STRUCTURED REMINISCENCE: AN INTERVENTION TO DECREASE DEPRESSION IN OLDER WOMEN

A DISSERTATION

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BY

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Date

To the Dean of the Graduate School:

I am submitting herewith a Dissertation written by Cynthia Kellam Stinson, entitled "Structured Reminiscence: An Intervention to Decrease Depression in Older Women". I have examined this Dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in Nursing.

Anne Young
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We have read this dissertation and recommend its acceptance:

Judith McFarlane
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Accepted:

Jennifer Martin
Dean of the Graduate School

DEDICATION

To my supportive husband, my children, and grandchildren. The inspiration for this topic comes from my mother-in-law Mrs. Maudie Josephine Stinson (1920-2001) and my mother Mrs. Veda Kellam Boyd (1935-2001). Lastly, to all "my ladies" who shared their lives and showed me the true meaning of survival.

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I wish to acknowledge my three daughters, Brandi, Cassie, and Brittni. These three special women give me support daily. I hope one day they will read this dissertation and be proud of their mom. I also hope that it will inspire them to work toward their own dreams and goals.

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ABSTRACT

CYNTHIA KELLAM STINSON

STRUCTURED REMINISCENCE: AN INTERVENTION TO DECREASE DEPRESSION IN OLDER WOMEN

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The hypothesis for this study was: Women, 60 years and older, who reside in two assisted living facilities in southeast Texas and who participate in twice weekly one-hour reminiscence group sessions for 6-weeks will report significantly lower depression scores, as measured by the Geriatric Depression Scale (GDS), 3-weeks and 6-weeks after the intervention begins compared to control group women. Forty-seven women (M = 82.53, SD = 7.58) residing in assisted living facilities comprised the sample.

A mixed design analysis of variance (ANOVA) examined the effect of group type (usual care vs. reminiscence) and the time of measurement (baseline, 3-weeks, 6-weeks) on depression scores. The main effect of reminiscence was significant (F (1, 45) = 5.01; p = 0.03). The main effect of time was significant (F (2, 90) = 3.84, p = 0.03).

Post hoc t-tests analysis indicated depression scores of the usual care and reminiscence groups were not significantly different at baseline (t (47) =1.41, p = 0.17). The two groups differed significantly at 3-weeks (t (47) = 2.02, p = 0.05) and at 6-weeks (t (45) = 2.75, p = 0.008).

A one-way ANOVA showed depression scores did not differ across the three time periods in the usual care group (F (2, 24) = 0.33; p = 0.72). A one-way ANOVA showed depression scores differed across the three time periods in the reminiscence group (F (2, 21) = 5.31; p = 0.009). Post hoc analyses of depression scores of reminiscence group with Tukey's Honesty Significance Difference (HSD) showed that GDS scores at baseline (M = 6.82) were not significantly different from GDS scores at 3 weeks (M = 5.68, p = 0.258), and that GDS scores at 3-weeks (M = 5.68) were not significantly different from GDS scores at 6-weeks (M = 4.50, p = 0.232). However, GDS scores at baseline (M = 6.82) were significantly different from GDS scores at 6-weeks (M = 4.50, p = 0.006). These findings indicate group reminiscence is associated with lower depression scores if offered twice weekly for 6-weeks.

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CHAPTER ONE

INTRODUCTION

Depression is a major public heath problem for older women. The primary modality for treating depression in older women is antidepressant medications. Antidepressant medications are sometimes expensive, frequently have numerous side-effects, and may not alleviate the disorder. A cost-effective psychosocial treatment, recommended in the literature, to be used in conjunction with antidepressants or instead of antidepressants is structured reminiscence group interaction.

The older population, persons over the age of 60, numbered 35 million in 2000. This population represented 12.4% of the United States population or approximately one in every eight Americans. It is estimated that the number of Americans reaching 60 will increase by 34% in the next two decades (Administration on Aging, 2000). By the year 2030 there will be nearly 70 million women over the age of 50 in the United States. The current health care system is not prepared to meet the needs of older women (Clancy & Bierman, 2000). Therefore, there is a need to identify and quantify health-care strategies to promote well-being in this population.

Studies indicate the most common functional psychiatric condition of later life is depression (Blazer & Busse, 1996). Major depression affects approximately twice as many women as men (Weissman & Klerman, 1992; Serby & Yu, 2003). Symptoms of depression include depressed mood, decreased self-confidence, difficulty making

decisions, anxiety, insomnia, fatigue, problems in memory, and decreased libido (Lebowitz, Pearson, Schneider, & Reynolds, 1997). According to the *Diagnostic and Statistical Manual of Mental Disorders, 4th Ed., text revision* (DSM-IV-TR) (American Psychiatric Association, 2000) symptoms of major depression include depressed mood and/or loss of interest or pleasure. Furthermore, the client will also experience feelings of overwhelming sadness, inability to feel emotion, changing appetite, changes in activity levels, and thoughts about death. These symptoms in the older population lead to functional declines, increased hospitalizations, and increased suicides.

In the United States, there is a 15% depression rate in older people living in the community and a 30%-40% depression rate among those living in nursing homes (Katz & Coyne, 2000). The major social and demographic risk factors for depression in the older population are female gender, single, stressful life events, and lack of supportive social network (Serby & Yu, 2003).

Research indicates psychotherapy may be beneficial in treating depression in the older person (Stevens-Ratchford, 1993; Buschmann, Dixon, & Tichy, 1995; Jones & Beck-Little, 2002). One type of psychotherapy demonstrated by research to be cost-effective is participation in structured reminiscence groups (Haight & Burnside, 1993; Rentz, 1995; Cully, La Voie, & Gfeller, 2001). Negative outcomes of reminiscence groups, although rarely reported in the literature, indicate client groups may exist that do not respond favorably to reminiscence intervention, such as paranoid individuals and people grieving over unresolved loss (Hamilton, 1992; Lashley, 1993) The American Nurses Association *Standards of Psychiatric Mental Health Clinical Nursing Practice*

(ANA, 1994) and American Nurses Association *Scope and Standards of Gerontological Nursing Practice* (ANA, 1995) support reminiscence as a standard nursing practice. Nursing Intervention Classification (NIC) recommends reminiscence therapy as an intervention in care of institutionalized older persons (Daly, McCloskey, & Bulechek, 1994). Reminiscing is an independent nursing intervention used in a variety of settings including long-term care, assisted living, and independent living (Fry, 1983; Buchanan et al., 2002; Lin, Dai, & Hwang, 2003). Hence, there is a need for further research on reminiscence therapy to determine if it is a viable intervention for treatment of depression in older women.

Problem of Study

The purpose of this study was to assess the effectiveness of a structured reminiscence intervention on depression in older women (60 years and older) living in assisted care facilities.

Rationale for the Study

Depression among older persons is significant as nurses strive to promote the health and well-being of Americans. Mortality rates by suicides and other causes are higher among older persons with depression when compared to older persons who are nondepressed. Depression in the older adult female is a major public health problem. A consistent finding in psychiatric epidemiology is that women have higher rates of all types of depression than men. Increases in depression have been documented in women during natural and surgical menopause and in response to antiestrogen therapy for breast

cancer. Older adults with chronic depression may be at risk for increased use of medical resources, institutionalization, and even death (Serby & Yu, 2003).

One-third of widows meet the criteria for depression in the first month after death of their spouse, and of these half will remain clinically depressed after the first year of grief (National Mental Health Association, 2005). Depression is also highly prevalent in women who have experienced male partner violence, especially if the abuse was or had been repetitive (Golding, 1999).

Older women with chronic depression are at risk for increased use of medical resources, institutionalization, and even death. Older clients with symptoms of depression incur 50% higher healthcare costs than non-depressed older adults (National Mental Health Association, 2005). Functionally independent older people who are depressed are at an increased risk of becoming dependent and needing help with activities of daily living when compared to older adults who are not depressed (Mehta, Yaffe, Covinsky, 2002). In community residing older adults depressive symptoms are found to be an independent risk factor for mortality (Serby & Yu, 2003). Depression rates for older persons in nursing homes, where women outnumber men, are estimated to be 30% (Katz & Coyne, 2000; Barrie, 2002). Rates are higher among older persons who experience adverse life events such as severe illness of self or others or sudden unexpected events (Kraaij & DeWilde, 2001).

Recently a study, of 1,454 women by the Center for the Advancement of Health (2002) and funded by the National Institute of Mental Health, showed an increase in heart failure for depressed women. Nine percent of women at the beginning of the study had

symptoms of depression. These women were twice as likely as the non-depressed women to develop heart failure during the 14-year follow-up.

One out of every four suicides is committed by a person 65 years or older, and it is estimated that two-thirds of these suicides have depression as an underlying cause. Depression is the most common diagnosis in older adults who attempt suicide and in older adults who complete suicide (Blixen, Wilkinson, & Schuring, 1994, Klausner & Alexopoulos, 1999; Szanto, 2003). Thirty-three percent of women over the age of 65 who completed suicide overdosed on medications (McIntosh, 2003). Older women are more likely to attempt suicide as compared to older men (U. S. Department of Health and Human Services, 2000). Among adults who attempt suicide, older adults are more likely to die as a result of their attempt. The ratio of completed to attempted suicides increases from 1 to 200 among young women to 1 to 4 in older persons, indicating that with aging there is an increase in the lethality of suicide (Serby & Yu, 2003).

One of the primary modalities used for the treatment of depression in older women is antidepressant medication. Women 65 and older use more prescription drugs than men of the same age. In a study reviewing gender differences in drug expenditures of privately insured older adults' medications, older women were estimated to spend an average of $1,178 dollars per year, about 17% more than the $1,009 dollars spent by older men. Older women related this cost to the higher rates of drug use. This high rate of medication usage included analgesics, psychotherapeutic agents, and antidepressants. Between 1999 and 2001 older women spent 69.6% of the total expenditures of antidepressant medications. Older women per capita expenditures for psychotherapeutic

agents were about 75% to 80% higher than the corresponding per capita expenditures by older men (Correa-de-Araujo, Miller, Banthin, & Trinh, 2005).

A study by Aparasu, Mort, and Brandt (2003) found 19% of community – dwelling older adults used psychotropic medications in 1996, primarily antidepressants and antianxiety agents. Nearly one-fourth of this group was taking two or more psychotropic drugs, with antidepressants (9.1%) being the most frequently used medication. In 2000, three of the top ten drugs prescribed to older adults were for depression: Prozac ($2.56 billion), Paxil ($1.8 billion), and Zoloft ($1.89 billion) (PRIME Institute, University of Minnesota, 2003). Antidepressant medications can lead to harmful side effects without alleviating the underlying depression (Buschmann et al., 1995; Allard, Artero, & Ritchie, 2003). Primary care physicians increased the prescribing of antidepressants for older clients between 1985 and 1999 from 3% to 6.3% (Harman, Walkup, & Olfson, 2003).

Polypharmacy and the use of psychotropics are more prevalent among frail older women over 85 years old (Linjakumpu et al., 2002). Likewise, older adults tend to decrease medication compliance and are more likely to experience drug overdose (Montgomery, 2002). It is imperative that different modalities for treating depression be explored.

A cost-effective psychosocial nursing intervention with implications for decreasing depression in older women is structured reminiscence. Reminiscing is an interaction between at least two people and involves a process of past recall of events or experiences permitting individuals to think and talk about their life (Soltys & Coats,

1995). Reminiscence intervention can be structured, or unstructured, within a group, or on an individual basis. Reminiscing reviews life from a global perspective and is done for the process alone or to lead to conclusions about a person's life.

Theoretical Framework

Erikson's Developmental Stages extended to reminiscence by the work of Butler (1963) guided this study. The importance of achieving a sense of satisfaction from reviewing one's past is first found in the work of Erikson (1950). Erikson described eight life stages in which psychosocial crises must be resolved. He believed the aging process involved a time for review and consolidation. Erikson asserted that a crucial psychological milestone for the older person is the achievement of personal integrity. Examining one's life and determining that there was some meaning or purpose to that life allows the person to reach personal integrity. To avoid depression, one must determine that living was worthwhile and that there was some sense of purpose in living. Erikson believed that in order for an individual to attain ego integrity in the later years of life one had to integrate previous life experiences with those of the present.

Butler's theory (1963) extended Erikson's stages with the belief that ego integrity is attained through recalling one's past from an analytical and evaluative perspective. Before 1960, reminiscing on past life events was seen as a symptom of mental deterioration and actively discouraged in the care of the older person. However, Butler's (1963) early work which described reminiscence as a universal and natural phenomenon for adults of all ages, revolutionized people's attitudes concerning reminiscence. Butler (1963) defined reminiscing as "the act or process of recalling the past" (p. 66). According

to Butler, as the older person endures losses in competency a previously active, productive individual experiences a discrepancy in self-concept often times becoming depressed. Reminiscing of an older person is the unique creation of the individual. Reminiscing may provide support and encouragement in the individual by enabling him to identify with past accomplishments and achievements transcending the present. It provides a balanced perspective on his life that includes past, present, and future. Butler hypothesized that reminiscing helped to decrease depression by allowing the person to transcend present circumstances (Butler, 1974).

Assumptions

Assumptions for this research based on Erik Erikson and Robert Butler's theories are as follows:

1. Older women endure losses in competency, leading to a discrepancy in self-concept, and often times become depressed (Butler, 1974).
2. Reminiscing and determining that there was some meaning or purpose to life allows the person to reach personal integrity (Erikson, 1950).
3. Reminiscing is a psychological milestone necessary for a person seeking personal fulfillment (Erikson, 1950).
4. Reminiscing is a universal and natural phenomenon for adults of all ages (Butler, 1963).
5. Reminiscing provides support and encouragement for older women enabling them to identify with past accomplishments and achievements transcending the present (Butler, 1974).

6. Reminiscing is the unique creation of the individual older woman involved in the process (Butler, 1974).
7. Reminiscing decreases depression by allowing older women to transcend present circumstances (Butler, 1974).

Hypothesis

H_r Women, 60 years and older, who reside in two assisted living facilities in southeast Texas and who participate in twice weekly one-hour reminiscence group sessions for 6-weeks will report significantly lower depression scores, as measured by the Geriatric Depression Scale (GDS), 3-weeks and 6-weeks after the intervention begins compared to usual care women.

Definitions

The definitions used in this study included the following:

1. Reminiscence-an account of remembered experiences; recalling to mind of a long forgotten experience or fact; the process of practice or thinking about past experiences; an accounting of memorable experiences (Webster New World Dictionary, 1995). In this study structured reminiscence refers to twice weekly one-hour sessions for 6-weeks, in a structured environment, focusing on the recall of past events, feelings, and thoughts. Each session will have a specific theme based on recommendations of earlier research and will encourage individual participation.
2. Depression-consists of the following symptoms being present during the same two-week period, nearly every day, and represent a change from previous functioning: depressed mood, markedly diminished interest in pleasurable activities, significant

weight loss or gain without dieting, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue or loss of energy, feelings of worthlessness, excessive guilt, diminished ability to think or concentrate, recurrent thoughts of death, or suicide ideation without a definite plan. At least one of the symptoms must be either depressed mood or loss of interest or pleasure (American Psychiatric Association, 2000). In this study depression is a score on the GDS (Yesavage et al., 1983).

3. Older women-women 60 years of age and over residing in two assisted living facilities in southeast Texas.

Limitations

Limitations for this study were:

1. Study was conducted in one locale. Therefore, the results may only be generalizable to a similar population.
2. Since reminiscence groups and control groups were in same facility, there might have been discussion of treatment between groups or resentment from participants who were not selected for reminiscence intervention.
3. The population was small and sample was small due to lack of eligible participants.
4. Attrition of participants during intervention phase of study could have occurred due to age of population or extenuating circumstances.

Summary

This chapter provides an overview of the prevalence and significance of depression in older women. The primary treatment for depression is antidepressant medications. Antidepressant medications can be expensive, frequently lead to harmful side effects, and can contribute to polypharmacy. There is a need to explore psychosocial treatments for depression in older women. A cost-effective nursing intervention with implications for decreasing depression in older women is structured group reminiscence. This research tested the effectiveness of structured reminiscence groups toward decreasing depression in older women.

CHAPTER TWO

REVIEW OF THE LITERATURE

Reminiscing is a technique employed to think and talk about one's life. Reminiscence intervention can be offered to clients in a structured group, or an unstructured group, or on an individual basis. Reminiscence has been studied to determine its impact on a variety of conditions including but not limited to: depression (Haight & Burnside, 1993; Rentz, 1995; Cully et al., 2001; Stinson & Kirk, 2006), stress (Puentes, 2002), life-satisfaction (Norris, 2001), psychological well-being (Haight, 1988), fatigue, isolation (McDougall, Blixen, & Suen, 1997), language acquisition (Harris, 1997), and cognitive functioning (Goldwasser, Auerbach, & Harkins, 1987, Pittiglio, 2000). This review of research will specifically focus on reminiscence, depression, and older women.

A convergence between the concepts of reminiscence and life-review leads to confusion in research methodology. Reminiscing is a technique employed to think and talk about one's life. This technique can be implemented in a structured group, or an unstructured group, or on an individual basis. Reminiscence reviews life from a global perspective and is done for the process alone or to lead to conclusions about a person's life. It is an interaction between two or more people and is an intervention. Reminiscing is a process of past recall of events or experiences (Soltys & Coats, 1995; Buchanan, et al., 2002). According to the Nursing Interventions Classification (NIC) system,

reminiscence therapy is an intervention using recall of past events, feelings, and thoughts to facilitate pleasure, quality of life, or adaptation to the present (McCloskey & Bulechek, 2000).

In contrast life review, a subset of reminiscing, is a structured approach and usually occurs at set times. This process involves review of the entire life span and can be shared verbally or non-verbally with the goal of reviewing life in a search for meaning. It is often done during a time of crisis such as preparation for death. A professional who has training in the processes of individual interactions and life review often facilitates the session (Buchanan et al., 2002).

This review of the literature focused on reminiscence. To initiate this literature review a computer-search of online databases including CINAHL, Medline, PsychoINFO, First Search, and the Cochrane Database was conducted. Key words used as identifiers, searched individually or in combination, included reminiscence, depression, and older women. Articles reviewed covered a wide range of disciplines including nursing, medicine, social sciences, education, and theology. Furthermore, several dissertations (Taylor-Price, 1995; Redden, 1996; Norris 2001) and systematic reviews (Leng, 1985; Buchanan et al., 2002; Hsieh & Wang, 2002; Lin at al., 2003) referring to reminiscence, depression, and older women were analyzed to provide an overview of the topic. References noted at the ends of articles were hand searched, and also used as sources. Additionally, an on-site review of literature at several libraries was conducted for information not found in databases.

Reminiscence as a Viable Intervention for Depression

Research indicates psychotherapy may be beneficial in treating depression in the older adult (Stevens-Ratchford, 1993; Buschmann et al., 1995). One type of psychotherapy demonstrated in research to be cost-effective is participation in structured reminiscence groups (Haight & Burnside, 1993; Rentz, 1995; Cully et al., 2001). The American Nurses Association (ANA) *Standards of Psychiatric Mental Health Clinical Nursing Practice* (ANA, 1994), and ANA *Scope and Standards of Gerontological Nursing Practice* (ANA, 1995) support reminiscence as a standard nursing practice.

Research suggests that reminiscence therapy may be appropriate for older people residing in care facilities. In a recent study examining the comparative effects of reminiscence on depressive symptoms of older people residing in long-term care facilities and at home it was found that a significant difference existed between pre-and post-intervention testing in the institutionalized group in self-health perception, depressive symptoms, and mood status ($n = 25$, $t = -2.56$, $p = 0.018$; $t = 2.83$, $p = 0.009$; $t = -3.02$; $p = 0.007$). Reminiscence intervention in this study was an individualized intervention and not a group intervention (Wang, 2004).

Nursing Intervention Classification (NIC) recommends reminiscence therapy as an intervention in care of institutionalized older persons (Daly et al., 1994). Reminiscing is a nursing intervention utilized in a variety of settings including long-term care, assisted living, and independent living (Buchanan et al., 2002; Lin et al., 2003). There is a need for further research on reminiscence therapy to determine if it is a viable intervention for treatment of depression in older women.

Recommendations for a reminiscence intervention for older clients, found in the NIC system (Daly et al., 1994; McCloskey & Bulechek, 1996; McCloskey & Bulechek, 2000), include a proposed intervention to decrease depression in the older population. Research results of studies on group reminiscence intervention have not been consistent (Romanuik, 1981; Leng, 1985; Norris, 2001; Hsiu & Wang, 2002; Buchanan et al., 2002; Lin et al., 2003). Focused consideration of published systematic reviews on the findings related to reminiscence primarily reveal use of questionnaires, interviews, or qualitative methods for investigation; only two quantitative studies are noted. Between 1986 and 1998, only two quantitative studies used one-group pre/post test and quasi-experimental posttest designs (Lin et al., 2003).

Studies on reminiscence and its effect on depression have differed widely in methodology making it difficult to compare results to determine feasibility of reminiscence as an effective intervention (Leng, 1985; Norris, 2001; Hsiu & Wang, 2002; Buchanan et al., 2002; Lin et al., 2003). Therefore studies in this review will be described according to chronological order and according to between group comparisons.

Nine studies, utilizing group intervention, between 1986 and 2006, published and unpublished, were reviewed with conflicting findings. Four studies found a significant decrease in depression at the end of the reminiscence groups (Parsons, 1986; Taylor-Price, 1995; Watt & Cappeliez, 2000; Jones, 2003). One study found a decrease in depression only in the younger elderly (65-74) (Youssef, 1990). One study found a nonsignificant decrease in depression at 3-weeks and 6-weeks (Stinson & Kirk, 2006).

Three studies found no difference in depression after the reminiscence intervention (Cook, 1991; Stevens-Ratchford, 1993; Jonsdottir, H., Jonsdottir, G., Steingrimsdottir, & Tryggvadottir, 2001).

An early study by Parsons (1986) utilized one experimental reminiscence group and no control group. The convenience sample consisted of six moderately depressed female participants 65 years and older enrolled in a federally funded housing facility ($M = 78.6$). Baseline scores on the Geriatric Depression Scale (GDS) identified depression. Six reminiscence meetings were held on consecutive weeks with the exception of one week, when a meeting did not occur. A paired t test for dependent groups indicated a decrease in levels of depression after group reminiscence with a statistically significant decrease ($t = 8.03$, $p < 0.0005$) in GDS scores after completing sessions. Limitations of this study were the small sample size and the absence of a control group.

Youssef (1990), utilizing two experimental reminiscence groups and one control group, studied the impact of group reminiscence counseling on a depressed older population. This study consisted of women 65 years and older ($N = 66$) residing in nursing homes. There were a total of six sessions (twice during the first week and once per week thereafter) each lasting 45 minutes each. Beck's Depression Inventory (BDI) was used as the data collection instrument and Chi-square analysis was used to test the homogeneity of the three groups. Analysis of variance indicated a significant difference in depression levels before and after the reminiscence group meetings in the younger participants' reminiscence group 1 (65 to 74 years) and nonsignificant in the older

participants' reminiscence group 2 (over 74 years, n =18, *M age* =77.8). There were no statistical differences in pretest scores for the three groups ($F = 0.29$, $p = 0.05$). However, the post-test scores indicated a significant difference between reminiscence group 1 (n = 21, *M age* = 67.5) and control group 3 ($n = 21$, *M age* = 71.8) ($F = 3.01$, $p = 0.10$). Results showed the absolute value of the difference between the mean scores of reminiscence group 1 and control group 3 was 0.44 (*LSD value* = 0.37, $p = 0.10$). A conclusion of this study was group reminiscence appeared significant for reminiscence group 1 only.

Cook (1991) used an experimental design with one experimental reminiscence group, one control (placebo) current events group, and one group receiving no treatment to determine the psychological measures of ego integrity in older nursing home residents ($N = 41$). Participants had been in the home for at least one year and ranged in age from 65 to 96 years ($M = 81.3$). While the study began with 19 participants in the reminiscence group, only 14 completed the study due to deaths of five participants. Participants were randomly assigned to groups and completed the GDS at baseline and post intervention to assess treatment effectiveness. The study used positive reminiscence in a weekly group meeting lasting one hour for a total of 16 weeks. To increase the intensity of the reminiscence intervention, journaling before sessions was used, although the process met with limited success. Attendance was a limitation of the study with only two participants attending all sessions and seven participants missing five to six sessions. Geriatric depression scores for the reminiscence group were compared to those of all participants (both current event and control groups) not participating in reminiscence. No significant

differences between group depression scores were found on *t*-tests comparing post-treatment GDS scores.

Stevens-Ratchford (1993) used an experimental unstructured reminiscence group and a control (placebo) group to assess the effect of reminiscence on depression. The research involved 24 healthy older adult residents (8 men and 16 women) living independently in their apartments in a lifetime care retirement community. The range in ages was 69-91 years. Participants were divided into groups by gender and then randomly assigned to experimental and control groups. All participants completed the Beck Depression Inventory (BDI) pretest. The experimental group participated in life-review reminiscence activities. The comparison group continued normal activities for four weeks and the experimental group participated in six, two-hour sessions of life review reminiscence. Data were analyzed using one-way analysis of covariance (ANCOVA). Although, the mean of the pretest BDI was slightly higher than the mean of the depression posttest in both experimental and control group, ANCOVA revealed no significant differences ($F = 16, p = 0.695$). Males and females did not exhibit significant difference in depression scores. A presence of a lack of depression in both groups before the intervention may have influenced the findings (Norris, 2001).

Taylor-Price (1995), utilizing an experimental structured reminiscence group (n =17) and a control (placebo) group (n =17) of female nursing home clients ranging in ages from 65-88, demonstrated a significantly lower depression score on the GDS for the experimental group as compared to the control group. For this study, a structured reminiscence group was compared to a control group (regular therapy nursing home) to

evaluate reminiscence and its effect on depression. The reminiscence group was conducted once a week for six weeks for 60 minutes per session. An ANCOVA compared the pretest and posttest GDS scores with pretest GDS scores used as a covariate. The ANCOVA was statistically significant, ($F = 41.78$ $p < 0.001$) indicating that those who participated in reminiscence group experienced less depression than the control groups.

Watt and Cappeliez (2000) conducted a study involving three groups which included: experimental (instrumental reminiscence), experimental (integrative reminiscence), and control (active socialization). Instrumental reminiscence was operationally defined as "using memories for providing evidence of past successful coping and for identifying appropriate coping strategies" (p.166). In comparison, integrative reminiscence was defined as "a constructive re-appraisal of interpretations and emotions of past self-defining events" (p.166). The purpose of this study was to determine if these interventions were appropriate to decrease depression in older adults ($N = 26$, $M = 66.8$) with moderate to severe depression ratings. Both the GDS and the Hamilton Rating Scale (HRS) were used to measure changes in depression. The instrumental and integrative reminiscence groups, each consisting of two to four members with both males and females met weekly for six 90 minutes sessions. Participants in the active socialization group had six weekly meetings discussing topics of concern to older adults. Evaluation of the results indicated both reminiscence groups had significant improvements in symptoms of depression at the completion of the intervention. In the integrative reminiscence group, 58% of clients had clinically

significant improvements at posttest yielding an effect size *ES* of .86. At follow-up three months later, 100% of clients had improved clinically (*ES* = 0.96). Likewise, in the instrumental reminiscence 56% of clients showed clinically significant improvements at posttest (*ES* = 0.81) and 88% had improved three months follow-up (ES= 0.89).

Jonsdottir, et al. (2001) used a quasi-experimental design with one experimental reminiscence group with nonrandom selection and with no control group. Using the BDI, this study sought to determine if group reminiscence was beneficial in decreasing depression in end-stage chronic lung disease clients. Twelve participants, with a mean age of 70 years-old for the ten female participants and a mean age of 86 years-old for the two male participants, attended thirteen meetings. There was a high dropout rate in study with death (4) and with one person declining to participate. Each meeting had five to eight participants and had a selected focus. Although the findings indicated mean depression scores were lowered with treatment, (before treatment scores $N = 8$, $M = 18.1$, $SD = 7.8$) (after treatment scores $N = 8$, $M = 16.5$, $SD = 9.8$), the differences were not statistically significant.

Jones (2003) used a pretest/posttest quasi-experimental design to examine reminiscence therapy in a convenience sample of older depressed women ($N = 30$, $M =$ 81.7) living in an assisted–living long-term care facility utilizing the Nursing Intervention Classification (NIC) reminiscence intervention. The reminiscence group met twice a week for three weeks for 45 minutes per session. Participants were assigned to either an experimental group receiving the NIC reminiscence intervention ($n = 15$) or a control group ($n = 15$) receiving customary reminiscence intervention utilized in the nursing

home. Depression scores were determined using the GDS. The mean score on the GDS for the reminiscence group pre-intervention was 13.7 (SD = 5.04, range 2 to 21) the mean score on the GDS for the control group was 12 (SD = 3.61, range 7-22). Cronbach's alpha of the GDS for this study was .72. Pretest scores on the GDS were not significantly different between the experimental and control groups. Older women who participated in the NIC reminiscence therapy group sessions with mild to moderate depression on the GDS pretest showed significant lower post-test depression on the GDS scores when compared to participants who received the facility's customary reminiscence intervention. In this study, independent t-test for equality of means was used to test the degree of change in the level of depression for each participant after exposure to the experimental and control group protocol. Since the homogeneity of variance assumption was not supported, a formula for computing t-tests for unequal variance was computed. A statistically significant difference between the two groups was found (t^ *sub* 21.6^ = 3.60, p = 0.002). Older women in the experimental group exhibited a significantly greater reduction in GDS compared to scores for the women in the control group. There was no significant difference between the number of sessions attended by participants in the experimental group compared to participants in the control group and all participants attended at least four sessions.

A study by Stinson and Kirk (2006) utilized an experimental, pre-test/post-test to evaluate depression reduction between reminiscence and usual care group assessed at baseline, 3-weeks, and 6-weeks. A sample of women (N = 24) between the ages of 72 and 96 were randomly assigned to either a reminiscence group (n = 12) or the usual care

group (n = 12) of the facility. A mixed design analysis of variance (ANOVA) was used to determine if there was a difference at baseline, 3-weeks and 6-weeks between the experimental and control groups on scores of the GDS. Data revealed a non-significant decrease in depression at the completion of 6-weeks, indicating a trend toward a positive result with reminiscence group sessions. Of interest, at 3-weeks the depression scores were lower than at 6-weeks.

Summary

In summary, gaps in the literature were identified after reviewing all retrieved research studies. The gaps are related to the impact of reminiscence on depression. Review of related research on reminiscence indicates different operational definitions, functions, and conceptualizations of reminiscence across studies. There are also inconsistencies in time frames, themes, and group processes making it difficult to compare and replicate studies. Furthermore, studies have small samples leading to insignificant results. There were a limited number of studies implementing valid empirical methodologies. For these reasons, there is a need for further research on the use of structured reminiscence as an intervention to decrease depression in older women utilizing a structured protocol.

CHAPTER THREE

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

An experimental 2-groups randomized control trial with repeated measures design was used to assess the effectiveness of a structured reminiscence intervention on depression in older assisted-living females. Eligible consenting women residents residing in two assisted living facilities were randomly assigned into an experimental group or a control group. This chapter describes the setting in which this study occurred, population and sampling technique, procedure to ensure protection of participants, instruments used, method of data collection, and treatment of data.

Setting

The setting for this study was two assisted living facilities in urban southeast Texas. All residents lived full-time in facilities and performed activities of daily living independently or with minimal assistance. Each facility had an activity director who had regularly scheduled planned activities for residents. Scheduled activities were posted each month on an event's calendar. These activities did not include reminiscence interventions. In Facility A there were 100 residents (males = 56, females = 54). In Facility B there were approximately 240 residents (Males = 110, females = 130). In both facilities, residents lived alone or with a roommate.

Sample

Forty-seven women, 63 years and older, who resided in one of two assisted living facilities in southeast, Texas comprised the final sample. Women who met the following criteria were included in this study: 1) female, 2) 60 years or older, 3) residing in an assisted living facility in southeast Texas, 4) English speaking, 5) able to hold a pen/pencil and write for short periods of time, 6) knowledge of who she was, where she lived, what day it was, and 7) able to provide own consent for study. Eligible participants who signed informed consents were randomly assigned to either the experimental (reminiscence) group or control (usual care) group. One group participated in the reminiscence group and the second group continued with the planned activities of the assisted living facility. A power analysis based on a pilot study with 24 participants by Stinson and Kirk (2006) and literature review guided determination of the proposed sample size. Using the pilot study effect size of 0.46, a statistical power of 0.80, and an alpha of 0.05 for a one-tail test, the estimated sample needed would be 80 participants in each of the two study groups (Lipsey, 1990). Although two assisted living facilities were used in this study, the total sample size did not approach 160. A total sample of only 50 to 80 participants was feasible. Using the pilot effect and this sample size a study power of 0.50 was achieved. It should be noted that positive effects of reminiscence have been demonstrated in small groups (Watt & Cappeliez, 2000; Taylor-Price, 1995).

Protection of Human Participants

Prior to data collection, approval from the Institutional Review Board of Texas Woman's University was obtained. To ensure confidentiality, participants were assigned

identification numbers, which served to identify participants in the research database and in this study. Information entered into the computer system was protected with code numbers. Only the researcher had access to information in the database or the code key containing personal identifiers. Information for this study was stored in a fireproof locked file cabinet in the researcher's office. Back-up discs, containing information from research study, were stored offsite in a fireproof safe. All data were presented in aggregate form containing no participant identifiers.

To ensure confidentiality of information shared during reminiscence groups, confidentiality of the group experience was discussed at the beginning of the study. Each participant was asked to sign a statement of Shared Respect and Confidentiality Form. At each session participants were reminded that information disclosed in reminiscence sessions should not be discussed outside group sessions because information was confidential.

Instrument

Demographic Questionnaire

Demographic information was gathered using a Demographic Questionnaire (Appendix A). Demographic information was collected on all participants to describe age, educational level, and length of time in an assisted living facility.

Geriatric Depression Scale (GDS)

The GDS was used to assess depression at baseline, 3-weeks, and 6-weeks (Appendix B). The GDS was developed specifically to measure depression in older persons. A team of clinicians and researchers involved in geriatric psychiatry selected

100 questions believed to have potential for distinguishing depression from no depression in older persons. Items were then administered to older male and female participants (N = 47) who were either considered not depressed or hospitalized for depression. The 30 items with the highest correlation with the total score were chosen for inclusion in the GDS (Yesavage et al., 1983). Reliability and construct validity were established using known groups consisting of older participants with no mental illness (N = 40) and participants in treatment for mild and moderate depression (N = 60). Test–retest reliability with a one-week interval was 0.85 suggesting stability of the measure. Convergent validity was established using the GDS and established depression scales (Zung Self-rating Depression Scale r = 0.84; Hamilton Rating Scale r = 0.83). The coefficient alpha of the GDS for this study measured after each administration was 0.67 at baseline, 0.70 at 3-weeks, 0.62 at 6-weeks.

This instrument was specifically designed to measure intensity of depressive symptoms in the aged and consists of a 30 item self-report questionnaire in a yes/no format. The range of scores on the GDS is 0 to 30. The lower the score the less depressed the individual is perceived to be. Scores on the GDS define decreased affect. According to the GDS guidelines scores indicate the following: normal (0 to 9), mildly depressed (10 to 19), and very depressed (20 to 30). To achieve a sample mean score calculation for this study all scores on GDS were added in each group (reminiscence and usual care) and then divided by number of participants in each group (reminiscence and usual care).

Data Collection

Participants were recruited through flyers posted in assisted living facilities and by word of mouth. Those interested attended a one-on-one informational meeting with the researcher who explained the study and established eligibility. After participants met all eligibility requirements, signed informed consents, completed demographics, and completed baseline GDS measures they were randomly assigned to either a reminiscence (experimental) group (n=25) or usual care (control) group (n=26). The randomization procedure used the following process: Two sets of envelopes, containing a number from 1 to 28, were prepared. Following informed consents and collection of baseline measures, participants drew an envelope. Participants receiving even numbers were assigned to the reminiscence (experimental) group. Participants receiving odd numbers were assigned to the usual care (control) group. This process was followed at both assisted living facilities. Twenty-five participants randomized to the usual care group completed baseline, 3-weeks, and 6-weeks measures for a retention rate of 96%. Eighty-eight percent of participants (n=22) who were assigned to reminiscence group completed baseline, 3-weeks, and 6-weeks measures.

The reminiscence group participated in a structured reminiscence group session, twice weekly for 60 minutes for 6-weeks. The protocol for structured reminiscence used in this research appears in Appendix C and is based on the work of Haight, (1992); Hamilton, (1992); Burnside, (1993); Jones and Beck-Little, (2002); Herrand and Bollstetter, (2000); Jones, (2003); and Stinson and Kirk, (2006). After 3-weeks and then

at 6-weeks, the reminiscence group retook the posttest (GDS) at one time on the same scheduled day as usual care group except at a different time.

The usual care group completed GDS and continued with the ongoing assisted living facility activities. At 3-weeks and then at 6-weeks, the usual care group completed GDS again at one time on the same scheduled day as reminiscence group except at a different time.

Pilot Study

A pilot study conducted by Stinson and Kirk (2006) revealed a non-significant decrease in depression in the reminiscence group at the completion of 3-weeks and 6-weeks, indicating a trend toward a positive result with reminiscence group sessions. Adjustments to the research process for this study, based on this result, were to increase the overall sample size. The depression analysis suggested that differences may well have existed between the two groups, but that differences could have been obscured by sampling error, which is systematically affected by sample size. Therefore, increasing sample size reduces sampling error and increases statistical power.

In this study, Stinson and Kirk (2006) asked participants to keep journals during the reminiscence sessions. Participants, ranging in ages from 72 to 96, had problems organizing thoughts and concentrating on this task. Several of the participants had physiological conditions contributing to difficulties with journaling such as tremors and decreased vision. The older age of the participants was a possible deterrent to journaling in this earlier study. Therefore in this study, journaling was not used.

Treatment of Data

Data were analyzed using the data SPSS version 12 and Statistica 6.0 (StatSoft, Inc). Demographics were described by using frequencies and means. A mixed design analysis of variance repeated measures (ANOVA) was used to determine if there was a difference at baseline, 3-weeks, and 6-weeks between the experimental and control groups on scores of the GDS. This type of ANOVA was used because the design includes a combination of between-participants' measures (variables in which each participant participated in only one measurement period) and within-participants' (or repeated measures) variables (variables in which each participant will participate in all measurement periods) (Munro, 2001). The level of significance for all tests was $p \leq 0.05$. The independent variables in this study were:

1. Intervention (reminiscence) group compared to control (usual care) group.
2. Time of measurement: baseline, 3-weeks, and 6-weeks.

Post hoc *t*-testing comparisons were done to analyze the significant effect between control (usual care) and intervention (reminiscence) groups and to determine how the two level variable of group membership differed across time.

In order to analyze the significant effect of the three level variable of time, one-way ANOVA testing was done on the control (usual care) group and the intervention (reminiscence) group separately to determine if there was a significant decrease in depression over time. Following the one-way ANOVA, a post-hoc Tukey's Honestly Significant Difference (HSD) test was done on intervention (reminiscence) group to analyze the significant effect of decrease in depression over time during intervention

phase of study. Tukey's test is a univariate test that examines differences along a single dimension (e.g., time).

Summary

In summary this 2-groups randomized control trial with repeated measures design assessed the effectiveness of a structured reminiscence intervention on depression in older assisted-living females. The setting for this study was two assisted living facilities in urban southeast Texas. Eligible participants who signed informed consents were randomly assigned to either the experimental (reminiscence) group or control (usual care) group. One group participated in the reminiscence group and the second group continued with the planned activities of the assisted living facility. Forty-seven women, 63 years and older, who resided in one of two assisted living facilities in southeast Texas comprised the final sample.

Prior to data collection, approval from the Institutional Review Board of Texas Woman's University was obtained. Participants who met all eligibility requirements were randomly assigned to either a reminiscence or control group. Demographic data were gathered using a Demographic Questionnaire.

The GDS was used to assess depression at baseline, 3-weeks, and 6-weeks. Data were analyzed using SPSS version 12 and Statistica 6.0 (StatSoft, Inc). Demographics were described by using frequencies and means. A mixed design ANOVA was used to determine if there was a difference at baseline, 3-weeks, and 6-weeks between the experimental and control groups on scores of the GDS. Post hoc *t*-testing comparisons were done to analyze significant effect between control (usual care) group and

intervention (reminiscence) group and to determine how these two groups differed from one another across time.

One-way ANOVA testing was done on both control (usual care) and intervention (reminiscence) groups separately to determine if there was a significant decrease in depression over time. A post-hoc Tukey's HSD test was done on the intervention (reminiscence) group to analyze significant effect of decrease in depression over time during intervention phase of study.

CHAPTER FOUR

ANALYSIS OF DATA

An experimental, 2-groups randomized control trial with repeated measures design was used to assess the effectiveness of a structured reminiscence intervention on depression in older assisted-living females. Eligible women residents residing in two assisted living facilities in southeast Texas were randomly assigned into either the reminiscence group or the usual care group after signing informed consents and completion of baseline measures. Reminiscence group women completed 12 structured sessions and meetings over a 6-weeks period while the usual care group women participated in the facilities' usual activities. Demographic information was collected on the 47 women who completed study to describe age, educational level, and length of time in an assisted living facility. The Geriatric Depression Scale (GDS) was used to assess depression at baseline, 3-weeks, and 6-weeks on the 47 participants who completed all three measures. This chapter provides an analysis of collected data. There is a description of the sample and a discussion of the findings of the study.

Description of Sample

Forty-seven women, 63 years to 97 years of age ($M = 82.53$; $SD = 7.58$) and residing in one of two assisted living facilities in southeast Texas comprised the final sample. Older women who met the following criteria were included in this study: 1) female, 2) 60 years or older, 3) residing in an assisted living facility in southeast Texas, 4)

English speaking, 5) able to hold a pen/pencil and write for short periods of time, 6) knowledge of who she was, where she lived, what day it was, and 7) able to provide own consent for study. Eligible participants signed informed consents and were randomly assigned to either the experimental (reminiscence) group or control (usual care) group. Women who had been in assisted living facility longer tended to have higher depression scores. Table 1 gives a summary of descriptive statistics for the sample.

Table 1

Means (M) and Standard Deviations (SD) of Age, Years of Education, and Months in Assisted living Facility for 25 Usual Care Participants and 22 Reminiscence Participants

Demographics	Usual Care Group (n = 25)		Reminiscence Group (n = 22)	
	M	(*SD*)	*M*	(*SD*)
Age	83	(6.43)	81	(9.03)
Years of Education	12	(2.06)	13	(2.49)
Months in Assisted Living	34	(38.77)	34	(39.50)

Findings of Study

Table 2 shows the means with standard deviations used in the inferential analyses for the 47 participants who completed this study.

Table 2

Reminiscence and Usual Care Groups' Means (M) and Standard Deviations (SD) Summary

	Baseline		3 Weeks		6 Weeks	
	(M)	*(SD)*	*(M)*	*(SD)*	*(M)*	*(SD)*
Reminiscence (n = 22)	(6.82)	(4.79)	(5.68)	(4.49)	(4.50)	(4.39)
Usual Care (n = 25)	(9.00)	(5.43)	(8.84)	(6.16)	(8.40)	(5.20)

A 2x3 mixed design ANOVA examined the effect of group type (usual care vs. reminiscence) and the time of measurement (baseline, 3-weeks, 6-weeks) on depression scores. The main effect of reminiscence was significant (F (1, 45) = 5.01; p = 0.03). Participation in the reminiscence sessions was associated with significantly lower depression scores at 6-weeks. The main effect of time was significant (F (2, 90) = 3.84, p = 0.03). There was no interaction between group type and time. Table 3 gives the summary of ANOVA analyses.

Table 3

ANOVA Summary Examining Main Effects and Interaction of Reminiscence and Time

Effect	SS	df	MS	F	p
Group	333.03	1	333.03	5.01	0.03
Between error	2990.85	45	66.46		
Time	50.03	2	25.02	3.84	0.03
Group x Time	17.38	2	8.69	1.33	0.27
Within Error	586.05	90	6.51		
Total	3977.34	140			

Post hoc *t*-testing comparisons were done to analyze significant effect between control (usual care) and intervention (reminiscence) group and to determine how these two groups differed from one another across time. The groups were not significantly different at baseline (t (47) = 1.41, p = 0.17). This distinction is important when drawing conclusions about group differences after reminiscence therapy. The two groups differed significantly at 3-weeks (t (47) = 2.02, p = 0.05) and at 6-weeks (t (45) = 2.75, p = 0.008). The reminiscence group had significantly lower self-reported depression scores than the usual care group at 3-weeks and at 6-weeks. Participation in the reminiscence sessions was associated with significantly lower depression scores at 6-weeks.

The summary in Table 4 describes tests performed on the usual care group (N = 25). To test the change in depression over time in the usual care group, a one-way repeated measures ANOVA was performed. The independent variable was time (baseline vs. 3-weeks vs. 6-weeks) and the dependent variable was GDS score.

The one-way ANOVA indicated that depression scores did not differ across the three time periods in the usual care group (F (2, 24) = 0.33; p = 0.72). Therefore, post hoc analysis was not appropriate.

Table 4

ANOVA Summary: Usual Care Group (N=25) Change in Depression Over Time

Effect	SS	df	MS	F	p
Time	4.83	2	2.41	0.33	0.72
Subjects	1914.85	24	79.79		
Residual	352.51	48	7.34		
Total	2272.19	74			

To test the change in depression over time in the reminiscence group (n = 22), a one-way repeated measures ANOVA was performed. The independent variable was time (baseline vs. 3-weeks vs. 6-weeks) and the dependent variable was GDS score. The one-way ANOVA indicated that depression scores differed significantly across the three time

periods in the reminiscence group (F (2, 21) = 5.31; p = 0.009). Table 5 provides the ANOVA summary for the reminiscence group.

To determine where the significant differences were, post hoc analyses using a Tukey's Honesty Significance Difference (HSD) test were performed. The Tukey's HSD test indicated that GDS scores at baseline (M = 6.82) were not significantly different from GDS scores at 3 weeks (M = 5.68 p = 0.258), and that GDS scores at 3-weeks (M = 5.68) were not significantly different from GDS scores at 6-weeks (M = 4.50, p = 0.232). However, GDS scores at baseline were significantly different from GDS scores at 6-weeks (p = 0.006).

Table 5

ANOVA Summary: Reminiscence Group (N=22) Change in Depression Over Time

Effect	SS	df	MS	F	p
Time	59.12	2	29.56	5.31	0.009
Subjects	1076.00	21	51.24		
Residual	233.55	42	5.56		
Total	1368.67	65			

Summary of Findings

The purpose of this study was to assess the effectiveness of a structured reminiscence intervention on depression in older women (60 years and older) living in assisted care facilities. Participants were randomly assigned to the reminiscence group and usual care group. The final sample was composed of 22 participants in the reminiscence group and 25 participants in the usual care group. The GDS was used to assess depression at baseline, 3-weeks, and 6-weeks. A 2 x 3 mixed design ANOVA was used to assess differences between groups over time.

The mean of GDS at baseline for the usual care group was 9.00 ($n = 25$) as compared to the reminiscence group mean of 6.82 ($n = 22$). The GDS mean score for the usual care group at 3-weeks decreased to 8.84 and for the reminiscence group to 5.68. At 6-weeks the mean GDS scores for the usual care group decreased to 8.40 and for the reminiscence group to 4.50. The mean scores of study indicated a significant decrease in depression for the reminiscence group. Post hoc *t*-testing comparisons were done to analyze significant effect between control (usual care) group and intervention (reminiscence) group. The groups were not significantly different at baseline (t (47) = 1.41, $p = 0.17$). The two groups differed significantly at 3-weeks (t (47) = 2.02, $p = 0.05$) and at 6-weeks (t (45) = 2.75, $p = 0.008$). The reminiscence group had significantly lower self-reported depression scores than the usual care group at 3-weeks and at 6-weeks.

A one-way ANOVA showed that depression scores did not differ across the three time periods in the usual care group (F (2, 24) = 0.33; $p = 0.72$). A one-way ANOVA indicated depression scores differed significantly across the three time periods in the

reminiscence group (F (2, 21) = 5.31; p = 0.009). A Tukey's HSD test indicated that GDS scores at baseline (M = 6.82) were not significantly different from GDS scores at 3 weeks (M = 5.68, p = .258), and that GDS scores at 3-weeks (M = 5.68) were not significantly different from GDS scores at 6-weeks (M = 4.50, p = 0.232). However, GDS scores at baseline (M = 6.82) were significantly different from GDS scores at 6-weeks (M = 4.50, p = 0.006). These findings indicate group reminiscence is associated with lower depression scores if offered twice weekly for 6-weeks.

CHAPTER FIVE

SUMMARY OF THE STUDY

Depression among older persons is significant to nursing as we strive to promote the health and well-being of Americans. Mortality rates by suicides and other causes are higher among older persons with depression when compared to older persons who are non-depressed. Depression in the older adult female is a major public health problem. A consistent finding in psychiatric epidemiology is that women have higher rates of all types of depression than men.

A psychosocial cost-effective nursing intervention with implications for decreasing depression in older women is structured reminiscence. Reminiscing is an interaction between at least two people and involves a process of past recall of events or experiences permitting individuals to think and talk about their life (Soltys & Coats, 1995). Reminiscence intervention can be structured, or unstructured, within a group, or on an individual basis.

The purpose of this study was to assess the effectiveness of a structured reminiscence intervention on depression in older women (60 years and older) living in assisted care facilities. The hypothesis was: Women, 60 years and older, who reside in two assisted living facilities in southeast Texas and who participate in twice weekly one-hour reminiscence group sessions for 6-weeks will report significantly lower depression

scores, as measured by the Geriatric Depression Scale (GDS), 3-weeks and 6-weeks after the intervention begins compared to control group women.

Summary

An experimental, 2-groups randomized control trial with repeated measures design was used to assess the effectiveness of a structured reminiscence intervention on depression in older assisted-living females. Older women who responded to recruitment efforts, were eligible, and signed informed consents were administered the GDS at baseline, 3-weeks, and 6-weeks of the study to assess levels of depression.

The appropriate statistical test of significance was a mixed design analysis of variance (ANOVA). Findings indicated a significant decrease in depression scores in the structured reminiscence group at 3-weeks and 6-weeks when compared to usual care group. The ANOVA showed that group type significantly affected depression scores. Examination of the group means showed that the usual care group had higher depression scores than the reminiscence group. There was no interaction between group type and time. The ANOVA also showed that depression scores changed significantly over time. Examination of the group means shows that depression scores decreased over the study period.

Post hoc *t*-testing comparisons were done to analyze significant effect between control (usual care) group and intervention (reminiscence) group. Post hoc *t*-testing indicated depression scores of the usual care and reminiscence groups were not significantly different at baseline (t (47) =1.41, p = 0.17). This distinction is important when drawing conclusions about group differences after reminiscence therapy. However,

the two groups differed significantly at 3-weeks (t (47) = 2.02, p =0 .05) and at 6-weeks (t (45) = 2.75, p = 0.008). The reminiscence group had significantly lower self-reported depression scores than the usual care group at 3-weeks and at 6-weeks. These results suggest that depression decreased as a function of the structured reminiscence therapy. Therefore, the intervention does appear to decrease depression in older women.

A one-way ANOVA showed that depression scores did not differ across the three time periods in the usual care group (F (2, 24) = 0.33; p = 0.72). Therefore post hoc analysis with Tukey's Honesty Significance Difference (HSD) was not appropriate.

A one-way ANOVA indicated that depression scores differed significantly across the three time periods in the reminiscence group (F (2, 21) = 5.31; p = 0.009). To determine where the significant differences were, post hoc analyses with a Tukey's HSD were performed. Tukey's HSD test indicated that GDS scores at baseline (M = 6.82) were not significantly different from GDS scores at 3-weeks (M = 5.68, p = 0.258), and that GDS scores at 3-weeks (M = 5.68) were not significantly different from GDS scores at 6-weeks (M = 4.50, p = 0.232). However, GDS scores at baseline (M = 6.82) were significantly different from GDS scores at 6-weeks (M = 4.50, p = 0.006). These findings indicate group reminiscence is associated with lower depression scores if offered twice weekly for 6-weeks.

Discussion of Findings

This study is one of a limited number of empirical studies done to test the effects of group structured reminiscence intervention on depression in the older population. Focused consideration of published systematic reviews on the findings related to group

reminiscence intervention primarily reveals use of questionnaires, interviews or qualitative methods for investigation; only two quantitative studies are noted. Between 1986 and 1998, only two quantitative studies used one-group pre/post test and quasi-experimental posttest designs (Lin et al., 2003).

Theoretically, based on Erikson's Developmental Stages extended to reminiscence by the work of Butler (1963), older women endure losses in competency leading to discrepancy in self-concept and often become depressed. In this study, an increased depression rate was noted in older women the longer they resided in an assisted-living facility. According to Butler (1974), when an older woman reminisces it provides her support and encouragement enabling her to identify with past accomplishments and achievements transcending the present. Butler (1974) hypothesized that reminiscing helped to decrease depression by allowing the person to transcend present circumstances. The findings of this study indicated that structured reminiscence focusing on past accomplishments, achievements, and "happy times" decreased depression in assisted-living older women who participated in structured reminiscence groups when compared to assisted-living older females who did not participate in structured reminiscence groups supporting both Erikson and Butler's theories related to reminiscence.

Study findings agree with findings from four previous studies in the literature indicating a significant decrease in depression at the end of the reminiscence groups (Parsons, 1986; Taylor-Price, 1995; Watt & Cappeliez, 2000; Jones, 2003). This study is also congruent with an earlier pilot study of Stinson and Kirk (2006) who found a

decrease in depression at 3-weeks and 6-weeks. However, the study by Stinson and Kirk (2006) had a non-significant decrease in depression and at 3-weeks had lower depression scores than at 6-weeks. In this study, the results were significant for decrease in depression in the reminiscence group and the depression scores were lower at 6-weeks than baseline or 3-weeks. The findings of the present study indicate the need to offer reminiscence for a minimum of twice weekly for 6-weeks duration to document a significant improvement in depression scores.

Study findings differ from those of Youssef (1990), who found a decrease in depression only in the younger elderly (65-74). Youssef (1990) speculated that only the younger elderly might benefit from reminiscence. This study was different from Youssef's (1990) study in that older women (over age 74) and younger women (63 to 73) were in the same reminiscence group. This study had participants who ranged in ages from 64 to 97 in the reminiscence group (M=81) and indicated that reminiscence might be beneficial to older women regardless of age. Taylor-Price (1995) and Jones (2003) also found significant results for decreased depression with reminiscence group intervention with combined ages in one reminiscence group. One assumption might be that the younger women give support to the older women in the group during reminiscence.

In contrast to a study done by Stevens-Ratchford (1993) in which there was found to be no depression in the sample, the depression levels of women in this study are similar to the study by Katz and Coyne (2000) who found 30%-40% of nursing home patients were depressed. One of the reasons given for the non-significant results of

Stevens-Ratchford's (1993) study was the lack of identified depression in the sample. The identified depression in the sample of this study may have contributed to the significant decrease in depression with the reminiscence intervention.

One of the gaps in the literature concentrated on the need to quantify the length of reminiscence group intervention needed to show a significant effect in decreased depression with reminiscence group intervention. In the five studies reviewed with significant results there were various time frames utilized for the intervention. Two studies had six sessions for one-hour weekly (Parsons, 1986; Taylor-Price, 1995). One study had six sessions lasting 45 minutes each (Youssef, 1990). Watt and Cappeliez (2000) utilized six 90-minute sessions. Last, Jones (2003) met twice weekly for three weeks for 45-minutes per session. Only one study reviewed had follow-up with depression screening. Watt and Cappeliez (2000) showed at three months follow-up that there continued to be a decrease in depression.

This study utilized twelve one-hour sessions over a period of 6-weeks revealing a significant decrease in depression when compared to the usual care group. A decrease in depression was revealed at 3-weeks however, a significant decrease in depression was seen at 6-weeks when compared to baseline data in the reminiscence group.

This study had no follow-up to determine if depression levels remained decreased when compared to usual care group after reminiscence group intervention was terminated. There is a need to continue studies to quantify the length of group reminiscence intervention needed to show a significant decrease in depression and to

have follow-up testing after group reminiscence is terminated to determine depression scores.

Although a recent study by Wang (2004) concentrated on individualized reminiscence intervention and this study focused on group reminiscence intervention, both studies support the premise that reminiscence may be an intervention for nurses to use in care of patients in long-term care facilities. Research indicates that reminiscence therapy is appropriate for older people who reside in care facilities.

Previous studies had difficulties with attendance and attrition of participants because of extenuating circumstances (Cook, 1991; Jonsdottir et al., 2001). Therefore, previous studies lacked significant results for decrease in depression. Attendance was high in this study with groups of 8 to 12 participants in attendance at each reminiscence intervention session per facility. Twenty-three participants attended at least 80% of sessions in the assigned reminiscence group. In this study there was not a high attrition rate. Only two participants did not complete 3-weeks GDS screening and only four of participants did not complete 6-weeks GDS screening. This possibly contributed to the significant results of decreased depression in the reminiscence group. Activity directors at both facilities worked with the primary researcher to remind participants of group day, meeting time, and place for meeting. Each facility also had a self-appointed "team captain" who was in charge of notifying reminiscence group participants the day of meeting and telling reminiscence group participants the topic for the day's meeting.

A review of the literature noted gaps in the research. These gaps were as follows: inconsistencies in time frames, inconsistencies in themes, small samples, and a limited

number of studies implementing valid empirical methodologies. For these reasons, there was a need for further research on the use of structured reminiscence as an intervention to decrease depression in older women. This study focused on using a structured protocol based on earlier studies, both qualitative and quantitative to clearly delineate themes and a time frame for the reminiscence intervention. The protocol for structured reminiscence used in this research is based on the work of Haight, (1992); Hamilton, (1992); Burnside, (1993); Jones and Beck-Little, (2002); Herrand and Bollstetter, (2000); Jones, (2003); and Stinson and Kirk, (2006). Furthermore, this study used a sample of 47 participants, one of the larger studies completed on this topic. Lastly, this study offered valid empirical methodology; an experimental, 2-groups randomized control trial with repeated measures design was used to assess the effectiveness of a structured reminiscence intervention on depression in older assisted-living females.

One limitation of this study was that it was done in one area (southeast Texas). There is a need to replicate this study in other geographical areas to determine the feasibility of this intervention for older adults. A second limitation of this study was that follow-up was not done to determine if the group reminiscence intervention had lasting effects on the reminiscence group when compared to the usual care group in decreasing depression.

Conclusions

The following conclusions were determined based on this study of older women who participated in a reminiscence intervention to determine its impact on depression:

1. Structured reminiscence decreases depression levels of women 60 years and older residing in assisted living facilities when offered twice weekly for 6-weeks duration to document significant improvement in depression scores.
2. Engagement in reminiscence must occur longer than 3-weeks to measure a significant improvement in depression scores.

Implications for Nursing

The American Nurses Association *Standards of Psychiatric Mental Health Clinical Nursing Practice* (ANA, 1994) and American Nurses Association *Scope and Standards of Gerontological Nursing Practice* (ANA, 1995) support reminiscence as a standard nursing practice. Nursing Intervention Classification (NIC) recommends reminiscence therapy as an intervention in care of institutionalized older persons (Daly, McCloskey, & Bulechek, 1994). Nurses as professional caregivers have the education and responsibility to design programs for the older population enhancing quality of life. This study indicates structured group reminiscence in assisted-living facilities decreases depression in older females if offered at a minimum of twice weekly for 6-weeks. Therefore based on the results of this study, Erikson's theoretical framework, and Butler's theoretical framework the following are implications for nurses:

1. Screen all older women for depression admitted to assisted-living facilities.
2. Educate nurses about the positive effects of a structured reminiscence intervention for older women.

3. Incorporate education about structured reminiscence in gerontological curricula to enhance quality of life for older women.
4. Incorporate a reminiscence protocol into activities for older women at assisted living facilities for at least twice weekly for 6-weeks.
5. Collect data facilitating evaluation and quality improvement of structured group reminiscence in assisted living facilities.
6. Evaluate reminiscence interventions to determine feasibility in clinical areas.

Recommendations for Further Study

Based on this study, several recommendations for future research were generated:

1. This study should be replicated using a larger sample in different geographical areas.
2. Future researchers should recruit older men as participants instead of older women, to determine if a structured reminiscence intervention decreases depression in older men.
3. Future researchers should administer the GDS several weeks or months after termination of structured reminiscence group to determine if there are changes in depression scores after termination of reminiscence group meetings.
4. Future researchers should recruit community-dwelling older women and long-term care older women as participants, to determine the effect of

structured reminiscence group intervention on different populations of older women.

5. Future researchers should recruit participants with Alzheimer's or other cognitively impaired diseases to determine the effect of structured reminiscence group intervention on different populations of older women.
6. Future researchers should continue to explore qualitative methods of research with older populations to determine appropriate themes for decreasing depression with reminiscence interventions.
7. Future researchers should concentrate on different time frames of reminiscence groups to determine appropriate length of intervention to decrease depression in the older population.
8. Future researchers should continue to explore appropriate protocols for structured reminiscence group intervention to decrease depression in the older population.

Depression among older persons is significant to nursing as nurses strive to promote the health and well-being of Americans. Depression in the older adult female is a major public health problem. These findings indicate structured group reminiscence is associated with lower depression scores (and associated improved mental health) if offered twice weekly for a minimum of 6-weeks. Therefore, there is a need for additional research to guide clinical implementation of structured group reminiscence intervention and to guide standards of care in this area.

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APPENDIX A
Demographic Questionnaire

Demographic Data

Code Number_____Date _____

What is your age? _____

What grade did you complete in school? _____

How long have you lived at the assisted living facility_____

APPENDIX B
Geriatric Depression Scale

Code_____

GERIATRIC DEPRESSION SCALE (GDS)

Date_____

CHOOSE THE BEST ANSWER FOR HOW YOU FELT THIS PAST WEEK

CIRCLE either yes or no

*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 your life is empty?	yes	no
4. Do you often get bored	yes	no
*5. Are you hopeful about the future?	yes	no
6. Are you bothered by thoughts you can't get out of your head?	yes	no
7. * Are you in good spirits most of the time?	yes	no
8. Are you afraid that something bad is going to happen to you?	yes	no
9. * Do you feel happy most of the time?	yes	no
10. Do you often feel helpless?	yes	no
11. Do you often get restless and fidgety?	yes	no
12. Do you prefer to stay at home, rather than going out and doing new things?	yes	no
13. Do you frequently worry about the future?	yes	no
14. Do you feel you have more problems with memory than most?	yes	no
15. * Do you think it is wonderful to be alive now?	yes	no
16. Do you often feel downhearted and blue?	yes	no
17. Do you feel pretty worthless the way you are now?	yes	no
18. Do you worry a lot about the past?	yes	no
19. * Do you find life very exciting?	yes	no
20. Is it hard for you to get started on new projects?	yes	no
21.* Do you feel full of energy?	yes	no
22. Do you feel that your situation is hopeless?	yes	no
23. Do you think that most people are better off than you are?	yes	no
24. Do you frequently get upset over little things?	yes	no
25. Do you frequently feel like crying?	yes	no
26. Do you have trouble concentrating?	yes	no
27. * Do you enjoy getting up in the morning?	yes	no
28. Do you prefer to avoid social gatherings?	yes	no
29. * Is it easy for you to make decisions?	yes	no
30. * Is your mind as clear as it used to be?	yes	no

Grading Criteria Geriatric Depression Scale

*Appropriate (nondepressed) answers = yes, all others= no
Score: _____ (Number of "depressed" answers)

Original Interpretation of Scores:
Normal 0-9
Mildly depressed 10-19
Very depressed 20-30

APPENDIX C
Stinson's Protocol for Structured Reminiscence

Table 6

Stinson's Protocol for Structured Reminiscence (Haight, (1992); Hamilton, (1992); Burnside, (1993); Herrand and Bollstetter, (2000); Jones & Beck-Little, (2002); Jones, (2003); Stinson and Kirk, (2006)

Week	Sessions	**Themes**/ Activities
Week 1	Session 1	**Introduction of leaders and members** Concentrate on personal background. Encourage members to bring a picture of an animal or stuffed animal that represents them. Have them introduce themselves and tell why the animal reminds them of herself. Have extra stuffed animals available.
	Session 2	**Remembering the past through songs from the 1920's to 1960's** Play different songs in chronological order. See if members recognize songs and discuss any special memories associated with songs. Have members talk about a song that might have special meaning to them and why it has special meaning to them. Encourage clapping and singing.

Week 2	Session 3	**Sharing photographs.** Have a show-and-tell of personal memorabilia. Give time to explain attachment associated with pictures. Discuss families. Discuss friends. Talk about fun times.
	Session 4	**Discussing work/home life or volunteer activities/ first job.** Pass around picture-cards with specific occupations/ children /volunteer activities from 1920's–1960's. Specifically ask questions to get people to talk about "paths not taken". Encourage participants to bring any memorabilia from career or occupation (badges, pictures, etc.).
Week 3	Session 5	**Remembering favorite holiday** Discuss holidays. Bring scents and cues associated with past. Sing songs of holidays. Talk about foods of holidays. Talk about clothes of holidays. Talk about traditions of holidays.

	Session 6	**Remembering school days/ first day.** Discuss first day of school. Have participants talk about school days. Show pictures of schools 1920s–1960s. Discuss what was worn and teachers.
Week 4	Session 7	**Remembering first toy/ toys of childhood** Bring toys from the past. Discuss first toys. Discuss most unusual toys. Discuss favorite toys. Discuss toys made at home. Show pictures of toys.
	Session 8	**Remembering first date / spouse/ weddings / marriage** Discuss first dates. Discuss proposals. Discuss weddings. Discuss marriages. Play songs from the past. Show short clip of old movie with "courting". Bring wedding pictures.

Week 5	Session 9	**Remembering family/ pets** Discuss children, pets, and family. Encourage pictures to remind of memories.
	Session 10	**Remembering foods** Discuss favorite foods of childhood, favorite foods at holidays, and favorite smells. Discuss recipes. Have participants bring recipes and discuss memories associated with recipes.
Week 6	Session 11	**Remembering first friend/ old friends** Talk about friends. Bring pictures. Explain who the friends are in pictures. Discuss fun times. Discuss fun memories. Discuss friends in assisted living facility.
	Session 12	**Closure** Have participants talk about experiences of being in group. Share any last thoughts about topics discussed previously. Serve refreshments. Give certificates.

APPENDIX D
Agency Approvals

COLLIER PARK license #000638
4650 collier street
beaumont, texas 77706
409.899.4800

November 16, 2005

RE: Structured Reminiscence: An Intervention to Decrease Depression in Older Women

To Whom It May Concern,

I understand Ms. Cynthia Stinson, a Doctoral student at Texas Woman's University School of Nursing, is conducting research on an intervention for possibly improving the emotional well-being of older women. This intervention will involve having older women (60 years and older) complete a depression screening scale and then participate for six weeks in a group process where they will talk about memories of the past. Not all participants will be able to participate in the Memory Group. Both groups will complete the depression screening scale three times. I understand all participants will be able to attend the informational session with Ms. Stinson and ask questions about the research. They will also give written permission to be a participant in this research. Residents are under no obligations to participate. Ms. Stinson has permission to conduct this research in this facility.

Diane M. Parrett

Diane M. Parrett
Engage Life Director

November 20, 2005

RE: Structured Reminiscence: An Intervention to Decrease Depression in Older Women

To Whom It May Concern,

I understand Ms. Cynthia Stinson, a Doctoral student at Texas Woman's University School of Nursing, is conducting research on an intervention for possibly improving the emotional well-being of older women. This intervention will involve having older women (60 years and older) complete a depression screening scale and then participate for six weeks in a group process where they will talk about memories of the past. Not all participants will be able to participate in the Memory Group. Both groups will complete the depression screening scale three times. I understand all participants will be able to attend the informational session with Ms. Stinson and ask questions about the research. They will also give written permission to be a participant in this research. Residents are under no obligations to participate. Ms. Stinson has permission to conduct this research in this facility.

Nancy K Resendez

APPENDIX E
Informed Consent Forms

TWU
TEXAS WOMAN'S UNIVERSITY
DENTON DALLAS HOUSTON

College of Nursing
Houston Center
1130 John Freeman Blvd.
Houston, TX 77030-2897
713-794-2100 Fax 713-794-2103

Pioneering Nursing's Future:
An Adventure in Excellence

TEXAS WOMAN'S UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

Title: Remembering the Past: A Group Process to Improve Emotional Well- being in Older Women

Investigator:	Cynthia Stinson, MSN	Phone-409-6561618
Advisor:	Anne Young, Ed.D.	Phone (713) 794-2109

Explanation and Purpose of the Research

You are being asked to participate in a research study for Ms. Cynthia Stinson's dissertation at Texas Woman's University. The purpose of this study is to determine the effects of remembering past events on how people feel emotionally. Specifically this study is about effects of remembering past events on how women feel emotionally.

Research Procedures

There will be two groups for this study. One group will meet twice weekly to share past events in their life and the second group will continue with regular activities that are provided by the assisted living facility. At the beginning of the study you will be asked to complete information about your age, how long you went to school, and how long you lived at this facility. Following completion of baseline measures,including questions about how you are feeling emotionally, participants will be randomly assigned to the Remembering Past Group or the Activity Group. At the beginning, at three weeks, and at six weeks, you will be asked questions about how you are feeling emotionally. The maximum total time commitment for the Remembering Past Group will be sixteen (16) hours and for the Activity Group will be four (4) hours.

Participant Initials_____

Potential Risks

The risks of participation in this study include the following:

1. Potential loss of confidentiality- You will be assigned an identification number, which will serve to identify you in the research database and in this study. Data entered into the computer systems will be protected with code numbers. Only Cynthia Stinson will have access to information in the database. All study materials containing personal identifiers will be kept in a locked cabinet separate from the data records. Materials containing identifiers, except the consent form, will be destroyed after data collection is completed. All data will be presented in a grouped form. No information from the study will be presented at any conference or published in which you are identified by name. Confidentiality will be protected to the extent that is allowed by law.

   Potential loss of confidentiality due to information shared during reminiscence groups- Confidentiality of the group experience will be discussed at the beginning of the study. You will be asked to sign a statement of Shared Respect and Confidentiality Form. Each week you will be reminded about shared confidentiality.

2. Possible burden in terms of time for you- You may elect to withdraw from the study at any time. If you complete written questions at the beginning of the study, at three weeks, and at six weeks, you will be paid six (6) dollars.
3. Possible distress during administration of forms or remembering past group discussion- If you become distressed, you will be asked if you would like to continue participating in the assigned group or continue completing the forms. This process will allow you the opportunity to leave the group. The supervisor in charge of health care at the facility will be notified and documentation will indicate this in your file.

Participant Initials_____

Title: Remembering the Past: A Group Process to Improve Emotional Well- being in Older Women

Cynthia Stinson will try to prevent any problem that could happen because of this research. You should let her know at once if there is a problem and she will help you. However, Texas Woman's University does not provide medical services or financial assistance for injuries that might happen because you are taking part in this research. Participation in this study is voluntary and you may withdraw form the study at any time without penalty.

Benefits:

1. You will be given six (6) dollars for participating in this study. You will receive this money when you finish answering the study questions for the third time.

You will be given a copy of this signed and dated consent form to keep. If you have any questions about this research study, you should ask Cynthia Stinson; her phone number is at the top of this form. If you have any questions about your rights as you participate in this research or the way this study has been conducted, you may contact the Texas Woman's University Office of Research at 713-794-2480 or via e-mail at IRB@twu.edu.

Participant's Signature_____ Date_____

The above consent form was read, discussed, and signed in my presence. In my opinion, the person signing said consent form did so freely and with full knowledge of its content.

Signature of Investigator_____ Date_____

Participant Initials_____

APPENDIX F
Human Subjects Review Committee Approval

TEXAS WOMAN'S UNIVERSITY
DENTON DALLAS HOUSTON
Institutional Review Board
1130 John Freeman Blvd., Houston, Texas 77030 713/794-2074

MEMORANDUM

TO: Anne Young
Cynthia Stinson TWU #0639420

FROM: IRB

DATE: February 2, 2006

SUBJECT: IRB Application

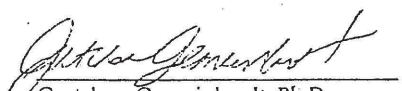
Proposal Title Structured reminiscence: An intervention to decrease depression in older women

Your application to the IRB has been reviewed and approved.

This approval lasts for 1 year. The study may not continue after the approval period without additional IRB review and approval for continuation. It is your responsibility to assure that this study is not conducted beyond the expiration date.

Any changes in the study or informed consent procedure must receive review and approval prior to implementation unless the change is necessary for the safety of subjects. In addition, you must inform the IRB of adverse events encountered during the study or of any new and significant information that may impact a research participant's safety or willingness to continue in your study.

REMEMBER TO PROVIDE COPIES OF THE SIGNED INFORMED CONSENT TO THE OFFICE OF RESEARCH, MGJ 913 WHEN THE STUDY HAS BEEN COMPLETED. INCLUDE A LETTER PROVIDING THE NAME(S) OF THE RESEARCHER(S), THE FACULTY ADVISOR, AND THE TITLE OF THE STUDY. GRADUATION MAY BE BLOCKED UNLESS CONSENTS ARE RETURNED.



Gretchen Gemeinhardt, Ph.D.
Chairperson