The Effective Physical Activity Interventions to Promoting Participation of Older Adults in Assisted Living Facility to Reduce the Depression

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This evaluation will focus on older adult residents at the assisted living facility (ALF), Catholic Care Center (CCC), located in Bel Aire, Kansas. ALF provides a homelike atmosphere, available services for physical and mental functional deficits, and the objective of promoting aging-in-place (Cummings & Cockerham, 2004). Among older residents in ALF, depression is the most common problem of psychological health. Moreover, depressive symptoms or syndromes in late-life are often associated with cognitive decline and dementia. Suicidal risk is almost two times more likely in late-life than for other age population’s suicidal risk (Alexopoulos, 2005). For older adults, physical activities may play an important role in condition management and treatment for reducing depression and anxiety disorders, dementia, and other chronic physical illnesses (Chodzko-Zajko, Proctor, Fiatarone Singh, Minson, Nigg et al., 2009). Reflecting on my current practicum in ALF, however, residents’ participation rates for exercise programs are low. This situation leads me to study how physical activities are related to depression in older adults, and what physical activity interventions to promote older adults’ participation in ALF are effective in reducing depression.

This research proposal will tie to the Advanced Generalist Model (AGM). Most of all, this research topic is based upon my practicum experience and reflects real issues in a local ALF. AGM has three themes (cultural competency, social justice, and empowerment), this research will ultimately pursue empowerment and bio-psycho-social well-being of older adults. Thus, all parts of this research proposal reflect the multi-dimensional model of Advanced Generalist Perspective. Researchers studied effective physical activity and promoted physical activities among older adults (Brawley, Rejeski, & King, 2003; Tinetti, 2003). This topic is definitely related to social work because this study’s purpose is promoting bio-psychosocial well-being of older adults in assisted living. In the previous discussion regarding this project with my field instructor, field supervisor, and staff in ALF, they also agree with these issues and are interested to see changes in ALF.

The broad evaluative question for this research proposal is “what are the effective physical activity interventions to promote older adults’ participation in ALF to reduce depression?” There are four evaluative sub questions for this research proposal. First, what are the current issues or problems of physical activity programs and depression among older adults in ALF? Second, what is the relationship between physical activities and depression among older adults in ALF? Third, what are the effective physical activity programs for older adults in ALF to reduce depression? Fourth, what are the effective interventions for older adults to actively take part in physical activity programs?

Literature Review

*The depression of older adults in ALF*

Depression is a relatively common psychological health problem among assisted living residents. Researchers indicated that the signs and symptoms of older adult residents with depression may include loss of interest in normally pleasurable activities (Ba-Tor & Lomerantz, 1997). Also, changes in weight, sleeping disorder, persistent, vague or unexplained somatic complaints, memory complaints, irritability or demanding behavior could occur. The other symptoms are lack of attention to personal care, difficulty with concentration, social withdrawal, and change in appetite, confusion, delusions of hallucinations. In addition, the feelings of depression are worthlessness, hopelessness, pessimism, guilt, anxious or empty mood in their life, unusual fatigue and low energy level, chronic pain that does not respond to treatment, and thoughts of death or suicide or suicide attempts (Ba-Tor & Lomerantz, 1997). According to Alexopoulos (2005), symptoms or syndromes of late-life depression are often related to cognitive decline and dementia. Suicidal risk is almost two times more likely in late-life than for other population’s suicidal risk. Suicide rates in older adults are increased nearly exclusively in white men. Between those who attempt suicide, older people are most likely to die. Alexopoulos (2005) also indicates that depression issues were present 80% of the time for persons over 74 who commit suicide. Major depression and substance abuse are risk factors for older people’s suicide as well. Therefore, depression in older adults is a significant concern.

Most of older adults and their health care providers may believe that depression is an expected process of aging (Chapman & Perry, 2008). Furthermore, this belief misleads them to understand that depressed older adults might have miscellaneous complaints, and the diagnosis process and treatment of depressive disorders are hard to get. Thus, perception of depressive disorders in late-life remains critical to public health. Depression in late life mostly causes emotional suffering and consequently deteriorates older adults’ quality of life. Also, severely depressed older people display impairment in verbal fluency, recognition memory, planning, psychomotor speed, and set shifting (Blazer, 2003). According to Lockwood, Alexopoulos, and VanGorp (2002), older adults with depression, executive dysfunction syndrome clinically presented psychomotor retardation and decreased interest in activities. The dysfunction involves loss of verbal fluency, poor task presentation, impaired visual naming and perseveration. Late-life depression is identified as a significant public health issue and is often recognized more in long-term care than in regular communities (Blazer, 2003). Around 12.4 percent to 35 percent of persons in long term care experience severe depression symptoms. Also, recent studies reported that prevalence rates of late-life depression in ALFs are 13 percent to 25 percent and it is a significant proportion of ALF residents (Cummings & Cockerham, 2004; Jang, Bergman, Schonfeld, & Molinari, 2006). Therefore, late-life depression is a severely important issue in ALFs.

*The current issues of physical activity among older adults in ALF*

The issue that our society faces with a growing older adult population is the process of physical disablement. Most of the older adults live with disablement with severe chronic disease (Brawley, Rejeski, & King, 2003). A study indicated that insufficient physical activity and poor nutrition are major attribute factors to 14 percent total death rate in the USA (McGinnis & Foege, 1993). Inadequacy of physical activity results in severe chronic illnesses such as heart disease, high blood pressure, diabetes, and colon cancer among older adults. Also, in the USA, a lack of physical activity as well as inadequate nutrition affects increasing obesity (U. S. DHHS, 2002). U. S. Department of Health and Human Services (2000) indicated that only 31 percent of older adults aged 65 to 74 have 20 minutes of mild physical activity for three or more days each week. For aged 75 and older, 23 percent participated in moderate activity for 20 minutes, three or more days each week. Just 13 percent of older adults aged 65 to 74 and six percent of people aged 75 and over reported engaging in vigorous physical activity for 20 minutes three or more days each week.

Confronting these issues among older adults lead us to think about the barriers to physical activity for this population. Studies reported that important barriers are poor health perception, physical inabilities related to chronic illness, long-term illness, and lack of skill, injury, and fear of pain (Brawley, Rejeski, & King, 2003; Clark, 1999). Environmental barriers, for example, include weather, temperature, sidewalk presence or quality condition, and no rest areas during a walk. Women noted more barriers than men and were more sensitive to environmental barriers. Older adults aged 55 to 69 reported more motivational and symptom barriers; in contrast, over 69 stated more environmental problems (Brawley, Rejeski, & King, 2003). In addition, some misconceptions toward physical activity are barriers. Lee (1993) indicated that older people misunderstand that laborious or excruciating exercise can benefit health. Another study pointed out that there is a poor understanding about how usual and intermediate physical activity can benefit health (Burton, Shapiro, & German, 1999). Older adults have a false belief that they are more active than other same aged older adults. This cognitive or attitudinal misunderstanding may reduce older adults’ motivation to participate in physical activity (Wilcox, & King, 2000). Another important consideration to understand older adults’ low participation in physical activity and the problem of discontinuing after initiation is the cultural environment. Unique intervention challenges are targeted to increase older adults’ participation in physical activity based upon their sub cultural differences in education, language, ethnicity, and income (Brawley, Rejeski, & King, 2003).

*The relationship between physical activities and depression among older adults in ALF*

Many chronic diseases including type II diabetes, obesity, cardiovascular disease and certain cancers develop the relative risk of dying, which increases with age. Thus, age is deliberated as a primary risk factor for the advancement and progression of most chronic disease states. Moreover, many researchers revealed that physical activities and exercises are beneficial for older adults with chronic diseases and disabilities and for their psychological well-being (Chodzko-Zajko et al., 2009; Warburton, Nicol, & Bredin, 2006; Weuve, Kang, Manson, Breteler, Ware, & Grodstein, 2004). Also, physical activity significantly decreases the risk of chronic diseases. Warburton et al. (2006) reported that physical activity helps to modify cardio-vascular disease, depression and other chronic diseases such as diabetes, cancer, obesity, hypertension, bone and joint disease. Thus, physical activity in long-term care has an important role for older adults’ well-being.

Researchers compared older women in the lowest physical activity quintile with older women in the highest quintile of physical activity (Weuve et al., 2004). They found a 20 percent lower risk of cognitive impairment for older women who keep higher rates of physical activity. Thus, researchers stated that a higher level of physical activity was associated with better cognitive achievement. Moreover, older women in higher quintiles were less likely to smoke, to drink alcohol, to report problems with balance, to have fatigue, and to have health limitations on walking (Weuve et al., 2004).

Physical activity was shown to relate to reducing the risk of cognitive impairment and dementia as well as an improvement in general psychological health and well-being (Chodzko et al., 2009). Higher rates of physical activity and aerobic exercise capacity (AET) are associated with a reduced risk for depression or anxiety. Physical activity and exercise have been suggested to impact psychological well-being through their self-concept and self-esteem, which are affected by moderating and mediating efforts (Chodzko et al., 2009). Rethorst, Landers, Nagoshi, and Ross (2010) revealed that, as the prevalence of depressive disorders increase, the treatment costs of these disorders grow. In 2000, the cost regarding depressive disorders was $26 billion. Furthermore, increased depressive symptoms are associated with an elevated risk of major depression, higher rates of disability, functional impairment, and elevated social dysfunction (Rethorst et al., 2010).

Physical activity are positively associated with older adults’ quality of life (Rejeski & Mihalko, 2001; Ball, Whittington, Perkins, Hollingsworth, King, & Combs, 2000). In other words, quality of life is perceived health and satisfaction, self-esteem, energy/fatigue, psychological well-being and distress. Physical functioning and intimacy, sleep, cognitive functioning, pain and discomfort, self-maintenance and self-care, usual activities, and social functioning are other examples. Also, sexual functioning and intimacy, and the sense of mastery and control are included (Rejeski & Mihalko, 2001; Ball et al., 2000). Therefore, physical activity needs to be increased in order to decrease older adults’ depression in ALFs. This also will increase bio-psycho-social well-being of older adults in ALFs and will decrease chronic illness and relevant costs.

*The effective physical activity programs for older adults in ALF to reduce the depression*

The best way to promote older persons’ health is regular physical exercise. Regular exercise benefits are preventing illness and death from heart disease, treatment of diseases, and preventing functional loss and dependency (AGS Aging in the know, 2011). Physical activity programs also benefit older people with depressive disorder. Researchers found that physical activity programs may reduce older adults’ depression or depressive symptoms and may be advantageous as ancillary depression treatment for older adults (Blake, Mo, Malik, & Thomas, 2009). After the age of 60, the first initiation of depression has a 70 percent recurrence risk in two years of remission (Blake et al., 2009; Zis, Grof, Webster, & Goodwin, 1980). Thus, physical activity programs may maintain arrangement for continued depression treatment in the long term (Blake et al., 2009).

There are different types of physical activity that may benefit older adults’ health: walking and aerobic activities (swimming, biking, dancing and racket sports), stretching exercises for increasing flexibility, daily activities for reducing Sarcopenia (household work, walking, and gardening), resistance training (weight cuffs, dumbbells, and strength-training), and balance training (AGS Aging in the know, 2011). Researchers reported that volunteers who scored 16 or higher on Center for Epidemiological Studies Depression Scale (CES-D) took 45 minutes of Tai Chi sessions three times each week during three months. Participants in this Tai Chi program showed significant improvement in depression (P< 0.001) (Blake et al., 2009; Chou, Lee, & Yu et al., 2004). Mather and colleagues (2002) found that a higher proportion of the depressed group who received a weight bearing exercise class performed to music experienced a greater than 30 percent reduction in depression (P< .05). Singh and colleagues (2005) reported that volunteers who scored 14 and over on Geriatric Depression Scale (GDS) attended high intensity progressive resistance training. The high intensity training group showed more significant improvement than the other untrained group (P< 0.05). Another study of Singh et al. (2001) revealed that participants who had a Beck Depression Inventory (BDI) score of 12 and more engaged in ten weeks of weight-lifting exercise supervised, and following ten weeks they were not supervised. The result showed that the BDI score was significantly reduced (P< 0.05-0.001). These studies showed that depressed older adult participants who engaged in the physical activity intervention group reported reduction of depression or depression scale score.

*The effective interventions for older adults to actively take part in physical activity programs*

There are the different roles of individuals, clinicians and communities to promote older adults’ physical activity participation. Older adults need to find physical activity that they can enjoy and the activity can be their regular life routine. Then, consult with clinician and set specific physical activity goals, and start slowly and continue on a regular basis. Clinicians need to assess their patients’ current physical activity and help them with goal setting, written exercise prescriptions, and follow-up. Communities conduct wide community events, campaigns, and support groups and establish community based programs, social support, and improve access to places for physical activity (AHRQCDC, 2002).

Even though they are potential benefits from physical activity, it is difficult to convince older people to become more active and maintain physically active (Resnick & Spellbring, 2000). AHRQCDC (2002) suggested that “there are no one size fits all approaches” (p. 6). To promote physical activity participation, it is significantly important that interventions are accommodating to an individual’s needs (National Blueprint, 2001). Physical activity interventions should be facilitated by trained staff, reflect personal preferences, and be maintained throughout older adults’ lives (Taylor et al, 2004). Van Der Bij and colleagues (2002) indicated that home-based physical activity interventions may contribute equal or enhanced participation than other conventional, supervised, group-based interventions. On the other hand, group-based physical activity interventions are shown to be more effective in the long term, especially a higher rate of participation than home-based interventions. Researchers stated that there is a need to focus on education and training with respect to participating in physical activity. Also, it is important to have a conception of aging as a natural process that can affect people’s life style. A complex multi approach or interdisciplinary approach is required to understand and influence older adults’ lifestyle (Taylor et al, 2004).

*Conclusion*

Based on the review of previous research, various barriers (physical health declining, disability, chronic illness, misperception, etc.) lead older adults to have a low participation in physical activity. There were significant relationships between physical activity and depression among various populations (Ball, Whittington, Perkins, Hollingsworth, King, & Combs, 2000; Rejeski & Mihalko, 2001). Physical activity program

ms include a Tai Chi program, a weight bearing exercise class with music playing, a high intensity progressive resistance training program, and a supervised weight-lifting exercise program were effective to reduce depression among older adults. To promote physical activity participation, it is important that interventions need to meet an individual’s needs with continuous efforts and under supervision of trained staff.

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Appendix A

Evidence Based Literature Matrix

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Article / Book / Evidence | Problem Being Addressed | Theory | Sample | Measurement  / Instrument /  Metric | Research Design and Limitations |
| Mather et al. (2002) | Depression in older adults and effective physical activity program |  | N=86 Depressed outpatients (GDS scored 10 or more) | Depression: HRS and GDS | Exercise classes comprising weight-bearing exercise performed to music |
| Alexopoulos, G, S. (2005) | Depression in older adults |  |  |  | Descriptive results from literature review |
| Cummings, S. M., & Cockerham, C. (2004) | Depression and life satisfaction in assisted living residents: Impact of health |  | N=145 older adults in assisted living | Depression- the Center for Epidemiological studies depression scale  Life satisfaction  -the life satisfaction scale | Descriptive results, bivariate statistics, and linear hierarchical regression  Limitation – did not include elders of color |
| Blake, H., Mo, P., Malik, S., & Thomas, S. (2009) | Depression in old age and effective treatments for depression | Systematic review | Ten studies were reviewed | Hamilton Rating Scale, GDS, Beck depression inventory, CES-D, SF-36 scale | Direct comparison  Limitation-some articles may been overlooked |
| Chou, K., Lee, P. W. H., et al. (2004) | Depressive symptoms amongst Chinese older adults and Tai- Chi intervention |  | N=14 volunteers with minor or major depression | CES-D | Comparison between intervention group and non intervention group |