A Study Investigating the relationship between Psychological Distress and Loneliness and Living Alone in Older Adults.

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Abstract

Loneliness: Loneliness is an uncomfortable and distressing experience as is Psychological Distress (PD). In this study older adults psychological distress and loneliness was assessed for a relationship. Also, older adults who live alone and live with others were investigated for differences in psychological distress. Method: 102 older adults participated in this study. Of the participants 37 were male and 65 were female. Participants completed the Modified 5 – item UCLA Scale of Loneliness and the General Health Questionnaire-12 (GHQ-12). Results: No difference was found between older adults who lived alone and those who lived with others on psychological distress. There was also no relationship between levels of loneliness and psychological distress in the study sample. Implications of the study findings, strengths, limitations and recommendations for future research are discussed.

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Introduction

This chapter introduces the relationship between living alone and psychological distress in the older adult population. Also examined is the relationship between loneliness and psychological distress in the population of interest. The various fields related to the current research questions will be explored and discussed including loneliness, the theoretical basis of loneliness, aging, living arrangement and psychological distress. Loneliness will now be defined and Robert Weiss' (1973) theory of loneliness will be explained as well as John Bowlby's attachment theory and its implications for adult relationships and loneliness. The chapter will conclude with an outline of the main hypotheses of the current study and the importance of conducting research in this area.

Loneliness has been defined in the literature many times, each different to some extent. However many of them appear to agree on a small number of aspects for example that it is a common problem affecting many people of all ages (Weiss, 1973). Another agreement among the available definitions is that loneliness is the outcome of a discrepancy between the relationships that an individual has with others and the relationships that they desire (Peplau & Perlman, 1982). Finally, it is universally agreed upon that feelings of loneliness are extremely uncomfortable and distressing (Cacioppo & Patrick, 2008). Some theories of what loneliness is and what causes it will now be evaluated and any support that each received in the literature will be outlined.

Establishing a basis of loneliness from a developmental viewpoint, John Bowlby's 1973 book further explaining attachment and its implications for later life he discusses the development of two internal working models, one of the self and another of others. Bowlby claimed that these models are formed from an individual's early life experiences with their primary caregiver. He theorised that as an infant, each individual forms an attachment type based on this relationship with their mother in most cases. He believed that these models were formed and retained in the memory from an early age and served as a template for what the individual will expect their future experiences and relationships to amount to. The impact on romantic relationships is emphasised however all social experiences are believed to be effected. Bowlby theorises that the attachment type that an infant forms at the early stage of

life will likely correspond to an individual's concept of others and adds that an avoidant or insecure attachment type is associated with poor development of social skills and could result in social and emotional underdevelopment. He believed that these individuals would experience less social interaction and have fewer partners and close relationships throughout life. He links this to loneliness as an individual may desire a close, loving and secure relationship with a significant other but lack the social skills and security within themselves to obtain and maintain such a relationship therefore fostering the discrepancy between the relationships that the individual has and the relationships that they want to have. (Waters et al., 2002). This association between preconceived relationship expectations inconsistent with reality and feelings of loneliness is the foundation on which many widely accepted definitions rest (Peplau & Perlman, 1982).

The aspect of Bowlby's theory focusing on the outcome of insecure attachment styles being associated with an inability to manage relationships successfully is supported in the literature with links being found between insecure attachment and a number of dysfunctional behaviour in the context of social relationships, some even finding a relationship with stalking behaviour (MacKenzie et al., 2008). Further support for the theory is evident from studies where associations between secure adult attachment styles and fewer feelings of loneliness have also been found (Larose, Guay and Boivin, 2002; Kafetsios & Sideridis, 2006). Although Bowlby's beliefs about attachment styles and loneliness have received adequate support in the literature and may not be incorrect or misleading, are they too simplified to explain the complex and arguably multidimensional experience that is loneliness? Can loneliness be experienced, articulated and measured in such broad, non – specific terms and ideas?

Theories that view loneliness as a general term for different 'types of loneliness' and claim it is multifaceted will now be described in order to provide the reader with an overview of how theories of loneliness have progressed with time and approach the concept in alternative manners.

A multidimensional view of loneliness begins with the work of Robert Weiss (1973). Weiss claimed that loneliness is not a single vague construct but is multidimensional and derived social loneliness and emotional loneliness from the original construct. Weiss specified that social loneliness is concerned with a scarcity of social connections with friends and

colleagues whereas emotional loneliness refers to the absence of a significant other or intimate partner with whom to share thoughts and everyday experiences. This approach also receives support in the literature and is respected for its new and alternative view of the concept (DiTommaso & Spinner, 1997; Dahlberg & McKay, 2013). This new outlook seems to inspire researchers and theorists alike to explore the concept of loneliness and form new ideas and theories to be investigated and compared.

Specifically agreeing with and supporting Weiss' approach to loneliness, DiTommaso & Spinner, (1993) built upon the work, suggesting three dimensions of loneliness including family, social and romantic loneliness. This advanced theory of loneliness respects its complex nature and offers a much more specific, in depth approach to loneliness in all of its dimensions. The work of DiTommaso and Spinner moves research in this area to understanding that an individual can be content with some of their relationships and unhappy with others. For example, an individual may have satisfying relationships with their family members but experience loneliness in social settings due to dissatisfaction with the quality of their friendships (Bernardon et al., 2011). These are a few approaches to trying to understand what loneliness is and how it is experienced. Although many viewpoints were explored and many are quite applicable to the population of interest, none are specific to older age or later life. A brief outline of possible causes is now provided.

As loneliness is a subjective experience and arguably quite a vague construct, causal factors are difficult to determine. However, estimates of the degree to which loneliness can be attributed to genetics were drawn from research of two studies of small sample size of children. The results of which indicated that the genetic contribution was around 50% (McGuire & Clifford, 2000). A more recent study using a larger sample size of adult twins supported the previous findings with a result of 48% of the variation in loneliness being explained by genetics (Boomsma et al, 2005).

One of the most popular beliefs held concerning loneliness is that it is most prevalent in the older adult age group (Pinquart & Sorensen, 2001). Although feelings of loneliness affects all ages and specific groups differently and to varied degrees the belief is a least partially supported in the literature as a U – shaped distribution has been repeatedly found identifying those under the age of 25 and those over the age of 65 reporting higher levels of loneliness (Victor & Yang, 2012). However, a study examining recent findings on Loneliness

in Australia suggest that those individuals between the ages of 30 and 45 are most likely to suffer from feelings of loneliness. Although this may be attributed to a cultural effect as these findings are relatively unique (Franklin, 2012). A 2011 study by Victor & Yang with a large cross cultural sample supported the original statement claiming that the results the study obtained suggest that the prevalence rates of loneliness does increase with age.

According to the 2011 Irish Census the over 65 years population was 535,393 strong and is observed to be consistently increasing since 2006. This rise is expected to continue far into the future. This increase has also been seen in Census' from other parts of the world and shows that this specific group of the population requires increased attention and assistance (Park & Jaesung, 2015). The publication also revealed that 56.5% of these individuals were living with a spouse or partner only and 27.7% were living alone. The 2011 TILDA report based on 8,504 participants revealed that 73% of older adults live with a spouse or a spouse and children. It also shows that more females are living alone than are men and the number of older adults living alone increases with age suggested to be due to the higher mortality rate leading to higher levels of widowhood in the population as a whole (Government of Ireland, 2012). These observable trends in gender and age with relation to living alone is also apparent across several cultures with studies in India and across Europe revealing also that older females are the most likely to live alone over males and individuals of other ages (Fokkema & Liefbroer, 2008; Domnaraju, 2015). Young adults and middle aged adults living alone may be for a number of reasons, by choice or by necessity, perhaps for the benefit of a career. However, the explanations as to why older adults live alone are more likely to be due to adults children leaving the family home. Also, the death of a spouse due to the association between older age and higher mortality rate (Yang & Victor, 2001). These factors are risk factors for loneliness (Jong Gierveld, 1999).

Feelings of loneliness have been found to have a similar impact on the brain as physical pain does. Shown in functional magnetic resonance imaging (fMRI) scans, the brain registers loneliness in the same way it does physical pain (Eisenberger et. al., 2003) and these results have been supported by subsequent literature (Eisenberger et. al., 2006). It is theorised that this ability to experience loneliness as a kind of social pain was developed to drive individuals to seek an ease for this pain and immerse themselves into the community with the intent of forming friendships and relationships which would resolve feelings of loneliness being experienced (Cacioppo et al., 2006).

The prevalence of loneliness both nationally and globally is difficult to determine for a number of reasons. However, the absence of accurate nationally representative samples within studies conducted in a large number of countries is a basic requirement not being met in the literature and without this it is difficult to determine the overall levels. What is available is a number of cross-sectional studies carried out in various parts of the world on relatively large but not nationally representative sample sizes which can be pieced together to form a bigger picture. A finding of 27% of 2,393 participants aged between 15 and 97 residing in the United Kingdom experience some degree of loneliness with 9% of people over 55 being lonely all or most of the time (Victor & Yang, 2012). A 2014 study of 3,159 Chinese older Adults living in the United States revealed that 26.6% of participants reported experiencing loneliness (Simon et al, 2014). However higher prevalence rates have been found in a study of older adults in the U.S. with 43% of participants reporting feelings of loneliness (Perissinotto et al, 2012).

An early study (Brown, 1996) claimed that in a sample of individuals with severe or lasting mental illness living alone was not related to scores of loneliness in there was no difference in loneliness scores between participants who lived alone, with a roommate, family or in community living. These results however are not generalizable to the population at a national level as the sample is a specific group and individuals suffering from severe mental illness may find living with or interacting with other people on a reasonably continuous bases difficult or indeed anxiety provoking. Despite this limitation, the absence of differing scores of loneliness between living situations has been supported by more recent research in the population of interest (Mellor et al, 2008). However, More up to date research findings have contradicted this with many studies reporting that participants who resided alone reported more feelings of loneliness than did those who co – habited (Cheuk & Northcott, 2015). Research has claimed that not only do people who live alone report more frequent experiences of loneliness but also stronger feelings of loneliness (Shu-Chan & Yeh, 2004). In support of Cheuk & Northcott, a 2010 study found that older adults living with a spouse or a spouse and children reported less feelings of loneliness than those who lived alone did. Therefore, living with immediate family, specifically a spouse may be considered a protective factor against loneliness in the older adult population (Hazer & Boylu, 2010). Repeatedly living alone is identified in the literature as being highly associated with higher levels of loneliness (Holmen et al., 1992; Samuelson et al., 1998) with some even claiming that living alone has a similar

association with loneliness as the living situation 'institutionalised' (Savikko et al., 2005). The claim that people who live alone are more lonely is well established in the literature (Cohen – Mansfield et al, 2016). The literature investigating some of the negative health outcomes that have been linked to feelings of loneliness will not be outlined.

The number of negative outcomes that have been found to be associated with loneliness in older adults are always increasing. It has been found to be associated with poor health outcomes, distress and lower quality of life (Savikko et al., 2005). In particular, there is a strong link established between feelings of loneliness and experiences of depression (Holmen et al., 1999; Prince et al., 1997). This association was identified by older adults themselves in a qualitative setting (Barg et al., 2006). Loneliness has also been linked to a decline in cognitive functioning (Tilvis et al., 2000) and hypertension (Momtaz et al., 2012) A very recent study investigating the effects of loneliness on cognitive health found that older adults who reported higher feelings of loneliness were more likely to be diagnosed with dementia than participants reporting no such feelings (Holwerda et al., 2014).

Observable from its name, Psychological Distress is an extremely unpleasant and uncomfortable emotional state which is usually in response to significantly stressful stimuli and circumstance (Ridner, 2004). Stressful circumstances being identified as the trigger for the onset of Psychological distress explains to a degree the high prevalence rates being reported in older adults as merely being of older age increases the likelihood that an individual will have encountered a number of losses, perhaps a job, family member, mobility, independence or indeed all of these in some cases. A 2012 study of the relationships between psychological distress and age and gender in a very large sample found that the prevalence of psychological distress decreased with age until the age of 80 and then increased. Psych distress scores were higher for women than men not only at older ages but across the board (Byles et al., 2012). Another study in the same year revealed that the same gender difference was found both in 2003 and in 2008 however it contradicts the result of age differences as the group found to have the highest levels of psychological distress was the over 65's. Another observation made from the data from both years is that there is an overall increase in psychological distress. Not unlike the loneliness and living alone literature a 2016 study found that older adults living with anyone other than a spouse had higher psychological distress than those living with a spouse only (Mundt et al., 2012). A 2014 study of psych distress in people from a disadvantaged area found that 40% of participants aged 18-57 had some level although

higher levels were associated with younger females which partially supports the literature and partially contradicts it. Additionally, it specifically identifies the living arrangement 'alone' as being associated with psychological distress. However low education level and unemployment were not, therefore the results may have more meaning for other populations also (Henning-smith, 2014).

Methodological differences and the use of several different measures to assess the same construct is most likely the reason for the conflicting prevalence rates in the literature for loneliness and psychological distress.

Summary

The information presented in the introduction will now be summarised for the benefit of the reader. Within the introduction section a number of theories of loneliness were provided. Any support that each theory had earned in the literature was mentioned also. Loneliness was then discussed with reference to age and the population of interest was described. The prevalence of loneliness and how it is experienced was then examined. Loneliness was then investigated in terms of living situation and some of the negative physical and mental outcomes of loneliness were presented. Psychological distress and its relationship with loneliness and living alone was then examined. The Rationale and Hypotheses for the present study will now be outlined.

Rationale

This study is important as it focuses on an Irish sample which is relatively uncommon in not only older adult research but psychological literature in its entirety. Additionally, the population of interest has been shown to be growing not only in Ireland but the trend extends to other parts of the world also. Although other age groups experience loneliness it remains a frequent issue for older adults as well as the links that have been established between loneliness and some dangerous and even life threatening conditions. Therefore, research concerning loneliness in this age group must be maintained and kept up to date. The purpose

of this study was to investigate psychological distress in relation to loneliness and living alone in a sample of community dwelling Irish older adults.

The objectives of the current study was to investigate two hypothesis. First, that there will be a relationship between Living Alone and Psychological Distress. And second, that there will be a relationship between Loneliness and Psychological Distress.

More up to date nationally representative studies on the age distribution and prevalence of loneliness are more necessary than ever with the momentum of study in the area picking up with a growing drive to understand the complex nature of the experience of loneliness.

Method Section

The design of the current piece of research, the participants included in the dataset and materials used will be described and the procedure will now be outlined in great detail.

Design

A quantitative, cross – sectional between – groups design was used to examine how both independent variables which were Living Alone and level of Loneliness, impacted the dependant variable Psychological Distress. This design was chosen based upon the two study hypotheses. That loneliness scores would be correlated with higher levels of psychological distress. Also, that living alone would be associated with higher levels of psychological distress.

Participants

Participants for the current study were recruited by convenience and snowball sampling strategies. A number of participants were acquired individually by the researcher. However, the vast majority of the sample was obtained via independently organised social events such as club meetings and activity sessions. Permission to attend these events and distribute questionnaires was attained by phone call from the main organiser prior to the intended date of data collection. In total, the sample consisted of 102 participants, of which 37 were male and 65 were female. The age range of all participants was 60-88, (M=71.8). Additionally, of the 102 participants, 19(18.6%) lived alone and 68(66.6%) were married at the time of data collection. Shown in Table 1 below.

Table 1. Frequencies for the current sample of Irish older adults' demographics. (N=102)

Variable	Frequency	Valid Percentage
Gender		
Male	37	67.7
Female	65	32.3
Household Composition		

Living Alone	19	18.6
Living with others	83	81.4
Marital Status		
Married	68	66.6
Not Married	34	33.4

Materials and Apparatus

A questionnaire booklet was constructed to acquire the data necessary to conduct the present piece of research. Included in the questionnaire booklet were three questionnaires and required a pen to complete which in most cases was provided by the researcher.

A demographic questionnaire (See appendix C) was used to obtain the age, gender, marital status and living arrangement of the participants along with information about close friends and neighbours.

Loneliness was measured using the Modified University of California, Los Angeles (UCLA) scale of loneliness (Russel, 1996). The Modified UCLA is a five item self - report inventory responded to by marking one of three options "Hardly ever or Never" "Some of the time" or "Often". (See appendix D) The 5 – item version of the scale was designed for the purpose of measuring the subjective experience of loneliness and social isolation and was used due to the small number of items for the purpose of making data collection more practical and convenient for the older adult sample. Participants responded to the questions "How often do you feel a lack of companionship?", How often do you feel left out?", How often do you feel isolated from others?", "How often do you feel lonely?" and "How often do you feel in tune with the people around you?". Previous studies used this version of the original scale with a similar sample and report a reliability of 0.79 (McCrory et al., 2014).

Psychological distress was measured using General Health Questionnaire – 12 (Goldberg, 1972) The GHQ-12 is a twelve item scale responded to by ticking one of four options to each statement, "Less than Usual" "No more than Usual" "Rather more than Usual"

"Much more than Usual". (See appendix E) Statements included "I am constantly under strain" and "I have lost sleep over worry".

Procedure

Participants were included in the current study if they were aged 60 or above. Preceding the intended commencement date for data collection and following ethical approval, potential participants were recruited. Three methods of recruitment were used. Firstly, permission to attend four independently organised events was sought from the main organiser of each by telephone and the estimated number of potential participants at each event was acquired. Secondly, Older Adults living in counties Dublin, Meath, Westmeath and Donegal were contacted via telephone call or house visit and asked if they would be interested in taking part in the study. People who agreed to participate were recorded for efficient distribution of questionnaires at the time of data collection. Lastly, at the time of data collection, regular customers of a convenience shop in County Meath were offered a questionnaire booklet which was completed either in the shop or at home and returned at a later date. Some participants also took booklets to pass on to a spouse, friends or neighbours.

Using Microsoft Word the researcher compiled a Questionnaire Booklet to be distributed to potential participants which contained a participant information sheet (See appendix A) briefly explaining the aims of the study, time commitment required and the participants' rights. Additionally, all participants were reminded verbally that completion of questionnaires was voluntary, that they did not have to answer any questions they were not comfortable with and that consent could be withdrawn at any point. The booklet was printed and stapled in the appropriate order.

Also included in the booklet was a consent form (See appendix B) which required a participant signature to demonstrate informed written consent followed by a demographic questionnaire requesting age, gender, Marital Status, living area i.e. urban or rural and number of people currently living in the household excluding themselves. The final two pages contained the Modified UCLA Scale of Loneliness and the General Health Questionnaire.

The researcher attended all events for which permission was granted and distributed the questionnaire booklet to all participants who wished to participate. At some of the events a short description of the study and outline of participant rights was delivered before the

researcher left the event as per the organiser's wishes. All complete and incomplete questionnaires were therefore collected on a different date. At all other events the researcher remained present and available to answer any queries or questions that participant's had about both the questionnaire booklet and the study in general. After the completed booklets were collected the participants were thanked for taking part and were reminded that the results of the data they had provided would be published however their answers would remain anonymous.

All participants visited in their home by the researcher were provided with a questionnaire booklet and given the choice between completing it on their own time and being collected at a later date and completing it with the researcher present at the time. A number of these participants requested that the researcher read the questions and statement aloud to them and record the answers that they provided verbally. The fact that participants were not considered as a means to an end by the researcher was conveyed to the groups of individuals who took part by delivering a thank you card and small token of appreciation at the next scheduled date for gathering at the same venue.

In this section the design of the current study was outlined, the participants who took part in the study were described and the materials and measures used were made clear. Also, outlined in great detail was the procedure for the current study.

Results

The relationship between living alone and psychological distress, and loneliness and psychological distress were investigated. In this section, tables of the descriptive statistics for the continuous variables will be shown. Also, tables containing the findings for the two hypotheses will be shown.

The descriptive statistics for the variables loneliness and psychological distress, including the Mean (M), Standard Deviation (SD), Range, Possible Range and Cronbach's alpha within the current sample are shown in the table below (table 1).

Table 1

Descriptive statistics and reliability of all continuous variables

	Mean	SD	Range	Possible Range	Cronbach's Alpha
Loneliness	3.57	1.98	1-9	0-10	.65
Psychological Distress	14.71	4.10	4-23	0-36	.67

The first hypothesis of the current study was that there would be a difference in psychological distress scores between older adults who live alone and those who live with others. Psychological distress was found to be non - normally distributed in the current sample. Therefore an Independent Samples Mann – Whitney U was performed in order to investigate this Hypothesis.

The Mann – Whitney U test indicated that there were no differences in levels of psychological distress between people living alone (MR=41.03) and those not living alone (MR=53.90), U=589.5, P=.086.

Both variables loneliness and psychological distress were non – normally distributed within the current sample. Therefore in order to test the second hypothesis of the current study, that older adults' loneliness would be associated with psychological distress a Spearman Correlation Coefficient was performed on the data. A two tailed test of significance indicated that there was no relationship between the two variables r, 102=.112, p>.05.

The reliability of both scales within the current sample was assessed. The Modified UCLA Scale of Loneliness attained a reliability score of .66 and the General Health Questionnaire (GHQ – 12) attained a reliability score of .67. However, a Scale if Item Deleted Analysis was conducted to assess the reliability of each questionnaire when one question was removed at a time. The reliability of the GHQ – 12 did not change significantly throughout the analysis. The reliability of the UCLA scale however increased substantially from .66 with all five questions included to .82 if the fifth question is removed from the scale. This is shown in the table below (table 2).

Table 2. Scale if Item Deleted Analysis Results

If Item Deleted	Cronbach's Alpha
How often to you feel a lack of companionship	.53
How often do you feel left out	.58
How often do you feel isolated from others	.57
How often do you feel lonely	.50
How often do you feel in tune with the people around you	.82

The results section of the current study conveyed that within the current study no differences were found in psychological distress scores between older adults who live alone and those who live with others. Also, no relationship or association was found between feelings of loneliness and psychological distress in the current sample. The statistical tests used to obtain these results were clearly named and the reliability of both questionnaire measures used in the study were explored in depth.

Discussion section

In this section of the study, the hypothesis will be restated a final time. The results of these hypotheses will be discussed in terms of how they relate to the previous literature in the area. The strong points and limitations of the current piece will be outlined and suggestions for future research will be provided.

Hypotheses

The first hypothesis was that there would be a difference between older adults living alone and those living with others, on psychological distress. This hypothesis is rejected on the basis of the current study's findings and the null hypothesis, that there is no difference between those participants who live alone and those who live with others, on levels of psychological distress.

The second hypothesis stated there would be an association between levels of loneliness and levels of psychological distress. This hypothesis is also rejected and the null hypothesis accepted as the results of the current study do not support the original hypothesis. Aspects of the sample and methodology of the current study that may have had an impact on those findings will now be discussed.

Sample Limitations

The sample size achieved for the current study was relatively small and this may have affected the statistical power of the tests performed on the data for analysis. The sample was also obtained by convenience sampling and is not representative of the population. This limits the extent to which any conclusions drawn can be given any weight and unfortunately means that any findings obtained are not generalizable back to the population. A gender balance was not achieved during data collection. This may have had an effect on the result obtained as a reason for this could be that a number of males who were approached to take part in the study refused the invitation. Therefore, it is possible that males are less likely to be willing to admit to feeling lonely and perhaps those who did take part did so simply because they were not experiencing loneliness and felt no reason not to report that. A balance between participants who lived alone and participants who lived with others was not achieved by the researcher. In fact, a rather large difference existed between the group numbers with only nineteen

participants reporting that they lived alone and a much more substantial eighty-three stating that they live with others. This imbalance will no doubt have damaged the tests ability to detect a significant difference between the two on levels of psychological distress.

Observations

An observation made on receipt of the completed questionnaires was that a number of them were torn apart, the consent form was removed from the three pages containing the questions. This action could be interpreted in two ways. The first is that those participants were more honest when answering the questionnaires and were concerned about the possibility of being identified and linked to the data that they provided, however due to the patterns of answering and low standard deviation in scores, this does not appear to be the likely interpretation. The alternative is that this action conveys a distrust for the study and may have resulted in dishonest responses to the questions and statements.

A number of participants were acquired individually by the researcher, however, the vast majority of the sample was obtained via social groups, gatherings and clubs and weekly activity sessions. This may be the cause of the non-normal distribution of loneliness in the current sample. This will have affected the testing of the relationship between loneliness and psychological distress.

There is the possibility that as loneliness was assessed as a unidimensional construct, the participants responded to the quite broad and general questions with general answers; whereas if the model suggested by Ditommaso & Spinner was incorporated into the study and loneliness was assessed in terms of more than one dimension different results may have been obtained. Perhaps if the participants were asked questions which were specific to family, social and romantic loneliness this would prompt them to consider specific feelings in depth before providing a response.

Older adults may be content with their family and social lives but they may be experiencing romantic loneliness due to the death of a spouse. The individual in this circumstance may report little or no loneliness as they have come to the conclusion that in most parts of their life they are satisfied and are not experiencing any feelings of loneliness.

For these reasons, in future research an alternative measure of loneliness would be used and is recommended.

The Internal reliability of the current study was not ideal. The reliability analysis performed on the modified UCLA scale of loneliness revealed that if the fifth and final question was removed from the scale, the overall reliability increased significantly. Therefore, there is a possibility that the statement did not measure what the other statements measured. This is yet another reason for the use of an alternative scale in any and all future studies.

Strengths

One strength of the present study is that is focuses on two main hypotheses and remains a focused and concise piece of work. Some strengths of the current study were that it was specifically designed to be minimally invasive for the participants, and, if available, the shorter versions of the necessary scales were chosen with the intent of maximising the convenience of taking part in the survey for the participants. Also, the questionnaires were distributed in printed form rather than requiring the participants to complete them on a computer. The present study and methodology was designed with the target sample in mind at all times.

Another strength of the present study was that in an overwhelming American dominated field such as psychology, the current sample was of Irish nationality which adds diversity to the literature on both loneliness and older adults. An additional strength of this study was that informed consent was possible, no deception was necessary and data was processed and stored completely anonymously.

If the current study was to be performed again a larger sample size would be important to seek. Different sampling methods would be used in order to restore validity to the study and avoid the possibility of the sampling technique effecting the results obtained. An equal balance of participants who are living alone and participants who are living with others would need to be attained in order to rule out the imbalance in the present study as the course of obtaining a non-significant result. It would be attempted to obtain data from all participants individually rather than in groups as the fact that most participants in the current study belonged to or were a member of a group or club that they regularly attended may mean that the samples obtained were least lonely members of the population of interest. This would explain the non-normal distribution of feelings of loneliness found in the current study.

The results achieved in the attempt to answer the first hypothesis of the current study were not what were expected at the beginning of the study. The result that there are no differences between older adults who live alone and older adults who live with others is not supported in the vast majority of the literature considered in the literature review section of this study. Most studies reviewed that investigated differences between older adults living situation and psychological distress did not test this variables as one or the other, living alone or not living alone. In most cases, the living situation of the participants was assessed specific to the participants' relationship to the other people that they lived with. For example, literature on loneliness and psychological distress and living alone and psychological distress revealed a similar pattern. Those who lived alone had a higher level of both psychological distress and loneliness. However, those living with children, other family members or non – family members reported higher levels of psychological distress and more experiences of loneliness. Similarly, the literature on both variables also points out that older adults who lived with a spouse only were the least likely of all groups to experience loneliness or psychological distress.

It was not possible to perform this type of analysis on the data obtained for the current study as information on living situation was obtained by the "number in household" question in the demographic questionnaire. In future study, this questionnaire would be amended to obtain more information about the participants living situation.

The results achieved in order to answer the second hypothesis of the current study were again not what was expected when the literature in the area was being reviewed. As loneliness itself is considered a distressing and uncomfortable psychological state it was expected that an association would be found between it and psychological distress. However this was not found in the results obtained by the current study. As discussed above, the literature reviewed in the area of loneliness and psychological distress were associated.

The reason for the current studies abnormal result in the context of previous findings may be due to a number of methodological flaws that have been identified. In addition, marital status has been identified as a protective factor against loneliness and of the 102 participants who took part in the current study, sixty – eight of them were married. This may have impacted both the distribution of loneliness obtained in the present sample and therefore, the power of the statistical tests used to assess its relationship with psychological distress. The

ability of the test to detect statistically significant results may have been compromised. In future study, a balance between married and not married participants would be ideal and would remove these possibilities.

Future Study

If the present study was to be repeated, a specific effort would be made to avoid all of the previously stated limitations relating to the sampling technique. An alternative method of measuring loneliness within the sample would be used in order to obtain a better understanding of the different types of loneliness and contribute more substantially to the literature. An interesting element to examine in future research would be the inclusion of older adults residing in residential care homes compared to those living alone independently on their levels of loneliness and psychological distress. Longitudinal research in this area would be invaluable and is a suggested direction for any future study.

Implications

Implications of the current study include increased awareness of the attention that this vulnerable sample require. If a better understanding of loneliness was achieved there may be benefits for the health outcomes that have been linked to it in the literature. If an understanding of loneliness and what causes it was achieved, perhaps knowledge on possible preventative measures may be developed and negative outcomes associated with loneliness may not have the chance to have such a detrimental effect.

Conclusion

The current study does not shed enough light on the concept of loneliness in its complexity as it was measured by a single feeling or experience. It has been suggested to be a multidimensional phenomenon and may require more specific investigation from a number of approaches. The current study did not yield any statistically significant results. However, the methodological flaws have been discussed and suggested as a reason for this.

Appendices

Appendix A

Participant Information Sheet

Project Title

The impact of loneliness and living alone on psychological distress.

Invitation

You are being asked to take part in a research study investigating the impact of loneliness and living alone on psychological distress.

I am a final year student studying psychology in National College of Ireland. My supervisor for this project is Dr. Joanna McHugh (Lecturer in Psychology). This project has been reviewed and approved by an ethics board at NCI.

What will Happen

For this study, you will be asked to complete a series of questionnaires providing the researcher with information such as demographics like your age, the area in which you live and how many people live in your household; Your feelings of loneliness at this time and your level of psychological distress.

Time Commitment

Completing these questionnaires should take no longer than 10-15 minutes.

Participants Rights

If at any point of the study you decide that you no longer wish to take part, you do not need to provide an explanation and you have the right to request that all data that you have provided be destroyed.

You have the right to not answer any question that you do not feel comfortable completing and any questions regarding the study or the questionnaires that you may have will be answered should you ask the researcher present.

Benefits and risks

There are no known risks or benefits for you in this study. Your participation is voluntary.

Appendix B

Confidentiality and Anonymity

The data that is collected will not contain any personal information about you from which you can be identified, therefore your information will be anonymous.

Further Information

If you need any further information about this study or have any questions you can contact the researcher or supervisor of the current study using the contact details below.

Researcher: Rebecca Stafford at Rebeccaatnci@gmail.com.

Supervisor: Dr. Joanna McHugh at Joanna.McHugh@ncirl.ie.

CONSENT FORM

The Impact of Loneliness and Living Alone on Psychological Distress.

By signing below, you are agreeing that:

(1) You have read and understood the Participant Information Sheet.

(2) Any questions about your participation in this study have been answered.

(3) You are aware of the potential risks (if any)

(4) You are taking part in this research study voluntarily (without coercion).

_____ _____

Participant's signature* Date

_____

Signature of person obtaining consent

Appendix C

Demographic Questionnaire

1. What is your age? _____

2. What is your gender?

    - Male
    - Female

3. What is your current Marital Status?

    - Single
    - Married
    - Widowed
    - Divorced
    - Living with Another

4. Which of the following best describes the area you live in?

    - Urban
    - Suburban
    - Rural

5. Not counting yourself, how many other people live in your household? _____

6. How many close friends do you have? _____

7. How many neighbours live in close proximity to you? _____

Appendix D

Modified UCLA Scale of Loneliness

Please read the following questions and give your answer by drawing a tick in the relevant box.

Statement	Hardly ever or Never	Some of the Time	Often
How often do you feel a lack of companionship?			
How often do you feel left out?			
How often do you feel isolated from others?			
How often do you feel lonely?			
How often do you feel in tune with the people around you?			

Appendix E

GHQ – A test of psychological distress

Please read the following questions and give your answer by drawing a tick in the relevant box.

Statement	Less than Usual	No more than Usual	Rather more than Usual	Much more than Usual
I am able to concentrate				
I am capable of making decisions				
I can face up to problems				
I have lost sleep over worry				
I am constantly under strain				
I cannot overcome difficulties				
I am unhappy and depressed				
I feel a loss of confidence in myself				
I think of myself as worthless				
I play a useful part in things				
I enjoy day-to-day activities				
I am reasonably happy				

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