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Depression, rumination and dependency in relation to age and gender

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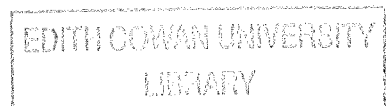Running Head: DEPRESSION, RUMINATION AND DEPENDENCY

Depression, Rumination and Dependency in Relation to Age and Gender

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Depression, Rumination and Dependency in Relation to Age and Gender: A Review of Literature.

Extensive research has been carried out in the field of depression and its relation to age and gender. This article reviews relevant literature in the field of depression, rumination and dependency and the relationships of these to age and gender. It has been shown in numerous studies that depression, rumination and dependency are related and exist in comorbidity with each other. This article also reviews some of the research that has been conducted on age and gender with relation to rumination and dependency. It has been found in relation to rumination, dependency and depression that women are more susceptible than men to these conditions in the general population. As well as the possibility that age may be the cause of difference found in the rates of depression, rumination and dependency research has found that physical illness plays a large role in predicting the occurrence of these conditions. This article looks extensively at the research on the older adult population in regards to depression, rumination and interpersonal dependency. This review also addresses the possible flaws of the studies reviewed and where future research can be focused.

Depression Rumination and Dependency in Relation to Age and Gender: A Review

of Literature.

Depression is a serious mental health condition that is under-detected in

older adult populations (Papadakis, Prince, Jones & Strauman, 2006). Depression is

difficult to detect in the older adult population, (over the age of 65 years) as it often

occurs in comorbidity with serious medical conditions, poor mobility, disabilities

and severe pain (Bruce et. al, 2002). A diagnosis of depression can be difficult to

make in older people who have a medical illness because symptoms matching

diagnostic criteria for depression might be the physiological consequences of the

older person's illness or of medications he/she is taking. Older adults also often

present to health care services with negative stigmas about the service providers on

mental illness and the belief that depressive symptoms in old age, are normal (Bruce

et. al, 2002, McAvay, Bruce, Raue & Brown, 2004, Raes et. al, 2006). Yet, it is

important that depression in old age be understood and recognised because it is one

of the most common problems among older people in primary care settings (Bruce

et. al, 2002). It has been linked to impairment in role functioning (Abrams et. al,

2002), increased mortality (Blazer & Hybels, 2004) and increased risk of suicide,

especially in men (Segal & Needham, 2007).

According to McBride and Bagby (2006) women, in general are twice as

likely to suffer from depression as are men. This figure is thought to be even more

under detected in an older adult population as research in the field of older adult

depression has found higher rates of depression than in a younger population

(Lewinsohn, Seeley, Roberts, & Allen, 1997). Throughout this article, the causes of

differences in depression, rumination and dependency based on age and gender are raised.

It is suggested that women are more likely to experience depressive symptoms due to numerous biological, social and psychological reasons. Some such causes of these depressive symptoms include hormonal changes due to puberty, menopause and childbearing stages (McBride & Bagby 2006). It has also been suggested that the social pressures of inequalities and oppression also lead to an increased rate of depression in women (McBride & Bagby 2006). Another suggestion made by McBride and Bagby to explain men and women's differing rates of depression may be that they differ in their ruminating styles.

Rumination usually refers to a pattern of experiencing repetitive, intrusive, negative cognitions, which is associated with prolonged saddened moods (Siegle, Moore, & Thase, 2004). An individual may also isolate him or herself to think about how bad he/she feels and worries about the causes and consequences of depression (Smallwood, O'Connor, & Heim, 2004). Treynor, Gonzalez, and Nolen-Hoeksema (2003) identified two types of rumination. One type consisted of brooding ruminations, these appeared to be of a maladaptive nature and are more likely to be associated with depression. The other form of rumination is a more adaptive type consisting of reflective ruminations in which individuals look to see how other events may have occurred if they behaved differently. McBride and Bagby (2006) suggested that women might be more likely to engage in brooding rumination whereas men might be more likely to engage in reflective rumination.

Another construct that has generally been found to be associated with depression is interpersonal dependency. Higher rates of interpersonal dependency in women are also reported in the literature. According to McBride and Bagby (2006) increased rates of maladaptive interpersonal dependency among women, as opposed to adaptive interpersonal dependency, may also explain why more women present with depressive symptoms than do men. This review examines depression, interpersonal dependency and rumination literature in relation to gender effects and age.

Depression

It is of major concern that research on depression is comparatively limited in the older adult population (McAvay, Bruce, Raue, & Brown, 2004). Although the literature suggests that depression among older adults is not as common as it is among the younger adult population, it is still a very common illness among older people (McAvay, et. al, 2004). The prevalence rate is likely to be higher than the literature suggests given that depression often goes undetected in the older population.

Depression has been found in many studies to co-exist with other psychological disorders such as anxiety and neuroticism in studies on the general population. As suggested by Bruce et al. (2002), such comorbidity appears to be a problem for older adults as well. According to Bruce et al. this is an important area to research because depression in this population might not have been detected and therefore these people might not be receiving the treatment they need (Bruce et al.). Bruce et al. attempted to address this lack of depression research with this

population. They examined the rates of depression experienced by older people in home-care centres. The study involved 539 participants all over 65 years who were new to home-help agencies. Data was collected from the participants and from an informant who was close to the individual. Sixty-six percent of the participants were able to provide an informant from who to obtain data. The data collected related to their symptoms and moods. Reinterviewing 30 participants and their informant's six-months later sought test-retest reliability. The results found that 73 of the initial 539 participants had diagnostic symptoms of major depression. Of these 73 participants only 16 had been formerly diagnosed and only 9 were receiving the correct treatment according to Bruce et. al. This meant that 78% of the participants presenting with depressive symptoms were not receiving any treatment. These findings are important because physical illness is more common among older people than it is in general populations. This study did not find a significant difference in the rates of depression between the genders.

Another study conducted by Teachman (2006) explored the relationship among depression, anxiety and neuroticism. This sample comprised of 355 participants aged 18 to 93 years old. Sixty-four percent were female. This study proposed that with age there would be an increase in depressive symptoms shown. The participants were required to participate in 3-sessions at a local psychology laboratory. Participants completed a Mini-mental State Examination (MMSE), a Centre for Epidemiological studies depression scale, and the basic MMSE & International Personality Item Pool. The results of this study concluded that as age increased negative affect also increased, which has been found to be a major

predecessor to depression, anxiety and/ or neuroticism. It also found that participants who scored higher on depression also scored higher on anxiety. Females were found to score higher than males in depression and anxiety. The results were from a cross-sectional study so no causal effects of the measures could be determined. Another problem with this study is participants were only able to participate if they were not diagnosed with a psychological disorder. This study supports other research as there is an increase in depressive symptoms with age. It also supports some research has found that older adult women are more prone to depressive symptoms (McAvay, Bruce, Raue, & Brown, 2004; Yesavage et. al, 1983).

Gender is a factor that has been found to increase the likelihood of an individual being diagnosed with depression in a number of studies (Teachman, 2006; McBride & Bagby, 2006). Nolen-Hoeksema, Larson, and Grayson (1999) tested the effects of gender and age on an individual's possession of depressive symptoms as well as looking at their effects on rumination, mastery, chronic pain and depression. The study consisted of 1,132 participants who were involved in an initial interview as well as another follow-up interview one-year later. Fifty-two percent were female and seventy-two percent were of Anglo-Saxon decent. A number of measures were used in the ninety minute interview these included the Beck's Depression Inventory, Hamilton Rating Scale for Depression, Affirmation Test, a number of self-reports to see the level of stress due to the individuals life-style and the Rumination Response task was also used (Nolen-Hoeksema, Larson and Grayson, 1999). These tests were all given to the participants in the follow-up trial. The results of this study found that in ruminative coping, depressive symptoms and chronic strain women scored

significantly higher than men. This result supports the suggestion that women are more likely to present symptoms of depression and rumination than men. Men scored significantly higher than women in measures on Mastery, which is negatively correlated to depression. This result shows that depression has a strong positive link with rumination and chronic strain but is associated with a low level of mastery. This study also found that rumination tended to amplify the levels of chronic strain and significantly decrease the levels of mastery for an individual. The design of this study was correlational so it was unable to show any causal effect. The results of this study support the consensus that women suffer from depressive symptoms and ruminative patterns more then men.

The majority of research conducted into depression on an older adult population use self report measures to determine the levels of depression expressed by the individual. McAvay, Bruce, Raue, & Brown (2004) conducted a study looking at the difference in self-reports and informant reports of depression in an older adult home-care population to determine how accurate the results from research is when using self report measures. This study involved a sample of participants over 65 years who were able to provide informants. Participants completed a Structured Clinical Interview of Axis I of the Diagnostic and Statistical Manual of Mental Disorders IV, and informants completed a modified version of this interview, which was individualised to relate directly to the participant. Participants also undertook a Mini Mental Status Exam and their contact with others and physical health was measured. The results of this study found that nine percent of participants had major depression, of these nine participants 13% of their

informants thought they had other symptoms related to anxiety and not depression. Of the 34 participants who had depressive symptoms, only 41% of informants also reported the depression correctly. Of the remaining non-depressed participants, 13 informants thought the participant had major depression and another 28 informants thought the participants had mild depression. In general, reports by the informants and the participants were similar. It was found that young informants were more likely to suggest the participant had depression. This study also found that if the participant was suffering from a physical illness, and had less social contact they were more likely to be reported depressed by themselves and their informant. This study suggests that self-report measures are reliable in measuring levels of depression in an older adult population. One major concern about the reliability is the exclusion of the participants who were unable to provide an informant. The results found that lower social contact increased the reporting of depression so the participants with no informant would have an even lower level of social contact and could be more depressed then those included in this study.

As it was determined important to establish the depression rates in an older adult population (Segal & Needham, 2007), it was thought there might be a need for a scale to measure depression in this age range specifically. Yesavage et al (1983) were one of the first to look at the development of a scale for use with an older adult population. The need for this new scale was brought about by some of the questions on the prior scales relating to death and future life expectations, which were deemed irrelevant to the older adults and not measuring depression in these areas. Their study consisted of two separate stages the first was to test a 100-item general scale

of depression on older adults over 55 years. This consisted of questions relating to self-esteem, motivation, and aggravation. This was given to 47 participants, 25 who were diagnosed with depression and the others had no diagnosis of depression. The results found that only 30 of the original 100 items had a strong correlation with the depressed participants and a no correlation with the non-depressed items. Surprisingly none of these 30-items now known as the Geriatric Depression Scale (GDS), were related to common forms of systematic complaints such as sleep loss, which have a high correlation with depression in a younger age sample. The second stage involved the validation of this geriatric depression scale. To do this 40 non-depressed participants, 34 severely depressed and 28 mildly depressed participants were administered the GDS, the self-rating depression scale (SDS) and the Hamilton Rating Scale of Depression (HRS-D) (Yesavage et. al, 1983). The results found that when comparing the GDS, SDS and HRS-D on their ability to measure depression in the older adult population they were highly correlated providing evidence that they are useful scales of measuring depression in an older adult population. The scores on the GDS were measured again on a random selection of the participants and resulted in the same showing the validity of this test. These results show that depression in older adults may be in a different form that unspecialised scales do not measure. This may have led to an under reporting of depression in older adults when comparing across age groups as in these studies only one scale is used across all age groups. However, the results of this study did not indicate how many participants were correctly diagnosed as depressed by these scales when they were suffering from clinical depression. This makes it difficult to see how accurate the GDS is for

measuring the rates of depression accurately when compared to other depression

scales.

A study conducted by Newmann, Engel, and Jensen (1990) followed on from

a prior study conducted by Yesavage et al (1983), which looked at how imperative

the need is for a specialised scale to measure depression older adults is. Their study

was to determine if there was a need for an individual scale to measure depression in

older adults, due to the changing life circumstances they faced. A more general

depression scale measures feelings about death and loss of close companions, these

events may not be seen as stressful in an older adult population experiences these

events more frequently then a younger population. The initial survey included 488

female participants over the age of 55. In the one year follow up study only 400 of

the original 488 participants were available to re-interview. This study used the

Symptom Checklist Revised (SCL-90-R) Depression and Additional Symptoms

scale to determine if the symptoms felt by older women were depression or a normal

human response to distress. It found that the majority of factors measured by this

scale were related to common forms of distress rather then clinical depression in this

age group. These results show the importance for a scale that is specialised for older

adults to determine clinical depression. Many items that were not seen as stressful to

an older adult in which they scored low in comparison to a younger adult stopped

them as being considered depressed. If the questions were related more to the older

adults such as those in the GDS, it would be more accurate to measure depression in

this population.

Along with the SCL-90-R, The Centre for epidemiological studies depression

scale (CES-D) has been tested for its ability to measure competently the levels of

depression in older adults. It has been thought that due to physical health

impairments, age, social desirability and illness symptoms of depression may be

induced which will be found on depressive scales when a person is not actually

depressed. Lewinsohn, Seeley, Roberts, and Allen (1997) tested this scale on 1008

participants selected from driver's license records in America of drivers over 50 to

see if gender was a factor of depression. Fifty-eight percent of respondents were

female and 92% of participants had completed high school education. This study

involved participants completing an interview in which the CES-D was used to

determine depression in the participants. They also all completed the Marlowe-

Crowne Social Desirability Scale to determine likelihood of desirable responses. The

results of this study found that CES-D scores did not vary greatly between gender

and age. This result contradicts prior findings that women score significantly higher

than men in depression.

This contradiction may have occurred as it is more commonly found that

older adult men are more independent then women (McBride & Bagby, 2006).

Women that were single or pressured by social demands would have their driving

license. The results also show that little difference is found between age and the

occurrence of depression once the participants are over 50 years old, demonstrating

that depression does not continuously increase with age. There was a significant

correlation found between the CES-D and physical illness, social desirability and

functional impairment. These results show with increases in physical illnesses and

functional impairments, depression rates increase. These rates would be expected to be higher in older adult populations. However, the increase in social desirability scores with the levels of depression measured in an older adult population is not found in younger adults. The increase in depressive results may not be only caused by actual depressive symptoms but may be caused by older adults answering questions in the way they believe they should. These results were also found in other studies (Bruce et al, 2002) which found that older adults may be more likely to answer questions with a more depressive tone due to individual beliefs about how they should be feeling, the need for constant companionship and needing others to help them complete tasks. This study shows that the CES-D is a useful measure to determining the rates of depression in an older adult population. These results must be interpreted with caution as it only involved older adults who were still listed on the driver's licence registration. This method of collecting participants does not include those who have serious illnesses or those that may not have their drivers licence. Some individuals who were not included in this study are more likely to be at a greater risk of depression as they have limited access to places in society and may rely more on others. This could be a cause for the results differing to those of prior studies.

Depression has been found to have a common link with low self-esteem and high levels of hopelessness in participants. This could be a link for the differences in depression due to gender. A study conducted by Alloy and Clements (1998) looked to determine the link between hopelessness and depression and tried to determine if hopelessness has a causal effect of depression. Although this study was not

conducted on older adult participants a study by Krause (1987) concluded that older

adults were at a higher risk of low self-esteem levels due to the low level of social

worth they felt as they assumed they were less needed in society. A study conducted

by Fry (1984) looked at the importance of developing a scale to measure the levels

of hopelessness on older adults who were not clinically depressed. This study found

that hopelessness was positively correlated to the levels of depression in older adult

individuals. This study also suggested that older adults were more at risk of

developing hopelessness ideologies compared with younger samples due to their

beliefs about how they should be feeling, this result may also be due to the increased

rate of illness and physical impairments in this age group. Alloy and Clements's

(1998) study examined one hundred under graduate psychology students by

conducting two interviews. It involved testing participants using the Beck's

Depression Inventory, the state-trait inventory, a symptoms checklist, Helplessness

Scale, and an Attributional Style and Life Events Questionnaire. This study

furthered the findings of Fry (1984) by looking at links between depression,

hopelessness and self-esteem. The results of this study found that hopelessness had

positive correlations with depression and at the second measure, it was positively

correlated to anxiety. It was also found that hopelessness could not predict

depression and the severity of symptoms faced by participants. Hopelessness was

found to be concurrent and prospectively related to depression but had no relation to

anxiety. This study could have been more conclusive if it had been run for a longer

span of time and if it used a more diverse range of participants to select the data

from. From these results and previously conducted research on older adults it can be

suggested that the older population are at a higher risk of depression due to their levels of self-esteem and helplessness.

<div align="center">Rumination.</div>

Rumination is one area that is under researched in an older adult population. This current paper will look at rumination in regards to the general population. Studies of the general population have found that women are more likely to ruminate in response to depressed or dysphoric moods than men who are more inclined to distract from these moods (Nolen-Hoeksema, Larson, & Grayson, 1999). Rumination has been found to have a strong link with depression in young adolescent females (Papadakis, Prince, Jones, & Strauman 2006). However, this connection to depression was not found in adolescent males. This is evidence supporting suggestions that women are more likely than men to suffer from rumination. Many studies have looked at determining the distinction between brooding and reflective rumination styles between the genders (McBride & Bagby, 2006; Treynor, Gonzalez &Nolen-Hoeksema, 2003). These have found that women partake in brooding rumination as they believe this is an expected response to a depressive mood rather then reflective ruminating which involves a more distracted response to the depressive symptom (McBride & Bagby, 2006).

As depression is often linked with serious health ailments, it can also be predicted that rumination will be more common in those with poorer health. Thomsen et al (2004) conducted a study to determine if rumination could provide a link to self-reported physical health of young and older adult individuals. The study also tested if rumination could predict health results in a 1-year follow up. This

study involved 110 older adult and 96 younger adult participants. The results of this study support those of previous findings with women scoring higher than men across all ages in rumination. It also found that the young sample group scored significantly higher overall in stress levels. Rumination was found to have a strong correlation with physical health in older adults as those with poorer health were also higher ruminators. Rumination appeared to have no relationship with health in the younger population. One reason for this result could be that the health test only looked at major illness and symptoms, which may not have yet become prominent in the younger population. Older adult women scored the highest in poor physical health as well as scoring the highest on rumination scores. Rumination was only found to mildly predict health in the year follow-up of young people who scored very high in rumination. The results of this study show that across a large age range women score significantly higher than men in rumination. The results of this study were also replicated by Siegle, Moore and Thase (2004), who found that individuals suffering from chronic health conditions such as Lupus undertook in more ruminative response styles than healthy individuals. This study also found those suffering from a serious illness had emotions that are more negative and displayed more depressive symptoms than healthy individuals.

Many studies in the area of rumination have found a strong link between rumination and depression. A study conducted by Spasojevic and Alloy (2001), researched the ability of negative cognitive styles, self-criticisms, dependency, neediness past experiences of depression and ruminative response style to determine the number of major depressive episodes suffered in a two year time frame. One

hundred and thirty seven participants were assigned to either high or low depression groups based on previously conducted depression tests. The results of this study found that gender had no effect on the number of depressive episodes suffered in the following two years. It was found that a significant correlation existed between rumination, the number of previous episodes and negative cognitive styles. The results for the number of depressive episodes experienced were only significant when rumination was used. It found that the higher ruminators suffered from more depressive episodes than did the lower ruminators. Those that were in the high depression category at the beginning of the study also suffered more depressive episodes than did the low depression individuals.

Gender has been found as a major determinate of depression. Gender has also been shown to have an influential effect on rumination. A study conducted by Nolen-Hoeksema and Jackson (2001) looked at determining the effects of gender in rumination and the beliefs of controllability of emotions, the appropriateness of rumination as a coping mechanism and mastery over negative events. This study involved 1,132 participants and took its data from the Ruminative Response Style Questionnaire, the Beck Depression Inventory, self-measures on mastery, and the desirable responses and choices made due to personality. The results of this study found that rumination is significantly correlated with distress, the belief that one should ruminate, and the control of the emotionality of a relationship. Controllability and mastery were negatively correlated to rumination. Women scored higher then men in all areas that were associated with rumination. The results of this study show that rumination is strongly associated with distress and the feeling that it is important

for an individual to ruminate. These results support McBride and Bagby (2006) as women are more inclined to ruminate than men due to their thought reasoning process believing they need to ruminate over negative events.

In order to determine the strength of the relationship between depression and rumination, Treynor, Gonzalez, and Nolen-Hoeksema (2003) conducted their study by removing the depression related items from the Ruminative Response Scale. One thousand one hundred and thirty seven participants were involved in two interviews over two years. The results of this study found that 12 of the original items on the Ruminative Response Scale overlapped with depression symptoms. The remaining 10-items of this scale could be broken down into brooding ruminative style and reflecting ruminative style. It was found that the brooding style was a more significant factor in predicting depression. It was also found that women scored higher than men did in only the brooding style of rumination. Rumination was shown to account for 50% of the variance in depression for this study. This result suggested it is an important factor in determining depression.

Autobiographical memories of events play a significant role in shaping an individual's mood with individuals who have more depressive moods recalling memories that are more negative then non depressed individuals (Watkins & Teasdale 2001). Raes et al (2006) conducted a study looking at the connection between autobiographical memory and rumination. Twenty-eight participants all diagnosed with major depressive disorder took part in this study which involved an autobiographical memory task, the Rumination Sadness Scale and the Hamilton Scale for Depression and were re-tested 7-months later. The results of this study

found that both rumination and high levels of negative autobiographical memories were significant predictors of an increase in depression at the re-test stage.

A study conducted by Watkins and Teasdale (2001) found similar results to Raes et al (2006) as participants who were asked to ruminate before recalling autobiographical memories did so with a higher rate of negative memories being recalled. This study demonstrated that individuals who ruminated less had a lower degree of over-general memory and were able to respond with a more personal memory which is related to lower levels of depression (Watkins & Teasdale, 2001). The results of both of these studies show that rumination is related to depression by the production of negative autobiographical or over-general memories being retrieved. Lyubomirsky, Caldwell, and Nolen-Hoeksema (1998), also conducted a study looking at the effects of rumination on generating depressive thought patterns. Their study used seventy-five participants who were described as either dysphoric or non-dysphoric by a prior psychology test. The results of this study support those found by Raes et. al (2006) as it found individuals who were dysphoric were deemed to ruminate significantly higher and report more negative thought patterns.

Individuals already displaying signs of depression maybe at a higher risk of displaying ruminative response styles. Lyubomirsky and Nolen- Hoeksema (2001) conducted their study to test this using sixty-nine participants to determine if those who were already dysphoric would have poorer interpersonal problem solving skills and an increases in negative moods a main factor in determining depression rates. This study involved participants either ruminating or distracting themselves for 8-minutes prior to answering an altered Cognitive Biases Questionnaire to determine

preference to select negative and distorted views of events. Gender was found not to be a significant factor. Participants in the dysphoric rumination group had significantly more depressive and distorted views of events. The non-dysphoric students in the rumination and distraction group scored relatively similar results. These participants also completed a test on expectations of future events. Those who were in the dysphoric ruminator group, the dysphoric distraction group, and the non-dysphoric rumination group all answered the same non-happy events were likely to occur in the future. However, both dysphoric groups rated the likelihood of positive events occurring lower then the non-dysphoric groups. The results of this study show that rumination plays a larger contribution to altering ones expectations and views of events if the individual is already suffering from a depressive state.

This study is also supported by that of Smallwood, O'Connor, and Helm (2005) who replicated earlier findings of the relationship between rumination, dysphoria and Self-focus. Prior research found that individuals suffering from dysphoria who ruminated before undertaking a task were less likely to be focused on the task and unable to complete it to the highest standard. This study conducted on 98 participants replicated previous findings with dysphoric individuals being the most susceptible to the effect of off-task thinking and poor results in the tasks. This study showed that there is a strong relationship between ruminative responses and depressive symptoms in individuals. Those who are more depressed are most at risk of developing ruminative response styles.

Studies conducted on rumination often use the response style questionnaire to determine the levels of rumination displayed by an individual. Kasch, Klein, and

Lara (2001) tested the temporal stability, influence due to clinical status, relationship to emotion-focused coping and negative temperament to test its ability to identify sub-groups of Major Depressive Disorder. This study involved 88 participants who had depressive episodes for less then six months. It tested the participants initially, 6-weeks later and a further 6-months after the initial testing. The results of this study found rumination results to be relatively stable over 6-weeks but a low stability over the 6-month period. This shows that the stability of rumination is less then first assumed by prior research (Nolen-Hoeksema, 1991) which was as high as a stability rating of 80 for rumination at five-months, this present study only found a 53.9 rate of stability over the six months. The change in depression over the six months was highly correlated with the change in rumination. This is further evidence for the link between rumination and depression. However, rumination change was not correlated with negative moods or self-focus. Rumination was also unable to predict relapses of depression in the 6-week to 6-month period. This study shows that rumination is less stable than first thought and that a new method of measuring maybe more adequate to predict levels of rumination.

Interpersonal Dependency.

It has been long thought that relatedness and individualism are two of the main components in determining individual behaviour (McBride & Bagby, 2006). Relatedness or dependency is seen to dominate in women who endeavour to be close to others, while men prefer to reach for individualism (McBride & Bagby, 2006). It may be for this reason that research in the area of dependency has found women to

be more dependent than men (McBride & Bagby, 2006). Maladaptive dependency usually dominates research in this area and relates to the underlying anger issues about unmet needs, making it difficult to communicating these issues effectively (McBride & Bagby, 2006).

One area that dependency has been found to be of great influence is in close relationships. Both men and women require close relationships to fulfil their need to belong (McBride & Bagby, 2006). Darcy, Davila, and Beck (2005) looked at determining if social anxiety was related to interpersonal avoidance and interpersonal dependency styles among young people in close relationships. This study involved 168 participants. The results of this study found that the most significant results were by those in a close romantic relationship. It was found in these relationships that anxiety was strongly linked to both avoidance and interpersonal dependency levels. The results showed that maladaptive dependency was correlated the most significantly with romantic relationships high in social anxiety. This study displays that anxiety is highly correlated with interpersonal dependency levels. This may also lead to assumptions that depression to be therefore encountered more in people higher in interpersonal dependency due to the strong relationship between depression and anxiety.

A large amount of research has been conducted in the area of dependency in the general population (McBride & Bagby, 2006). As it has been shown before in relation to depression and rumination the older adult population differs from the general population. In order to address the lack of studies focusing on an older adult population Gardner and Helmes (2007) conducted a study to develop a dependency

scale, which was specific for an older adult population. In the first stage of this study, focus groups consisting of professionals and older adult participants discussed the relevance of items from previously developed interpersonal dependency scales for older adults. Of these items, it was found that 108 were relevant to the components of interpersonal dependency being tested and being relevant to older adults. Two hundred and ninety eight participants aged over 65 then took part in the study of the remaining 88 questions. Their responses were able to reduce the interpersonal dependency scale down to 20-items which had the highest item-total correlations. This study found that in relation to the 20 items measuring interpersonal dependency, men scored significantly higher then women. The results of this study are not supported by research conducted on younger aged populations. These results show the importance of a scale that measures interpersonal dependency in an older population specifically as men are generally thought to have less interpersonal dependency then women (McBride & Bagby, 2006).

Due to the development of the Interpersonal Dependency Scale for Older Adults (IDS-OA) (Gardner and Helmes, 2007) it can now be determined if, like general populations, older adults with high interpersonal dependency also are a higher risk of presenting with mental health conditions and physical illness. Gardner and Helmes's (2006) study looked at the relationship between scores of participants using the IDS-OA, the Geriatric Depression Scale and a physical functioning scale. This study involved 300 participants aged over 65 years who had been receiving home care for less than three months identified as having low help needs. The results of this study found that there was a significant correlation between dependency and

depression, and low significant correlation between dependency and anxiety. These results are also found in the general population showing that there is a strong relationship between depression and interpersonal dependency. The results also found a significant correlation between mobility and dependency, this measure of mobility related to movements independently around their community. The results of this also give support to the relationship between dependency and anxiety to travelling alone. No relationship was found between physical functioning levels and dependency. This result supports the value of the IDS-OA in measuring dependency levels that are not related to the reliance of others due to physical functioning disabilities. This study shows that interpersonal dependency is linked to depression in an older adult population which is also found in the general population.

Conclusion

This review of literature on depression, dependency and rumination has uncovered many areas that future research could address, such as measures of rumination in an older adult population and the use of more diverse samples to replicate the findings of some studies. The articles reviewed on depression found that women were more likely than men to suffer from this disorder. It was also found that an edited version of a depression scale was useful to measure the occurrence of depression in the older adult population to ensure they were not being under diagnosed or under detected in society (Papadakis, Prince, Jones, & Strauman, 2006). These articles also displayed a range of co-contributors to depression and the need to determine if it is possible to separate the causes of depression. Rumination

was found to occur with depression in a large proportion of the reviewed articles. Future research may look at the possibility to determine if a causal relationship exists between rumination and depression. Rumination like depression was found to have a relationship to gender with females showing a significantly higher rate of occurrence than males. Research has also provided evidence that rumination can occur across the entire adult life span much the same way that depression can present.

The final area this review covered was that of dependency. Research was able to determined the importance of dependency scales to be modified to accurately measure its levels in an older adult population. In a general population, dependency was found to be higher in women but when an older adult specific dependency scale was used, it was found that older men have higher dependency needs than older women. Overall, the findings in this review display there are still areas that need to be further researched. Of particular importance are the areas of gender and age and the relationship among these to depression, rumination and dependency. The importance of determining these psychological problems can help to ensure individuals are able to live a happier and healthier life by being able to effectively diagnosis older adults with depression, rumination or interpersonal dependency and treating them quicker and more efficiently.

References

Abrams, R., Lachs, A., McAvay, G., Keohane, D., & Bruce, M. (2002). Predictors of
self-neglect in community dwelling elders. *The American Journal of
Psychiatry, 159,* 1724-1731.

Alloy, L., & Clements, C. (1998). Hopelessness theory of depression: Tests of the
symptom component. *Cognitive Therapy and Research, 22,* 303-335.

Blazer, D., & Hybels, C. (2004). What symptoms of depression predict mortality in
community dwelling elders. *Journal of the American Geriatrics Society, 52,*
2052-2056.

Bruce, M., McAvay, G., Raue, P., Brown, E., Meyers, B., Keohane, D., Jagoda, D.,
& Weber, C. (2002). Major depression in elderly home health care patients.
The American Journal of Psychiatry, 159, 1367-1374.

Conwell, Y., Duberstein, P. R., Cox, C., Herrmann, J. H., Forbes, N. T., & Caine, E.
D. (1996). Relationships of age and Axis I diagnoses in victims of completed
suicide: A psychological autopsy study. *American Journal of Psychiatry, 153,*
1001-1008.

Darcy, K., Davila, J., & Beck, J. (2005). Is social anxiety associated with both
interpersonal avoidance and interpersonal dependency? *Cognitive Therapy and
Research, 29,* 171-186.

Fry, P. (1984). Development of a geriatric scale of hopelessness: Implications for
counselling and intervention with the depressed elderly. *Journal of
Counselling Psychology, 31,* 322-331.

Gardner, D., & Helmes, E. (2006). Interpersonal dependency in older adults and the

   risks of developing mood and mobility when receiving care at home. *Aging*

   and Mental Health, 10, 63-68.

Gardner, D., & Helmes, E. (2007). Development of the interpersonal dependency

   scale dor older adults. *Australasian Journal of Aging, 26,* 40-44.

Kasch, K., Klein, D., & Lara, M. (2001). A construct validation study of the

   response style questionnaire rumination scale in participants with a recent-

   onset major depressive episode. *Psychological Assessment, 13,* 375-383.

Krause, N. (1987). Life stress, social support and self-esteem in an elderly

   population. *Psychology and Aging, 2,* 349-356.

Lewinsohn, P., Seeley, J., Roberts, R., & Allen, N. (1997). Centre for

   epidemiological studies depression scale (CES-D) As a screening instrument

   for depression among community residing older adults. *Psychology and Aging,*

   12, 277-287.

Lyubomirsky, S., Caldwell, N., & Nolen-Hoeksema, S. (1998). Effects of ruminative

   and distracting responses to depressed mood on retrieval of autobiographical

   memories. *Journal of Personality and Social Psychology, 75,* 166-177.

Lyubomirsky, S., & Nolen-Hoeksema, S. (1995). Effects of self-focused rumination

   on negative thinking and interpersonal problem. *Journal of Personality and*

   Social Psychology, 69, 176-190.

McAvay, G., Bruce, M., Raue, P., & Brown, E. (2004). Depression in elderly

   homecare patients: patient versus informant reports, *Psychological Medicine,*

   34, 1507-1517.

McBride, C., & Bagby, M. 2006. Rumination and interpersonal dependency: Explaining women's vulnerability to depression. *Canadian Psychology, 47,* 184-194.

Newman, J., Engel, R., & Jensen, J. (1990). Depressive symptom patterns among older women. *Psychology and Aging, 5,* 101-118.

Nolen-Hoeksema, S. (1991). Responses to depression and their effects on the duration of the depressive episode. *Journal of Abnormal Psychology, 100,* 569-582.

Nolen-Hoeksema, S., & Jackson, B. (2001). Mediators of the gender difference in rumination, *Psychology of Women Quarterly, 25,* 37-47.

Nolen-Hoeksema, S., Larson, J., & Grayson, C. (1999). Explaining the gender difference in depressive symptoms, *Journal of Personality and Social Psychology, 77,* 1061-1072.

Papadakis, A., Prince, R., Jones, N., & Strauman, T. (2006). Self-regulation, rumination and vulnerability to depression in adolescent girls. *Development and Psychopathology, 18,* 815-829.

Raes, F., Hermans, D., Mark, J., Williams, G., Beyers, W., Brunfaut, E., & Eelen, P. (2006). Reduced autobiographical memory specificity and rumination in predicating the course of depression. *Journal of Abnormal Psychology, 115,* 699-704.

Segal, D., & Needham, T. (2007). An explanation of gender differences on the reasons for living inventory among older adults. *Death Studies, 31,* 573-579.

Siegle, G., Moore, P. & Thase, M. (2004). Rumination: One Construct, Many

Features in Healthy Individuals, Depressed Individuals, and Individuals With

Lupus. *Cognitive Therapy and Research, 28,* 645-668.

Smallwood, J., O'Conner, R., & Heim, D. (2005). Rumination, dysphoria, and

subjective experience. *Imagination, Cognition and Personality, 24,* 355-367.

Spasojevic, J., & Alloy, L. (2001). Rumination as a common mechanism relating

depressive risk factors to depression. *Emotion 1,* 25-37.

Teachman, B. (2006). Aging and negative affect: The rise and fall and rise of

anxiety and depression symptoms. *Psychology and Aging, 21,* 201-207.

Thomsen, D., Mehlsen, M., Olesen, F., Hokland, M., Viidik, A., Avlund, V., &

Zachariae, R. (2004). Is there an association between rumination and self-

reported physical health? A one-year follow up in a young and elderly sample.

Journal of Behavioural Medicine, 27, 215-231.

Treynor, W., Gonzalez, R., & Nolen-Hoeksema, S. (2003). Rumination

reconsidered: A psychometric analysis. *Cognitive therapy and Research, 27,*

247-259.

Watkins, E., & Teasdale, J. (2001). Rumination and over general memory in

depression: Effects of self-focus and analytic thinking. *Journal of Abnormal

Psychology, 110,* 353-357.

Yesavage, J., Brink, T., Rose, T., Lum, O., Huang, V., Adey, M., & Leirer, O.

(1983). Development and validation of a geriatric depression screening scale:

A preliminary report. *Journal of Psychiatry, 17,* 37-49.

Running Head: OLDER ADULTS AND DEPRESSION

Depression, Rumination and Interpersonal Dependency in an Older Adult Population

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Depression, Rumination and Interpersonal Dependency in an Older Adult Population

Depression has become a major focus in mental health in previous years and has been thought to be under-detected in an older adult population. Along with depression, maladaptive rumination and interpersonal dependency have also brought about large amounts of research in previous years but have received little attention in the older adult population.

Objectives: This study looked at the relationships among depression, maladaptive rumination, adaptive rumination and interpersonal dependency in an older adult sample. It also aimed to determine whether gender differences exist across the combination of depression, maladaptive rumination, adaptive rumination and interpersonal dependency in the older adult population.

Method: This study involved 116 participants over the age of 65 years. The participants responded to a postal questionnaire package.

Results: The results found no significant difference in gender between the measures. The results found a strong relationship between depression and maladaptive rumination. It also found a strong relationship between depression and interpersonal dependency. Conclusions: The results suggest that gender is not a significant factor in determining depression, maladaptive rumination, adaptive rumination and/ or interpersonal dependency, in an older adult population.

Keywords: Maladaptive, Adaptive, Correlation, Brooding.

Depression, Rumination and Interpersonal Dependency in an Older Adult Population

Depression has been seen as a serious and increasingly common mental health disorder throughout society (Papadakis, Prince, Jones, & Strauman, 2006). Depression is defined as a personal low characterised by an extreme lack of energy, motivation, confidence, interests and enjoyment of life (Raes et. al, 2006). This condition has been thought to be under-detected and under-researched in the older adult population (over 65 years of age) (Papadakis et. al, 2006). One explanation concerning the occurrence of under-detection is its comorbidity with serious medical conditions, poor mobility, disabilities and severe pain (Bruce et. al, 2002). The diagnosis of depression can be challenging because symptoms are often similar to those of physiological consequences of the person's illness or of the medications he/she is currently taking to treat a medical disorder (Bruce et. al, 2002). Older adults also often present to health care services with negative stigmas attached to mental illness and the belief that depressive symptoms in old age, are normal (Bruce et. al, 2002; McAvay, Bruce, Raue, & Brown, 2004, Raes et. al, 2006). These negative stigmas are also attached to older adults by society as beliefs about older adults being less likely to partake in the same activities they enjoyed whilst they were younger are often shown (McAvay, et. al, 2004; Raes et. al, 2006). It is of great importance to determine depression rates in older adults as it has been found to be a major problem affecting the quality of life of older adults in primary care settings (Bruce et. al, 2002).

Bruce et al. (2002), suggested in their research that depression was greatly under-detected in an older adult population, and found that much of this was due to its comorbidity with other ailments. In this study only 17% of older adults in home care settings who had diagnosed depression were receiving the correct treatment according to the researchers in this project. The incorrect treatment or no treatment for depressive disorder is also reported as a major problem for the general population. A study conducted by Lewinsohn, Seeley, Roberts, and Allen (1997), found significant correlations between the Centre for Epidemiological Studies Depression Scale (CES-D) and physical illness, social desirability and functional impairment. This shows with increases in physical illnesses and functional impairment depression rates increase. These results are repeatedly shown in studies focusing on depression and physical illness (McAvay, et. al, 2004; Raes et. al, 2006). The rate of depression would therefore be expected to be higher in older adult populations as they suffer from more physical and functional impairments. It is also suggested that depression in the older adult population is an important area of research because in this population, depression might not have been easily detected as it may be overlooked as symptoms associated with aging (Bruce et. al, 2002). In the study conducted by Bruce et. al (2002) it was found that 78% of older adult participants who were suffering from depression were not receiving any form of treatment for the disorder.

According to McBride and Bagby (2006) women in general, are twice as likely to suffer from depression, as are men. It is suggested that women are more likely to experience depressive symptoms due to numerous biological, social and

psychological reasons. Some such causes of these depressive symptoms include hormonal changes due to puberty, menopause and childbearing (McBride & Bagby 2006). It has also been suggested that the social pressures of inequalities and oppression may also lead to an increased rate of depression in women (McBride & Bagby 2006). Another suggestion made by McBride and Bagby to explain men and women's differing rates of depression is that they may differ in their ruminating styles. Nolen-Hoeksema, Larson and Grayson (1999) conducted a study on gender and its effects on rumination and depression. The results of this study found that in ruminative coping, depressive symptoms and chronic strain women scored significantly higher than men. This supports the suggestion that women are more likely to suffer from depression and rumination than are men. These results also suggested that depression is strongly associated with rumination and chronic strain. Depression is also associated with a low level of mastery the ability to complete tasks successfully with high self-confidence. It was also found that rumination tended to amplify the levels of chronic strain and significantly decrease the levels of mastery for an individual in this study (Nolen-Hoeksema, et al, 1999).

Along with age, gender is another factor that is likely to increase the likelihood of an individual being diagnosed with depression. This finding has been supported in a number of studies (McBride & Bagby, 2006; Teachman, 2006). A study conducted by Teachman (2006), looked at the effects of gender on depressive symptoms and the association of age and gender with depression. The results of this study found that women scored higher than men did on both depression and anxiety scales. The results of this study also determined that as age increased so did the

occurrence of depressive symptoms. It did not however determine if gender was important across all age ranges on measures of depression or if it was significant to any age range in particular. Nolen-Hoeksema, Larson, and Grayson (1999) study tested the effects of gender and age on an individual's possession of depressive symptoms as well as looking at their effects on rumination. This study also found that women scored higher than men in depressive symptoms. It also found that women who had high depressive scores also had higher scores of rumination. These results support the consensus that women are more likely to suffer from depression and related rumination than are men. This study again did not determine if a particular age group scored significantly higher in depressive symptoms.

Studies conducted on an older adult population and depression have largely been based on self-report measures (McBride & Bagby, 2006; Teachman, 2006). This may account for the under-detection in this population, as the participants may be unwilling to disclose the depth of their depressive symptoms. Self-report measures are also unable to detect if an individual is truthfully responding or simply selecting the answers they believe are most socially accepted (Teachman, 2006). Self-reports should however not be disregarded as a reliable source for determining depression rates. A study conducted by McAvay, Bruce, Raue, & Brown (2004), found self-report measures were accurate measures of depression in this study. When compared to the informant's reports of participants a 76% consensus rate was found were the informant scored the participant matching the self-reports completed by the participant in describing themselves as being depressed or non-depressed.

A study conducted by Lewinsohn, Seeley, Roberts and Allen (1997) based on older adults (over 50 years) who were not in health care facilities looked at gender and depression. Their results differed from previous research, as they found no significant differences in gender on scores of depression in this sample. This study, unlike previous studies discussed, did not include a wide age range but rather a narrow focus on older adults. This research suggests that gender may not be a significant factor of depression in an older adult population which is apparent when focusing on a wide age range.

Rumination is found to be strongly linked to depression and dependency in the general population. Rumination usually refers to a pattern of experiencing repetitive, intrusive, negative cognitions, which is associated with prolonged saddened moods (Siegle, Moore, & Thase, 2004). An individual may also isolate him or herself to think about how bad he/she feels and worries about the causes and consequences of depression (Smallwood, O'Connor, & Heim, 2004). Treynor, Gonzalez, and Nolen-Hoeksema (2003) identified two distinct forms of rumination. The first type consisted of brooding ruminations, these appeared to be of a maladaptive nature and more likely to be associated with depression. The other form of rumination is a more adaptive type consisting of reflective ruminations in which an individual thinks about how other events may have occurred if they changed their behaviour. McBride and Bagby (2006) suggested that women might be more likely to engage in brooding rumination whereas men might be more likely to engage in reflective rumination. This conclusion was drawn on previous research which concludes that women suffer from depression more then men (Nolen-Hoeksema,

Larson, & Grayson, 1999; Teachman, 2006). It is also suggested that women are more likely to partake in maladaptive rumination because of their socialisation and cultural beliefs (McBride & Bagby, 2006). This includes social situations such as when women (who are at home and trying to achieve a perfect home environment for their partner) do something their partner does not approve of, the women is more likely to internalise and self-blame for the situation instead of looking for a solution for the next time the event occurs (McBride & Bagby, 2006). This is an example of a maladaptive ruminating situation. Treynor, Gonzalez, and Nolen-Hoeksema (2003) also concluded that maladaptive or brooding ruminations were more strongly associated with depression and depressive symptoms than adaptive ruminative styles.

Studies of the general population have found that women are more likely to ruminate in response to depressed or dysphoric moods than men who are more inclined to distract from these moods (Nolen-Hoeksema, Larson, & Grayson, 1999). Thomsen et al (2004) conducted a study to determine if rumination could provide a link to the self-reported physical health of young and older individuals. The results of this study support those of previous findings with women scoring higher than men across all ages in rumination. Rumination was found to have a strong correlation with physical health in older adults as those with poorer health were also found to display more ruminating responses. Other studies in the area of rumination have found a strong link between rumination and depression. A study conducted by Spasojevic and Alloy (2001), found that a significant correlation existed between rumination and the number of previous episodes of depressive symptoms. A study

conducted by Nolen-Hoeksema and Jackson (2001) looked at determining the effects of gender on rumination. Women scored higher than men in all areas that were associated with rumination. The results of this study showed that rumination is strongly associated with distress and the feeling that it is important for an individual to ruminate. These results support McBride and Bagby's (2006) suggestion that women are more inclined to ruminate than men due to their thought reasoning process which leads them to believe they need to ruminate over negative events.

There is a lack of research reported on the effects of rumination on an older adult population. Studies of the general population have found that women are more likely to ruminate in response to depressed or dysphoric moods than men (Nolen-Hoeksema, Larson, & Grayson, 1999). Rumination in the general population also has been found to lead to increased depressive symptoms and negative affect of the individual (Nolen-Hoeksema, Larson, & Grayson, 1999). Gender is a strong predictor of rumination according to Nolen-Hoeksema and Jackson (2001). They found that women scored higher than men in all measures of maladaptive forms of rumination. These results also supported McBride and Bagby (2006), as women are more inclined to ruminate than men believing there is a need to ruminate over negative events. In these situations, men are more inclined to distract from the event or internalise the emotions felt (Nolen-Hoeksema, Larson, & Grayson, 1999). Treynor, Gonzalez, and Nolen-Hoeksema (2003) also supported the results found by other research that women scored higher than men in maladaptive ruminations and lower than men in adaptive ruminations. These studies emphasize the importance of differentiating between the two distinct forms of rumination as one is closely linked

to depression and the other is a more distracting thought process. These studies also draw attention to the need for research to be conducted focusing an older adult population.

Another construct that has generally been found in numerous studies (Darcy, Davila & Beck, 2005; McBride & Bagby, 2006) to be associated with depression and rumination is interpersonal dependency or dependant personality, as it is also known. McBride and Bagby (2006) suggested that this construct can also be characterised by either or both maladaptive and adaptive dependency needs. They suggest that maladaptive dependency is characterised by neediness due to insecure attachment, whereas adaptive dependency is characterised by a need for affiliation. Interpersonal dependency is viewed as maladaptive and increasing vulnerability to depression (McBride & Bagby, 2006). Women according to McBride and Bagby are seen to be motivated to obtain relatedness, whereas men are seen to be motivated to remain individual (McBride & Bagby, 2006). They argue that this may be why women are seen to be more interpersonally dependent than men and also may contribute to women's higher prevalence of depression. Higher rates of interpersonal dependency among women than among men have usually been reported throughout the literature in this field (Darcy, Davila & Beck, 2005; McBride & Bagby, 2006). A study by Sanathara, et. al (2003) found that although women scored higher than men in levels of interpersonal dependency there was a stronger relationship between depression and interpersonal dependency for males (Sanathara, et. al, 2003). This found that only women with very high levels of interpersonal dependency showed

signs of depression but depression levels increased along with levels of interpersonal dependency in males (Sanathara, et. al, 2003).

It has been long thought that relatedness and individualism are two important components in determining ones behaviours (McBride & Bagby, 2006). Relatedness or dependency is seen to dominate in women who endeavour to be close to others, while men prefer to strive for individualism (McBride & Bagby, 2006). This gender difference in interpersonal dependency is influenced by social factors (McBride & Bagby, 2006). From a young age, females are encouraged to partake in social activities whereas males are encouraged to be independent and have personal control (McBride & Bagby, 2006). In the Western culture this is even further shown as for women it is acceptable to discuss personal issues with friends but men are expected to deal with them alone leading to it being more acceptable for females to be interpersonally dependant (McBride & Bagby, 2006). It may be for this reason that much research in the area of dependency has found women to be more dependent than men. Maladaptive dependency usually dominates research in this area and relates to the underlying anger issues about unmet needs, which stops them from communicating these effectively (McBride & Bagby, 2006). This is not to say that men do not need attachment to other individuals and one area this is most apparent is in marital relationships (Kiecolt-Glaser & Newton, 2001). A study conducted by Kiecolt-Glaser and Newton (2001) found that widowed or divorced men were more likely then women in the same situation to become depressed (Kiecolt-Glaser & Newton, 2001).

In order to address the lack of research in the area of interpersonal dependency that focuses specifically on the older population, Gardner and Helmes (2007) developed a dependency scale for use with older adults. Contrary to previous research, they found no significant difference between the dependency scores of older men and older women. Gardner and Helmes (2007) suggested that this lack of difference found between dependency scores of older men and older women might be explained by the way their dependency scale was developed. Items were grounded in a recently proposed integrative theory of dependency excluding the measurement of passivity, which was previously thought to be a characteristic of dependency. In addition, items were selected to suppress social desirability responding styles. They suggested that differences found in other research between men's and women's dependency scores might be due to their differing perceptions of the social acceptance of the dependency of men and women.

Interpersonal dependency has also been found to be related to depression in a general population (McBride & Bagby, 2006). Gardner and Helmes (2006) examined the correlations between interpersonal dependency, depression and anxiety in an older home-care population. The results of this study found there was a significant moderate positive correlation between dependency and depression, supporting other studies that have consistently found a positive relationship (Darcy, Davila & Beck, 2005; McBride & Bagby, 2006).

The purpose of this study was to examine the relationships among depression, maladaptive rumination, adaptive rumination and interpersonal dependency in an older adult population. This study is formed on previous research

focusing on the general population and the lack of research in the area on older adult

samples. This study aimed to find out if there was a relationship between gender in

an older adult population on depression, maladaptive rumination, adaptive

rumination or interpersonal dependency. Another aim of this study was to look at the

relationship among rumination forms, depression and interpersonal dependency on

an older adult population.

Method

Participants

A questionnaire package (see Appendix A) was sent to each member of a

random stratified sample of 300 participants over the age of 65 years. These

participants were a computer generated sample of the Council on the Aging (COTA)

member's database. A total of 116 people responded. Of this 44% (51) were male

and 50% (58) were female six percent (7) were unidentified. The age range for this

sample was 65-96 years (M = 76.51; SD= 6.4).

Instruments

The questionnaire package consisted of an information letter (Appendix A)

requesting participation and providing prospective respondents with the information

they needed to make an informed decision to participate. It also consisted of three

scales (described below) and a sheet requesting demographic information (Appendix

A) (i.e., participants' age and gender) and informed consent for participating in this

study.

Interpersonal dependency was measured with the Interpersonal Dependency

Scale for Older Adults (IDS-OA) developed by Gardner and Helmes (2007). This

consisted of 20-items with a seven-point Likert scale response format ranging from 1

(not at all like me) to 7 (just like me) (see Appendix A). This scale was based on the

definition that dependency is a personality style which consists of four main

components, which are: motivational needs from others such as guidance, cognitive

beliefs about others' power, negative affect when functioning alone and tendency to

seek help and support from others before undertaking activities. The IDS-OA was

designed to be used specifically on older adults. The IDS-OA has a high reliability

ranging from 0.92 to 0.94 (Gardner & Helmes, 2007).

Rumination was measured with the Rumination Scale developed by Treynor,

Gonzalez, and Nolen-Hoeksema (2003). This scale consisted of 10-items with a four

point likert response scale ranging from 1 (almost never) to 4 (almost always) (see

Appendix A). This scale was developed to measure two distinctively different forms

of rumination; brooding and reflective rumination. Brooding is defined as being

maladaptive ruminating and is more likely to be associated with depression.

Reflective rumination is described as being a more positive and constructive form of

rumination for the individual. Items 1, 3, 6, 7, and 8 measure a brooding ruminative

style whilst items 2, 4, 5, 9 and 10 measure a reflective ruminative style. Reliability

for the rumination scale is reported to be high (.85) by Treynor, Gonzalez, and

Nolen-Hoeksema (2003). It was also reported by (Spasojevic & Alloy, 2001) to be a valid measure of rumination.

Depression was measured using a short form of the Geriatric Depression Scale (GDS) developed by Yesavage et al (1982). This scale consisted of 15 of the original 30 items that had the greatest ability to determine depressed from non-depressed older adult participants (see Appendix A). The scales 15 items are responded to with either yes or no responses. This scale is commonly used to measure depression in an older adult population and has a high reliability ranging from 0.82 to 0.94 (Lewinsohn, et al, 1997).

Procedure

This study was a postal survey of a random stratified sample of older adult members of the Council on the Aging (COTA) in Western Australia. Approval for the research was obtained by the Edith Cowan University ethics committee and the Board of COTA. The questionnaire packages were posted with reply paid envelopes. A request for a two weeks return (date indicated) was included on the information letter in the package. Non-responders were not followed-up.

Statistical Analysis

Using SPSS for Windows (version 11 for windows), gender and depression, maladaptive rumination (brooding), adaptive rumination (reflective rumination), and interpersonal dependency scores were compared with a Multivariate Analysis of

Variance (MANOVA) to determine whether there were statistically significant

gender effects across the scales.

Results

The results of the Pearson's r are reported in Table 1. These results indicate a

mild to strong correlation between the scales. The correlation of the measures with

the demographic measure of age was not significant. Although a statistically

significant correlation was found between depression and adaptive rumination the

correlation between them was minor. A moderate-to-high statistically significant

correlation was obtained between interpersonal dependency and maladaptive

rumination as well as between adaptive rumination and maladaptive rumination. A

moderate statistically significant result was obtained for depression and rumination.

A low statistically significant result was obtained between adaptive rumination and

depression as well as between adaptive rumination and interpersonal dependency. A

low-to-moderate statistically significant result was obtained between depression and

maladaptive rumination.

The results of the MANOVA indicated that main effects were not

significantly significant Interpersonal dependency F (1, 105) = .002, p> 0.05.

Maladaptive rumination F (1, 105) = .439, p> 0.05. Adaptive rumination F (1, 105)

= .081, p>0.05. Depression F (1, 105) =.237, p> 0.05. Descriptive statistics for the

measures are given in Table 2.

Table 1.

Correlations Between Measures

	Age	Interpersonal dependency	Maladaptive rumination	Adaptive rumination	Depression
Age	1				
Interpersonal dependency	.123	1			
Maladaptive rumination	.020	.646**	1		
Adaptive rumination	-.032	.439**	.734*	1	
Depression	.087	.421**	.574**	.350**	1

Note. ** Correlation is significant at the 0.01 level (2-tailed)

Table 2.

Descriptive Statistics of Measures

	Gender			
	Female		Male	
	M	SD	M	SD
Interpersonal Dependency	49.52	26.315	49.27	25.319
Maladaptive Rumination	8.46	3.326	8.88	2.997
Adaptive Rumination	7.45	3.1333	7.63	3.592
Depression	1.98	2.228	2.20	2.441

Discussion

The results of this study did not support previous findings on gender

differences in depression (McBride & Bagby, 2006; Nolen-Hoeksema, Larson &

Grayson, 1999; Teachman, 2006). In this study, men and women did not differ

significantly on their results in the measure for depression. The results of this study

also found that gender was not a significant factor in maladaptive or adaptive

rumination, which was also un-supported by previous research that determined

women to possess maladaptive rumination more than men (McBride & Bagby, 2006). Gender was not a significant determinant of an individuals interpersonal dependency in this sample which was supported by the research of Gardner and Helmes (2007). The results of interpersonal dependency did not however support previous studies using a wide age range, which determined females as more interpersonally dependant (McBride & Bagby, 2006).

A significant correlation (.42) was found between depression and interpersonal dependency. Depression was also significantly correlated (.57) with maladaptive rumination. Depression was statistically significantly correlated to adaptive rumination (.35) but this result was low. These findings support previous research as depression often occurs in comorbidity with other ailments (McBride & Bagby, 2006). Previous studies have found that depression is most common in people with a maladaptive rumination style and maladaptive interpersonal dependency (McBride & Bagby, 2006). These results were also supported by this study and suggest that depression may not occur alone but rather along side other factors such as interpersonal dependency which may allow it to be more easily identified.

A significant correlation was found between adaptive and maladaptive rumination. This result suggests that the two forms of rumination do not occur alone as people high in maladaptive rumination also score high in measures of adaptive forms of rumination. It is when a score is high in one form of rumination and not another, that an individual may respond by increasing depressive symptoms (Nolen-Hoeksema, Larson, & Grayson, 1999). The two forms of rumination did however

relate differently to scores on interpersonal dependency. A stronger relationship was found between maladaptive rumination and interpersonal dependency than adaptive rumination and interpersonal dependency. This result supports prior findings as interpersonal dependency is a measure of maladaptive dependency. This would be expected to be higher in an individual who scores high in measures on maladaptive rumination (McBride & Bagby, 2006). This could be expected as these individuals already have a brooding style of overcoming events which could have been developed through their insecure attachments at an early age (McBride & Bagby, 2006).

No association was found between gender and depression in this study as found in prior research. This could be caused by the age of the sample used in this study. The majority of research conducted on depression and gender does not focus on an older adult population (Papadakis, Prince, Jones & Strauman, 2006). These studies on gender and depression may include participants from an older adult population but do not specify the results given for this population alone, rather a general result for all age groups (Papadakis et al, 2006). This may account for the results of this study finding no gender difference in depression. One explanation offered for gender results having no effect in an older adult population is females may no longer be affected by as much hormonal chemistry, which is said to account for women's increased reporting of depression in younger age samples (Nolen-Hoeksema, Larson & Grayson, 1999). The larger number of females reporting depression in a younger sample may also be due to the acceptability of females to report such a mental health occurrence, but there is little support for males to report

this condition (McBride & Bagby, 2006). In the older adult population, males may

feel as though they are able to report more freely their emotions and behaviours.

Another suggestion for gender having no effect on depression is that this study used

a depression scale specific for older adults. This scale is more suited to measuring

only depression symptoms in this age group and is able to remove questions that

may focus on a female response in this population or questions that are more

accepted such as thoughts about death. Maladaptive rumination was strongly linked

to depression in this study. This suggests that people who are depressed are more

likely to partake in brooding patterns of rumination after events than in a more

helpful form of rumination. This suggestion is supportive of what is known about

depression and the mood states that this brings about (Papadakis, Prince, Jones &

Strauman, 2006).

Rumination results may have not been supported by previous studies in

relation to gender as little research has been conducted in the area of rumination on

an older adult population. Nolen-Hoeksema and Jackson (2001) found that women

scored higher than men in all measures of maladaptive forms of rumination. This

result was however not found in this study. A reason for the difference in results

found in this study of older adults may be that older adults have more health

ailments. Health ailments have been determined as a factor increasing maladaptive

rumination in a general population (Thomsen et. al, 2004). Rumination was not

found to be related to gender in this study which also differs to the findings of

Thomsen et al (2004) who did find women to be more maladaptive ruminators in an

older adult population. Thomsen et al (2004) recruited participants through health

care campuses where they were ill and/ or receiving treatment. This current study

did not focus on medically reliant participants, which may have accounted for the

lack of gender differences. Older women who are healthy may ruminate less than

younger women who are healthy.

Adaptive rumination was also not gender specific in this study. In previous

findings, males were more likely to partake in this form of rumination then females

(McBride & Bagby, 2006). However, this result was not found in this study. One

suggestion for older adults undertaking in similar adaptive ruminations may be

caused by an equal balancing of roles (Bruce et. al, 2002). Older men may not feel

they need to move on quickly from situations and take on a more maladaptive focus

on thinking about the event. Older adult females may not feel the same responsibility

as younger females over events that occurred and hence will partake in more

adaptive rumination.

Interpersonal dependency in this study did not find a gender difference. This

does not support the research conducted on the general population as women are

found to be more interpersonally dependent than men (Darcy, Davila & Beck, 2005;

McBride & Bagby, 2006). The results do however support research conducted by

Gardner and Helmes (2007). Gardner and Helmes (2007) also used an older adult

population to conduct their research and were unable to determine that gender had

an effect on interpersonal dependency.

One limitation of this study includes the process of data collection used. Mail

response questionnaires have a low return rate and participants who are suffering

from a health or psychological ailment would be less likely to return the

questionnaire. The use of self-report measures for all variables in this study is another limitation. Self-report measures where however most viable for this study due to the number of participants, time constraints and the internal nature of the variables measured. The participants used for this study may not be generalised to the general older adult population as they were all recruited from COTA which is an organization for older adults in Western Australia. The population measured may not have included individuals in home care facilities or those who have serious medical conditions. However, this sample is possibly the first to include only older adults for all of the measures. This study was also of a correlational design, which cannot account for causal effects of these measures on each other.

The results of this study suggest that gender is not a significant factor in determining depression, interpersonal dependency, maladaptive and adaptive rumination in an older adult population. The findings of this study also conclude that a relationship exists between depression and interpersonal dependency, and depression and maladaptive rumination in an older adult population. Both forms of rumination were also found to be related in this population. It can also be concluded from these results that interpersonal dependency is related to maladaptive rumination in an older adult population.

These results have implications for older adult care facilities to ensure that gender does not influence the diagnosis of depression, rumination or interpersonal dependency in this age group. As older men are just as likely to suffer from these conditions as are older women. The findings of this research are limited to older COTA participants and cannot be generalised to the older adult population.

However, this study indicates that more research is needed looking at depression, interpersonal dependency, adaptive and maladaptive rumination in an older adult population. Future studies may include a more demographically diverse older adult population. Future research may also look at the causes of depression, interpersonal dependency and rumination styles in an older adult population. This study was of importance to determine how the older adult population differs from that of a younger population in these increasingly important areas of psychological conditions.

References

Bruce, M., McAvay, G., Raue, P., Brown, E., Meyers, B., Keohane, D., Jagoda, D., & Weber, C. (2002). Major depression in elderly home health care patients. *The American Journal of Psychiatry, 159,* 1367-1374.

Darcy, K., Davila, J., & Beck, J. (2005). Is social anxiety associated with both interpersonal avoidance and interpersonal dependency? *Cognitive Therapy and Research, 29,* 171-186.

Gardner, D., & Helmes, E. (2006). Interpersonal dependency in older adults and the risks of developing mood and mobility when receiving care at home. *Aging and Mental Health, 10,* 63-68.

Gardner, D., & Helmes, E. (2007). Development of the interpersonal dependency scale dor older adults. *Australasian Journal of Aging, 26,* 40-44.

Kiecolt-Glasser, J., & Newton, T. L. (2001). Marriage and health: His and hers. *Psychological Bulletin, 127,* 472-503.

Lewinsohn, P., Seeley, J., Roberts, R., & Allen, N. (1997). Centre for epidemiological studies depression scale (CES-D) As a screening instrument for depression among community residing older adults. *Psychology and Aging, 12,* 277-287.

McAvay, G., Bruce, M., Raue, P., & Brown, E. (2004). Depression in elderly homecare patients: patient versus informant reports, *Psychological Medicine, 34,* 1507-1517.

McBride, C., & Bagby, M. 2006. Rumination and interpersonal dependency: Explaining women's vulnerability to depression. *Canadian Psychology, 47,* 184-194.

Nolen-Hoeksema, S., & Jackson, B. (2001). Mediators of the gender difference in rumination, *Psychology of Women Quarterly, 25,* 37-47.

Nolen-Hoeksema, S., Larson, J., & Grayson, C. (1999). Explaining the gender difference in depressive symptoms, *Journal of Personality and Social Psychology, 77,* 1061-1072.

Papadakis, A., Prince, R., Jones, N., & Strauman, T. (2006). Self-regulation, rumination and vulnerability to depression in adolescent girls. *Development and Psychopathology, 18,* 815-829.

Raes, F., Hermans, D., Mark, J., Williams, G., Beyers, W., Brunfaut, E., & Eelen, P. (2006). Reduced autobiographical memory specificity and rumination in predicating the course of depression. *Journal of Abnormal Psychology, 115,* 699-704.

Sanathara, V., Gardner, C., Prescott, C., & Kendler. K. (2003). Interpersonal dependence and major depression: Aetiological inter-relationship and gender differences. *Psychological Medicine, 33,* 927-931.

Siegle, G., Moore, P. & Thase, M. (2004). Rumination: One Construct, Many Features in Healthy Individuals, Depressed Individuals, and Individuals With Lupus. *Cognitive Therapy and Research, 28,* 645-668.

Smallwood, J., O'Conner, R., & Heim, D. (2005). Rumination, dysphoria, and subjective experience. *Imagination, Cognition and Personality, 24,* 355-367.

Spasojevic, J., & Alloy, L. (2001). Rumination as a common mechanism relating

depressive risk factors to depression. *Emotion 1,* 25-37.

Teachman, B. (2006). Aging and negative affect: The rise and fall and rise of

anxiety and depression symptoms. *Psychology and Aging, 21,* 201-207.

Thomsen, D., Mehlsen, M., Olesen, F., Hokland, M., Viidik, A., Avlund, V., &

Zachariae, R. (2004). Is there an association between rumination and self-

reported physical health? A one-year follow up in a young and elderly sample.

Journal of Behavioural Medicine, 27, 215-231.

Treynor, W., Gonzalez, R., & Nolen-Hoeksema, S. (2003). Rumination

reconsidered: A psychometric analysis. *Cognitive therapy and Research, 27,*

247-259.

Yesavage, J., Brink, T., Rose, T., Lum, O., Huang, V., Adey, M., & Leirer, O.

(1983). Development and validation of a geriatric depression screening scale:

A preliminary report. *Journal of Psychiatry, 17,* 37-49.

Appendix A

Information For Participants.

Project Title: Rumination, depression and interpersonal dependency in an older Population.

This research project, is being conducted by Ms Alison Lee of Edith Cowan University, Joondalup, Western Australia. The project aims to examine the differing effects of men and women's thought processes and behaviours on their mood. This research conforms to the guidelines produced by the Edith Cowan University Ethics Committee. The ECU Human Research Ethics Committee has approved this project. COTA has sent you this questionnaire to participate in. Please be advised that your participation or withdrawal of participation will have no effect on the services you are receiving from this organization.

If you are age 65 years or older you can help with this project by filling out the following questionnaire. It will take no more than twenty minutes to complete.

Please be assured that all information provided in this questionnaire will remain strictly confidential. The results of the study will be published but all identifying information will be removed.

Please understand that your participation in this study is totally voluntary and you are able to withdraw at anytime without penalty. This is an anonymous questionnaire. You should read this Information Letter carefully as it explains fully the intention of the research project. Please ensure that you do not write your name (or any other comments that could identify you) on the questionnaire. By completing the questionnaire, you are consenting to take part in this research.

It is hoped that the results from this study will help us to understand more about what effects the mood of men and women.

Should you have any queries or concerns in the future about this study, please contact Dr Deborah Gardner, School of Psychology, Edith Cowan University on (08) 9301 0011 or email d.gardener@ecu.edu.au or
Alison Lee on 04399 64791 email: alee2@student.ecu.edu.au

If at anytime during or after this questionnaire you feel distressed and need to speak to someone you can call:
ECU Psychological Services Centre: 9301 0011
Kinway: 9263 2050 (all regions)
Relationships Australia: 1300 364 277
Crisis Care: 9223 1111 (24 hour free call)

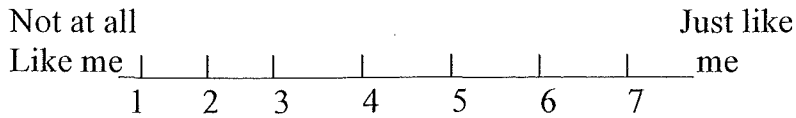If you have any concerns or complaints about the research project and wish to talk to an independent person, you may contact:

Kim Gifkins
Research Ethics Officer
Edith Cowan University
100 Joondalup Drive
Joondalup WA 6027
Phone: (08) 6304 2170
Email: research.ethics@ecu.edu.au

Thank-you for your time and consideration in this project.

PLEASE RETURN COMPLETED QUESTIONNAIRES IN THEIR ENVELOPE BY THE 15th OF SEPTEMBER 2007.

Questionnaire

Directions:

After each statement in the questionnaire is a rating scale numbered from 1 to 7. You will find an example below. If the statement sounds just like you circle the number "7". If it sounds not at all like you, then circle the number "1". If the statement sounds a little like you, somewhat like you or quite like you circle a number in-between 1 to 7. The more like you the statement sounds, the higher the number you circle.

Example:

I like to have someone with me most of the time.

Not at all   Just like
Like me__|____|____|____|____|____|__ me
     1   2   3   4   5   6   7

For each statement in the questionnaire, circle the number that is most like you. Please answer every statement even if you are unsure of the number to circle.

Please circle: Male / Female   Age_____

1.   Worry tends to make me cling to those I am closest to.

Not at all   Just like
Like me | | | | | | | me
         1   2   3   4   5   6   7

2.   I have a lot of trouble making decisions by myself.

Not at all   Just like
Like me | | | | | | | me
         1   2   3   4   5   6   7
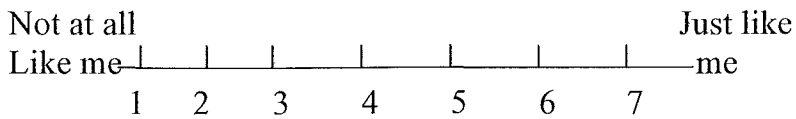
3.   Other people seem to need less help with things than I need.

Not at all   Just like
Like me | | | | | | | me
         1   2   3   4   5   6   7   .
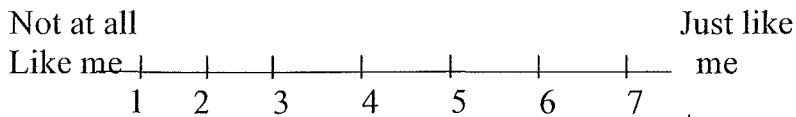
4.   I really only feel safe when I am with a person I am especially close to.

Not at all   Just like
Like me | | | | | | | me
         1   2   3   4   5   6   7
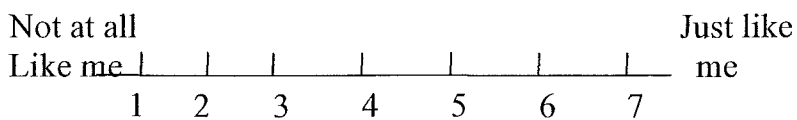
5.   I become extremely anxious if I think I have to do something new by myself.

Not at all   Just like
Like me | | | | | | | me
         1   2   3   4   5   6   7
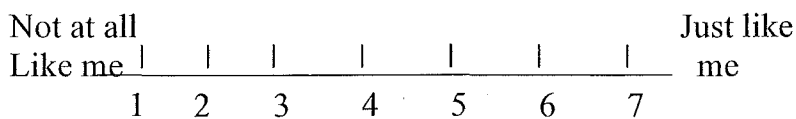
6.   if a friend has not called in a while I get worried that he/she has forgotten me.

Not at all   Just like
Like me | | | | | | | me
         1   2   3   4   5   6   7
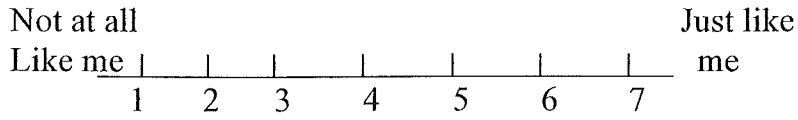
7.   I need people to tell me what to do.

Not at all   Just like
Like me | | | | | | | me
         1   2   3   4   5   6   7
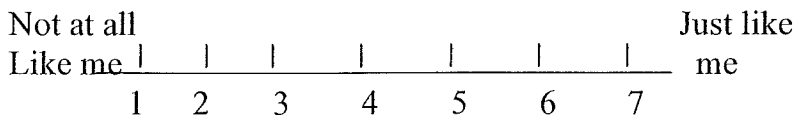
8.   I tend to worry about what other people think of me.

Not at all   Just like
Like me | | | | | | | me
         1   2   3   4   5   6   7 .
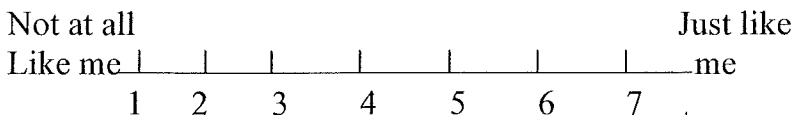
9.   I become anxious when I have to be alone for any length of time.

Not at all   Just like
Like me | | | | | | | me
         1   2   3   4   5   6   7
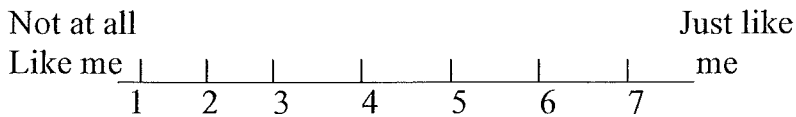
10.   I often feel threatened by change.

Not at all   Just like
Like me | | | | | | | me
         1   2   3   4   5   6   7
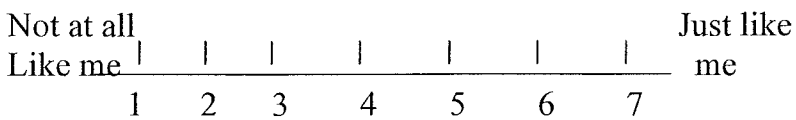
11.   It is very important to me to be approved of by others.

Not at all   Just like
Like me | | | | | | | me
         1   2   3   4   5   6   7
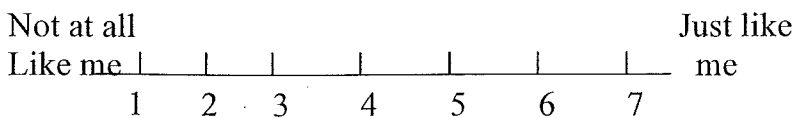
12.   I would be helpless without support from others who are close to me.

Not at all   Just like
Like me | | | | | | | me
     1   2   3   4   5   6   7
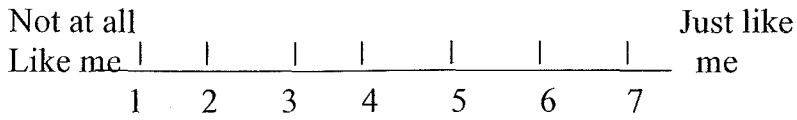
13.   When things go wrong, I need to be with someone I am close to.

Not at all   Just like
Like me | | | | | | | me
     1   2   3   4   5   6   7
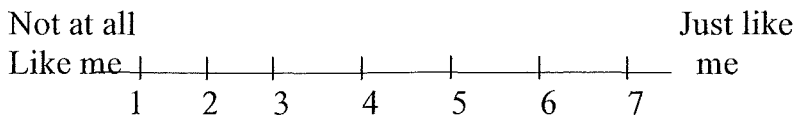
14.   When I am with other people I look for signs of whether or not they like being with me.

Not at all   Just like
Like me | | | | | | | me
     1   2   3   4   5   6   7
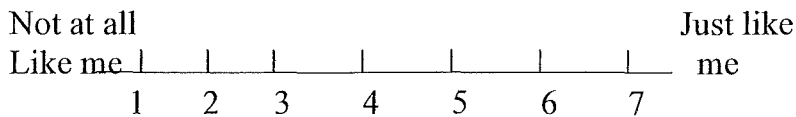
15.   I tend to go along with what other people want even if it is not what I want.
Not at all   Just like
Like me | | | | | | | me
     1   2   3   4   5   6   7
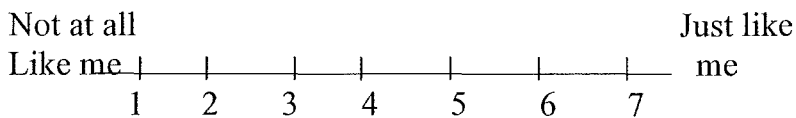
16.   1 feel helpless in many situations.

Not at all   Just like
Like me | | | | | | | me
     1   2   3   4   5   6   7
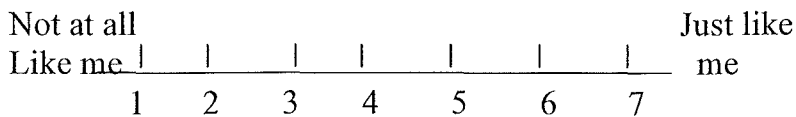
17.   I almost always avoid going out alone.

Not at all   Just like
Like me | | | | | | | me
     1   2   3   4   5   6   7
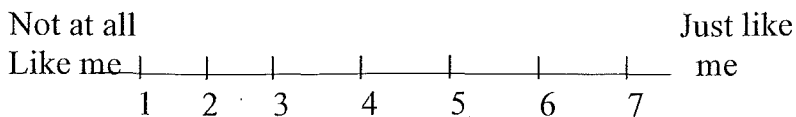
18.   My worst fear is being rejected by someone.

```
Not at all                                    Just like
Like me |    |    |    |    |    |    |    me
        1    2    3    4    5    6    7
```
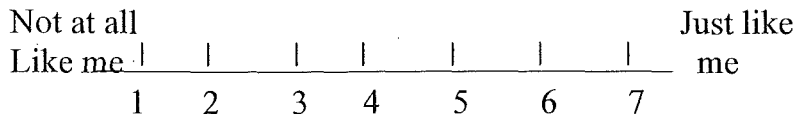
19.   I only enjoy what I am doing when I think that someone really cares about me.

```
Not at all                                    Just like
Like me |    |    |    |    |    |    |    me
        1    2    3    4    5    6    7
```
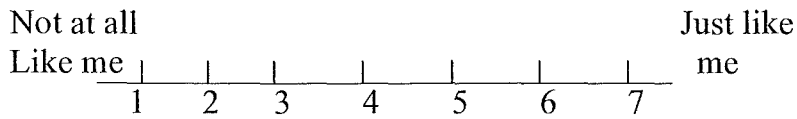
20.   I generally follow other people's suggestions.

```
Not at all                                    Just like
Like me |    |    |    |    |    |    |    me
        1    2    3    4    5    6    7
```
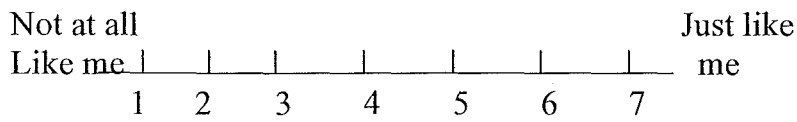
Instructions:

After each statement in this part of the questionnaire is a rating scale of 1 to 4 an example is shown below. If the statement states how you feel almost always circle number "4". if it is how you almost never feel then circle number "1". If the statements sounds like you sometimes or often circle a number between 1 and 4 the more the statement sounds like you the higher the number you circle.

Example:

Think about how lonely you feel.

| Almost | | | Almost |
| Never | | | Always |

```
   |        |         |       |
   1        2         3       4
```

For each statement in the questionnaire, circle the number that is most like you. Please answer every statement even if you are unsure of the number to circle.

1.   Think "What am I doing to deserve this?"

Almost   Almost
Never   Always

| | | |
1   2   3   4

2.   Analyze recent events to try to understand why you are depressed

Almost   Almost
Never   Always

| | | |
1   2   3   4

3.   Think "Why do I always react this way?"

Almost   Almost
Never   Always

| | | |
1   2   3   4

4.   Go away by yourself and think about why you feel this way

Almost   Almost
Never   Always

| | | |
1   2   3   4

5.   Write down what you are thinking and analyze it

Almost   Almost
Never   Always

| | | |
1   2   3   4

6.   Think about a recent situation, wishing it had gone better

Almost   Almost
Never   Always

| | | |
1   2   3   4

7.   Think "Why do I have problems other people don't have?"

Almost   Almost
Never   Always

| | | |
1   2   3   4

8.   Think "Why can't I handle things better?"

Almost   Almost
Never   Always

| | | |
1   2   3   4

9.   Analyze your personality to try to understand why you are depressed

Almost   Almost
Never   Always

| | | |
1   2   3   4

10.   Go someplace alone to think about your feelings

Almost   Almost
Never   Always

| | | |
1   2   3   4

Instructions:

For the following questions please circle the answer that best suits how you have felt in the last week.

1. Are you basically satisfied with your life? YES / NO

2. Have you dropped many of your activities and interests? YES / NO

3. Do you feel that your life is empty? YES / NO

4. Do you often get bored? YES / NO

5. Are you in good spirits most of the time? YES / NO

6. Are you afraid that something bad is going to happen to you?   YES / NO

7. Do you feel happy most of the time? YES / NO

8. Do you often feel helpless? YES / NO

9. Do you prefer to stay at home, rather than going out and doing new things?
        YES / NO

10. Do you feel you have more problems with memory than most?
        YES / NO

11. Do you think it is wonderful to be alive now? YES / NO

12. Do you feel pretty worthless the way you are now? YES / NO

13. Do you feel full of energy? YES / NO

14. Do you feel that your situation is hopeless? YES / NO

15. Do you think that most people are better off than you are? YES / NO

Please Tick

————————I have checked that I have responded to all of the statements on each page.

PLEASE RETURN THE COMPLETED QUESTIONNAIRE TO THE RESEARCHER IN THE REPLY PAID ENVELOPE PROVIDED BEFORE THE 15th OF SEPTEMBER 2007.

THANK-YOU FOR YOUR PARTICIPATION