International vs. Non-International students, regarding attachment, social support, and loneliness.

Katie Martin

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Supervisor: Lucie Corcoran

Programme Leader: Dr. R. Reid

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Department of Psychology

Dublin Business School
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Abstract

The aim of this study was to investigate if attachment style and perceived social support would predict loneliness among students. It also aimed to investigate if there would be a significant difference in perceived social support between international and non-international students. Furthermore, it sought to examine if there was a difference between international and non-international student on levels of loneliness. A quantitative approach was taken for this study using a cross-sectional, correlational design and a convenient sample. Participants were recruited online via social media platforms where they were asked to fill out a self-report survey which contained scales measuring attachment style, perceived social support, and loneliness levels. 102 participants took part in this study. Inferential statistical analysis reported significant results for all hypotheses.

Keywords: Attachment, Perceived social support, Loneliness
1. Introduction

According to the Central Statistics office (2017) there is a total of 189,147 students studying in 3rd level education institutions in Ireland. Of these, over 25,000 were reported as being from countries outside of Ireland, i.e. international students. However, these figures only pertain to those enrolled in Full-time 3rd level institutions and so, it can be presumed, that the number of students, both international and non-international, would be higher when considering Part-time students as well. Therefore, due to the vast numbers of both international and non-international students in Ireland, it is important to examine the various challenges this student population may face. This research aims to investigate International vs. non-international students, regarding attachment, social support, and loneliness. It aims to do so by investigating attachment styles and their relationship to a person’s level of loneliness. It will then investigate the relationship of perceived social support to loneliness.

Furthermore, it will compare levels of loneliness and perceived social support between international and non-international students. It is important to garner an idea of what different variables contribute to loneliness (attachment style, perceived social support), and as well as that, to clarify if certain students (international or non-international) are more at risk to loneliness and its adverse effects. There are three key variables within this study which are: loneliness, attachment style, and perceived social support. These three variables will be investigated throughout this introduction by examining research surrounding each variable and furthering that will examine research on each variable as it pertains to the student sample used for the present study. As will be seen, high levels of loneliness, poor attachment style, and low perceived social support can have many detrimental effects to a vast array of individuals. Furthermore, the population of students in Ireland will be examined in relation to each variable, with a focus given to how international students may suffer more direct effects of loneliness and low perceived social support due to living away from home and perhaps not
receiving sufficient support. The area of attachment style will be examined also by investigating past research to see if a poor attachment style contributes to loneliness among students.

1.1 Loneliness

Loneliness can be described as existing to the extent that a person’s network of social relationships is smaller or less satisfying than the person desires (Cook & Wilson, 2013). It is thought to be the feeling or perception of being alone and can be experienced as stressful and be associated with poor health. Although loneliness generally occurs when someone has a smaller social network than he/she desires, even people with lots of friends and acquaintances can feel lonely (Martin, Carlson & Buskist, 2009). This point is important for the current study as it may be uncovered that those who score high on loneliness, may still score high on social support – indicating that there can be more variables than social support which contribute to loneliness. If this is the case, attachment style might provide further insight into why someone is lonely.

1.2 Research on Loneliness among students

Sawir, Marginson, Deumert, Nyland and Ramia (2007) conducted a study on loneliness and international students. With a sample of 200, it was found that two thirds of the group had experienced problems of isolation and/or loneliness, particularly in the early months. Intensive interviews were conducted among these students and revealed that students experienced both personal loneliness due to the loss of contact with families and social loneliness due to the loss of friendship networks. Cultural loneliness was another form of loneliness found. Cultural loneliness can be triggered by the absence of the individual’s
cultural and/or linguistic environment. For instance, an international student from a non-English speaking country, may suffer loneliness as a result of entering a new environment in which they must speak a second language. This, in many instances, could create a social barrier in adjusting to life and interacting with new people in a new country and thus produce loneliness. The study outlines the need for a creation of stronger bonds between international and non-international students within the educational setting, which in turn would help international students to recreate their own cultural maps on their own terms. This information is important for the current study as, if international students score high on loneliness and low on perceived social support, it may indicate, in a similar fashion to this study, that more social support is needed for those international students adjusting to life in a new country.

Loneliness among students is not simply an international student problem. Ozemir & Tuncay (2008) conducted a study on non-international Turkish students. They found that 60.2% of the participants experienced loneliness. Their results also indicated that there was a significant relationship between romantic relationship, parents’ status and loneliness. In this way, participants’ loneliness levels were higher if they did not have any romantic relationship and were not from married families. The current study is examining loneliness in both international and non-international students. Therefore, studies such as Ozemir & Tuncay (2008) provide evidence that loneliness occurs even with non-international students who would be assumed to have better social support than international students. It highlights the fact that non-international students may have other variables contributing to loneliness such as lack of a romantic relationship and coming from unmarried families. Furthermore, the current study will examine whether attachment style contributes to loneliness among non-international students. As attachment style has been linked to romantic relationship
satisfaction, it is not unprecedented to make the assumption that attachment style may predict loneliness among non-international students.

1.3 Risk factors associated with loneliness

As discussed, research has shown that loneliness occurs between both international and non-international students. There are various risk factors associated with loneliness which will now be discussed to highlight the importance of tackling loneliness among students. For instance, Ebosutani & Fierstein (2015) found loneliness to be a risk factor in youths’ lives that may result from anxiety and place youth at risk for subsequent depression. Cacioppo, Hughes, Waite, Hawkley and Thisted (2006) found higher levels of loneliness were associated with more depressive symptoms among older adults. Depression has been known to lead to suicide with close to 800,000 people dying each year to suicide. Evidently, suicide is the second leading cause of death in 15-29-year olds (W. H. O., 2017). Given these statistics, it is crucial to conduct research into areas such as loneliness among young adults, as, preventing loneliness may prevent worse scenarios such as depression and, at its worst, suicide. In fact, Chang et, al. (2017) found loneliness directly to be a predictor of suicide risk.

There has also been research which highlights other health risks to those who are lonely. In a direct examination of whether loneliness (and the size of a person’s social network) influenced health, Pressman et. al. (2005) investigated the antibody response to influenza immunisation in first-year students whose social networks and degrees of loneliness throughout their first semester were assessed. It was found that students experiencing either the greater degree of loneliness or the smallest social networks showed poorer antibody response to one viral component of the vaccine. Furthermore, those who were most lonely and who also had the smallest social networks showed the lowest antibody response of all.
Students who were lonely also had more circulating cortisol, slept less well, experienced greater stress and experienced more negative emotion. As this study was conducted on students, it is highly relevant to the current study. It shows the various health risks associated with loneliness and the adverse effects it can create for students. In this way, it is of optimum importance that research is conducted on loneliness among students to prevent such health risks. The current study will also include attachment type as a predictor of loneliness which may help provide further insights into the causes of loneliness.

Benner (2011) researched Latino adolescents’ feelings of loneliness and the repercussions of loneliness for later educational success. It was found that increasingly and chronically lonely youth experienced academic difficulty, both in terms of academic progress and exit exam success, but support from friends served as a buffer of the negative relationship between loneliness and academic success. This study outlines the pernicious effects of loneliness and suggests promoting prosocial friendship support as a means of facilitating more positive academic outcomes. This study is extremely relevant to the current study as it shows that academic success has a link to loneliness – something that is of crucial importance to participants of the current study. It also highlights that friendships can help to buffer loneliness, this is similar to the current study in that it will be examining the role of perceived social support in mediating loneliness. The current study will also examine attachment style as a potential predictor of loneliness. As attachment style has been shown to reflect in later relationships, and loneliness is thought to stem from a lack of the social networks desired, it is understandable to see that attachment may play a role in lack of desired friendships/relationships and thus be a cause of loneliness. This will be covered in more detail below.
Attachment theory describes infants as having an inborn biological need for close contact with a primary caregiver (usually the mother) which develops within the first six months of life and is dependent upon the mother’s responsiveness to the infant’s needs (Colman, 2015, p. 63). Although it begins at birth, it can influence relationships throughout the life span (Berger, 2014, p. 191). Bowlby (1979) drew his attachment theory from observing children in orphanages where he witnessed a lack of bonding between the child and the primary caregiver (Crain, 2011). From this, Bowlby (1979), formed the idea that attachments are inborn needs which are crucial for the infant’s survival (because of evolution) and failure to attain such attachment can result in lifelong emotional and behavioural problems. The strength of a child’s attachment depends not only on the ways in which parents and infants bond, but also on the quality and consistency of caregiving, safety and security of the home environment, and individual and family experience (Berger, p. 191).

When infants become mobile, they begin to use their parents as a secure base from which to explore their environment (such as in the playground). They may venture off but periodically look back to exchange smiles, and at times return to the mother. It is during this period that the child also builds an internal working model (IWM) of the behaviour of their primary caregiver and comes to understand the accessibility and responsiveness of the caregiver (Harris & Westermann, 2015). As the infants work their way through the attachment phases they are thought to reach a key milestone of developing attachment. This milestone is that the infant depends less and less on the actual physical proximity of their primary caregiver, and more so on the idea that he/she is ‘available’. Through the infant’s early attachments that they form to the closest people to them, they build up expectations about themselves, others and the relationships between them which form what Bowlby (1969, 1973) named the child’s internal working model (IWM). This cognitive model contains past
interactions with the attachment figure and incorporates new ones as the infant engages with them more and more, and this model will then guide the infant’s later interactions with attachment figures and other people. In this way, it is clear why characteristics such as sensitivity to infant’s needs and reliability matter as these get associated with the infant’s experiences as part of the IWM, which informs the child’s future actions using the expectations formed from these experiences (Gillibrand, Lam & O’Donnell, 2016). This is relevant to the current study as it would suggest that those who are insecurely attached, would struggle to form attachments or friendships as adults, something that could lead to a lack of social relationships as desired by the individual, and cause loneliness.

1.5 Attachment – influence of Ainsworth

Mary Ainsworth (1970) was the first to identify the different attachment styles which infants form. After arriving in the U.S from Africa, she conducted research on 23 middle class infants and their mothers in Baltimore. Within this study, she observed different patterns of attachment which have stimulated an incredible amount of research in developmental psychology. Ainsworth (1970) and her students observed the babies and their mothers at home for the first year of the infant’s lives. This included visiting them for about four hours every three weeks. When the infants reached twelve months, Ainsworth wanted to observe how they would behave in a new setting, so she brought them and their mothers to a playroom. Her area of interest was to investigate how the infants would use their mother as a safe base to explore, and how they would react to two brief separations from her. In the first separation, the mother left the infant with a friendly stranger; in the second, the infant was left alone for 3 minutes. This experiment was called the Strange Situation, and from it three distinct attachment patterns were observed (Crain, 2011, p. 55). Attachment is classified into
four types. Those with secure attachment (type B) feel content and confident. They see their caregiver as a safe base for exploration. These infants will play happily when their mother is in the room. When she leaves they will pause and not be happy, yet when the mother returns they welcome her and resume playing. By contrast, insecure attachment (types A & C) is characterised by anxiety, anger, fear, or indifference. Some insecure infants play independently without maintaining contact; this is insecure-avoidant attachment (type A). The opposite attachment is insecure-resistant/ambivalent (type C). These infants may cling to their caregiver and are angry at being left alone. Ainsworth’s research only contained types A, B, and C. Type D was later added by other researchers. This is known as disorganised attachment. Disorganised infants may shift suddenly from hitting to kissing their caregivers, from staring blankly to crying uproariously (Berger, p. 193). In this way they are unpredictable and have no clear attachment style.

Ainsworth’s research proved to further that of Bowlby’s as the different attachment types can be represented by different IWMs. For instance, for a securely attached child, his IWM of his caregiver will be one of warmth and attentiveness or of someone who is often available. Here the infant is content knowing his primary caregiver will return after separation which in turn helps him become accepting of others and relationships and see himself as someone worthy of love. In contrast, insecurely attached children’s IWM of the caregiver is one of more coldness or even rejection, which may lead the child to display little or no distress at separation and expect little at reunion. These children are thought to have a less worthy sense of identity and have more difficulty building close relationships with other people. This is because they have formed a pessimistic IWM which reflects on other relationships because of their past experiences. The IWM relays children’s past experiences to guide their current actions. Therefore, in theory, it will prepare a secure child with confidence and self-worth to develop close relationships with family and build friendships
with peers. Contrastingly, an insecure child will lack these desirable social and emotional traits for developing healthy relationships (Gillibrand et. Al., p. 270). This is extremely relevant to the current study as it is predicted that attachment type will predict loneliness. The idea is that those who are insecurely attached will have higher levels of loneliness, which is consistent with past research in that insecurely attached individuals will struggle to form later relationships due to their IWM which relays experience to guide current actions.

1.6 Attachment’s link to loneliness

Generally, loneliness emerges from a lack of satisfying social relationships. Thus, it is not surprising that researchers have drawn conclusions that insecurely attached adults may suffer from loneliness. DiTommaso, Brannen-McNulty, Ross & Burgess (2003) found attachment security and social skills as significantly related to loneliness. Erozkan (2011) found loneliness to be positively correlated to fearful, preoccupied, and dismissing attachment styles, while it was negatively correlated to securely attached styles among Turkish students. In a similar study, students with elevated levels of attachment anxiety and attachment avoidance experienced feelings of loneliness and subsequent depression (Wei, W. Russell & A. Zakalik, 2005). All of these studies outline how an insecure attachment can lead to loneliness. This is like the current study; however, the current study will also investigate social support as a predictor of loneliness.

1.7 Perceived Social Support link to loneliness

Social support protects individuals against adversity throughout their lives. It is crucial during times of social change, such as during the transition to adulthood (Lee & Goldstein, 2016). Students may receive social support from family, peers and student
services. Liu, Gou & Zuo (2014) found a correlation between loneliness and social support on depression and that social support partially mediates loneliness and depression among older adults. Lee et al. (2016) found that the role of social support against loneliness varies by its source as only support from friends buffered the association between stress and loneliness. Chang et al. (2017) found that family support both additively and interactively represents a positive psychological resource that should be considered in understanding suicide risk among students. This outlines the need to examine social support among international students, as they do not have family and friends nearby, and thus community support may be the only source to prevent loneliness, and at its worst suicide.

Garcia-Martín and Gomez-Jacinto (2012) investigated the relationship between social support, loneliness and well-being. They found that partner support, family support, and support from friends, respectively, significantly decrease romantic loneliness, family loneliness, and social loneliness. However, it was also found that community support has little effect on reducing social loneliness. This is perhaps important to note for the current study as generally speaking international students do not have friends or family nearby and thus may have to turn to community supports which, from Garcia-Martín & Gomez-Jacinto’s (2012) research, apparently did little to improve loneliness.

1.8 Conclusion/Rationale

The purpose of this research is to study the relationship of attachment and social support to loneliness among international and non-international students. As mentioned, there is a large number of students studying in Ireland (189,147). Of these, many are international (over 25,000). Due to these large numbers, it is important to conduct research into the
challenges they face as students as this knowledge may aid in preventing loneliness and subsequent problems associated with loneliness.

Loneliness is a problem that affects many. Research was discussed which outlined the various risk factors associated with loneliness. These included: depression, suicide risk, poorer antibody response to influenza immunisation (a direct health risk), sleeping difficulties, greater stress, and negative emotions. It is clear from this research that the contributors to loneliness must be examined to tackle these risks. Furthermore, studies directly relating to loneliness and international students have shown that they are at elevated risk to loneliness due to being away from home and may experience cultural loneliness. This is an area which needs to be further investigated to establish ways of preventing loneliness among international students – perhaps through social support which will also be examined in the current study. Yet, loneliness is not simply a problem for international students as studies examining loneliness amongst non-international students have also found high levels of loneliness. Due to this, the present study aims to examine and compare loneliness between international and non-international students with the aim to understand the different factors for each group contributing to loneliness. It is important to get a comparison as perhaps both groups require different supports in tackling loneliness.

Attachment style is another area that will be investigated in the present study. Past research has indicated that attachments formed in childhood are reflected in later relationships. Therefore, it is not surprising that studies have shown that those who are insecurely attached often experience high levels of loneliness as adults. Attachment style will be examined in the current study to better understand underlying factors that lead a person to be lonely. This is vital information for clinicians who may be treating someone who is lonely. It also may inform 3rd level institutions to provide support for students, considering those who may have insecure attachment and thus be prone to loneliness and its adverse effects.
Perceived social support is another area which was discussed in relation to loneliness. Many studies have found a relationship between lack of social support and loneliness. Interestingly, one study found that community support did little to prevent loneliness. This is important for the present study as international students would have little other support to turn to as they are away from friends and family. The current study will investigate perceived social support among both international and non-international students and see if similar results are found. This will provide further information on the kind of supports necessary for both international and non-international students, and perhaps be beneficial to 3rd level institutions in creating adequate support systems for each group.

1.9 Hypotheses:

Hypothesis 1: It is hypothesised that attachment style and perceived social support will significantly predict loneliness among college students.

Hypothesis 2: It is hypothesised that there will be a significant difference in perceived social support between international and non-international students.

Hypothesis 3: It is hypothesised that there will be a significant difference in loneliness between international and non-international students.
2. Methodology

2.1. Participants:

A convenience sample was used, with an aspect of snowball sampling. Participants were non-international and international students studying in Ireland. N = 102 with the gender split consisting of 40.2% male and 59.8% female. Of these, 46 were international and 56 were non-international. Participants were all over 18 years of age, with the 18-24-year olds being the largest age group (75.5%).

This was an online study whereby a digital questionnaire was distributed and shared via KwikSurveys. Participants were drawn from the public using platforms such as Facebook, Whatsapp, email, Twitter, and Reddit. The recruitment process involved the sharing of this survey on all these platforms along with snowball sampling by which people who took part from the public platforms sent the link to their friends and so on. All participants were asked whether they were an international or non-international student studying in Ireland. Only participants who fell into either of these categories were permitted to proceed. Demographic variables included on the questionnaire were gender, age, and student type (international or non-international). The participants then answered questions on attachment style, level of perceived social support, and loneliness.

2.2. Design:

A quantitative approach was taken for this study using a cross-sectional, correlational design and a convenient sample. The approach was quantitative in that self-report questionnaires were used to collect data. It is cross-sectional as two samples (international and non-international) were drawn from the population at one time. Participants were assigned to groups based on which type of student they were, either international or non-international. It is correlational as relationships between variable were examined (relationship
between attachment style and loneliness, relationship between social support and loneliness). For hypothesis 1, predictor variables included attachment style and perceived social support, with the criterion variable being level of loneliness. For hypothesis 2, independent variables included international student and non-international student, with the dependent variable being level of perceived social support. For hypothesis 3, the independent variables (similarly to hypothesis 2) included international student and non-international student, however the dependent variable this time was level of loneliness. Demographic variables included age and gender.

2.3. Materials

The online survey was delivered using KwikSurveys. At the outset of the survey participants were asked to consent to the study. Demographics were assessed by asking questions on gender and age. Participants were also asked if they were an international student or a non-international student to separate the two samples (see Appendix 2).

To measure attachment styles, Measure of Attachment Qualities (MAQ) was incorporated into the survey (Carver, 2013). This is a measure of adult attachment patterns which has separate scales to assess secure attachment tendencies and avoidant tendencies, and two scales reflecting aspects of anxious-ambivalent pattern (see Appendix 3). The four scales within the MAQ assess secure, avoidant, and two ambivalent attachment patterns (ambivalent-worry and ambivalent-merger). Each scale comprises of three to five items which are rated on a 4-point Likert scale. An example of a question within the scale is “I find it easy to be close to others”. Participants are asked to read the statements and answer on how often they feel this way within the ranges provided. This ranges from (1) I disagree a lot to (4) I agree a lot. According to Segal, Needham & Coolidge (2009), each subscale within the MAQ has good internal reliability (Cronbach’s alpha), with a Cronbach alpha coefficient reported of .76 for
secure, .77 for avoidant, .79 for ambivalent-worry and .66 for ambivalent-merger. In the current study the Cronbach alpha coefficient was .91 for security, .83 for avoidance, .84 for ambivalence-worry and .87 for ambivalence-merger.

To measure perceived social support, The Multidimensional Scale of Perceived Social Support (MSPSS) was used (Zimet, Dahlem, Zimet & Farley, 1988). This is a self-report measure which subjectively assesses social support. It uses three subscales which are family (items 3, 4, 8, 11), friends (6, 7, 9, 12), and significant other (items 1, 2, 5, 10), all of which were identified as having strong factorial validity. Within this scale, participants rate each item on a Likert scale which ranges from 1-7; where 1 = “very strongly disagree” and 7 = “very strongly agree” (see Appendix 4). The total score of a participant’s perceived social support is calculated by the sum of all 12 items. Total scores can range from 12-84 with 12-48 indicating low acuity; 49-69 indicating moderate acuity; 69 – 84 indicating high acuity. Within the subscales, scores for perceived social support from family (FAM), from significant other (SO), and from friends (FRI) can be assessed by summing the scores of the items listed above as part of that scale and then dividing by 4. Mean scores on the subscales range from 1-7 with 1-2.9 indicating low support; 3-5 indicating moderate support; 5.1-7 indicating high support. Examples of questions include “I have friends with whom I can share my joys and sorrows” (FRI), and “I get the emotional help and support I need from my family” (FAM). The MSPSS has good internal consistency with $\alpha = .88$ for the total scale (Zimet et al., 1988, p. 36). In the current study, the Cronbach’s alpha coefficient was .98 for the total scale indicating very high internal consistency.

To measure loneliness, the UCLA loneliness scale was used (Russell, Peplau, & Ferguson, 1978). This is a 20-item scale which is designed to measure one’s subjective feelings of loneliness as well as feelings of isolation. This measure has been widely used in research and has shown to have high internal consistency (coefficient alpha = .96). It also has a test-
retest correlation over a two-month period of .73 (Russel et al., 1978). In the current study, the Cronbach’s alpha coefficient is .98 indicating high internal consistency. This measure asks participants to indicate how often each of the 20 statements are descriptive of them. Participants can answer “I often feel this way” (O), “I sometimes feel this way” (S), “I rarely feel this way” (R), or “I never feel this way” (N). Examples of the statements within the measure include “I am unhappy doing so many things alone”, “I feel starved for company”, and “I am unhappy being so withdrawn”. For the present study, item number 6 “I find myself waiting for people to call or write” was altered to “I find myself waiting for people to call, or write, or contact me over social media”. This change was deemed necessary for the present era with the increased use of social media over writing letters amongst students. The total scores range from a low of 0 to a high of 60, to obtain scores all O’s = 3, all S’s = 2, all R’s = 1, and all N’s = 0.

2.4. Procedure:

At the outset of this study, a research proposal was submitted, and ethical approval was sought from the Dublin Business School Department of Psychology Ethics Committee. The proposal was approved, and ethical approval was granted. Participants were recruited by sharing information about the study and a link to the survey on online platforms such as Facebook, Whatsapp, email, and Reddit. Participants gained access to the survey via a link created by KwikSurveys. Snowball sampling was also utilized for other willing participants, particularly for those who did not have access to some of the online platforms used. In this way, the survey link was sent on to friends by participants who had access to the online platforms, thus obtaining more participants. Once participants had access to the survey, they were first brought to a cover letter which detailed the aims of the study, information about the researcher and that the research would be assessed as part of a final year project (see Appendix
1). Definitions of international and non-international students was provided to ensure participants fit the demographic. It was outlined that participation was entirely voluntary and that they were under no obligation to take part. It was also outlined that some of the questions may bring about negative feelings and that contact details for relevant support services were included on the final page of the survey, along with the researcher and supervisor’s email addresses (see Appendix 6). Furthermore, it was outlined that participation was entirely anonymous, with results being stored securely on a password-protected computer.
3. Results

SPSS, Version 22, was used to run statistical analysis. This results section will concentrate on descriptive statistics and inferential statistics. The descriptive statistics will include tables and descriptions of variables which will include mean, standard deviation, maximums and minimums. The inferential statistics will include parametric testing such as multiple regression, and two independent samples t-tests. These tests will examine and identify correlations and differences between variables.

3.1 Descriptive statistics

102 participants took part in this study. The sample consisted of 41 males (40.2%) and 61 females (59.8 %). Of these, 56 were non-international students (54.9%) and 46 were international students (45.1%). The majority of participants were aged 18-24 years old (75.5%). This was followed by 25-34 year olds (22.5%), 35-44 year olds (1%) and finally 45-54 year olds (1%).

Figure 1 – Gender of respondents

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**Figure 2 – Student type among respondents**

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<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
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<td>international student</td>
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**Figure 3 – Age of respondents**

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<th>Percent</th>
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<td>25-34 years old</td>
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<td>45-54 years old</td>
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<tr>
<td>Total</td>
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</table>
Measure of Attachment Qualities (MAQ)

Descriptive statistics for the subscales of the MAQ calculated the following: a mean score of 9.64 (SD = 2.735) for secure attachment, a mean score of 10.97 (SD = 3.821) for avoidant attachment, a mean score of 7.97 (SD = 2.980) for ambivalent-worry attachment, and a mean score of 7.27 (SD = 2.871) for ambivalent-merger attachment. The minimum and maximum scores for secure attachment were 3 and 12, for avoidant attachment were 5 and 19, for ambivalent-worry were 3 and 12, and for ambivalent-merger were 3 and 12. A high score in any of these subscales indicates that the participant has a higher tendency towards the type of attachment being measured.

Figure 4 - Descriptive Statistics of MAQ subscales

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Security</td>
<td>102</td>
<td>3</td>
<td>12</td>
<td>9.64</td>
<td>2.735</td>
</tr>
<tr>
<td>Total Avoidance</td>
<td>102</td>
<td>5</td>
<td>19</td>
<td>10.97</td>
<td>3.821</td>
</tr>
<tr>
<td>Total Ambivalence-worry</td>
<td>102</td>
<td>3</td>
<td>12</td>
<td>7.97</td>
<td>2.980</td>
</tr>
<tr>
<td>Total Ambivalence-merger</td>
<td>102</td>
<td>3</td>
<td>12</td>
<td>7.27</td>
<td>2.871</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Multidimensional Scale of Perceived Social Support (MSPSS)**

The MSPSS scale calculated a mean score of 57.22 (SD = 24.890). The minimum and maximum scores were 12 and 84. High scores in this scale indicate higher levels of perceived social support experienced by that participant.

**UCLA Loneliness Scale (UCLA)**

The UCLA scale calculated a mean score of 28.31 (SD = 24.890). The minimum and maximum scores were 0 and 60. High scores in this scale indicate a high level of loneliness experienced by that participant.

*Figure 5 - Descriptive Statistics of MSPSS and UCLA scales*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total perceived social</td>
<td>102</td>
<td>12</td>
<td>84</td>
<td>57.22</td>
<td>24.890</td>
</tr>
<tr>
<td>Total Loneliness</td>
<td>102</td>
<td>0</td>
<td>60</td>
<td>28.31</td>
<td>20.760</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.2 Inferential Statistics

**Hypothesis 1:** It is hypothesized that attachment style and perceived social support will significantly predict loneliness.

For hypothesis 1 multiple regression was used to test whether attachment style and perceived social support were predictors of loneliness among students. The results of the regression indicated that the five predictors explained 76% of the variance (R² = .76, F(5, 96) = 64.87, p<.001). It was found that total perceived social support made the strongest unique contribution to explaining the dependent variable (β = .72, p < .001). Total ambivalence-merger was lower indicating that it made less of a significant contribution (β = .29), however it still made a significant contribution to the prediction of the dependent variable (p < .001). Total security also made a significant contribution to the prediction of the dependent variable, however of the three which made a unique contribution, it made less of a significant contribution (β = .2, p <.001) Some of this information is outlined below in figures 6 and 7.

**Figure 6 - Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Square</th>
<th>the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.878a</td>
<td>.772</td>
<td>.760</td>
<td>10.176</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Total perceived social support, Total Ambivalence-merger, Total Avoidance, Total Ambivalence-worry, Total Security

b. Dependent Variable: Total Loneliness
### Figure 7 - ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>33588.681</td>
<td>5</td>
<td>6717.736</td>
<td>64.871</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>9941.279</td>
<td>96</td>
<td>103.555</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>43529.961</td>
<td>101</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Total Loneliness

b. Predictors: (Constant), Total perceived social support, Total Ambivalence-merger, Total Avoidance, Total Ambivalence-worry, Total Security
Hypothesis 2: It is hypothesized that there will be a significant difference in perceived social support between international and non-international students.

For hypothesis 2, an independent samples t-test was used to test if there was a difference in perceived social support between international and non-international students. The results of the t-test indicated that there was a statistically significant difference in perceived social support between international (M = 41.11, SD = 25.43) and non-international students (M = 70.45, SD = 14.61) (t(68.58) = 6.94, p = .000, CI (95%) 20.9 -> 37.77). Therefore, the null can be rejected. Some of this information is outlined in the figure 8 below.

Figure 8 - Group Statistics for hypothesis 2

<table>
<thead>
<tr>
<th></th>
<th>Are you an international student or a non-international student?</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total perceived social support</td>
<td>non-international student</td>
<td>56</td>
<td>70.45</td>
<td>14.609</td>
<td>1.952</td>
<td></td>
</tr>
<tr>
<td></td>
<td>international student</td>
<td>46</td>
<td>41.11</td>
<td>25.428</td>
<td>3.749</td>
<td></td>
</tr>
</tbody>
</table>
**Hypothesis 3:** It is hypothesized that there will be a significant difference in loneliness between international students and non-international students.

For hypothesis 3 an independent samples t-test was used to test if there was a difference in loneliness between international and non-international students. The results of the t-test indicated that there was a statistically significant difference in loneliness between international (M = 43.28, SD = 16.97) and non-international students (M = 16.02, SD = 14.65) (t (100) = -8.71, p = .000, CI (95%) -33.48 -> -21.05). Therefore, the null can be rejected.

**Figure 9 - Group Statistics for hypothesis 3**

<table>
<thead>
<tr>
<th></th>
<th>Are you an international student</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>or a non-international student?</td>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td>Total Loneliness</td>
<td>non-international student</td>
<td>56</td>
<td>16.02</td>
</tr>
<tr>
<td></td>
<td>international student</td>
<td>46</td>
<td>43.28</td>
</tr>
</tbody>
</table>
4. Discussion

The current research aimed to investigate International vs. Non-International students, regarding attachment, perceived social support, and loneliness. It did so by investigating attachment styles and their relationship to a person’s level of loneliness. It then investigated the relationship of perceived social support to a person’s level of loneliness. Finally, it compared levels of loneliness and perceived social support between international and non-international students. It was hypothesized that attachment style and perceived social support would significantly predict loneliness among students. The second hypothesis stated that there would be a significant difference in perceived social support between international and non-international students. Finally, the third hypothesis stated that there would be a significant difference in loneliness between international and non-international students.

4.1 Hypothesis 1: It is hypothesized that attachment style and perceived social support will significantly predict loneliness among college students.

This hypothesis was supported from the results of this study. The Measure of Attachment Qualities (MAQ) (Carver, 2013) was used to measure the various attachment styles which included secure, avoidant, ambivalent-worry, and ambivalent-merger attachment styles. The Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al., 1988) was used to measure perceived social support. With the use of multiple regression analyses, the results showed that all five predictors (total scores on each of the MAQ subscales and total scores on perceived social support) contributed to loneliness among students. Of these, perceived social support made the largest contribution to loneliness among students. These results are similar to Sawir et. al. (2007), who found loneliness emerged from loss of contact with families and loss of friendship networks among international students – something that
could be described as social support. And so, in a similar fashion to the current study, lack of social support significantly contributed to loneliness among students.

Included on the MSPSS are questions on family, friends, and significant other. Much research has focused on the relationship between friendships and loneliness, indicating that friendships are one of the more crucial elements in avoiding loneliness. For instance, Benner (2011) found that friendships can help to buffer loneliness. Furthering this idea, Lee et al. (2016) found that the role of social support against loneliness varies by its source as only support from friends buffered the association between stress and loneliness. Another study, by Garcia-Martin and Gomez-Jacinto (2012), found that community support had insignificant effect on reducing social loneliness. Studies such as these, along with the current study, indicate that social support plays a crucial role in loneliness. Due to this research, it can be seen that many areas of social support are lacking and not providing adequate support for students. Perhaps more social supports are needed for students, and in creating said social support, the knowledge from Benner’s (2011) study may indicate that promoting good friendships is of paramount importance within student social support as it is this aspect of social support which seem to diminish loneliness the most.

Bowlby (1979) argued that attachments are inborn needs which are crucial for the infant’s survival, and failure to attain such attachment can result in lifelong emotional and behavioural problems. In this way, Bowlby anticipated that insecure attachments can have a snowball effect on the infant throughout his/her life and into adulthood. This idea is supported by the current hypothesis as the attachment subscales in the MAQ (along with perceived social support) predicted loneliness among students – an emotional problem. Although perceived social support was seen to have the greatest impact on loneliness, the ambivalence-merger attachment subscale also made a significant prediction of loneliness. Carver (2013) described ambivalence-merger as the desire to merge with others, along with
the recognition that others do not always want that experience as much as the respondent. As
this subscale made the most significant prediction of loneliness among the MAQ subscales, it
could be argued that friendships can be crucial in reducing loneliness – something that was
already discussed in looking at past research on perceived social support and how friendships
can help to buffer loneliness (Benner, 2011).

Bowlby (1969, 1973) was the first to come up with, what he called, the child’s
internal working model (IWM). He believed this informed the child’s future actions using the
expectations formed from these experiences. In this way, those who form insecure
attachments as infants, would struggle to form attachments or friendships as adults,
something that could lead to less social relationships than the individual desires. This is
consistent with the current study as ambivalence-merger styles of attachment are thought to
be characterized by a desire to merge with others even when others don’t feel the same about
the individual.

In a similar fashion to the current study, many researchers have drawn conclusions
that insecurely attached individuals may experience higher levels of loneliness. Erozkan
(2011) found loneliness as positively correlated to fearful, preoccupied, and dismissing
attachment styles. Wei et al. (2005) found that students with elevated levels of attachment
anxiety and attachment avoidance experienced feelings of loneliness and subsequent
depression. The current study is consistent with these findings; however, it must be
highlighted that perceived social support had the strongest contribution to loneliness among
students.

A surprising result of the multiple regression was that total security attachment style
also made a significant contribution to loneliness. This is inconsistent with past research
which indicates that securely attached individuals are less at risk to loneliness (Erozkan,
Past research has also shown that only high levels of attachment anxiety and attachment avoidance led to feelings of loneliness and subsequent depression (Wei et al., 2005). For these reasons, the current study differs from past research in terms of total security attachment style making a significant contribution to loneliness. A possible explanation for why those who scored highly on secure attachment also scored highly on loneliness could be best understood by looking at perceived social support. As perceived social support was seen to be the strongest predictor of loneliness among students, it is not unfounded to presume that securely attached individuals may still not have received adequate social support, and this factor won out over their securely attached nature in inducing loneliness. This could also be most relevant to international students who may form better functioning relationships (due to secure attachment) but also crave relationships when they are abroad.

4.2 Hypothesis 2: It is hypothesised that there will be a significant difference in perceived social support between international and non-international students.

This hypothesis was supported from the results of this study. The Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al., 1988) was used to measure perceived social support. With the use of an independent samples t-test analysis, mean scores of perceived social support, from both international and non-international students, were obtained and analysed, and a significant difference was found between international and non-international students regarding perceived social support. It is important to note that scores in the MSPSS range from 12-84, with 12-48 indicating low acuity, 49 -69 indicating moderate acuity, and 69-84 indicating high acuity. The mean score for international students was 41.11 and for non-international students was 70.45. International students scored extremely low on
perceived social support and in fact scored within the lowest possible ranges. In stark contrast, non-international students scored extremely high, placing their average in the highest possible range.

Social support protects individuals from adversity throughout their lives. It is of crucial importance to international students who are going through an immense social change with the transition into a new college in a new country. Chang et al. (2017) found that family support both additively and interactively represented a positive psychological resource among students. This could explain why, in the current study, international students scored so low on perceived social support – due to being away from their families. However, other research such as that of Lee et al. (2016), indicates that the role of social support varies by its source as only support from friends safeguarded the association between stress and loneliness. Furthermore, Garcia-Martin and Gomez-Jacinto (2012) found that community support did little in reducing loneliness. Studies such as these indicate that a key factor in whether somebody will utilize social support is where the source of social support is coming from. Some studies suggest that family support is crucial, yet the majority emphasize the importance of friendships. The current study investigated aspects of social support which included family, friends, and significant other. The results indicate that international students are not receiving enough social support from any of these areas. It is important that social support systems are established which promote interactions for international students by which they may form meaningful friendships and establish the necessary social supports. As has also been investigated in this study, lack of perceived social support can lead to serious severe loneliness. This is something that can be avoided if adequate social supports are established.
4.3 Hypothesis 3: It is hypothesised that there will be a significant difference in loneliness between international and non-international students.

This hypothesis was supported from the results of this study. The UCLA Loneliness Scale (UCLA) (Russell et al., 1978) was used to measure one’s subjective feelings of loneliness as well as feelings of isolation. With the use of an independent t-test analysis, mean scores of levels of loneliness, from both international and non-international students, were obtained and analysed, and a significant difference was found between international and non-international students regarding their level of loneliness. Scores on the UCLA range from 0-60 with a higher result indicating a higher level of loneliness. The mean score for international students was 43.38, while the mean score for non-international students was 16.02. It is clear from these results that international students studying in Ireland experience a high degree of loneliness. In contrast, Irish students experience a much lower degree of loneliness. The reasons behind this can be examined from several angles. For instance, hypothesis 1 in the current study found that attachment style and perceived social support predicted loneliness. Furthermore, hypothesis 2 of the current study found that international students scored extremely low on perceived social support in comparison to Irish students.

These results are consistent with past research. Sawir et al. (2007) conducted a similar study on loneliness and international students. Within their sample of 200, they found that two thirds of the groups had experienced problems of isolation and/or loneliness. Several types of loneliness were experienced by these participants which included personal loneliness due to being away from their families, social loneliness due to being away from their friends, and cultural loneliness which can be triggered by the absence of the individual’s cultural environment. The finding of cultural loneliness in this study is very interesting and perhaps can answer why, in the current study, international and non-international students differed so much on loneliness. Perhaps the groups differ so extremely due to international students experiencing
different forms of loneliness than non-international students. If international students are experiencing a cultural loneliness this needs to be addressed via social supports which allow for cultural expression and gatherings for those individuals suffering from cultural loneliness. However other studies have focused on loneliness in non-international students and found that participants still report high levels of loneliness. For instance, Ozemir and Tuncay (2008) found that 60.2% of their non-international sample experienced loneliness. This contrasts with the current study which found non-international students experienced very low levels of loneliness. Nonetheless, loneliness exists in both populations. It may be feasible to assume that the extreme differences within this sample are due to how loneliness is dealt with, and the type of loneliness experienced being different among international and non-international students.

4.4 Strengths and Limitations

A limitation of this study is the sample that was used. The survey was administered online to collect data. Due to the self-report nature of the questionnaires, participants may have been dishonest when answering questions and the information may not be accurate. A bigger sample would have also been of greater significance. Although hypotheses were supported, the results would have been more generalisable to the overall population of students had more than 102 participants taken part. Furthermore, due to the comparative nature of the study the actual participants falling into each category of student (international and non-international) was quite small. Only 46 international students took part which makes findings related to them harder again to generalise. Similarly, only 56 non-international students took part which again makes findings related to them harder to generalise.

However, there were also many strengths to the study. For instance, it could also be argued that online participation enabled the recruitment of more participants. Participants who
may not have otherwise gained access to the survey could have gained access via one of the online platforms. Although previous research has been conducted in the areas of attachment, perceived social support and loneliness, there are not many studies which have each of these variables researched in one study. The comparison of international and non-international students on these variables also adds an interesting twist which past research has not focused on. Having this comparative angle enables colleges to get a clear picture of the ways they need to support students, and the differences in the types of support required for each student type.

4.5 Future Research

While the current research gained valuable insights into loneliness among students, lack of social support for international students, and in particular loneliness levels among international students, more research is needed into the reasons behind these results. A qualitative approach with structured interviews may provide more valuable insights into why it is that international students have little social support and high levels of loneliness. Past research has also indicated that social support varies in its usefulness depending on where the source of support is coming from. Most research has found social support from friends to be most beneficial, this needs to be investigated further which may enable colleges to implement support services which promotes friendship and cultural expression among international students.

4.6 Conclusion

To conclude, this research aimed to investigate attachment style and perceived social support as predictors of loneliness among students, whether international students differed in perceived social support when compared to non-international students, and finally, whether international students differed on levels of loneliness when compared to non-international students. All hypotheses were supported by results.
The results indicated that attachment style and perceived social support significantly contributed to loneliness. Of the two, perceived social support was reported as having the greatest contribution to loneliness among students which is consistent with past research in that social support plays a crucial role in loneliness. Past research also indicates that the benefits of social support vary depending on the source of social support in that friendships are seen to be most significant in preventing loneliness – this should be investigated when establishing social supports, particularly for international students who are away from their usual social group. As for attachment style, the ambivalent-merger style of attachment was the most significant (of the attachment styles) in predicting loneliness. This is consistent with past research which outlines that those who are insecurely attached are more prone to feelings of loneliness. Particularly, the ambivalent-merger style of attachment explores the individual’s desire to merge with others yet feels as though others do not want to merge with the individual, this is understandably a predictor of loneliness as loneliness is generally a state by which the individual’s social groups are smaller than desired. Inconsistent to previous research, was the emergence of securely-attached individual’s feeling high levels of loneliness. Most previous research states that those who are securely attached are less likely to experience feelings of loneliness. However, the results of the current study, regarding attachment security, could perhaps be explained by investigating perceived social support. This factor, or lack thereof, seems to override attachment security and induce loneliness. Another interpretation could be that people with secure attachment style form better functioning relationships, yet also crave relationships when the are abroad. This is of particular relevance to the international students. This could be an interesting area of study for future research.

The results of the current study also indicated that there was a significant difference in perceived social support between international and non-international students. A possible
reason for this could be being away from home, away from their families, and away from their usual social groups. Past research has indicated that friendships and social relationships can be crucial forms of social support. Therefore, it is understandable that international students, who are away from their usual social groups, are perceived as having less social support. Furthermore, past research has shown that community supports offer little substantial support to individuals. Perhaps international students reported less perceived social support as a result of only having supports in the form of community support. More research is needed into why international students experience less perceived social support when compared to non-international students.

The results of the current study found that international students experience much greater levels of loneliness when compared to non-international students. A possible explanation for this could be due to the lack of perceived social support, as hypothesis one and two found, among international students. Social supports such as family and friends can be crucial in preventing loneliness, as past research has shown. From this perspective it is understandable that international students experience higher loneliness levels as, unlike non-international students, they are away from home and thus away from their usual social supports which includes friends and family.
References


Appendices

Appendix 1: Cover letter used at start of survey

International vs. non-international students, regarding attachment, social support, and loneliness.

My name is Katie Martin and I am conducting research in the Department of Psychology that explores attachment, social support, and loneliness among international and non-international students. This research is being conducted as part of my studies in Dublin Business School on the H. Dip in Psychology course and will be submitted for examination. In order to take part in this study, you must be a current third level student - either international or non-international. For the purposes of this research, an international student is defined as anyone who has come from a country outside of Ireland and is currently studying as a third level student in Ireland. A non-international student is defined as an Irish student who is currently studying as a third level student in Ireland.

You are invited to take part in this study and participation involves completing the attached anonymous survey which should take no more than ten minutes. While the survey asks some questions that might cause some negative feelings, the questionnaires have been used widely in research. Participants have the right to withdraw up until completion of the survey. If any of the questions do raise difficult feelings for you, contact information for support services are included on the final page.

Participation is completely voluntary and so you are not obliged to take part.
Participation is anonymous and confidential. Thus responses cannot be attributed to any one participant. For this reason, it will not be possible to withdraw from participation after the questionnaire has been submitted.

The questionnaires will be securely stored and data from the questionnaires will be stored on a password protected computer.

It is important that you understand that by completing and submitting the questionnaire that you are consenting to participate in the study.

Should you require any further information about the research, please contact Katie Martin, xxxxxxx@mydbs.ie. My supervisor can be contacted at xxxxxxx@dbs.ie.

Thank you for taking the time to complete this survey.
Appendix 2: Demographic Questions on p. 2. of the survey

1) What gender are you?
   Answer A = Male, Answer B = Female

2) What kind of student are you?
   Answer A = Non-international student (an Irish student studying in Ireland)
   Answer B = International student (student from outside of Ireland who is currently studying in Ireland)

3) What age are you?
   Answer A = 18-24 years old
   Answer B = 25-34 years old
   Answer C = 35-44 years old
   Answer D = 45-54 years old
   Answer E = 55-64 years old
   Answer F = 65-74 years old
   Answer G = 75 years or older
Appendix 3: Measure of Attachment Qualities (MAQ) (Carver, 2013) as used on p. 2. of the survey

Respond to each of the following statements by expressing how much you agree with it (if you do generally agree) or how much you disagree with it (if you generally disagree). Do not leave any items blank. Please be as accurate as you can be throughout and try especially hard not to let your answer to any one item influence your answer to any other item. Treat each one as though it is completely unrelated to the others. There are no right or wrong answers, you are simply to express your own personal feelings and opinions.

1) When I’m close to someone, it gives me a sense of comfort about life in general.
   Answer 1 = I disagree with the statement a lot
   Answer 2 = I disagree with the statement a little
   Answer 3 = I agree with the statement a little
   Answer 4 = I agree with the statement a lot

2) I often worry that my partner doesn’t really love me.
   Answer 1 = I disagree with the statement a lot
   Answer 2 = I disagree with the statement a little
   Answer 3 = I agree with the statement a little
   Answer 4 = I agree with the statement a lot

3) I have trouble getting others to be as close as I want them to be.
   Answer 1 = I disagree with the statement a lot
   Answer 2 = I disagree with the statement a little
   Answer 3 = I agree with the statement a little
   Answer 4 = I agree with the statement a lot

4) I find it easy to be close to others.
   Answer 1 = I disagree with the statement a lot
Answer 2 = I disagree with the statement a little
Answer 3 = I agree with the statement a little
Answer 4 = I agree with the statement a lot

5) I often worry my partner will not want to stay with me.
   Answer 1 = I disagree with the statement a lot
   Answer 2 = I disagree with the statement a little
   Answer 3 = I agree with the statement a little
   Answer 4 = I agree with the statement a lot

6) Others want me to be more intimate than I feel comfortable being.
   Answer 1 = I disagree with the statement a lot
   Answer 2 = I disagree with the statement a little
   Answer 3 = I agree with the statement a little
   Answer 4 = I agree with the statement a lot

7) It feels relaxing and good to be close to someone
   Answer 1 = I disagree with the statement a lot
   Answer 2 = I disagree with the statement a little
   Answer 3 = I agree with the statement a little
   Answer 4 = I agree with the statement a lot

8) I am very comfortable being close to others.
   Answer 1 = I disagree with the statement a lot
   Answer 2 = I disagree with the statement a little
   Answer 3 = I agree with the statement a little
   Answer 4 = I agree with the statement a lot

9) I don’t worry about others abandoning me.
   Answer 1 = I disagree with the statement a lot
Answer 2 = I disagree with the statement a little
Answer 3 = I agree with the statement a little
Answer 4 = I agree with the statement a lot

10) My desire to merge sometimes scares people away.
   Answer 1 = I disagree with the statement a lot
   Answer 2 = I disagree with the statement a little
   Answer 3 = I agree with the statement a little
   Answer 4 = I agree with the statement a lot

11) I prefer not to be too close to others.
   Answer 1 = I disagree with the statement a lot
   Answer 2 = I disagree with the statement a little
   Answer 3 = I agree with the statement a little
   Answer 4 = I agree with the statement a lot

12) I find others are reluctant to get as close as I would like.
   Answer 1 = I disagree with the statement a lot
   Answer 2 = I disagree with the statement a little
   Answer 3 = I agree with the statement a little
   Answer 4 = I agree with the statement a lot

13) I get uncomfortable when someone wants to be very close.
   Answer 1 = I disagree with the statement a lot
   Answer 2 = I disagree with the statement a little
   Answer 3 = I agree with the statement a little
   Answer 4 = I agree with the statement a lot

14) Being close to someone gives me a source of strength for other activities.
   Answer 1 = I disagree with the statement a lot
Answer 2 = I disagree with the statement a little
Answer 3 = I agree with the statement a little
Answer 4 = I agree with the statement a lot
Appendix 4: The Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet, Dahlem, Zimet & Farley, 1988) as used on p. 3. of the survey.

We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Click "1" if you Very Strongly Disagree
Click "2" if you Strongly Disagree
Click "3" if you Mildly Disagree
Click "4" if you are Neutral
Click "5" if you Mildly Agree
Click "6" if you Strongly Agree
Click "7" if you Very Strongly Agree

1) There is a special person who is around when I am in need.
   Answer 1 = Very Strongly Disagree
   Answer 2 = Strongly Disagree
   Answer 3 = Mildly Disagree
   Answer 5 = Mildly Agree
   Answer 6 = Strongly Agree
   Answer 7 = Very Strongly Agree

2) There is a special person with whom I can share joys and sorrows.
   Answer 1 = Very Strongly Disagree
   Answer 2 = Strongly Disagree
3) My family really tries to help me.
Answer 1 = Very Strongly Disagree
Answer 2 = Strongly Disagree
Answer 3 = Mildly Disagree
Answer 5 = Mildly Agree
Answer 6 = Strongly Agree
Answer 7 = Very Strongly Agree

4) I get the emotional help & support I need from my family.
Answer 1 = Very Strongly Disagree
Answer 2 = Strongly Disagree
Answer 3 = Mildly Disagree
Answer 5 = Mildly Agree
Answer 6 = Strongly Agree
Answer 7 = Very Strongly Agree

5) I have a special person who is a real source of comfort to me.
Answer 1 = Very Strongly Disagree
Answer 2 = Strongly Disagree
Answer 3 = Mildly Disagree
Answer 5 = Mildly Agree
Answer 6 = Strongly Agree
Answer 7 = Very Strongly Agree
6) My friends really try to help me.
   Answer 1 = Very Strongly Disagree
   Answer 2 = Strongly Disagree
   Answer 3 = Mildly Disagree
   Answer 5 = Mildly Agree
   Answer 6 = Strongly Agree
   Answer 7 = Very Strongly Agree

7) I can count on my friends when things go wrong.
   Answer 1 = Very Strongly Disagree
   Answer 2 = Strongly Disagree
   Answer 3 = Mildly Disagree
   Answer 5 = Mildly Agree
   Answer 6 = Strongly Agree
   Answer 7 = Very Strongly Agree

8) I can talk about my problems with my family.
   Answer 1 = Very Strongly Disagree
   Answer 2 = Strongly Disagree
   Answer 3 = Mildly Disagree
   Answer 5 = Mildly Agree
   Answer 6 = Strongly Agree
   Answer 7 = Very Strongly Agree

9) I have friends with whom I can share my joys and sorrows.
   Answer 1 = Very Strongly Disagree
   Answer 2 = Strongly Disagree
   Answer 3 = Mildly Disagree
10) There is a special person in my life who cares about my feelings.
   Answer 1 = Very Strongly Disagree
   Answer 2 = Strongly Disagree
   Answer 3 = Mildly Disagree
   Answer 5 = Mildly Agree
   Answer 6 = Strongly Agree
   Answer 7 = Very Strongly Agree

11) My family is willing to help me make decisions.
   Answer 1 = Very Strongly Disagree
   Answer 2 = Strongly Disagree
   Answer 3 = Mildly Disagree
   Answer 5 = Mildly Agree
   Answer 6 = Strongly Agree
   Answer 7 = Very Strongly Agree

12) I can talk about my problems with my friends.
   Answer 1 = Very Strongly Disagree
   Answer 2 = Strongly Disagree
   Answer 3 = Mildly Disagree
   Answer 5 = Mildly Agree
   Answer 6 = Strongly Agree
   Answer 7 = Very Strongly Agree
Appendix 5: UCLA loneliness scale was used (Russell, Peplau, & Ferguson, 1978) as used on p. 4. of the survey.

Indicate how often each of the statements below is descriptive of you.

1) I am unhappy doing so many things alone.
   Answer 1 = I often feel this way
   Answer 2 = I sometimes feel this way
   Answer 3 = I rarely feel this way
   Answer 4 = I never feel this way

2) I have nobody to talk to.
   Answer 1 = I often feel this way
   Answer 2 = I sometimes feel this way
   Answer 3 = I rarely feel this way
   Answer 4 = I never feel this way

3) I cannot tolerate being so alone
   Answer 1 = I often feel this way
   Answer 2 = I sometimes feel this way
   Answer 3 = I rarely feel this way
   Answer 4 = I never feel this way

4) I lack companionship
   Answer 1 = I often feel this way
   Answer 2 = I sometimes feel this way
   Answer 3 = I rarely feel this way
   Answer 4 = I never feel this way

5) I feel as if nobody really understands me
   Answer 1 = I often feel this way
Answer 2 = I sometimes feel this way
Answer 3 = I rarely feel this way
Answer 4 = I never feel this way

6) I find myself waiting for people to call, or write, or contact me over social media
   Answer 1 = I often feel this way
   Answer 2 = I sometimes feel this way
   Answer 3 = I rarely feel this way
   Answer 4 = I never feel this way

7) There is no one I can turn to
   Answer 1 = I often feel this way
   Answer 2 = I sometimes feel this way
   Answer 3 = I rarely feel this way
   Answer 4 = I never feel this way

8) I am no longer close to anyone
   Answer 1 = I often feel this way
   Answer 2 = I sometimes feel this way
   Answer 3 = I rarely feel this way
   Answer 4 = I never feel this way

9) My interests and ideas are not shared by those around me
   Answer 1 = I often feel this way
   Answer 2 = I sometimes feel this way
   Answer 3 = I rarely feel this way
   Answer 4 = I never feel this way

10) I feel left out
    Answer 1 = I often feel this way
Answer 2 = I sometimes feel this way
Answer 3 = I rarely feel this way
Answer 4 = I never feel this way

11) I feel completely alone

Answer 1 = I often feel this way
Answer 2 = I sometimes feel this way
Answer 3 = I rarely feel this way
Answer 4 = I never feel this way

12) I am unable to reach out and communicate with those around me

Answer 1 = I often feel this way
Answer 2 = I sometimes feel this way
Answer 3 = I rarely feel this way
Answer 4 = I never feel this way

13) My social relationships are superficial

Answer 1 = I often feel this way
Answer 2 = I sometimes feel this way
Answer 3 = I rarely feel this way
Answer 4 = I never feel this way

14) I feel starved for company

Answer 1 = I often feel this way
Answer 2 = I sometimes feel this way
Answer 3 = I rarely feel this way
Answer 4 = I never feel this way

15) No one really knows me well

Answer 1 = I often feel this way
16) I feel isolated from others
   Answer 1 = I often feel this way
   Answer 2 = I sometimes feel this way
   Answer 3 = I rarely feel this way
   Answer 4 = I never feel this way

17) I am unhappy being so withdrawn
   Answer 1 = I often feel this way
   Answer 2 = I sometimes feel this way
   Answer 3 = I rarely feel this way
   Answer 4 = I never feel this way

18) It is difficult for me to make friends
   Answer 1 = I often feel this way
   Answer 2 = I sometimes feel this way
   Answer 3 = I rarely feel this way
   Answer 4 = I never feel this way

19) I feel shut out and excluded by others.
   Answer 1 = I often feel this way
   Answer 2 = I sometimes feel this way
   Answer 3 = I rarely feel this way
   Answer 4 = I never feel this way

20) People are around me but not with me
   Answer 1 = I often feel this way
Answer 2 = I sometimes feel this way
Answer 3 = I rarely feel this way
Answer 4 = I never feel this way
Appendix 6: Final thank you page of the survey as used on p. 5. Of the survey:

Thank you for taking the time to complete this survey, your participation can help gain insights into the challenges faced by students.

If you have any questions, please do not hesitate to contact me by email: xxxxxx@mydbs.ie.
Alternatively, you can contact my supervisor by email: xxxxxx@dbs.ie

Support services:

Samaritans - Samaritans are here round the clock to provide confidential support to anyone who needs to talk. Please follow this link if the survey brought up any negative feelings for you

https://www.samaritans.org/br...