- Niche set of participants
- Convenience sample
- Cross-sectional design

Recommendations

- Distribute the SSCI to LUO students
- Assess professors, staff, and campus leadership
- Conduct qualitative interviews
- Develop personalized interventions

References

See attached sheet for references