

Determinants of Social and Emotional Loneliness in a Nationally Representative Sample of US Adults

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ABSTRACT

Loneliness is a pervasive global health concern and a plethora of studies have linked it to high mortality and morbidity and psychological problems, such as depression, suicidal ideation, and anxiety. Furthermore, growing evidence suggests that loneliness is a bi-dimensional construct made up of two related but distinct categories; social and emotional loneliness. In order to inform future intervention strategies and aid clinicians in tackling this growing ‘epidemic’, data collected by the Growth from Knowledge group (GFK) from a nationally representative sample of adults residing in the US ($n=1,839$) was used to evaluate the relationship between both subtypes and overall loneliness with a multitude of demographics. Results suggest that being female, younger aged adults, low income, those who are not married nor cohabiting, unemployed, have a high school degree or less, and identify as white are more likely to report feeling emotionally lonely. Younger adults, low income, and those with a high school degree were associated with social loneliness and young adults, low income, those who are not married nor cohabiting, and living in a metro area was significantly linked to total loneliness. These results support the distinction between the loneliness subtypes and it is recommended that researchers and clinicians acknowledge this distinction when developing future prevention and intervention strategies.

1. Introduction

Humans are fundamentally social beings and accordingly, most people will experience loneliness at some point during their lifetime (Cacioppo et al., 2015). Loneliness has been defined as the discrepancy between what one actually has and what one desires socially, and serious mental and physical health problems can arise when this develops into a chronic

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occurrence such as anxiety, depression, Alzheimer's disease, and heart disease (Domènech-Abella et al., 2019; Mushtaq et al., 2014). With growing evidence that loneliness is a risk factor for both mental and physical health problems, attention is beginning to shift toward interventions that can address chronic loneliness. That said before such interventions can be successfully developed, what first needs to be addressed is what groups among the general population are the most vulnerable to experiencing loneliness and further, what 'type' of loneliness are they experiencing?

In the early 1970s, Weiss proposed that loneliness is made up of two independent yet related factors; emotional loneliness and social loneliness (Weiss, 1973). According to his theory, social loneliness results from the lack of a broader social network (e.g., work colleagues) whilst emotional loneliness refers to the lack of a close companion (e.g., spouse). Support for this distinction has been evidenced in empirical studies for example Diehl and colleagues (2018) reported emotional loneliness was more prevalent in college students than social, and social loneliness was uniquely associated with studying the social sciences, lack of physical activity, and having an immigrant background. Emotional loneliness on the other hand was related to being married or in a long-term relationship and both subtypes were linked to anxiety and depression. Others have found that emotional loneliness uniquely predicts depression (Peerenboom et al., 2015) and White and Roberson-Nay (2009) suggested that young people with high levels of anxiety reported greater feelings of social loneliness.

Historically when attempting to identify those who are most vulnerable to experiencing loneliness researchers have often focussed on specific groups such as young adults (Mahon et al., 2006), the unemployed (Klefaras & Vasiloua, 2016), and those with mental health problems (Domènech-Abella, et al., 2019). Recently, views have shifted towards considering additional socioeconomic characteristics which may impact the development of chronic loneliness such as race, education, and area of residence. Of the few studies that have investigated the relationship between the loneliness subtypes and certain demographics results have been considerably mixed. For example, one study investigated suicide and death ideation across four age groups (18 – 29 years; 30 – 44 years; 45 – 64 years; 65 + years) (Gomboc et al., 2022). Findings suggested that emotional loneliness was a significant factor in all groups but not social. In contrast, de Jong Gierveld and Van Tilburg (2010) reported that both subtypes are higher in the 60-to-79-year-old group than in younger adults. Similarly, mixed results have been found for employment with Hansen and Slagvold (2015), finding loneliness was unrelated to employment status but Creed and Reynolds' (2001) reported that employment made people more socially lonely than those who were unemployed. In regard to loneliness and subtypes and education one study conducted by Fierloos et al., (2021) did find low educational levels were associated with both emotional and social loneliness in their study, however, they only included older adults ($M=79.7$ years, $SD=5.6$ years). For appropriate interventions to be developed this association requires a more in-depth investigation.

1.1. Study Aims

Gaining further understanding of the possible independent pathways by which certain demographics may uniquely link to social loneliness and emotional loneliness may in turn help guide future intervention efforts to alleviate such adverse health effects. Therefore, the aim of this study is to investigate a multitude of demographic factors with the goal of clarifying their impact on social loneliness, emotional loneliness, and overall loneliness respectively, and in turn, help future researchers design a more suitable intervention for those who are most at risk.

2. Method

2.1. Participants

A nationally representative sample of United States adults was randomly recruited via an online research panel using probability-based sampling. Data were collected in March 2017 with the aim of examining the construct validity of Post Traumatic Stress Disorder (PTSD) and Complex Post Traumatic Stress Disorder (CPTSD) for the 11th International Classification of Diseases (*ICD-11*) (please see Cloitre et al., 2019). Inclusion criteria were that participants experienced at least one traumatic incident at some point during their lifetime and were aged between 18 and 70 years when they participated. A total of 1,839 participants qualified from the initial 3,953 screened (eligibility rate = 46.3%). As females and members of racial minority groups (here Hispanic and African American participants) are more likely to be exposed to trauma and be diagnosed with a trauma disorder (McCutchen et al., 2022), these groups were intentionally oversampled (each at a 2:1 ratio). To adjust this, the data were weighted in order to more accurately represent the United States adult population. The mean age of the sample was 46.96 years ($SD = 14.62$). The majority of individuals indicated that they were either married or living with their partner (60.8%, $n = 1117$), had completed third-level education (59.86%, $n = 1110$), and had employment (66%, $n = 1213$).

2.2. Measuring Loneliness

The six-item de Jong Gierveld Loneliness Scale (de Jong Gierveld & Van Tilburg, 2006) was used to measure social, emotional loneliness, and total loneliness, each measured by three items (total measured all six items). Items were rated by a 3-point Likert scale (0 = no, 1 = more or less, 2 = yes). Reliability coefficients ranged from $\alpha = .67$ and $\alpha = .74$ for the emotional loneliness scale and between $\alpha = .70$ and $\alpha = .73$ for the social loneliness scale (de Jong Gierveld & Van Tilburg, 2010; de Jong Gierveld & Van Tilburg, 2006).

2.3. Analytic Plan

The differences in loneliness, emotional loneliness and social loneliness scores were compared across the different age groups, ethnicities, sexes, areas of residence, income levels, levels of education, marital status, and employment status using a series of one-way between-group analysis of variance (ANOVA) and independent samples t-tests. Finally, a series of regression analyses were then conducted to determine if the predictor variables of demographics uniquely predicted social loneliness, emotional loneliness, and total loneliness.

3. Results

The means and standard deviations are presented Table 1. stratified by the predictor variables. One-way ANOVA tests were employed to determine if the factors with more than two categories were significantly different in terms of their mean scores on social, emotional, and total loneliness.

Table 1.1.

Social, Emotional, and Total Loneliness Stratified by Age and Gender

	Loneliness		
	Social Mean (SD)	Emotional Mean (SD)	Total Mean (SD)
Gender			
Male	5.38(2.10)	4.19(1.54)	9.56(2.97)
Female	5.35(2.11)	4.47(1.62)	9.82(3.13)
	t(1811)=-.322	t=3.63***	t=1.68
Coen's d	0.015931	0.182113	0.084119
Age (years)			
18-29	5.59(2.29)	4.72(1.64)	10.38(3.13)
30-44	5.67(2.14)	4.46(1.64)	10.11(3.18)
45-59	5.28(2.09)	4.34(1.64)	9.60(3.14)
60+	4.99(1.88)	4.09(1.37)	9.06(2.70)
	F(3,1808)=9.66, p=.000	F(3,1809)=10.31, p=.000	F(3,1809)=14.54, p=.000
Eta squared (η^2)	0.018	0.017	0.024

Note: *= $p < .05$, **= $p < .01$, ***= $p < .001$

Table 1.2.

Social, Emotional, and Total Loneliness Stratified by Income and Urbanicity

	Loneliness		
	Social Mean (SD)	Emotional Mean (SD)	Total Mean (SD)
Income			
less than \$19000	5.93(2.30)	4.72(1.74)	10.70(3.10)
\$20-34999	5.54(2.07)	4.44(1.64)	9.95(3.10)
\$35-59999	5.58(2.14)	4.59(1.59)	10.18(3.10)
\$60-99999	4.97(1.96)	4.17(1.49)	9.12(2.97)
\$100+	5.11(1.99)	4.16(1.51)	9.25(2.94)
	F(4,1807)=12.13, p=.000	F(4,1808)=9.22, p=.000	F(4,1808)=16.71, p=.000
Eta squared (η^2)	0.026	0.020	0.036
Urbanicity			
Metro	5.35(2.10)	4.37(1.60)	9.70(3.08)
Non-Metro	5.45(2.10)	4.34(1.53)	9.90(3.06)
	t(1810)=2.59	t=5.85***	t=4.58**
Cohen's d	0.048	0.044	0.021

Note: *= $p < .05$, **= $p < .01$, ***= $p < .001$

Table 1.3.

Social, Emotional, and Total Loneliness Stratified by Income and Urbanicity

	Loneliness		
	Social Mean (SD)	Emotional Mean(SD)	Total Mean(SD)
Relationship Status			
Married/Living with Partner	5.26(2.08)	4.20(1.48)	9.46(2.97)
Other	5.52(2.08)	4.64(1.71)	10.14(3.21)
	t(1811)=2.59	t=5.85***	T=4.58**
Coen's d	0.124	0.277	0.218
Employment			
Employed	5.36(2.11)	4.32(1.56)	9.67(3.07)
Not Employed	5.37(2.09)	4.48(1.64)	9.84(3.10)
	t(1810)=.12	t=2.13*	t=1.16
Cohen's d	0.005	0.104	0.057

Note: *= $p < .05$, **= $p < .01$, ***= $p < .001$

Table 1.4.

Social, Emotional, and Total Loneliness Stratified by Education and Ethnicity

	Loneliness		
	Social Mean(SD)	Emotional Mean(SD)	Total Mean(SD)
Education			
High school or less	5.43(2.18)	4.48(1.67)	9.90(3.13)
Some college or higher	5.31(2.05)	4.30(1.53)	9.61(3.04)
	t(1810)=1.20**	t=2.40***	t=2.01
Coen's d	0.057274	0.114074	0.095910
Ethnicity			
White	5.22(2.03)	4.35(1.58)	9.58(3.08)
Other	5.48(2.15)	4.39(1.60)	9.86(3.07)
	t(1810)=-2.70	t=-.44	t=-1.93
Coen's d	0.057	0.114	0.095

Note: *= $p < .05$, ** $p < .01$, *** $p < .001$

Table 2.

Standardised Regression Coefficients for Models Predicting Social, Emotional and Total Loneliness Scores

	Loneliness					
	Social B (se)	β	Emotional B (se)	β	Total B (se)	β
Gender						
Male	-	-	-	-	-	-
Female	-.025(.103)	-.006	.277(.077)***	.083	.257 (.149)	.040
Age (years)						
18-29	-	-	-	-	-	-
30-44	.119(.157)	.025	-.112(.118)	-.031	-.103 (.228)	-.015
45-59	-.227(.149)	-.051	-.270(.112)*	-.080	-.608 (.217)*	-.092
60+	-.543(.161)***	-.112	-.162(.121)***	-.170	-1.266 (.233)***	-.178
Income						
less than \$19000	-	-	-	-	-	-
\$20-34999	-.355(.187)	-.057	-.162(.141)	-.034	-.628 (.272)*	-.069
\$35-59999	-.377(.172)*	-.074	.004(.130)	.004	-.453 (.250)	-.060
\$60-99999	-.932(.176)	-.186	-.357(.133)**	-.094	-1.401 (.256)***	-.191
\$100+	-.822(.181)	-.175	-.329(.136)*	-.093	-1.278 (.263)***	-.186
Urbanicity						
Metro	-	-	-	-	-	-
Non-Metro	-.095(.152)	-.015	-.054(.114)	-.011	-.163(.220)*	-.017
Relationship status						
Married/Living with Partner	-	-	-	-	-	-
Other	.061(.108)	.014	.334(.081)***	.103	.333(.156)*	.053
Employment						
Employed	-	-	-	-	-	-
Not employed	.031(.115)	.007	.206(.086)*	.061	.222(.167)	.034
Education						
High school or less	-	-	-	-	-	-
Some college or higher	.119(.109)	.028	-.039(.082)	-.012	.106(.158)	.017
Ethnicity						
White	-	-	-	-	-	-
Other	.079(.103)	.019	-.150(.077)*	-.047	-.095(.150)	-.015
R-squared	.042		.056		.062	

Note: *= $p < .05$, ** $p < .01$, *** $p < .001$

In addition, the 45 to 59 years category negatively predicted emotional and total loneliness however, the association was not as strong. For income, only earnings

of \$35,000-\$59,999 negatively impacted scores for social loneliness. This category was not shown to influence emotional or overall loneliness. In contrast, the \$60,000-99,999 variable, and those earning \$100,000 and above per year, did show to negatively predict emotional loneliness scores. These results matched those for income and total loneliness, with the exception that earnings between \$20,000 and \$34,999 were also shown to negatively predict total loneliness, albeit not as strongly as the two highest income variables. For urbanicity, living in a non-metro area only had a significant, negative effect on total loneliness and for relationship status, the 'other' category was shown to negatively, significantly predict both emotional and total loneliness with emotional having the stronger score. Employment had a moderately significant affect on emotional loneliness, with those not employed scoring higher for emotional loneliness and no relationship was found for education on any of the loneliness subgroups but having attended some college or higher negatively predicted total loneliness. Lastly, the 'white' factor for ethnicity negatively predicted emotional loneliness, but no affect was found for both social and total loneliness.

4. Discussion

The purpose of this study was to extend the literature on reported factors and demographics that have been associated with loneliness. Of particular interest was which groups are most likely to experience social loneliness, emotional loneliness, and total loneliness respectively. Looking at each variable that produced significant relationships with loneliness and its subgroups, support was found for the distinction between social, emotional, and total loneliness; with some predictors producing significant results for one or two loneliness categories but not all three. Of the almost 2000 adults aged between 18 and 70 years residing in the USA used, we found that gender was only related to emotional loneliness with females scoring higher than males. Each age group was related to social, emotional, and total loneliness with those aged 30-44 years scoring highest for emotional loneliness and those aged 60 years and over scoring the lowest. For both social and total loneliness those aged 18-29 years scored the highest while again those aged 60 and above scored the lowest. Income was linked to all loneliness categories with those earning less than \$19,000 scoring highest for emotional, social and total loneliness. Those earning between \$60 and \$99,999 scored the lowest for emotional loneliness and total whilst those earning \$100,000 and more had the lowest score for social loneliness. For urbanicity, only emotional and total loneliness were significantly linked with those living in a metropolitan area scoring higher for emotional loneliness and those in a non-metropolitan area scoring highest for total loneliness. Emotional Loneliness and total loneliness were also only linked with relationship status with those in the 'other' category scoring highest for both. A significant association was also found for employment and emotional loneliness with those who are not employed scoring the highest. Education was linked to social and emotional loneliness with highest scores for those who attended high school or less. Interestingly, no association was found for total loneliness and education demonstrating the distinction between all three loneliness options, not solely emotional and social loneliness. Finally, ethnicity showed no significant associations with either emotional, social or total loneliness. We also looked at each factor's predictive capabilities on emotional loneliness, social loneliness and total loneliness respectively.

4.1. Gender

Regression analysis found that females were more likely to predict emotional loneliness. Previous research has supported this finding suggesting that women may be more influenced by the emotional component of social relationships whereas men may be influenced more by the social component of relationships. For example, Allen and Oshagen (1995), proposed that males and females differ in their levels of needing social support and experiencing isolation, with females requiring more intimacy and males being more concerned with social ties. However, our study found no significant relationship between males and total loneliness, emotional loneliness, or social loneliness. This finding contradicts past research which has found that men report higher rates of social loneliness when compared to women (Dykstra & Fokkema, 2007). Although past studies have supported the theory that women report they feel lonely more frequently than men (e.g. Dykstra, van Tilburg & de Jong Gierveld, 2005), which some authors have explained through the greater prevalence of widowhood in females (Dahlberg et al., 2015), the key word here may be reporting. With suicide in males on the rise (Hedegaard, Curtin & Warner, 2018) and the high prevalence rate of men and depression (Emslie et al., 2006), the idea that men are frequently feeling lonely but may not feel comfortable disclosing that information is not unfounded. It may be that certain notions of masculinity may be affecting how men report loneliness. For example, Eisler and Blalock (1991), suggested that committing to masculine values led to stress in relation to gender roles which resulted in dysfunctional and unhealthy behaviours for coping. Thus, strong adherence to a masculine gender role cognitive schema may possibly result in restricting certain types of coping strategies available to males in certain situations. In other words, men may find it difficult to express their need for support specifically emotional support when facing stressful situations. Therefore, although there may be a high level of males experiencing social loneliness, they may not feel comfortable disclosing it.

4.2. Age

Those aged 45 to 59 years old and those aged 60 years and above reported significantly less feelings of emotional loneliness than those aged 18 to 29 years. For social loneliness, those aged 60 years and above were significantly less than those aged 18-29 years. Finally, those in the youngest group had significantly higher levels of total loneliness than both those aged between 45 to 59 years and those aged 60 years, with those in the latter group having a considerably lower loneliness score. The common belief that older adults suffer from loneliness much more frequently than those in younger-aged cohorts has been widely depicted and accepted for years. These results debunk this myth. Dykstra (2009), claimed that researchers have fuelled these misconceptions through discrimination and having displayed beliefs claiming that older adults are naturally in the process of disengaging from society (Cumming & Henry, 1961). Baltes and Carstensen (1996), put forward an interesting theory that older aged adults develop reactions and coping strategies, allowing for more successful adaptations to changed social realities. They may reduce their expectations concerning social groups and social activities thus, diminishing feelings of loneliness (Baltes & Baltes, 1990). By contrast, younger adults are preparing for the future, hoping for more intimate social relationships such as a potential partner and a family life, and generally seeking diverse social arrangements (Carstensen, Isaacowitz & Charles, 1999). Youths also live in an environment where they are continually socially compared with other young adults and therefore, not successfully meeting these high social expectations may lead to loneliness (Nicolaisen & Thorsen, 2014). For each age group in this study the oldest age group (>60 years) had the least impact on all loneliness factors. This observation is supported by research that has demonstrated that against general perception, loneliness may in fact decrease with age. Brittain and colleagues (2017), stated that

over half of individuals aged 85 and older reported “never” feeling lonely while only two percent reported, “always feeling lonely”. Furthermore, older adults have also reported higher satisfaction with contact with friends compared to younger-aged groups (Nicholaisen & Thorsten, 2017). Although the presence of loneliness at any age should be considered a serious health risk, our results would strongly suggest that the current consensus is shifted from being seen a solely elderly population problem to a more youth-centred focus. Those aged 30-44 years also significantly correlated with social loneliness in our report. This relationship is unsurprising given that during this time work and family commitments are at their peak. Although they may be satisfied emotionally through quality family connections, there may be less time for engaging in social activities. Asghar and Iqbal (2019), stated that midlife is a period when adults felt lonely due to multiple changes in their life i.e., fluctuations in health, changes in family structure, and work demands. Such challenges may expose those individuals to multiple stressors which in turn can lead to loneliness.

4.3. Income

All income categories were less likely to predict social loneliness when compared with those earning \$19,000 or less but only the income bracket of \$35-\$59,999 was significant. Dahlberg and Mckee (2014), found that among other factors low income was a significant predictor of social loneliness too. They also found it to predict emotional loneliness further supporting our results. Both those earning between \$60-99,999 and earning \$100,000+ were less likely to predict emotional loneliness compared to those earning \$19,000 or less. Pinquart and Sörensen (2001), suggest that not only does insufficient income act as a barrier for utilising commercial social opportunities but also may prevent people from participating in activities. Those earning \$20-\$34,999, \$60-\$99,999, and \$100,000 and higher all were significantly less likely to predict loneliness. Although it is likely the explanation for this relationship is similar for both social and emotional loneliness interestingly, those earning \$35-\$59,999 was not significantly less than \$19,000 or less and did score a slightly higher score for emotional loneliness, although not significantly. It’s difficult to ascertain the reason for this as most research has focussed on low-income and some have looked at higher-earning individuals, but little research has been conducted on middle socioeconomic status’s experience with loneliness (Andersson, 1998). Despite the lack of work in this area, one survey conducted by Pew research centre found that when considering annual income, 16% of participants with an annual income less than \$30,000 reported feeling lonely all or most of the time, compared with 9% of middle-income and 6% of higher-income adults (Parker, Horowitz & Rohal, 2018). This may be partially explained by the satisfaction people feel regarding their annual income with the same survey also reporting that those who report feeling somewhat or very dissatisfied with their personal financial situation are significantly more likely to feel frequent loneliness when compared with those who are satisfied with their finances. Further, 14% of individuals who disclosed they don’t have enough income to live the kind of life they desire reported feeling frequently lonely or isolated, compared with just 5% of participants who claimed in the survey that they are earning enough of an income to live their ideal life.

4.4. Urbanicity

Findings here suggested that living in a metro area was more likely to predict total loneliness. No other significant relationship was found. A study conducted by Hall and Havens (1999), on loneliness and social isolation among older women in Manitoba (Canada) found participants invited to public forums stated that there was less isolation in rural areas, due to better opportunities for individuals to gather and interact. In contrast, more urban areas were thought to be impersonal environments where people can feel alone although surrounded by others.

According to Baker (2012), feeling less involved in one's community was found to be significantly associated with developing loneliness.

4.5. Relationship Status

Regression analysis showed that the variable indicating the participant was not married or living with a partner, very strongly predicted emotional loneliness and moderately predicted total loneliness compared to the 'married/living with partner' variable. These results are not surprising and confirm the consensus that being in an intimate relationship acts as a protective factor against loneliness. As alluded to previously, social loneliness refers more to the quantity of one's relationships while emotional loneliness refers the quality. Therefore, probably the most significant indicators as to whether someone is more likely to experience emotional loneliness relies on whether they are in a romantic relationship or not. As suggested by Dykstra and de Jong Gierveld (2004), an intimate relationship may also make individuals less vulnerable to social loneliness. Drennan and colleagues (2008), study on the experience of emotional and social loneliness among older adults in Ireland found that while marital status was identified as a predictor of emotional loneliness it did not predict social loneliness. Going forward it is recommended that when looking at differences in marital status in the future, gender should be considered and more specific groups for marital status (e.g., divorced, widowed etc) to gain a more accurate picture.

4.6. Employment

Findings here suggest that those who are not working moderately predicted emotional loneliness. Unemployment predicting loneliness is unsurprising as work is where most individuals spend much of their time outside the home, with many forming bonds with colleagues, and many social events are organised through work organisations such as Christmas parties etc. Our findings also compliment our results for income with lower income groups and those who are unemployed having less access to social opportunities and resources (Pohlan, 2019). However, it was not expected that unemployment would be linked to emotional loneliness rather than social. It may be the sheer amount of time that individuals spend in work coupled with the lack of opportunities to socialise outside of one's home due to commitments (e.g., taking care of children etc) may place more importance on the relationships we develop in work. Many are employed in organisations for a significant length of time. During that time work can be stressful, unpredictable and rewarding. These shared experiences over time may produce bonds with an emotional attachment as appose to just social relationships. In other words, the quality of our relationships and the support we receive may play a pivotal role in how people navigate through their time at work successfully and act as a buffer, as appose to just the number of colleagues we know. This theory compliments Carstensen's (1995), hypothesis stated earlier. Based on our results and the few studies investigating the relationship between employment and emotional and social loneliness, it is recommended that future studies consider investigating both the emotional and social loneliness subscales with more employment options such as part-time workers and retirees.

4.7. Education

A recent report conducted by TILDA looked at loneliness, social isolation, and their discordance among older adults (Domènech-Abella et al., 2019). The report included many key demographics such as age, gender, area of residence and education and their relationship with social isolation and loneliness respectively. Results found that participants who had third-level education or higher were less socially isolated than those who had only primary education or

none at all. Those who reported having only primary education or less reported feeling less socially integrated and the highest experience of social isolation. These results are consistent with our findings that both emotional and social loneliness showed a strong correlation with education, with those who obtained only a high school degree or less reporting the highest feelings of both emotional and social loneliness. However, no relationship was found with total loneliness nor did either education category significantly predict any loneliness factor. These results highlight the distinction not only between emotional and social loneliness but also that total loneliness is distinct from the sub-groups or findings suggested that not only does continuing education provide opportunities to partake in social activities but also fosters an environment where people feel supported. A significant relationship between education and the loneliness subtypes is expected given that individuals attending educational settings, particularly university, tend to meet those with shared interests and goals. It has also been suggested that low educational attainment is related to living in a disadvantaged socioeconomic circumstance, which in turn can lead to chronic stress and a decreased quality of social relations (Hawkley et al., 2008).

4.8. Ethnicity

Lastly, for ethnicity, individuals who did not identify as white ('other') were less likely to predict emotional loneliness than individuals who identify as white. This finding may be due to cultural reasons. For example, in their study on race and objective social isolation, Taylor and colleagues (2018), looked at the correlates of social isolation for older Non-Hispanic Whites, African Americans, and Black Caribbeans. They found that Non-Hispanic White individuals have significantly lower rates of participation in congregational support networks when compared with both Black Caribbeans and African Americans. Furthermore, higher rates of solitary living for white elderly adults have been observed in comparison with African Americans (Johnson & Appold, 2017). Additionally, Taylor and colleagues (2018), found that African Americans and Black Caribbeans were less likely to live alone compared to Non-Hispanic Whites. The ongoing issue with examining the relationship between certain demographic factor and loneliness is that much of the research focuses on the elderly perspective as appose to various age groups and ethnicity is no exception. However, one study conducted by Priest and colleagues (2014), made an interesting observation that almost half of students reported high levels of 'motivated fairness' towards those from other cultural groups and 69% reported positive racial/ethnic attitudes. As the data used in this chapter was collected in the United States, where white/Caucasian individuals are the majority (Statista, 2021) and others would be considered in the 'minority' category, we can suggest it is possible that youths in the 'majority' group may be motivated to be kinder to those considered in the 'minority' group thus reducing the experience of emotional loneliness and other loneliness categories. However, the study does highlight that racism is very much still prevalent in schools and this is just one explanation as to why emotional loneliness is higher for those who identify as white. More work needs to be carried out in this area.

4.9. Limitations

One limitation for this study is its cross-sectional design, therefore we cannot determine the causal direction between emotional loneliness, social loneliness and total loneliness and its identified correlates. Further, this study is also unique in that it examined many variables with three unique loneliness types. We also combined many variables from the original data to only two categories such as race, employment and education due to the sheer number of factors being analysed. This may limit future recommendations for interventions as some groups may be coupled with others who need more assistance but were not identified. However, given the

number of variables used and the approach of employing three different loneliness categories this study brings us considerably closer in helping those who need it most.

5. Conclusion

Loneliness is a problem of epidemic proportions. This study not only highlights specific groups that are linked to and help predict loneliness but also further strengthens the notion that emotional loneliness, social loneliness, and indeed total loneliness are distinct yet related factors. These findings will help build on past research of who needs interventions the most and what kind of intervention do they require in order to help alleviate many suffering from loneliness and its distinct sub-groups.

5.1. Implications/Recommendations

The findings from this study have very practical implications. Loneliness is a serious threat to mental and physical health. Interventions that are as specific and tailored made as possible are warranted. The results provide guidelines for clinicians, researchers and care providers when developing prevention and treatment plans and what groups should be targeted. We recommend that further studies consider the potential disorders associated with the loneliness subtypes/

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References

- Allen, R. & Oshagan, H. (1995). The UCLA Loneliness Scale: invariance of social structural characteristics. *Personality Individual Differences*, 19(2), 185–95. [https://doi.org/10.1016/0191-8869\(95\)00025-2](https://doi.org/10.1016/0191-8869(95)00025-2)
- Andersson, L. (1998). Loneliness research and interventions: A review of the literature. *Aging & Mental Health*, 2(4), 264–274. <https://doi.org/10.1080/13607869856506>
- Asghar, A. & Iqbal, N. (2019). Loneliness matters: a theoretical review of prevalence in adulthood. *Journal of Psychology*, 7(1), 41–7. <https://doi.org/10.15640/jpbs.v7n1a5>
- Baker, D. (2012). *All the Lonely people: loneliness in Australia, 2001-2009* (No.9). Canberra, The Australia Institute. Retrieved from https://melbourneinstitute.unimelb.edu.au/assets/documents/hilda-bibliography/other-publications/2012/Baker_All_the_lonely_people.pdf
- Baltes, M., & Carstensen, L. (1996). The Process of Successful Ageing. *Ageing and Society*, 16(4), 397-422. <https://doi.org/10.1017/S0144686X00003603>
- Brittain, K., Kingston, A., Davies, K., Collerton, J., Robinson, L. A., Kirkwood, T. B. L., Bond, J. & Jagger, C. (2017). An investigation into the patterns of loneliness and loss in the oldest old – Newcastle 85+ Study. *Ageing and Society*, 37(1). <https://doi.org/10.1017/S0144686X15001142>
- Cacioppo, S., Grippo, A. J., London, S., Goossens, L., & Cacioppo, J. T. (2015). Loneliness: Clinical import and interventions. *Perspectives on Psychological Science*, 10, 238–249. <https://doi.org/10.1177/1745691615570616>

- Carstensen, L. L. (1995). Evidence for a life-span theory of socioemotional selectivity. *Current Directions in Psychological Science*, 4(5), 151–156. <https://doi.org/10.1111/1467-8721.ep11512261>
- Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist*, 54(3), 165–181. <https://doi.org/10.1037/0003-066X.54.3.165>
- Cloitre, M., Hyland, P., Bisson, J. I., Brewin, C. R., Roberts, N. P., Karatzias, T., & Shevlin, M. (2019). *ICD-11 Posttraumatic Stress Disorder and Complex Posttraumatic Stress Disorder in the United States: A Population-Based Study*. *Journal of Traumatic Stress*, 00, 1-10. <https://doi.org/10.1002/jts.22454>
- Creed, P. A., & Reynolds, J. (2001). Economic deprivation, experiential deprivation and social loneliness in unemployed and employed youth. *Journal of Community & Applied Social Psychology*, 11(3), 167–178. <https://doi.org/10.1002/casp.612>
- Dahlberg, L., Andersson, L., McKee, K.J. & Lennartsson C. (2015). Predictors of loneliness among older women and men in Sweden: A national longitudinal study. *Ageing and Mental Health*, 19(5), 409-417 <https://doi.org/10.1080/13607863.2014.944091>
- Dahlberg, L. & McKee, K. J. (2014). Correlates of social and emotional loneliness in older people: evidence from an English community study. *Aging & mental health*, 18(4), 504–514. <https://doi.org/10.1080/13607863.2013.856863>
- De Jong Gierveld, J., & Van Tilburg, T. G. (2006). A six-item scale for overall, emotional and social loneliness: confirmative tests on new survey data. *Research on Aging*, 28, 582–598. <https://doi.org/10.1177/0164027506289723>
- De Jong Gierveld, J. & Van Tilburg, T. G. (2010). The de Jong Gierveld short scales for emotional and social loneliness: tested on data from 7 countries in the UN generations and gender surveys. *European Journal of Ageing*, 7(2), 121-130. <https://doi.org/10.1007/s10433-010-0144-6>
- Diehl, K., Jansen, C., Ishchanova, K., & Hilger-Kolb, J. (2018). Loneliness at universities: determinants of emotional and social loneliness among students. *International journal of environmental research and public health*, 15(9), 1865. <https://doi.org/10.3390/ijerph15091865>
- Domènech-Abella, J., Mundó, J., Haro, J. M., & Rubio-Valera, M. (2019). Anxiety, depression, loneliness and social network in the elderly: Longitudinal associations from The Irish Longitudinal Study on Ageing (TILDA)”: Corrigendum. *Journal of Affective Disorders*, 246, 82–88. <https://doi.org/10.1016/j.jad.2018.12.043>
- Dykstra, P. A. (2009). Older adult loneliness: Myths and realities. *European Journal of Ageing*, 6(2), 91–100. <https://doi.org/10.1353/cja.2004.0018>
- Dykstra, P. A., & de Jong Gierveld, J. (2004). Gender and marital-history differences in emotional and social loneliness among Dutch older adults. *Canadian Journal on Aging*, 23(2), 141–155. <https://doi.org/10.1353/cja.2004.0018>
- Dykstra, P. A., & Fokkema, T. (2007). Social and emotional loneliness among divorced and married men and women: Comparing the deficit and cognitive perspectives. *Basic and Applied Social Psychology*, 29(1), 1–12. <https://doi.org/10.1080/01973530701330843>

- Dykstra, P. A., van Tilburg, T. G. & de Jong Gierveld, J. (2005). Changes in older adult loneliness: Results from seven-year longitudinal study. *Research on Aging*, 27(6), 725- 747. <https://doi.org/10.1177/0164027505279712>
- Drennan, J., Treacy, M., Butler, M., Byrne, A., Fealy, G., Frazer, K., Irving, K. (2008). The experience of social and emotional loneliness among older people in Ireland. *Ageing and Society*. 28(8), 1113–1132. <https://doi.org/10.1017/S0144686X08007526>
- Eisler, R. M., & Blalock, J. A. (1991). Masculine gender role stress: Implications for the assessment of men. *Clinical Psychology Review*, 11(1), 45–60. [https://doi.org/10.1016/0272-7358\(91\)90137-J](https://doi.org/10.1016/0272-7358(91)90137-J)
- Emslie, C., Ridge, D., Ziebland, S. & Hunt, K. (2006). Men's accounts of depression: Reconstructing or resisting hegemonic masculinity? *Social Science & Medicine*, 62(9), 2246–2257. [https://doi.org/10.1016/0272-7358\(91\)90137-J](https://doi.org/10.1016/0272-7358(91)90137-J)
- Fierloos, I. N., Tan, S. S., Williams, G., Alhambra-Borrás, T., Koppelaar, E., Bilajac, L., Verma, A., Markaki, A., Mattace-Raso, F. Vasiljev, V., Franse, C.B. & Raat, H. (2021). Socio-demographic characteristics associated with emotional and social loneliness among older adults. *BMC geriatrics*, 21(1), 1-10. <https://doi.org/10.1186/s12877-021-02058-4>
- Gomboc, V., Krohne, N., Lavrič, M., Podlogar, T., Poštuvan, V., Zadavec Šedivy, N., & De Leo, D. (2022). Emotional and Social Loneliness as Predictors of Suicidal Ideation in Different Age Groups. *Community of Mental Health* 58, 311–320. <https://doi.org/10.1007/s10597-021-00823-8>
- Hall, M. & Havens, B. (1999). *The effects of social isolation and loneliness on the health of older women*. Report prepared for the Prairie Women's Health Centre of Excellence. Winnipeg, MB: University of Manitoba.
- Hansen, T. & Slagsvold, B. (2015). Late-life loneliness in 11 European countries: results from the generations and gender survey. *Social Indicators Research*, 129(1), 445-464. <https://doi.org/10.1007/s11205-015-1111-6>
- Hawkey, L. C., Hughes, M. E., Waite, L. J., Masi, C. M., Thisted, R. A., & Cacioppo, J. T. (2008). From social structural factors to perceptions of relationship quality and loneliness: The Chicago Health, Aging, and Social Relations Study. *Journals of Gerontology Series B- Psychological Sciences and Social Sciences*, 63(6), 375-384. <https://doi.org/10.1093/geronb/63.6.S375>
- Johnson J. H. Jr, & Appold S. J (2017). *U.S. older adults: Demographics, living arrangements, and barriers to aging in place*. Kenan Institute. Retrieved from: http://www.kenaninstitute.unc.edu/wp-content/uploads/2017/06/AgingInPlace_06092017.pdf
- Kleftaras, G. & Vasiloua, E. (2016). Spirituality and the Psychological Impact of Unemployment: Personality Characteristics, Loneliness and Depressive Symptomatology. *European Journal Counselling Psychology*, 5(1), 62–77. <https://doi.org/10.5964/ejcop.v5i1.90>
- Mahon, N. E., Yarcheski, A., Yarcheski, T. J., Cannella, B. L., & Hanks, M. M. (2006). A meta-analytic study of predictors for loneliness during adolescence. *Nursing Research*, 55(5), 308–315. <https://doi.org/10.1097/00006199-200609000-00003>

- McCutchen, C., Hyland, P., Shevlin, M., & Cloitre, M. (2022). The occurrence and co-occurrence of ACEs and their relationship to mental health in the United States and Ireland. *Child Abuse & Neglect*, 129, 105681. <https://doi.org/10.1016/j.chiabu.2022.105681>
- Mushtaq, R., Shoib, S., Shah, T., & Mushtaq, S. (2014). Relationship between loneliness, psychiatric disorders and physical health? A review on the psychological aspects of loneliness. *Journal of clinical and diagnostic research*. 8(9), WE01–WE04. <https://doi.org/10.7860/JCDR/2014/10077.4828>
- Nicolaisen, M., & Thorsen, K. (2014). Who are Lonely? Loneliness in Different Age Groups (18–81 Years Old), Using Two Measures of Loneliness. *The International Journal of Aging and Human Development*, 78(3), 229–257. <https://doi.org/10.2190/AG.78.3.b>
- Nicolaisen M, & Thorsen, K. (2017). What are friends for? Friendships and loneliness over the lifespan—From 18 to 79 years. *The International Journal of Aging and Human Development*, 84(2), 126–158. <https://doi.org/10.1177/0091415016655166>
- Parker, P., Horowitz, J. & Rohal, M. (2018). *What unites and divides urban, suburban and rural Communities: Amid widening gaps in politics and demographics, Americans in urban, suburban and rural areas share many aspects of community life* (Report No. :202.414.4372). Pew Research Center. Retrieved from: <https://www.pewresearch.org/social-trends/2018/05/22/what-unites-and-divides-urban-suburban-and-rural-communities/>
- Peerenboom, L., Collard, R. M., Naarding, P., & Comijs, H. C. (2015). The association between depression and emotional and social loneliness in older persons and the influence of social support, cognitive functioning and personality: A cross-sectional study. *Journal of Affective Disorders*, 182, 26–31. <https://doi.org/10.1016/j.jad.2015.04.033>
- Pinquart, M. & Sörensen, S. (2001). Influences on loneliness in older adults: A meta-analysis. *Basic and Applied Social Psychology*. 23(4), 245–266. <https://doi.org/10.1207/153248301753225702>
- Pohlan, L. (2019). Unemployment and social exclusion. *Journal of Economic Behavior & Organization*, 164, 273–299. <https://doi.org/10.1016/j.jebo.2019.06.006>
- Priest, N., R. Perry, Ferdinand, A., Paradies, Y. & Kelaheer, M. (2014). Experiences of Racism, Racial/Ethnic Attitudes, Motivated Fairness and Mental Health Outcomes among Primary and Secondary School Students. *Journal of Youth and Adolescence*, 43(10), 1672–1687. <https://doi.org/10.1007/s10964-014-0140-9>
- Shovestul, B., Han, J., Germine, L., & Dodell-Feder, D. (2020). Risk factors for loneliness: The high relative importance of age versus other factors. *PLoS One*, 15(2). <https://doi.org/10.1371/journal.pone.0229087>
- Statista. (2021, January 20). *Population of the U.S. by race 2000–2019*. Retrieved From: <https://www.statista.com/statistics/183489/population-of-the-us-by-ethnicity-since-2000/>
- Taylor, H. O., Taylor, R. J., Nguyen, A. W., & Chatters, L. (2018). *Social Isolation, Depression, and Psychological Distress Among Older Adults*. *Journal of Aging and Health*, 30(2), 229–246. <https://doi.org/10.1177/0898264316673511>
- Weiss, R. S., (1973) *Loneliness: the experience of emotional and social isolation*. Cambridge: The MIT Press.
- White, S. W., & Roberson-Nay, R. (2009). Anxiety, social deficits, and loneliness in youth with autism spectrum disorders. *Journal of autism and developmental disorders*, 39(7), 1006-1013. <https://doi.org/10.1007/s10803-009-0713-8>