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The first year: The relationship between loneliness & wellness among college freshmen

Isabel M. Jimenez-Bush
James Madison University

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The First Year: The Relationship Between Loneliness & Wellness Among College Freshmen

An Honors Program Project Presented to

the Faculty of the Undergraduate

College of Behavioral Health and Sciences

James Madison University

In Partial Fulfillment of the Requirements

for the Degree of Bachelor of Science

by Isabel Marie Jimenez-Bush

May 2015

Accepted by the faculty of the Department of Health Sciences, James Madison University, in partial fulfillment of the requirements for the Honors Program.

FACULTY COMMITTEE:  

Project Advisor: Audrey Burnett, Ph.D.,  
Assistant Professor, Health Sciences

Reader: Andrew Fink, M.Ed., Lecturer, Health Sciences

Reader: Monica Reis-Bergan, Ph.D., Professor & Assistant Department Head, Psychology

HONORS PROGRAM APPROVAL:

Philip Frana, Ph.D.,  
Interim Director, Honors Program

PUBLIC PRESENTATION

This work is accepted for presentation, in part or in full, at the Honors Symposium on April 24, 2015.
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Abstract

Loneliness is common in the majority of first-semester college students, but if left unaddressed, long-term loneliness may cause physical health problems. The purpose of this study was to investigate the relationship between perceived loneliness and physical health among college freshmen at James Madison University using a Qualtrics survey. The relationship between loneliness and health was assessed using the Behavioral Risk Factor Surveillance Survey (BRFSS) to gauge physical health and the UCLA Loneliness Survey (UCLA-LS) to gauge perceived loneliness. Contrary to the hypothesis, results indicated there was no relationship between loneliness and physical health. It was thought the BRFSS was a limitation in this study. Additionally, two branches of social support, quality and quantity of friendships, were investigated for their influence on loneliness. Because past research suggested social support may help buffer loneliness, which may prevent the subsequent emergence of other health problems, the present study sought to investigate the quality and quantity of friendships using the Medical Outcomes Study Social Support Survey (SSS). Results comparing loneliness scores among the two sections of SSS scores indicated both branches were predictors of loneliness. Of the two, the quality of social support was the most significant indicator of loneliness as indicated by its mean p-value \( M = 0.0003, SD = 0.0004 \), but further research must be conducted to verify this. The results of the social support investigation stress the importance of enhancing quality of friendships to reduce loneliness. The results for the physical health investigation warrant further research and the use of a better survey instrument to more comprehensively analyze physical health to compare with loneliness.
Introduction

The transition from high school to college is a tumultuous time for incoming freshmen, who experience new and stressful social situations. Without supervision, family contact, high school friendships, or a familiar living space, first-year students may feel lonely and depressed (Prancer, Pratt, Hunsberger, & Alisat, 2004). Although 60% of high school students seek to continue their education at a university, few experience a smooth integration, as up to 75% of freshmen feel acute loneliness within the first two weeks of class (Buote, Adams, Birnie, Lefcovitch, Polivy, & Wintre, 2007; Wei, Russell, & Zakalik, 2005). Loneliness is a subjective phenomenon in which students feel a lack of fulfilling friendships, but maintaining fulfilling relationships may counteract feelings of loneliness. A rich connectivity with others who offer both tangible and intangible support could indicate a healthy social support network and assist in the overall maintenance of positive health behaviors (Hawkley & Cacioppo, 2003). A dissatisfactory social support network may be why the majority of students experience loneliness; subsequently, they also face the burden of associated physical health problems (Burholt & Scharf, 2014).

Previous studies have linked loneliness to health issues, such as anxiety, mental instability, drug abuse, and poor overall physical health (Heinrich & Gullone, 2006). Lonely patients use the health care system more, accounting for 60% of emergency room visits and 80% of callers to crisis centers, validating the link between health and loneliness (Heinrich & Gullone, 2006).

Gaps in the current literature indicate that studies of the relationship between loneliness and physical health are warranted. Physical health is one of the six dimensions of wellness outlined in Hettler’s (1976) Six Dimensions of Wellness Model and it refers to the state of one’s
body in terms of physical activity performed to stay in shape, and sickness due to a lowered immune system, or a greater susceptibility to disease, resulting in sick days and missed days from work or school.

The present study of first-semester freshmen at James Madison University (JMU) delved beyond the known associated mental health conditions and focused on the relationship between loneliness and physical health.
Literature Review

Social Support

Social support is a term that encompasses many necessary aspects of a relationship. These include advice a friend would provide in a situation, tangible support such as when a friend supplies an extra pencil or offers a ride, emotional support such as a shoulder to lean on or a hug during a sensitive time, and validation in the form of the reassurance for an opinion or praise for a job well done (Wright, King, & Rosenberg, 2013). Social support is useful in that it cushions the stressors in life by offsetting negative feelings and situations with tangible and intangible support from a friend or peer. Social support is also necessary for a successful transition and integration into college because sturdy social support indicates a greater likelihood of friendships and connectivity (Buote et al., 2007; Parade, Leerkes, & Blankson, 2010). More specifically, Diener and Seligman (2002) found that very happy college students spent little time alone and had satisfying relationships, which strengthens the need for social support to offset potentially problematic feelings such as loneliness.

Two specific aspects of social support, the quality and quantity of friendships, have varying degrees of influence on one’s social support satisfaction and consequent feelings of loneliness. While some research has found that quality of friendship is best, other studies found quantity is best, and still others agree both are equally important aspects that influence loneliness (Buote et al., 2007; Hefner & Eisenberg, 2009; Pressman et al., 2005; Wright, King, & Rosenberg, 2013). This gap in the literature reveals the need for more studies concerning which aspect is the best predictor for one’s social support satisfaction.
Loneliness & Physical Health

Loneliness is a perceived feeling of dissatisfaction with one’s social support (Hawkley, Burleson, Berntson, & Cacioppo, 2003). Weiss (1973) stated that situational loneliness, which comes from transitioning into a new place or job (i.e., college), is a valid form of loneliness that must be addressed by integrating the individual into the social network. Without establishing social support within their peer network, students run the risk of experiencing chronic loneliness, which has been found to cause long-term health problems (Segrin & Passalacqua, 2010).

Although little research has focused on physical health problems, studies have revealed that the quality and duration of sleep is significantly compromised in lonely people. Because sleep is a restorative process that helps the body heal and regulate itself, inconsistencies in sleep over time can affect these restorative processes and accelerate the onset of chronic disease and result in poor overall health (Cacioppo et al., 2002).

Another pathway through which loneliness may affect physical health is the cardiovascular system, as those who were lonely had significantly different cardiac patterns and were at greater risk for long-term physical health problems than non-lonely individuals (Cacioppo et al., 2002; Hawkley et al., 2003). From a microscopic standpoint, Pressman and colleagues (2005) studied blood samples and the amount of antibodies as a response to an influenza vaccination in lonely and non-lonely college students. Lonely students contained a significantly lowered antibody response than non-lonely students when assessed for acute loneliness, yet causality could not be established between loneliness and immune function. This finding raises the need for a more efficient method for testing the effects of loneliness on physical health.
The present study was created due to the need for further research on the effects of loneliness and physical health – specifically in at-risk populations such as college students – and the need for an efficient, non-invasive instrument to measure physical health. By using a survey through which physical health and loneliness could be assessed in freshmen, the present study hoped to identify the interplay between these forces to better understand the needs of James Madison University freshmen. Furthermore, given the inconsistency within social support research, the present study sought to observe the role of both kinds of social support to determine which had the greatest influence over perceived loneliness in the context of the study participants.

**Hypothesis**

$H_0 = \text{No difference exists between loneliness, as measured by the UCLA Loneliness Scale, and physical health, as measured by Section 2: Healthy Days – Health-Related Quality of Life of the 2014 Behavioral Risk Factor Surveillance System Questionnaire (BRFSS).}$
Method

To test this hypothesis, questions regarding demographics, physical health, loneliness, and social support were administered using an online Qualtrics survey sent to all freshmen students at James Madison University (Appendix A). Questions were adapted from Section 2 of the 2014 Behavioral Risk Factor Surveillance System Questionnaire (BRFSS), the UCLA Loneliness Scale (UCLA-LS), and the Medical Outcomes Study (MOS): Social Support Scale (SSS). This study was approved by the Institutional Review Board (protocol #15-0117).

Participants

Participants in this study were 336 freshmen (19% male and 79% female) attending James Madison University who received a Qualtrics survey link in an email containing the survey instrument. The mean age of participants was 18.2 years (SD = 0.5), and all were confirmed to be first-semester freshmen through the registrar’s office upon requesting the email delivery to their JMU email addresses. Students had from November 1, 2014 to December 1, 2014 to complete the survey. Informed consent was obtained from participants at the beginning of the survey, and students could voluntarily end the survey at any time.

Qualtrics Instrument Components

1. Behavioral Risk Factor Surveillance System Questionnaire (BRFSS)

To assess physical wellness, Section 2 of the 2014 BRFSS was used, which contained three questions. One question asked respondents to categorize their health via a 5-point Likert scale (1 = excellent; 5 = poor), while the last two questions pertained to respondents’ health in the past 30 days.

This section was one of the 18 sections belonging to the complete BRFSS, which is used annually by the Centers for Disease Control and Prevention (CDC) to investigate behavioral risk
in the general population. Originally launched in the 1980’s, the BRFSS is the gold standard for observing behavior across the United States (CDC, 2013).

The BRFSS did not contain a standard scoring key for the entire survey or its separate sections; therefore, the present study determined a unique scoring key for this particular section of the BRFSS.

BRFSS scores were summed and categorized in increments for statistical testing. Four categories were formed with a total minimum score of 1 and a total maximum score of 61. Participants who scored 1-15 were said to have “Excellent Health,” scores between 16-30 had “Good Health,” scores between 31-45 had “Fair Health,” and scores between 46-61 had “Poor Health.” Lower scores indicated better health, while higher scores indicated poorer health.

II. University of California, Los Angeles (UCLA) Loneliness Scale

To assess feelings of loneliness, the UCLA Loneliness Scale (UCLA-LS) Version 3 was used, whose reliability and validity were tested and confirmed by Russell (1996). This 20-question assessment was scored on a 4-point Likert scale (1 = never; 4 = always) and asked questions such as “How often do you feel alone?” and “How often do you feel that you lack companionship?”

The test was scored as directed by Russell (1996), but for the purposes of this study, four categories of loneliness levels were generated based on the Likert scale answers (i.e., never to always). The minimum possible score was 20 and the maximum possible score was 80. Those participants who scored 20 considered themselves to “Never” feel lonely, those who scored between 21-40 “Rarely” felt lonely, those who scored between 41-40 “Sometimes” felt lonely, and those who scored between 61-80 “Always” felt lonely. Lower scores indicated less perceived loneliness, while higher scores indicated greater perceived loneliness.
III. Medical Outcomes Study (MOS) Social Support Survey

To assess social support, the 20-question MOS Social Support Survey (SSS) was utilized. The SSS addressed both qualitative and quantitative aspects of social support by first asking respondents to write a number representing the participant’s quantity of close friends and relatives. The following 19 questions were scored on a 5-point Likert Scale (1 = none of the time; 5 = all of the time) and assessed the frequency that respondents received services from close friends or relatives, such as having “Someone to turn to for suggestions about how to deal with a personal problem” and having “Someone who shows you love and affection.” The SSS survey was tested and confirmed for reliability and validity by Sherbourne and Stewart (1991).

Although the SSS scored the questions of quantity and quality of friendships collectively, the present study created a unique categorization system to individually assess quantity and quality of social support.

The first question of the SSS addressed quantity of friendships by asking for a number that represented the participant’s close friends and relatives. The minimum score was 0, and although there was no limit to the number a participant could write, the maximum score was 25. Three unique categories were generated from this range of scores. Participants who wrote 0-5 were said to have “Few” close friends, those who wrote 6-15 were said to have “Some” close friends, and those who wrote 16-25 were said to have “Many” friends. Lower scores indicated having less close friends, while higher scores indicated having a greater amount of close friends.

The remaining 19 questions of the SSS addressed the quality of friendships. Scores were tallied according to the survey instructions, and five unique categories were generated based on the five choices of the Likert scale. Category names were changed from the frequency of social support as represented in the Likert scale (i.e., none of the time to all of the time) to
interpretations of those scores (i.e. no social support to maximum social support). The minimum score was 0 and the maximum score was 100. Participants who scored 0 had “No Social Support,” those who scored 1-33 had “Poor Social Support,” those who scored 34-66 had “Average Social Support,” those who scored 67-99 had “Good Social Support,” and those who scored 100 had “Maximum Social Support.” Lower scores indicated having a decreased quality of social support, while higher scores indicated a greater quality of social support.

Data Analysis

Results were imported into Excel from Qualtrics. Of the possible 4,350 enrolled freshmen, 462 completed the Qualtrics survey, yielding an initial 11.0% response rate. Data was organized by eliminating responses that failed to meet criteria as determined by the demographic information section at the beginning of the survey. Of the 462 responses, five were deleted because the respondents were not freshmen, nine were deleted because respondents were below 18 years of age, and 112 were deleted because of incomplete surveys. The total number of usable responses was 336, which yielded a 7.7% response rate.

The hypothesis was tested through multiple one-way ANOVAs followed by post-hoc analyses using a Tukey HSD. A Pearson product-moment correlation coefficient (Pearson’s $r$) was computed to assess the relationship between groups. An alpha level of 0.05 was used for all statistical tests.
Results

The present study used an efficient method to assess physical health and to observe differences between loneliness scores, as tested by the UCLA-LS, and physical health scores, as tested by the BRFSS. Furthermore, the present study investigated the influence of quality and quantity of friendships on loneliness.

Loneliness and Physical Health

A one-way ANOVA was conducted to assess the effects of loneliness on physical health. There was no statistically significant difference in physical health among respondents who never, rarely, sometimes, and always felt lonely at the \( p<0.05 \) level \( (F(3,330) = 0.3833, \ p = 0.7651) \). Additionally, a Pearson’s product-moment correlation coefficient (Pearson’s \( r \)) showed no correlation existed between the loneliness and physical health scores \( (r = 0.0582) \), as seen in Figure 1.

![Physical Health vs. Loneliness](image)

**Figure 1.** The relationship between physical health (BRFSS) and loneliness (UCLA-LS) as measured by Pearson’s \( r \), which shows no correlation existed between groups.
Quality vs. Quantity of Friendships

First, the effect of quality of friendships on loneliness was investigated. A one-way ANOVA revealed a statistically significant difference in loneliness scores along the spectrum of poor to maximum friendship quality at the $p<0.05$ level ($F(3,330) = 74.8728, p = 5.8\times10^{-37}$). Post hoc comparisons using a Tukey HSD test indicated that the mean loneliness score for those with poor social support ($M = 62.5263, SD = 7.1443$) was significantly different than those with average ($M = 52.5287, SD = 9.1000$), good ($M = 38.6184, SD = 9.4270$), and maximum ($M = 37.4286, SD = 11.3162$) social support. Furthermore, the mean loneliness score for those with average social support ($M = 52.5287, SD = 9.1000$) was significantly different than those with good ($M = 38.6184, SD = 9.4270$) and maximum ($M = 37.4286, SD = 11.3162$) social support. However, the mean loneliness score for those with good social support ($M = 38.6184, SD = 9.4270$) did not significantly differ from those with maximum social support ($M = 37.4286, SD = 11.3162$). Taken together, these results suggest that quality of friendships influenced perceived loneliness. A calculation of Pearson’s $r$ to test for the relationship between these groups revealed that there was a strong negative correlation between the quality of friendships and loneliness ($r = -0.6767$), as seen in Figure 2. Therefore, the greater the quality of social support, the less likely one will experience loneliness. On the contrary, lower quality of social support indicated higher scores of perceived loneliness.
The relationship between quality of friendships and loneliness as measured by Pearsons’ \( r \), which shows a strong, negative correlation existed between groups.

The role of quantity of friendships on loneliness was also investigated. A one-way ANOVA revealed a statistically significant difference in quantity of close friends among respondents who never, rarely, sometimes, and always felt lonely at the \( p<0.05 \) level (\( F(3,330) = 31.6081, p = 5.51 \times 10^{-18} \)). Post-hoc comparisons using a Tukey HSD test indicated that the mean close friends score for those who never feel lonely (\( M = 20.0000, SD = 7.0711 \)) was significantly different from those who rarely (\( M = 9.3484, SD = 4.8612 \)), sometimes (\( M = 6.1310, SD = 3.2877 \)), and always (\( M = 3.7500, SD = 2.5145 \)) feel lonely. Furthermore, the mean close friends score for those who rarely feel lonely (\( M = 9.3484, SD = 4.8612 \)) was significantly different from those who sometimes (\( M = 6.1310, SD = 3.2877 \)) and always (\( M = 3.7500, SD = 2.5145 \)) feel lonely. Lastly, the mean close friends score for those who sometimes feel lonely (\( M = 6.1310, SD = 3.2877 \)) was significantly different from those who always (\( M = 3.7500, SD = 2.5145 \)) feel lonely. Taken together, these results indicate that the quantity of friendships influenced a respondent’s perceived loneliness. A calculation of Pearson’s \( r \) to test for the relationship between these groups revealed that there was a strong negative correlation between the quantity
of friendships and loneliness ($r = -0.4732$), as seen in Figure 3. Therefore, respondents who reported having a greater number of friendships were less likely to feel lonely, while those who reported having a smaller number of friendships were more likely to feel lonely.

![Quantity of Friendships vs. Loneliness](image)

**Figure 3.** The relationship between quantity of friendships and loneliness as measured by Pearson’s $r$, which shows a strong, negative correlation existed between groups.

![Social Support p-values](image)

**Figure 4.** A comparison of the averaged loneliness score $p$-values between quality of social support scores and quantity of social support scores.

Lastly, the mean $p$-values between quality and quantity scores were compared to determine which of the two had the greatest impact on perceived loneliness. The $p$-values were
ascertained from the Tukey HSD post-hoc analysis. Figure 4 shows the mean $p$-values between loneliness and quality of friendships ($M = 0.0003$, $SD = 0.0004$) and the mean $p$-values between loneliness and quantity of friendships ($M = 0.0013$, $SD = 0.0031$). Given that a lower $p$-value indicates greater statistical significance, quality of friendships seems to be the better indicator of loneliness due to its lower $p$-value.
Discussion

The primary focus of the present study was to investigate the relationship between loneliness and physical health among JMU freshmen using a Qualtrics survey. Past research used laboratories and objective measurements to discover various mechanisms through which loneliness affected health, such as cardiovascular health, sleep quality, and immune function (Cacioppo et al., 2002; Pressman et al., 2005; Segrin & Passalacqua, 2010). In an attempt to remove the laboratorial environment and to find an efficient and equally reliable alternative, the present study relied on a respondent’s self-report of physical health through a survey. Although this method was a subjective measurement, it was hoped to provide a unique alternative to laboratory testing. Furthermore, past research assessed loneliness through a subjective self-report survey; therefore, having a physical health survey would be a convenient addition and companion to the loneliness survey.

The current results indicated that loneliness did not affect physical health. One possibility for these conclusions could be the size of the sample, as the response rate was only 7.7%. A larger sample size could have yielded a better representation of perceived loneliness and physical health, thus providing a better understanding of the survey as a tool for assessing these factors. Because this small response rate was not representative of the entire 4,350 enrolled freshmen, the findings in the present study cannot be generalized to the entire freshman class at JMU.

Another possibility for the current results could be the physical health survey that was used. The present study chose the BRFSS as the tool for assessing physical health because it was part of the Center for Disease Control and Prevention’s annual procedure for assessing behavioral health. Given that this particular section of the BRFSS only contained three general questions, it
was perhaps too vague and it may have failed to collect enough information to reveal a relationship with loneliness. The UCLA Loneliness Survey was considered reliable due to its extensive use in similar past research (e.g., Cacioppo et al., 2002; Hawkley et al., 2003; Pressman et al., 2005; Segrin & Passalacqua, 2010). Therefore, the BRFSS is the survey that most likely needs to be substituted for a more suitable and extensive instrument by which to assess physical health. Since the UCLA-LS was an appropriate measurement for perceived loneliness, and was not deemed as a questionable instrument for the purposes of the present study, it was also used to assess the relationship between aspects of social support and loneliness.

In observing the influence of quality of friendships and quantity of friendships on loneliness, the present study’s findings supported much of the past research conducted on these branches of social support. While the quality of relationships during young adulthood is known to be a predictor for future wellbeing and relationship stability (Parade et al., 2010), the quantity of friendships has also been proven to have a significant role in decreasing loneliness (Pressman et al., 2005). The present study showed a significant difference in loneliness when comparing both quality and quantity of friendships, which supports Kawachi and Berkman’s research (2001) that both quantity and quality contributed equally towards social support and wellbeing. Although the differences in loneliness between quantity and quality of friendships were small, the quality of friendships seemed to be the more significant predictor of loneliness due to its correlation and mean $p$-value as measured by the Tukey HSD test. The slightly smaller mean $p$-value of 0.001 from quality of friendships, as compared to 0.005 from quantity of friendships, may indicate the quality of friendship’s significance in influencing loneliness. Furthermore, the quality of friendships Pearson’s $r$ value was greater than that of the quantity score, which indicates quality scores had a stronger correlation to loneliness. Although these were small differences between
the scores, the present study can tentatively suggest that the quality of friendships had a greater influence on perceived loneliness than quantity of friendships. A limitation on the strength of this conclusion is the study’s small sample size and the small differences between the $p$-values and Pearson’s $r$ values. Therefore, further research is needed to confidently establish which of the two branches of social support is the best predictor for perceived loneliness in college freshmen at JMU.

JMU takes great pride in its weeklong freshman orientation prior to the beginning of the fall semester. Consequently, the present study could help guide staff in altering the program to ensure that freshmen integrate well into their new peer network. Research by Weiss (1973) stressed the importance of establishing social support upon entering a new environment to avoid chronic loneliness and its subsequent health problems. Since the present study indicated a possible correlation between quality of friendships and loneliness, the freshman orientation program could focus less on the number of new friendships, and focus more on building upon relationships within small groups. Building a trusting and supportive network within those groups could help ensure a satisfying social support network, which could reduce perceived loneliness and prevent related maladies.

Although self-reporting was regarded as a strength in that it was unique to the physical health measurement, Hefner and Eisenberg (2009) suggested self-reporting might cause an error in measurements. Self-reporting is subjective, which could hinder a respondent’s honesty or accuracy in answering questions; therefore, input from a third party could help provide a more well-rounded assessment of loneliness and physical health. To assess loneliness, third party interviewers could host focus groups held throughout a freshman student’s first year at JMU. To assess health, the university health center may be able to act as a third party interviewer when
students come for check-ups and appointments for illnesses. Health professionals at the health center could ask about a freshman’s health since the beginning of the semester, as well as the social support the student is receiving as a way to externally gauge loneliness and health. In addition to finding a better survey to supplement or substitute the BRFSS, perhaps the health center could implement routine check-ups to assess freshmen’s overall health to not only prevent loneliness, but to also avoid other potential long-term health problems. Furthermore, the university counseling center can be an instrumental resource for freshmen who need someone to speak with for a wide variety of social and behavioral concerns. Counselors may also act as a third-party interviewer to assess a freshman student’s perceived loneliness and social support. These third-party interviewing options may help to offset the errors caused by subjective self-reporting.

Due to the present study’s limitations, more research must be conducted to better assess the role of loneliness on physical health and the role of social support on loneliness. Due to the fact that young adulthood is a sensitive time in students’ lives, as they begin to establish long-lasting habits and engage in new behaviors, it is important that the university ensure their wellbeing by creating a supportive and caring environment. If the university can help ease incoming students’ integration into college through a more efficient survey instrument for regular mental and physical health screening, an improved orientation program, and via endorsing their on-campus mental and physical health resources, freshmen and upperclassmen alike could benefit from these modifications to achieve overall wellbeing that could last a lifetime.
References


Wright, K., King, S., & Rosenberg, J. (2013). Functions of social support and self-verification in
Appendix A

1. What year are you?
   - Freshman
   - Sophomore
   - Junior
   - Senior

2. What is your age?

3. What is your gender?
   - Male
   - Female
   - Prefer Not Say

4. Would you say that in general, your health is...
   - Excellent
   - Very Good
   - Good
   - Fair
   - Poor

5. Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?

   Number of Days (0-30)

6. During the past 30 days, for about how many days did poor physical health keep you from doing your usual activities, such as self-care, work, or recreation?

   Number of Days (0-30)

7. The following statements describe how people sometimes feel. For each statement, please indicate how often you feel the way described by circling a number that corresponds to the frequency of that feeling.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often do you feel in tune with the people around you?</td>
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<td>How often do you feel that you lack companionship?</td>
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<tr>
<td>Question</td>
<td>1</td>
<td>2</td>
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<td>-------------------------------------------------------------------------</td>
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<td>How often do you feel that there is no one you can turn to?</td>
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<td>How often do you feel alone?</td>
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<td>How often do you feel part of a group of friends?</td>
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<td>How often do you feel that you have a lot in common with people around you?</td>
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<td>How often do you feel you are no longer close to anyone?</td>
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<td>How often do you feel that your interests and ideas are not shared by those around you?</td>
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<td>How often do you feel outgoing and friendly?</td>
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<td>How often do you feel close to people?</td>
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<td>How often do you feel left out?</td>
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<td>How often do you feel that your relationships with others are not meaningful?</td>
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<td>How often do you feel that no one really knows you well?</td>
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<td>How often do you feel isolated by others?</td>
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<td>How often do you feel that you can find companionship when you want it?</td>
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<td>How often do you feel that there are people who really understand you?</td>
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<td>How often do you feel shy?</td>
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<tr>
<td>How often do you feel that people are around you but not with you?</td>
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<td>How often do you feel that there are people you can talk to?</td>
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<tr>
<td>How often do you feel that there are people you can turn to?</td>
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</table>

Next are some questions about the support that is available to you.
About how many close friends and close relatives do you have (people you feel at ease with and can talk to about what is on your mind)?

Please enter a whole number (i.e. 8).

People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you if you need it?

<table>
<thead>
<tr>
<th>Support Provided</th>
<th>None of the Time</th>
<th>A Little of the Time</th>
<th>Some of the Time</th>
<th>Most of the Time</th>
<th>All of the Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Someone to help you if you were confined to bed</td>
<td>○ ○ ○</td>
<td>○</td>
<td>○ ○ ○</td>
<td>○ ○ ○</td>
<td>○ ○ ○</td>
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<tr>
<td>Someone you can count on to listen to you when you need to talk</td>
<td>○ ○ ○</td>
<td>○</td>
<td>○ ○ ○</td>
<td>○ ○ ○</td>
<td>○ ○ ○</td>
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<tr>
<td>Someone to give you good advice about a crisis</td>
<td>○ ○ ○</td>
<td>○</td>
<td>○ ○ ○</td>
<td>○ ○ ○</td>
<td>○ ○ ○</td>
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<tr>
<td>Someone to take you to the doctor if you needed it</td>
<td>○ ○ ○</td>
<td>○</td>
<td>○ ○ ○</td>
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<tr>
<td>Someone who shows you love and affection</td>
<td>○ ○ ○</td>
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<td>○ ○ ○</td>
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<td>Someone to have a good time with</td>
<td>○ ○ ○</td>
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<tr>
<td>Someone to give you information to help you understand a situation</td>
<td>○ ○ ○</td>
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<td>○ ○ ○</td>
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<tr>
<td>Someone to confide in or talk to about yourself or your problems</td>
<td>○ ○ ○</td>
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<td>Someone who hugs you</td>
<td>○ ○ ○</td>
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<tr>
<td>Someone to get together with for relaxation</td>
<td>○ ○ ○</td>
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<td>Someone to prepare your meals if you were unable to do it yourself</td>
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<td>Someone whose advice you really want</td>
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<td>Someone to do things with to help you get your mind off things</td>
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<td>Someone to help with daily chores if you were sick</td>
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<td>Someone to share your most private worries and fears with</td>
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<td>Someone to turn to for suggestions about how to deal with a personal problem</td>
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<td>Someone to do something enjoyable with</td>
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<tr>
<td>Someone who understands your problems</td>
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<td>Someone to love and make you feel wanted</td>
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