

DEVELOPMENT OF A POSITIVE AGING STRATEGY TRAINING
PROTOCOL: A FEASIBILITY STUDY

by

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ABSTRACT

Previous studies have identified one strategy (forgiveness) as efficacious for enhancing subjective well-being. Despite the interest in forgiveness and its relationship with physical and psychological health, training in forgiveness as a positive aging strategy has yet to be examined as contributing to well-being in an older adult population. The current study attempted to address this issue through engaging processes related to forgiveness such as dispositional empathy. Manuals were created based on the positive aging forgiveness strategy. The feasibility of a forgiveness intervention based on those manuals was assessed. The following two trainings were designed: (a) forgiveness and (b) number-memory. Participants self-selected into either of the trainings. The forgiveness training group ($n = 15$) consisted of individuals who participated in a forgiveness strategy training workshop, and the number-memory training group ($n = 6$) consisted of individuals who learned a number-memory mnemonic. Impact of the strategy training was assessed on measures of dispositional forgiveness, empathy, satisfaction with life, and memory self-efficacy. Participating in a positive aging strategy training did not result in statistically significant changes on any of the measures employed. Future research implications are discussed that may have contributed to these “no-effect” results.

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INTRODUCTION

In an attempt to characterize the human aging process and how individuals adapt to age-related decline, numerous taxonomies descriptive of optimal adjustment in old age have proliferated. An early distinction, from a medical model, juxtaposes individuals who are experiencing age-related decline but who are otherwise disease free from persons carrying a diagnosable disease state. The normal versus diseased aging dichotomy has been further elucidated to include gradations of normal aging. Rowe and Kahn (1987) highlighted this latter distinction when they referred to *usual aging* as the process of growing old in which external factors alone heighten the nature of age-related decline. *Successful aging* is referred to in this context as a term descriptive of factors playing a positive role in promoting optimal adaptation in old age. This distinction between usual and successful aging acknowledges the heterogeneity that exists in the *normal* category of aging. Individuals who experience normative age-related decline are depicted as *usual agers*, and individuals who exhibit little or no loss in function as they age have been described as *successful agers* (Schulz & Heckhausen, 1996). In order to set the background for the current study, the term *successful aging* is briefly defined next.

Successful Aging

Few terms descriptive of positive outcomes associated with growing old have been the focus of such a large body of empirical attention as has been *successful aging*. Two of the more prominent conceptualizations of successful aging have been reported by Rowe and Kahn (1987) and Baltes and Baltes (1990), respectively. Rowe and Kahn

conceptualized successful aging in terms of the following three components: (a) low probability of disease and disease-related disability, (b) high cognitive and physical functioning, and (c) active engagement with life. The loss of any one of these components means that one moves from successful aging to usual aging or to aging in the presence of various types of impairments. According to the Rowe and Kahn model, successful aging involves the adoption of lifestyle characteristics that are expected to produce outcomes that diminish the probability of disease and to promote life engagement for as long as possible.

Baltes and Baltes (1990) defined successful aging as a resistance to typical biological or mental deterioration associated with growing old. In this regard, Baltes (1993) operationalized successful aging as a process that is inherent in culture and that is employed by the individual to offset the biological deterioration that is inevitably part of the human experience. Baltes employed a heuristic to specifically describe how an individual behaviorally manipulates or adjusts environmental contingencies and his or her own behaviors in order to maximize well-being in later life regardless of the presence of age-related biological deficits. This heuristic is referred to in the literature as the *theory of selection with optimization and compensation*, and it is one of the more prominent adult life-span developmental theories of adaptation in the field of geropsychology.

According to Baltes and Baltes (1990), the components of the theory of selection with optimization and compensation work synergistically to aid the aging individual in sustaining control over certain aspects of his or her life that may be compromised by age-related decline. The theory of selection with the optimization and compensation model involves three components. The first of these components is *selection*, which refers to the process of restricting the number of domains of functioning so that resources can be devoted to those that are the most important in adaptation. The second component is

optimization, which refers to the process of engaging in behaviors that rehearse strategies that maximize adaptation. The final component is *compensation*, which refers to adjustment strategies (e.g., aids or alternative behaviors) that an individual employs to maintain an optimal level of functioning.

Despite the popularity of the Rowe and Kahn (1987) and Baltes and Baltes (1990) models of successful aging, numerous researchers have expressed concern over the narrow band of individuals who fit within these definitions. Primarily, persons who are in good to excellent physical health and who have sufficient resources to ostensibly mobilize the theory of selection with optimization and compensation would qualify as successful agers. Bowling and Dieppe (2005) described Rowe and Kahn's model as a *biomedicalisation* approach to aging, which is too narrowly focused and lacking input from older people.

Ryff (1989) believed that a term like *successful aging* was not adequate for capturing the full range of experiences that most people must negotiate as they grow old. She conducted a longitudinal study of community-dwelling older adults to demonstrate this point. In this study, participants were asked to articulate what they believed the term successful aging meant to them; that is, what are lay construals of successful aging? These participants defined successful aging as the ability to accept change, help others, enjoy life even in the presence of difficulties, and have a sense of humor as well as other strategies in order to optimize the subjective experience of growing old even when functional deterioration was present.

Similarly, Fisher (1995) interviewed 40 elderly participants in a Foster Grandparent Program. (The Foster Grandparent Program is a federally funded initiative that involves low-income seniors in volunteer opportunities with at-risk children.) These persons identified several behaviors that promote life satisfaction that Fisher later

construed as successful aging. These behaviors included having positive interactions with others, finding a sense of purpose, pursuing autonomy, and engaging in activities that promote self-acceptance. In this study, an understanding of successful aging that involves attitudinal or coping orientations occurred nearly twice as often in those who reported higher life satisfaction. Fisher defined these behaviors as a constellation of lifestyle factors that characterize what she termed *optimizing old age*. Further, descriptions of life satisfaction in this study emphasized the fulfillment of basic needs as precursory to successful aging.

Meaning-Centered Sources of Well-Being

Meaning-centered sources of well-being have been linked to optimal adjustment in old age, even among those who might be classified as being functionally disadvantaged by illness, having physical limitations, or experiencing economic conditions that include age-related decline. Recent additions to the psychological and gerontological literature have attempted to address questions related to adjustment in old age. One common question found in the literature is the following: How is it that an individual can maintain a positive outlook as well as have a high satisfaction with life in the presence of age-related deficits?

Duay and Bryan (2006) addressed this question by asking seniors aged 60 to 86 years to respond to the following question: What is most important to you in your life right now? Of these participants, 60% indicated that family was most important to them, and they also referred to the importance of coping with change as a way to promote well-being as one grows old. These researchers found that this coping process involved facing problems and then dealing with them, accepting change that is beyond one's control (i.e., loss of health), relying on a deep spiritual faith, and maintaining a positive attitude even

in difficult times. From a positive aging framework, these descriptors are similar to the positive aging characteristic of *flexibility* or the ability to move oneself away from maladaptive thought patterns and negative stylistics, including pessimism, rigidity, and worry (Hill, 2005).

Bryant, Corbett, and Kutner (2001) examined 22 older adults aged 60 years and older who were seeking treatment for medical illnesses, that is, conceptualizations of what it means to be healthy. The results of their study pointed to a naturalistic definition of health that included engaging in meaningful activities such as exercise, yoga, and continuing education. Participants reported that health, to them, meant finding a balance between their coping abilities and the challenges they were experiencing. Balance included personal and attitudinal strategies used to reframe deficits as strengths (i.e., cultivating a positive attitude compared with an attitude of “poor me”). Cultivating an attitude of optimism is inherent in the positive aging framework. One of the positive aging characteristics involves focusing on the positives rather than on the negatives. For participants in the Bryant et al. study, they cultivated a positive attitude compared with an attitude of “poor me.”

The Bryant et al. (2001) study provided evidence to support the relative nature of aging and the idea that in old age happiness is obtainable even when one’s objective circumstances are not going well. One man, for example, who was limited physically, expressed the sentiment that he enjoyed “getting to the root of things, finding out why it works as a source of pleasure” (Bryant et al., p. 24). This statement could suggest that *learning* how to be optimistic or focusing on ways to be optimistic is still a valuable resource for coping and finding well-being, even when one is sick.

One’s attitude or frame of mind also emerged among participants in the Bryant et al. (2001) study as contributing to positive perceptions of health. When participants were

asked to differentiate between people who think of themselves as healthy, despite physical problems, and people who think of themselves as less healthy, respondents repeatedly referred to a *positive attitude* as one of the most important distinguishing factors (Bryant et al.). When respondents were asked about the types of relationships that promoted health, family and friends emerged as sources of support. In other words, one's sense of belonging to a social system was associated with feeling healthy, even in the presence of disease. The Bryant et al. study conceptualized health as the capacity to engage in meaningful life experiences and to respond positively to daily issues in living regardless of one's afflictions or disabilities.

Other research has suggested that the perception that one is healthy can occur regardless of whether one is experiencing functional disability. Strain (1993) queried persons aged 60 years old and older about what they considered were factors they believed yielded good health in people who were approximately 60 years of age. Of these respondents, 40% endorsed the ability to perform usual activities whether they were in pain or pain free. Functioning in this instance, even if it was difficult, was perceived as a marker of health. In addition, 33% of the respondents considered a definition of good health as a general feeling of well-being irrespective of one's objective physical state. Fewer than 20% of the respondents endorsed an absence of physical symptomatology as a marker of health. This research points to the idea that finding resources to be healthy may help one learn to find ways to perceive oneself as healthy.

Another prominent psychological variable that is emerging in the literature to define whether one feels healthy is *self-compassion*. As a term, self-compassion is a form of self-acceptance that emerges in the final stage of life as an operationalization of ego integrity as described by Erickson's theory of psychosocial development: ego integrity compared with despair (Ranzijn & Luszcz, 1999). According to Erickson's theory, a lack

of self-acceptance leads to despair and a reduced sense of well-being irrespective of one's objective health or medical problems. Ranzijn and Luszcz examined whether one's sense of acceptance predicted well-being in a sample of 840 community-dwelling adults (97 to 105 years old). Acceptance was assessed using the Satisfaction With Life Scale, and well-being was assessed using the Positive and Negative Affect Scale. Working from the premise that aging is associated with age-related decline, these authors were interested in why it was that these older adults reported such a high level of well-being even though they were experiencing objective physical decline. Ranzijn and Luszcz concluded that self-acceptance might be one of the features of coping among older adults that helps them adapt to age-related deficits. Similarly, the first characteristic of positive aging is the ability to deal directly with age-related decline and its effects. In essence, the acceptance of self and the situation is necessary before one can engage in coping or dealing with situations related to age-related decline.

An earlier qualitative study of 36 older artists (Fisher & Specht, 1999) identified the following six features of successful aging: (a) a sense of purpose, (b) interactions with others, (c) personal growth, (d) self-acceptance, (e) autonomy, and (f) health. According to this sample, aging successfully required viewing life as an opportunity to grow personally, to meet life's challenges, and to find meaning in life.

More recently, Phelan, Anderson, LaCroix, and Larson (2004) examined 2,932 Japanese American and White older adults' views of successful aging and found that these adults considered 13 attributes in physical, functional, psychological, and social categories as important to successful aging. In essence, older adults in this study viewed successful aging as multidimensional and more complex than the current definitions that focus on a single dimension of health (psychological or physical).

Positive Psychology

Parallel to the evolution of the term *successful aging* has been on literature focused on defining *mental health* as more than just the absence of psychopathology. *Positive psychology* is a term that has been championed by a group of scholars, including Seligman and Csikszentmihalyi (2000) and others, who have been at the forefront of asserting that valued subjective experiences that focus on how people build meaningful and fulfilling lives is as important in determining well-being as is one's objective physical state. It has been argued that an approach to psychological adaptation based on one's subjective perceptions and strengths, including psychological factors that promote optimal emotional functioning, are important in determining one's sense of well-being.

Keyes's (2009) multidimensional model of mental health has provided psychology with a way of looking at mental health that focuses on the following three domains: (a) emotional, (b) psychological, and (c) social well-being. Keyes's model is distinct in that the absence of psychopathology is not the defining marker of mental health, and according to Keyes, the absence of mental illness is not the presence of mental health. Rather, mental health is a complete state comprising (a) the absence of psychopathology and (b) the presence of happiness and well-being.

Distinct to Keyes's (2009) model is the idea of *flourishing* in life. In other words, an individual is said to be flourishing in life when he or she exhibits high levels on at least one measure of hedonic well-being and high levels on at least six measures of positive functioning (e.g., self-acceptance, personal growth, purpose in life, environmental mastery, autonomy, and positive relations with others; Keyes & Haidt, 2003; Ryff & Keyes, 1995).

Positive psychology conceptualizes adaptation as a subjective phenomenon that includes valued personal experiences (e.g., contentment, hope, and happiness) as well as

individual dispositions that produce behaviors that promote meaning (e.g., the capacity for love, courage, gratitude, patience, forgiveness, creativity, spirituality, wisdom, and humor), including group-level virtues (e.g., civility, sense of community, and altruism) that can enhance coping with difficulties and promote greater personal satisfaction by enlisting support from others. Positive psychology has also led to a greater emphasis on human strengths as beneficial in preventing or lessening the damage of disease, stress, and other disorders (Gable & Haidt, 2005). Given the inevitable decline in health that occurs in old age, a positive psychology framework may contribute to understanding how older persons cope with age-related decline.

Positive Aging

The positive psychology movement has been further extended into one's ability to experience well-being in old age. Life-span developmental researchers such as Valliant (2002) have introduced terms indicative of a positive aging framework. Valliant employed the term *positive aging* to describe how older adults can find fulfillment even when their objective circumstance is poor. Positive agers, from his point of view, are those individuals who can make "lemonade out of lemons" (p. 15). Valliant, however, did not operationalize the positive aging construct beyond the simple elucidation of cases in his longitudinal database that he believed characterized those people who possess and make use of adaptive or mature defenses (e.g., altruism, sublimation, suppression, humor, and anticipation). According to Valliant, it is often not just life stress but also a person's idiosyncratic response to life stress that leads to psychopathology.

Peterson, Seligman, and Valliant (1988) conducted a 35-year longitudinal study that looked at a pessimistic explanatory style (i.e., the belief that bad events are caused by stable, global, and internal factors) as contributing to an increased risk of physical illness.

Participants (99 graduates of the Harvard University classes of 1942, 1943, and 1944 at age 25) completed open-ended questionnaires designed to assess their explanatory style. Physical health information from ages 30 to 60, as measured by physician examinations, were collected and later related to earlier explanatory styles. Results suggested that a pessimistic explanatory style predicted poor health at ages 45 through 60 years, even when both physical health and mental health at age 25 was controlled. The researchers concluded that pessimism in early adulthood appears to be a risk factor for poor health in middle and late adulthood.

In another longitudinal study, Valliant (2002) measured the subjective physical functioning of men at age 65 as well as their use of adaptive defenses between the ages of 20 and 47. The more dominant the use of adaptive defenses between ages 20 and 47, the more likely at age 65 the participants were to report being able to climb stairs, walk long distances, and engage in vigorous physical activities. According to Valliant as well as other positive psychology researchers, the field of psychology not only needs to know more about the measurement of positive psychological health but also about how individuals exposed to severe risk factors such as age-related decline maintain positive psychological health.

Recently, Hill (2005) added definitional features to the term *positive aging*. In this definition, *thematic* is the idea that it is possible, regardless of one's economic, social, or physical circumstances, for an older person to act on her or his situation to enhance well-being. In other words, positive aging highlights the idea that in health as well as in illness a person has the capacity to continue to act on his or her environment to sustain quality of life or to flourish, as described by Keyes (2009). Unlike successful aging that focuses on preserving well-being, positive aging, as operationalized by Hill, is less determined by biology/superior genetics. Rather, positive aging is how one construes the

phenomenology of growing old (e.g., positive affect/frame of mind) as a source of meaning that is critical to preserving well-being in the advanced stages of life.

There is compelling evidence that experiencing more positive emotions relieves depression and enhances relationships, work productivity, and physical health. According to Fredrickson (2009), experiencing positive affect broadens mind-sets and facilitates flourishing. In addition, individuals experiencing more positive emotions, including optimism, tend to live longer (Danner, Snowdon, & Friesen, 2001; Giltay, Geleijnse, Zitman, Hoekstra, & Schouten, 2004).

Hill's Model of Positive Aging

Hill (2005) postulated, based on his synthesis of empirical literature related to optimal coping in old age, that certain characteristics facilitate coping with old age. Briefly, these characteristics are manifested in the ability to (a) mobilize resources to cope with age-related decline, (b) make life choices that work to preserve well-being, (c) cultivate flexibility to sustain subjective well-being in the presence of age-related decline, and (d) focus on the positives versus the negatives (problems and difficulties) in order to preserve well-being in old age.

Underlying these characteristics are behaviors that promote meaning and that may work to facilitate adjustment to life irrespective of one's personal circumstances or situations, including age-related decline. These behaviors/ways of construing the world could be labeled as "strategies" for living; that is, there may be specific strategies that a person can prospectively cultivate that will engender characteristics to facilitate adjustment. Although not an exhaustive list, Hill (2005) proposed the following seven strategies as guidelines for living that promote well-being in old age:

1. Find meaning in age-related decline, which allows for coping with changes

that occur in old age and still being able to maintain a high satisfaction with life.

2. Continue engagement in learning, which suggests that the pursuit of ongoing educational opportunities can enhance one's sense of well-being.
3. Cultivate wisdom, which is where older adults draw on resources and strengths from the past that may help them in managing present concerns.
4. Strengthen life-span relationships, which is where older adults can enhance and maintain relationships/social networks as a way to offset the adverse effects of aging.
5. Give and accept help such as focusing on others through altruistic activities that promote a sense of purposeful engagement with others.
6. Cultivate gratitude as a way to foster life satisfaction. Gratitude is a way of viewing the world that allows a person to focus on what is going right in the present rather than on difficulties or losses.
7. Generate resources for forgiving, which includes forgiving one's self and others. Forgiveness is the ability to let go of resentments that may contribute to dysfunction in later life.

In addition to Hill's (2005) assertion that these strategies are effective in promoting well-being in old age, other researchers have reported similar results. For example, in the Berlin Aging Study, Baltes and Mayer (1999) demonstrated the remarkable ability people have to regulate the impact of health-related losses by selectively focusing on the positives in life even when life is not objectively good. One way in which participants reported being able to focus on the positives was to embrace a grateful attitude toward the help and aids that allowed them to deal with health-related losses. The results of the study indicated that the ratings of subjective health were not

correlated with age. From their estimates, being old was not associated with the perception of poorer health per se. In fact, with increasing age, there was an enhanced tendency of the participants to perceive their health as better than that of their same-aged peers (Baltes & Mayer). Certainly, these results do not mean that objective health does not decline as one grows older. However, many of the participants in this study engaged in thinking and behaving in ways that promoted a sense of well-being regardless of their objective health condition. For example, several individuals indicated that they focused on what was good about their health rather than dwelling on the negatives. These findings illustrate the psychological capacity of individuals to transform their subjective reality and suggest that people may develop strategies, as proposed by Hill (2008), to psychologically offset the vicissitudes of old age.

The seven strategies noted by Hill (2008) are also embedded in a growing body of research that has documented their efficacy for influencing well-being in persons across the life span. Of the seven strategies, forgiveness has received extensive empirical support (Enright, 2001).

Forgiveness and Well-Being

Despite the heavy debate with regard to how forgiveness should be conceptualized (Enright & Coyle, 1998; McCullough, Pargament, & Thoresen, 2000), most researchers agree that forgiveness is an adaptive behavior that plays an important role in optimizing well-being at any point in the life span. Scientific research has provided evidence that learning to forgive positively impacts measured indices of physical and mental health.

Preliminary studies from research in fields such as medicine and religion have reported, for example, that forgiveness interventions have had a positive impact on the cardiovascular system. Kaplan, Munroe-Blum, and Blazer (1993) found that forgiveness

reduces chronic and acute anger and, consequently, reduces the risk of poor cardiovascular health. Witvliet, Ludwig, and Vander Laan (2001) provided further evidence that forgiveness can improve health. Some participants were asked to imagine forgiving a real-life offender, and a control group was asked to imagine not forgiving an offender. Results showed that the forgiving group had improvements in cardiovascular and sympathetic nervous system functioning. A more recent study in which participants were instructed to undergo an interview about a transgression from their past that they had forgiven showed significantly less cardiovascular reactivity than did participants who engaged in an interview about a transgression that they had not forgiven (Lawler et al., 2003).

The empirical work on forgiving God, another dimensional aspect of forgiveness, is also relevant to this discussion. Exline, Yali, and Lobel (1999) found that, even after accounting for difficulty forgiving self and others, difficulty forgiving God accounted for unique variance in anxious and depressed college students. This line of research has further extended into work with patients who test positive for human immunodeficiency virus (HIV; Temoshok & Wald, 2004). Because of the fear and stigma still associated with HIV, spirituality and forgiveness may be of particular importance to the psychological health of persons with this disease. In their study examining this issue, Temoshok and Wald recruited 131 adults treated at an American inner-city HIV clinic with an average time since HIV diagnosis of 8.6 years. Forgiveness was assessed using Temoshok and Wald's Vignette Similarity Rating Method in which 12 context-specific forgiveness and unforgiveness scenarios were presented. Participants were asked to rate their similarity to the vignette's main character. Respondents also completed the Religious Commitment Inventory, the World Health Organization Quality of Life Scale, and structured interview measures of health behaviors, depression, and life stress. Results

showed that forgiveness was correlated with greater religious commitment, fewer depressive symptoms, life stressors of lower severity, higher quality of life, greater health satisfaction, and decreased propensity to engage in unprotected sex.

The major religions devote considerable time to teaching forgiveness as a quality essential for happiness and contentment. Given the fundamentally important place forgiveness holds in societies, it is only natural that social scientists should begin to pay closer attention to forgiveness as not only a social/religious construct but one that may have implications for physical and psychological health as well.

Thoresen, Harris, and Luskin (2000) suggested several psychosocial mechanisms to explain the link between forgiveness and well-being. They posited that forgiveness may lead to an increase in optimistic thinking and a decrease in hopelessness. Further, they also stated that forgiveness may lead to an increase in self-efficacy, higher levels of perceived social and emotional support, and, for some, an increase in spirituality and closeness to God. Thorensen et al. also argued that these psychosocial benefits may also promote better physical health. This view is supported by related studies that have demonstrated a positive relationship between forgiveness and indicators of psychological well-being such as depression, low anxiety (Hebl & Enright, 1993; Mauger et al., 1992), and low trait anxiety (Maltby, Macaskill, & Day, 2001).

Forgiveness and Empathy

Forgiveness has been shown to be positively related to empathy and perspective taking (Konstam, Chernoff, & Deveney, 2001; McCullough, Worthington, & Rachal, 1997). Some studies have documented that forgiveness correlates positively with measures of cognitive flexibility, one of the four characteristics of positive aging. Forgiveness focuses on the reframing of the transgression and the attenuation of

transgression-related negative thoughts/feelings/ behaviors. In other words, taking another's perspective, letting go of negative thoughts/feelings/behaviors, and developing empathy require cognitive flexibility—a characteristic of positive aging.

Because the current study focused on the development of positive-aging-forgiveness training and its subsequent impact on life satisfaction in older adults, a brief review is given in the following sections that support the proposed efficacy of positive psychological interventions (including forgiveness-based interventions) on well-being.

Positive Psychological Interventions and Well-Being

Numerous researchers have begun to examine the effects of psychological interventions focused on improving affect and subjective well-being of older adults. One line of research has focused on humor and laughter as a positive psychological intervention. These studies have documented that laughter and the use of humor can have positive psychological benefits (Davidhizar & Bowen, 1992; Houston, McKee, Carroll, & Marsh, 1998; Yovetich, Dale, & Hudak, 1990).

One study examined the effect of a laughter-inducing social/diversional activity (e.g., an old-time sing-along) on the psychological well-being of older people in residential settings (Houston et al., 1998). Results showed that 1 hour of an old-time sing-along per week had a significant impact on the reduction of anxiety and depression of residents in the intervention condition compared with the control condition.

According to Rashid (2009), positive interventions are essentially a *reeducation* of attention and memory. One such intervention (Seligman, Rashid, & Parks, 2006) asks clients to record daily three things that went well along with a reflection on why they went well. According to Seligman et al., writing down the things that have gone well helps clients end their day remembering positive events, subsequently experiencing

positive affect. Similarly, the “gratitude letter and visit” in which a client is asked to write a letter of appreciation to someone or something have been shown to shift attention and memory away from the negative aspects of past relationships towards acknowledgment of the good things that friends and family have done.

Forgiveness Training and Interventions

Working from a similar framework, forgiveness interventions have also focused on replacing negative affect states (e.g., grudges) for more positive ones. Recently, research has focused on the effectiveness of different approaches to forgiveness training and facilitation. The two most well-known forgiveness training approaches are the 20-Step Model developed by Enright and Fitzgibbons (2000) and the REACH Model developed by McCullough and Worthington (1995).

20-Step Model

Enright and Fitzgibbons (2000) and the Human Development Study Group (Enright, 1996) developed a process model of forgiveness, conducting more than 10 related intervention studies. One such intervention is termed the *20-Step Model* and represents the forgiveness process as having the following four phases: (a) *uncovering* insights about the offense, (b) *deciding* to commit to forgiveness of the injury, (c) *working* towards a cognitive understanding of the offender, and (d) *deepening* the meaning of the experience with the goal of a renewed purpose in life.

A psychotherapeutic intervention based on the 20-Step Model was implemented with 24 elderly women (mean age = 74.5 years). The client’s goal was to forgive one person who had inflicted considerable psychological hurt, as judged by the client. Following an 8-week intervention, the treatment group showed significantly higher

forgiveness profiles at posttest compared with the control group. Both groups showed a significant decrease on psychological depression and trait anxiety (Hebl & Enright, 1993).

REACH Model

McCullough and Worthington (1995) developed the five-step REACH Model. The REACH Model involves recalling the event (R), building empathy (E), giving an altruistic gift (A), publicly committing to the forgiveness experienced (C), and holding onto the gains achieved (H). This intervention strategy has been shown to help individuals forgive specific offenses more effectively than no treatment or an inactive control treatment.

One study employing the REACH Model looked at the effects of a 6-week forgiveness intervention on the following three outcomes: (a) offense-specific forgiveness, (b) likelihood of forgiving in the future, and (c) perceived stress and anger (Harris et al., 2006). Participants in the treatment group attended 6 weekly, 90-minute, psychoeducational group-training sessions that included forgiveness education, cognitive restructuring, and meditation/relaxation exercises. Harris et al. found that a reduction in unforgiveness was associated with a reduction in perceived stress and anger. In addition, the treatment group also experienced a significant increase in forgiveness self-efficacy and a reduction in negative thoughts, feelings, and hurt related to the offense.

Forgiveness as a Positive Aging Strategy

Forgiveness is a positive aging strategy that allows one to let go of personal resentments and to focus on what can still be enjoyed even in the presence of personal difficulties. While working through the positive aging forgiveness strategy, a participant

is asked to identify an issue that is bothering him or her and that might be addressed through forgiveness. Participants are then asked to respond to the following four questions:

1. How will seeking (or giving) forgiveness help me?
2. How do I need to think about this issue to engage in a forgiveness response?
3. How will giving (or seeking) forgiveness cause me to feel better?
4. How will forgiveness help me to move past this issue?

To date, no studies have used this set of questions as an intervention. The current study incorporated these questions into a training protocol for older adults.

Forgiveness Interventions and Older Adults

Despite the recent proliferation of research on forgiveness, few studies have focused on forgiveness and older adults. Hebl and Enright (1993) conducted a forgiveness intervention with 24 women at least 65 years old who were randomly assigned to a treatment group or to a control group. Each group met for 1 hour a week for 8 weeks, with the experimental group discussing forgiveness during the session and the control group talking of current social issues. The researchers administered measures of self-esteem, depression, anxiety, and forgiveness. Both groups showed a significant decrease in depression and anxiety; however, only the experimental group increased significantly in forgiveness. The research of Hebl and Enright demonstrated that an educator could help participants forgive an offender.

Many benefits are derived from true forgiveness, many of which support and enhance one's overall health. Numerous positive aging strategies, including forgiveness, have received empirical support for efficacy in promoting well-being. To date, however,

few attempts have been made to directly investigate the impact of strategy training on well-being in persons who are in their later years of life.

Statement of the Problem

This literature review identified one positive aging strategy (forgiveness) as efficacious for enhancing subjective well-being in later life. As noted in this review, training in this strategy has yet to be examined as contributing to well-being in a generally older adult population. This lack of research may be due to the fact that age-appropriate materials have not been developed to help older adults who are not in high-risk groups (e.g., abused women) cope generally, through forgiveness, with issues embedded in age-related change.

In this intervention, study manuals were created based on the positive aging forgiveness strategy. In addition, the feasibility of a forgiveness intervention as an outcome of manualized training was assessed. The treatment group consisted of individuals who participated in a forgiveness strategy training workshop based on the positive aging approach described earlier. The comparison group consisted of individuals who learned a number-memory strategy. A number-memory strategy was selected for the number-memory group in order to ensure that participants in the two groups participated in a workshop equal in time and structure.

Hypotheses

The following three hypotheses were tested:

Hypothesis 1, participants who receive information about and practice applying forgiveness concepts to personal concerns will self-report a greater degree of dispositional forgiveness over participants who receive number-memory training.

Hypothesis 2, participants who receive information about and practice applying forgiveness concepts to personal concerns will self-report a greater degree of dispositional empathy over participants who receive number-memory training.

Hypothesis 3, participants who receive information about and practice applying forgiveness concepts to personal concerns will experience enhanced well-being over participants who receive number-memory training.

METHOD

Participants

The current study was approved in May 2008 by the University of Utah Institutional Review Board and in August 2008 by the State of Utah Institutional Review Board. Seventy-seven volunteers who were 55 years old or older and community dwelling participated in the research. Participants were screened for depression using the Geriatric Depression Scale (Brink et al., 1982; Yesavage et al., 1983). Volunteers with scores on the Geriatric Depression Scale that exceeded a score of 5 were not allowed to participate. Of the participants who were not screened and who were physically and cognitively able to complete the trainings, 15 elected to participate in the forgiveness training and 6 elected to receive the number-memory training. Participants self-selected into one of the two groups as mandated by the State of Utah Institutional Review Board.

Study Design

The current study employed a pretest/posttest quasi-experimental design. One training group provided information on forgiveness and the other group taught participants a number-memory mnemonic.

Materials

The training materials for both groups were designed to be time limited, highly structured, and psychoeducational. Both groups, prior to the forgiveness or number-memory training, received a 1-hour introductory lecture on positive aging.

Forgiveness Training Manual

In the forgiveness group, participants were required to be in attendance for both sessions during which they completed the questionnaires and were trained in forgiveness. Training was conducted over two, 2-hour sessions scheduled 1 week apart. During the first 2-hour session of the workshop, participants were given the forgiveness training manuals and the introductory lecture on positive aging. During the second 2-hour session, volunteers (a) received a definition of forgiveness, (b) were asked to acknowledge their own anger and resentment, (c) accepted that they had been wronged or had wronged someone, and (d) received focused training on self-acceptance. Volunteers were also asked to identify an issue that was bothering them and that might be addressed through forgiveness. They were then asked to respond to four questions that were designed to encourage them to work through the four described steps of forgiveness. The complete forgiveness training manual is described in Appendix A.

Number-Memory Training Manual

In the number-memory group, participants were required to be in attendance for both sessions. In these sessions, the participants completed the questionnaires and were trained in a number-memory mnemonic. Number-memory training involved participants learning a number-memory mnemonic contained in the number-memory training manual. Participants were asked to memorize a list of letters of the alphabet that corresponded to the numbers 1 to 10. Participants were then instructed to make words out of specific letter-number combinations and to eventually employ this strategy towards individual Personal Identification Numbers (PINs) they used on a regular basis. This exercise was tailored to occur over two, 2-hour periods. The complete number-memory training manual is described in Appendix B.

The following self-report measures were used in the current study: (a) Satisfaction With Life Scale, (b) Heartland Forgiveness Scale, (c) Interpersonal Reactivity Index, (d) PIN Questionnaire, and (e) Geriatric Depression Scale. These measures are described next.

Satisfaction With Life Scale

The Satisfaction With Life Scale is a 5-item, Likert-type scale designed to measure global cognitive judgments of satisfaction with one's life (Diener, Emmons, Larsen, & Griffin, 1985). Studies have examined the internal consistency of the Satisfaction With Life Scale, with alpha coefficients repeatedly exceeding .80 (Pavot & Diener, 1993). Similarly, test-retest reliability (.72 to .83) has also been found to be acceptable (Pavot & Diener). Test-retest stability has been found to decline as time between testing increases, suggesting that the instrument is sensitive to changes that occur with life (Pavot & Diener). In addition, the Satisfaction With Life Scale has been normed on a variety of populations, including older adults (Pavot & Deiner).

Heartland Forgiveness Scale

The Heartland Forgiveness Scale is a measure of dispositional forgiveness made up of 18 items, including forgiveness of self, others, and situations (Yamhure et al., 2005). Forgiveness research has shown that the Heartland Forgiveness Scale is capable of demonstrating desirable psychometric properties such as convergent validity, adequate internal consistency reliability (.72 to .83), and strong test-retest reliability (.75 to .84)—even over extended time intervals for up to 6 months (Thompson et al., 2005). The original norms were obtained from a large college sample. To date, the Heartland

Forgiveness Scale has not been normed on an older adult population.

Interpersonal Reactivity Index

The Interpersonal Reactivity Index is a 28-item, Likert-type scale that measures dispositional empathy. Research has demonstrated test-retest reliability coefficients ranging from .61 to .80 and internal reliability coefficients ranging from .70 to .78 (Davis, 1983). This measure was originally normed on a college sample.

PIN Questionnaire

The PIN Questionnaire was adapted from questions found on the Memory Self-Efficacy Questionnaire. The Memory Self-Efficacy Questionnaire is derived from Bandura's self-efficacy methodology (Bandura, Adams, & Beyer, 1977; Bandura, Adams, Hardy, & Howells, 1980). Individuals are asked to consider how well they believe they can perform on a particular task. The PIN Questionnaire asks participants to remember four PINs and to rate (on a scale from 0% to 100%) how confident they are in their ability to remember all four PINs, three PINs, two PINs, and so on.

Geriatric Depression Scale

The Geriatric Depression Scale is a 15-item, true/false instrument designed to measure depressive symptoms in older adults (Yesavage et al., 1983). Scores on the Geriatric Depression Scale correlate substantially with scores on other measures of depression such as the Zung Self-Rating Depression Scale and the Hamilton Rating Scale for Depression, obtaining correlations that were $r = .69$ and $r = .83$, respectively (Yesavage, 1986). The Geriatric Depression Scale has excellent reliability and validity

(test-retest reliability = .85 and internal consistency = .94) and has been normed on an adult and geriatric population (Yesavage).

Procedure

At the start of the workshop, participants were given information and asked to fill out informed consent documents. Once informed consent was assured, participants were given the first questionnaire packet and asked to fill it out. The order of assessment instruments was as follows: At pretest (before the first 2-hour training session), participants were given a Demographic Questionnaire (see Appendices A and B), the Satisfaction With Life Scale (Diener et al., 1985), the Heartland Forgiveness Scale (Yamhure et al., 2005), the Interpersonal Reactivity Index (Davis, 1983), and the PIN Questionnaire (Bandura et al., 1977, 1980). At posttest (after the second 2-hour training session), the participants were given a second administration of the questionnaires with the addition of the Geriatric Depression Scale (Yesavage et al., 1983). Table 1 outlines the timing of the administration of the self-report measures.

During the first 2-hour session of the forgiveness training, participants were introduced to information on positive aging. During the second 2-hour session, volunteers worked through a forgiveness exercise. As part of the exercise, volunteers were asked to identify an issue that was bothering them and that might be addressed through forgiveness. After identifying the issue, volunteers were asked to respond to the following four questions:

1. How will seeking (or giving) forgiveness help me?
2. How do I need to think about this issue to engage in a forgiveness

response?

3. How will giving (or seeking) forgiveness cause me to feel better?
4. How will forgiveness help me to move past this issue?

For the first 2-hour session of the number-memory workshop, participants were introduced to information on positive aging. During the second 2-hour session, volunteers completed 13 exercises in the number-memory training manual that were aimed at helping them learn the number-memory mnemonic and that aided them in memorizing their personal PIN or birth date.

Table 1
Timing of Administration of Self-Report Measures

Pretest	Posttest
Forgiveness training (4 hours, $n = 15$)	
Satisfaction With Life Scale	Satisfaction With Life Scale
Heartland Forgiveness Scale	Heartland Forgiveness Scale
Interpersonal Reactivity Index	Interpersonal Reactivity Index
PIN Questionnaire	PIN Questionnaire
	Geriatric Depression Scale
Number-memory training (4 hours, $n = 6$)	
Satisfaction With Life Scale	Satisfaction With Life Scale
Heartland Forgiveness Scale	Heartland Forgiveness Scale
Interpersonal Reactivity Index	Interpersonal Reactivity Index
PIN Questionnaire	PIN Questionnaire
	Geriatric Depression Scale

RESULTS

The presentation of results is organized into two sections. The first section summarizes the recruitment of the sample, including a descriptive analysis of the demographic variables of age, gender, education, ethnicity, and self-rated health status by training group. The second section reports confirmatory analyses of covariance statistics related to the research hypotheses examining the feasibility and impact of forgiveness training on well-being.

Recruitment

Participants were recruited through community sources and through soliciting volunteers to participate in a forgiveness or number-memory training. The community sources included the *Prime Times Newspaper*, the *University of Utah Osher Lifelong Learning Institute Newsletter*, a recruitment booth at the AARP Staying Sharp Conference, the Salt Lake County Healthy Aging Conference, the Salt Lake County Aging Foster Grandparents and Senior Companion programs, local senior centers, and assisted-living residences. Those interested were instructed to call and sign up for either a forgiveness or number-memory training to be held at a later date. Table 2 summarizes the recruitment sites, total number of volunteers recruited from each site, and number of volunteers from each site who completed the trainings.

The recruitment process was more difficult than initially anticipated. Despite the wide variety of recruitment sites contacted that were willing to be engaged in the

Table 2

List of Recruitment Sites and Number Recruited From Each Site

Recruitment site	# participants	# data collected
Sunrise Assisted Living	20	2
100 South Senior Center	5	2
Sunday Anderson Senior Center	5	3
The Wellington	14	0
Friendship Manor	0	0
<i>Prime Times Newspaper</i>	10	4
<i>University of Utah Osher Lifelong Learning Institute Newsletter</i>	4	1
AARP Staying Sharp Conference	13	6
Salt Lake County Aging Foster Grandparents	3	2
Salt Lake County Senior Companion	3	1
Total	77	21

study workshops, multiple issues came up at various sites that limited volunteer participation. Few participants at the assisted-living and senior-center sites were able to complete the questionnaires due to visual or physical impairments. Recruitment through the community resources was limited due to the conflicting work schedules of potential participants. Even when workshops were conducted on a Saturday, participant turnout was low. Recruitment through the Salt Lake County Aging Foster Grandparents and Salt Lake County Senior Companion programs was limited due to the inability of seniors to rearrange their schedules or arrange for transportation to and from the workshops. In

addition to the recruitment difficulties, it is important to note that there was greater interest in attending the forgiveness group over the number-memory group. Table 3 details the percentage of people who chose the forgiveness group (psychoeducational) compared with the number-memory group.

Descriptive Analyses

Descriptive statistics for the entire sample with respect to the forgiveness and number-memory groups are presented in Table 4. Those in the forgiveness group had a mean age of 70 years ($SD = 10.7$), were primarily female (73%), were more likely to be widowed (40%), and were more likely to have completed a college education (47%). Those in the number-memory group had a mean age of 83 years ($SD = 10.3$), were primarily female (83%), were married (50%), and were more likely to have completed a high school education (50%). The majority of participants in both groups rated their health as *good* on a 4-point, Likert-type scale, where a rating of 4 represents *very good*. All of the participants self-identified as Caucasian. The mean score on the Geriatric Depression Scale for all participants was 3.38 ($SD = 3.41$). Table 4 depicts demographic indices for the entire sample as well as for the respective groups. Age, education, gender, and ethnicity were measured and contrasted between groups.

Table 3

Percentage of Participants Choosing the Forgiveness or Number-Memory Group

	# participating	% participating
Forgiveness group	53/77	68
Number-memory group	17/77	22

Table 4

Demographic Statistics by Treatment Group

Variables	Group 1: Forgiveness (n = 15)		Group 2: Number-memory (n = 6)	
	Frequency	%	Frequency	%
<i>Gender</i>				
Female	11	73.3	5	83.3
Male	4	26.7	1	16.7
<i>Health status</i>				
Poor	0	00.0	1	16.0
Average	5	33.0	1	16.0
Good	6	40.0	3	50.0
Very good	4	26.0	1	16.0
<i>Marital status</i>				
Married	4	27.0	3	50.0
Single	3	20.0	1	16.0
Divorced	2	13.0	0	00.0
Widowed	6	40.0	2	33.0
<i>Education</i>				
High school	4	27.0	3	50.0
College	7	47.0	2	33.0
Graduate	2	13.0	1	16.0
Other	2	13.0	0	00.0
<i>Mean age</i>	73		83	

Confirmatory Analyses

Table 5 summarizes the means and standard deviations for the outcome measures for the two groups across assessment periods. Analysis of covariance was performed to determine how each dependent measure (i.e., Satisfaction With Life Scale, Heartland Forgiveness Scale, Interpersonal Reactivity Index, and PIN Questionnaire) was influenced by the respective treatment group while controlling for pretest levels on the respective measures. (The Satisfaction With Life Scale was the covariate when the Satisfaction With Life Scale was the dependent variable, the Heartland Forgiveness Scale was the covariate when the Heartland Forgiveness Scale was the dependant variable, and so on).

Given the small sample size, a variety of statistical assumptions were violated (i.e., linearity and homogeneity of regression slopes). The pattern and direction of change across preconditions and postconditions are described in Table 5.

Table 5

Outcome Measures Across the Two Groups

Measures	Pretreatment		Posttreatment		Difference*
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<i>Satisfaction With Life Scale</i>					
Forgiveness	23.6	7.7	25.1	6.3	1.5
Number-memory	25.5	7.6	28.3	5.0	2.8
<i>Heartland Forgiveness Scale</i>					
Forgiveness	93.0	15.0	89.9	16.4	-3.1
Number-memory	86.3	7.5	90.1	21.1	3.8
<i>Interpersonal Reactivity Index</i>					
Forgiveness	65.1	10.0	65.6	14.0	0.5
Number-memory	61.1	17.0	66.2	9.6	5.1

Results for Hypothesis 1

The covariate (Heartland Forgiveness Scale at pretest) was not significant, $F(1,18) = 1.18, p > .05$. After controlling for pretest variation, no significant difference was found for group, $F(1,18) = .009, p > .05$ (see Tables 6 and 7).

Results for Hypothesis 2

The covariate (Interpersonal Reactivity Index at pretest) was not significant, $F(1,18) = 1.30, p > .05$. After controlling for pretest variation, no significant difference was found for group, $F(1,18) = .001, p > .05$ (see Tables 8 and 9).

Results for Hypothesis 3

The covariate (Satisfaction With Life Scale at pretest) was significant, $F(1,18) = 41.6, p < .05$, indicating a strong relationship between the pretest and posttest measures. After controlling for the covariate, the between-group effect was not significant, $F(1,18) = 1.5, p > .05$. The hypothesized effect for the forgiveness intervention of scores on the Satisfaction With Life Scale across groups was not supported (see Tables 10 and 11).

Table 6

Analysis of Covariance Results for Hypothesis 1: Heartland Forgiveness Scale

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Covariate*	1	369.	369.	1.18	N.S.
		9	9		
Condition**	1	2.81	2.81	.009	N.S.
Error	18	5651	313.		
		.8	9		

*Covariate: Heartland Forgiveness Scale pretest scores.

**Condition: 1 = forgiveness, 2 = number-memory.

Table 7

Pairwise Comparisons for Dependent Variable: Heartland Forgiveness Scale

Condition	Mean difference	<i>SE</i>	Sig.	95% confidence interval	
				Lower bound	Upper bound
Forgiveness/ number-memory	.816	8.61	.926	-171.28	18.91

Table 8

Analysis of Covariance Results for Hypothesis 2: Interpersonal Reactivity Index

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Covariate*	1	209.	209.	1.30	N.S.
		6	6		
Condition**	1	.211	.211	.001	N.S.
Error	18	2902	161.		
		.8	2		

*Covariate: Interpersonal Reactivity Index pretest scores.

**Condition: 1 = forgiveness, 2 = number-memory.

Table 9

Pairwise Comparisons for Dependent Variable: Interpersonal Reactivity Index

Condition	Mean difference	<i>SE</i>	Sig.	95% confidence interval	
				Lower bound	Upper bound
Forgiveness/ number-memory	.223	6.20	.972	-12.74	13.20

Table 10

Analysis of Covariance Results for Hypothesis 3: Satisfaction With Life Scale

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Covariate*	1	476.	476.	41.6	< .05
	8		8	**	
Condition**	1	17.0	17.0	1.5	N.S.
Error	18	206.	11.4		
	2				

*Covariate: Satisfaction With Life Scale pretest scores.

**Condition: 1 = forgiveness, 2 = number-memory.

Table 11

Pairwise Comparisons for Dependent Variable: Satisfaction With Life Scale

Condition	Mean difference	<i>SE</i>	Sig.	95% confidence interval	
				Lower bound	Upper bound
Forgiveness/ number-memory	-2.00	.87	.23	-5.46	1.44

DISCUSSION

The primary purpose of this study was to develop a positive aging strategy training protocol based on a brief exposure to forgiveness concepts. The goal of this study was to examine the effects of a forgiveness training on dispositional forgiveness and its subsequent impact on a general measure of satisfaction with life. A group of adults aged 55 years and older were participants in the study. As discussed in the literature review, previous research has identified forgiveness training as efficacious for enhancing subjective well-being in later life. In addition, Hill (2005) described forgiveness training as a positive aging strategy that produces skills in the ability to engage in forgiveness. As a result of gaining this skill, life satisfaction is enhanced. However, training in forgiveness has yet to be examined as to whether it enhances the ability to forgive and, if so, does this contribute to well-being in a general older adult population?

Discussion of Hypothesis 1

The data from the current study indicate that there were no changes in dispositional forgiveness among participants who received forgiveness training when compared with participants who received number-memory training. Findings from this study in nondistressed older adults are not consistent with the research literature, indicating that participating in forgiveness training can impact levels of dispositional forgiveness in distressed older adult populations (Hebl & Enright, 1993).

Several explanations for this noneffect of training are plausible. As was mentioned earlier, participants self-selected into each of the groups. Under these experimental conditions, it is possible that participants choosing to participate in the

forgiveness training felt a need to learn new strategies to help them in the forgiveness process with which they may have already been involved. As a result, they scored higher on the forgiveness measure at the beginning of the intervention. In addition, participants in the forgiveness group may have had a long-standing interest in forgiveness and still believed they needed to improve their forgiveness skills. Thus, after realizing the enormity of the task, they self-reported lower levels of dispositional forgiveness at posttest.

Discussion of Hypothesis 2

Analysis of between-group differences indicated that the forgiveness intervention did not produce measurable changes in dispositional empathy.

Discussion of Hypothesis 3

Analysis of between-group differences indicated that the forgiveness intervention did not produce a measurable change on the Satisfaction With Life Scale. This lack of between-group differences is in contrast to the frequently noted relationship between forgiveness and satisfaction with life.

A trend was evidenced favoring a greater positive change in the Satisfaction With Life Scale scores for the forgiveness group compared with the control group. However, it is important to note that the forgiveness group entered the study reporting significantly lower satisfaction with life compared with the control group. Any changes on scores could be due to a regression to the mean.

Limitations

Certain procedural aspects of this study were problematic with respect to training on the dependent variables. One problem was the fact that participants in this study self-selected into either forgiveness training or number-memory training. This lack of random assignment may be responsible for the lack of meaningful differences in the posttest scores of participants in each training group. Participants who elected to attend forgiveness training reported higher levels of dispositional forgiveness, empathy, and memory self-efficacy at pretest and subsequent lower levels at posttest than did participants who elected to attend number-memory training.

In addition to differences between forgiveness and number-memory training protocols, part of the training was identical for both groups. Both trainings exposed participants to a 1-hour introduction and discussion of positive aging. Thus, in some sense, both groups received active training in positive aging. It is unclear whether there is a differential impact on selected measures due to exposure to information on positive aging or to the training itself.

The initial research design was anticipated to include 20 participants in each of three groups (i.e., forgiveness, gratitude, and number-memory) for approximately 60 participants. A larger sample size would have increased the overall statistical power of the experimental manipulation. However, several issues constrained collecting this larger target number of participants; these issues are enumerated next.

First, funding for this project was constrained. Any funds beyond what was needed to advertise and create the manuals were unavailable. As a consequence, no funds were available to provide incentives for participation. Despite the variety of recruitment locations, the individual sites were also limited by funds and, therefore, were unable to provide incentives (e.g., free lunches at senior centers). Gerontological research has

repeatedly shown that offering incentives greatly increases the rate of participation (Arean, Cook, Gallagher-Thompson, & Hegel, 2003). Providing incentives to return is a useful way of ensuring retention. In studies conducted with older adult populations, providing incentives has been shown to decrease dropout rates from 25% in the initial pilot phases to fewer than 10% in the actual research project (Arean & Gallagher-Thompson, 1996).

The biggest challenge in research with older adults is having participants return to the research project after receiving the intervention under investigation. The forgiveness and number-memory trainings made substantial use of the participant's time (i.e., two, 2-hour sessions spread 1 week apart). Two trainings occurred over 2 weekends. Participants who attended the 1st weekend training were unable to attend the 2nd weekend. Trouble with transportation to the training site was an issue at senior centers. In addition, a number of interested participants were unable to attend due to work constraints and the limited times available for training slots. Given that only one trainer was available to provide 12 trainings, few times were available for participants to work around.

Despite these recruitment issues, it is important to note that 77 people attended and completed the trainings. However, only 21 participants were included in the analysis because not all of the 77 participants were cognitively or physically able to participate in the data-collection process. The cognitive and physical limitations of those unable to participate fully included (a) vision and hearing impairments, (b) physical impairments due to stroke, and (c) cognitive difficulties that prevented participants from understanding the study's directions and completing the questionnaires.

The lack of a follow-up period was another limitation of this study. Most forgiveness intervention studies to date have included at least a 4-month follow-up period. This time frame was not practical given the nature of the study. Due to the lack of

a follow-up period and the small sample size, it is unclear what component of the trainings was more influential. In addition, because treatment was not compared with a no-treatment control group, any changes may be due to nonspecific factors (e.g., participating in a structured group and traveling to the site) rather than the intervention itself. The use of self-report measures as the primary means of data collection posed another study limitation. Self-report of dispositional forgiveness was the only measure of forgiveness used. Consequently, it was not possible to compare results on one questionnaire measuring forgiveness with another similar measure.

Future Research

The current research can be construed as preliminary in nature, offering a pilot for the feasibility and development of a positive aging strategy training protocol in forgiveness. Future endeavors should involve a larger number of participants, which could overcome many of the statistical limitations observed in this study. It is possible that features of forgiveness, especially the development of more positive emotional states, may not have been captured within the brief time frame of this pilot study. Future research should include a follow-up period and give consideration either to conducting more frequent trainings that are shorter in duration (e.g., 1 hour each over 3 to 6 weeks) or fewer trainings that are longer in duration and that have potentially more impact (e.g., whole day trainings).

Recent research has begun to focus on the importance of forgiveness self-efficacy as an important dispositional variable in the propensity to forgive. Forgiveness self-efficacy assesses one's confidence to perform forgiveness acts that differ from actually choosing to perform an act of forgiveness. Forgiveness is the outward manifestation of an often difficult and long-standing inner process. Given the challenging task of forgiving

someone, an intervention focused on increasing one's confidence to engage in a forgiving response may be a better predictor of future forgiving. Along these same lines, future research may also consider creating forgiveness interventions that are performance based. Such interventions could begin with participants recognizing previous forgiving successes, moving to a focus on their current forgiveness challenges, and finally focusing on potential forgiveness outcomes.

Further, in order to more precisely assess the impact of forgiveness interventions, future research should consider using a measure that is more sensitive to change than the measures used in this study. Forgiveness is hypothesized to involve experiences of positive emotions such as empathy, sympathy, compassion, and love that systematically neutralize the stressfulness and negative emotional states associated with unforgiveness. Future research should attempt to include a measure that is most often used in the study of affective states and, consequently, may be better able to detect any changes in affective states associated with forgiveness. The Positive and Negative Affect Scale is one such measure that has been predicted to correlate positively with forgiveness (Watson, Clark, & Tellegen, 1998; Yamhure et al., 2005).

APPENDIX A

FORGIVENESS TRAINING MANUAL

About Your Trainer

Emma Mansour is currently a PhD student at the University of Utah in Salt Lake City. Her advisor is Dr. Robert D. Hill. Emma is currently working on her master's thesis on the impact of positive aging strategies on life satisfaction. Emma is studying in the field of geropsychology and has published articles and coauthored a chapter on the implementation of cognitive behavioral therapy with the elderly.

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Workshop OverviewMonday

9:00-9:45 FILL OUT INFORMED CONSENT, DEMOGRAPHICS, PRETEST,
AND INTRODUCTION TO EACH OTHER

9:45-10:00 BREAK

10:00-10:30 INTRODUCTION TO POSITIVE AGING

10:30-10:40 BREAK

10:40-12:00 POSITIVE AGING STRATEGY: FORGIVENESS

12:00-12:10 BREAK

12:10-1:00 FORGIVENESS EXERCISE, DISCUSSION, POSTTEST, AND
WORKSHOP EVALUATION

9:00-9:45

FILL OUT INFORMED CONSENT, PARTICIPATION CONTRACT,
DEMOGRAPHICS, PRETEST, AND INTRODUCTION
TO EACH OTHER

Informed Consent Form (Copy 1)

A Positive Aging Workshop: Forgiveness

Introduction/purpose. Dr. Robert D. Hill (Department of Educational Psychology at the University of Utah) and Emma Mansour (graduate student in the Department of Educational Psychology at the University of Utah) are conducting a research study to find out more about the role of learning a positive aging strategy (forgiveness) in the overall life satisfaction and subjective well-being in older adults. You have been asked to take part because of your response and interest in attending this workshop. There will be approximately 60 participants in this research.

Procedures. If you agree to participate in this workshop, the following will occur: You will be asked to attend a single 4-hour training session on the positive aging strategy of forgiveness.

Risks. You may experience arousal and increase in affective states. However, these emotions will not exceed those experienced in everyday life.

Unforeseeable risks. Since this is a research study, there may be some unknown risks that are currently unforeseeable.

Benefits. There may or may not be any benefits to you as a result of your participation in this workshop. Some benefits that you may experience include gaining greater insight into your ability to employ forgiveness in your daily life. Information gained in this study may further psychological and medical knowledge for others in the future.

Explanation and offer to answer questions. I am available to answer any questions you may have. If you have other questions related to this workshop or research-related questions, you may reach Dr. Robert D. Hill at 801-581-5081.

Voluntary nature of participation and right to withdraw without consequences. Participation in this workshop is entirely voluntary. You may refuse to participate or withdraw at any time without consequence. You may withdraw from this workshop without consent from Dr. Robert D. Hill or Emma Mansour.

Confidentiality. All records will be kept confidential except in cases where the researcher is legally obligated to report specific incidents, consistent with federal and state regulations. These include, but may not be limited to, incidents of abuse and suicide risk. Only the trainer and Dr. Robert D. Hill will have access to the information you provide during the workshop. This information will be kept in a locked file cabinet in a locked room. The information will be kept indefinitely, but since your name will not appear on any of the forms, and since the information will be coded and kept in numerical

form, your confidentiality will be protected.

Institutional Review Board approval statement. The Institutional Review Board, for the protection of human subjects at the University of Utah, has reviewed and approved this research project and workshop.

Copy of consent. You have been given two copies of this Informed Consent Form. Please sign both copies and retain one copy for your files.

Investigator/trainer statement. We certify that this research study and workshop have been explained to the individual named below and that the individual understands the nature and purpose of the study and workshop. This includes the possible risks and benefits associated with taking part in this research study. Any questions that have been raised have been answered.

Sign (above line)

Print name

Date

Principal investigator signature (Robert D. Hill, PhD)

Principal investigator printed name (Robert D. Hill, PhD)

Informed Consent Form (Copy 2)

A Positive Aging Workshop: Forgiveness

Introduction/purpose. Dr. Robert D. Hill (Department of Educational Psychology at the University of Utah) and Emma Mansour (graduate student in the Department of Educational Psychology at the University of Utah) are conducting a research study to find out more about the role of learning a positive aging strategy (forgiveness) in the overall life satisfaction and subjective well-being in older adults. You have been asked to take part because of your response and interest in attending this workshop. There will be approximately 60 participants in this research.

Procedures. If you agree to participate in this workshop, the following will occur: You will be asked to attend a single 4-hour training session on the positive aging strategy of forgiveness.

Risks. You may experience arousal and increase in affective states. However, these emotions will not exceed those experienced in everyday life.

Unforeseeable risks. Since this is a research study, there may be some unknown risks that are currently unforeseeable.

Benefits. There may or may not be any benefits to you as a result of your participation in this workshop. Some benefits that you may experience include gaining greater insight into your ability to employ forgiveness in your daily life. Information gained in this study may further psychological and medical knowledge for others in the future.

Explanation and offer to answer questions. I am available to answer any questions you may have. If you have other questions related to this workshop or research-related questions, you may reach Dr. Robert D. Hill at 801-581-5081.

Voluntary nature of participation and right to withdraw without consequences. Participation in this workshop is entirely voluntary. You may refuse to participate or withdraw at any time without consequence. You may withdraw from this workshop without consent from Dr. Robert D. Hill or Emma Mansour.

Confidentiality. All records will be kept confidential except in cases where the researcher is legally obligated to report specific incidents, consistent with federal and state regulations. These include, but may not be limited to, incidents of abuse and suicide risk. Only the trainer and Dr. Robert D. Hill will have access to the information you provide during the workshop. This information will be kept in a locked file cabinet in a locked room. The information will be kept indefinitely, but since your name will not appear on any of the forms, and since the information will be coded and kept in numerical

form, your confidentiality will be protected.

Institutional Review Board approval statement. The Institutional Review Board, for the protection of human subjects at the University of Utah, has reviewed and approved this research project and workshop.

Copy of consent. You have been given two copies of this Informed Consent Form. Please sign both copies and retain one copy for your files.

Investigator/trainer statement. We certify that this research study and workshop have been explained to the individual named below and that the individual understands the nature and purpose of the study and workshop. This includes the possible risks and benefits associated with taking part in this research study. Any questions that have been raised have been answered.

Sign (above line)

Print name

Date

Principal investigator signature (Robert D. Hill, PhD)

Principal investigator printed name (Robert D. Hill, PhD)

Participation Contract

By signing this contract I understand the following concerning the positive aging workshop:

- That this workshop is completely voluntary.
- That this workshop will involve a single session that will last 4 hours.
- That I will attend for the full 4 hours.

(Name)

(Date)

Demographic Questionnaire

1. What is your age?
_____ Years

2. What is your gender? (Please check one)
_____ Male
_____ Female

3. What is your race/ethnicity? Please mark the one item that describes the race/ethnicity category with which you primarily identify:
_____ *Asian or Pacific Islander*: Origins in any of the peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands (for example, China, Japan, Korea, the Philippine Islands, and Samoa)
_____ *African American (not of Hispanic origin)*: Origins in any of the Black ethnic groups
_____ *Hispanic*: Origins in any of the Mexican, Puerto Rican, Cuban, Central or South American or other Spanish cultures, regardless of ethnicity
_____ *Native American or Alaskan Native*: Origins in any of the original peoples of North America and who maintain cultural identification through tribal affiliation or community recognition
_____ *Caucasian (not of Hispanic origin)*: Origins in any of the original peoples of Europe, North Africa, or the Middle East

4. What is your marital status (Please check one)
_____ Single (never been married)
_____ Unmarried but partnered
_____ Married
_____ Separated/divorced
_____ Widowed

5. What is your highest educational level completed? (Please check one)
_____ Elementary school
_____ Junior high school
_____ High school
_____ College
_____ Graduate school
_____ Other (describe):

6. On a scale from 1 to 5, how would you rate your health?
- 1 Very poor
 - 2 Poor
 - 3 Average
 - 4 Good
 - 5 Very good

Pretest

First, we will fill out the questionnaire packet that will be handed to you. DO NOT place your name on any of the questionnaires. These questionnaires should be anonymous.

Introduction to Each Other

Turn to the person sitting next to you or to someone you may have come here with and ask each other the following questions:

Name: _____

1. What do you like to do in your spare time?

2. How many children/brothers/sisters do you have?

3. What are your two favorite movies?

4. What are your favorite TV programs?

5. Do you have a pet? What kind?

6. Where have you gone to school?

7. What famous person do you most want to be like?

8. Who do you think is the greatest man or woman in the world today? Why?

9. If you had \$1,000, what would you do with it?

9:45-10:00
BREAK

10:00-10:30
INTRODUCTION TO POSITIVE AGING

Positive Aging and Its Four Characteristics

Positive Aging

Thematic in the definition of *positive aging* is the idea that it is possible, regardless of one's economic, social, or physical circumstances, for an older person to act on her or his situation for the purpose of enhancing well-being. Hill (2005) postulated that there are certain kinds of behaviors that promote meaning and that may work to facilitate adjustment to life irrespective of one's personal circumstances or situations, including age-related decline. Engaging in these behaviors is the first step towards becoming a positive ager.

These behaviors and/or ways of construing the world could be labeled as *strategies for living*; that is, there may be specific strategies that a person can prospectively cultivate that will lead to optimal adjustment in old age irrespective of one's physical condition or situation. Although not an exhaustive list, Hill (2007) proposed the following seven strategies as guidelines for living that promote well-being in old age:

1. Finding meaning in age-related decline is a strategy that allows for coping with changes that occur in old age and still being able to maintain a high satisfaction with life.
2. You are never too old to learn (learning) is a strategy that suggests that the pursuit of continuing education can promote positive aging characteristics and enhance one's sense of well-being.
3. The cultivation of wisdom is a strategy whereby older adults draw on resources and strengths from the past that may help in managing the present.
4. Strengthening life-span relationships is a strategy whereby older adults can enhance and maintain relationships/social networks.
5. Giving and accepting help is a strategy that allows older adults to focus on the benefits of altruism and to engage in activities that promote a sense of purpose and a greater satisfaction with life.
6. Being grateful is a strategy that helps foster life satisfaction and allows older adults to focus on what they have and what is going right in the present rather than focusing on what has been lost in the past.

7. Forgiving themselves and others is a strategy that allows older adults to cultivate the ability to look back on their lives so far and let go of any resentment that they may be holding on to from the past.

Four Characteristics

Hill (2005) asserted that there are four characteristics or lifestyle patterns that emerge from a positive-aging approach to living. These characteristics are refined over time with practice and effort. In brief, these characteristics are the ability to do the following:

1. Mobilize resources to cope and maintain satisfaction with life even in the presence of decline.
2. Make lifestyle choices that preserve psychological well-being.
3. Cultivate flexibility or the ability to problem solve by identifying a range of solution sets to deal with issues.
4. Focus on the positives rather than the negatives that are associated with growing old.

Mobilize resources. Given the possibility that there is a 50% chance that a person who lives to be 85 years old will experience at least one age-related disability, it becomes apparent that an older adult should engage in planning for the future with respect to coping with these age-related declines (Manton, Corder, & Stallard, 1997). One way in which this can be done is by mobilizing resources in order to continue to enjoy life. For example, an individual who begins to have vision loss and, consequently, has difficulty reading the newspaper may now begin to listen to the radio (Hill, 2005).

Make lifestyle choices. Lifestyle choices can be made in the following three areas: (a) physical health, (b) growth and personal development, and (c) social networks (Hill, 2005). Making lifestyle choices with regard to physical health may require more regular visits to the doctor for more regular health checkups and engaging in an exercise regimen that could include brisk walking. With regard to personal growth and development, an older adult may decide to find ways in which he or she can engage in ongoing learning and creativity that fit his or her own personality and learning style. The third area would require that older adults begin to develop coping strategies that will help them through the inevitable loss of loved ones and a decreasing social network.

Cultivate flexibility. *Flexibility* can be defined as an individual's ability to think of new strategies for problem solving that will help them better problem solve and cope

with age-related decline. Flexibility is a central characteristic of positive aging, it can be acquired through practice and effort, and it refers to the ability to balance existing skills and resources in order to cope with changing resources. Forgiveness is one area of life that requires flexibility for it to be beneficial and to enhance satisfaction with life.

Focus on the positives. Although age-related decline will occur, it does not preclude the possibility of embracing a positive attitude. In fact, research has indicated that well-being and life satisfaction are emotional states that are independent of objective physical health (Hill, 2005). Therefore, positive aging may be a state of mind that requires cultivating an attitude that focuses on meaningful aspects of old age.

10:30-10:40
BREAK

10:40-12:00
POSITIVE AGING STRATEGY: FORGIVENESS

One Positive Aging Strategy: Forgiveness

Forgiveness Defined

It is reasonable to assume that over the course of a lifetime people err or offend others in some way (e.g., a family member, a lover, a friend, or even an acquaintance). In order to repair the situation and to rebuild the relationship, it is often necessary to forgive or to be forgiven. In other words, it is highly likely that as one ages, one will engage in forgiving and seeking forgiveness from others.

Forgiveness is often talked about and learned at an early age. Forgiveness is most often practiced within the nuclear family and is often necessary in order to continue to get along with everyone. Later on, one learns that forgiveness is also necessary when engaged in conflicts at school and later on when one attempts to form lasting relationships with others. Consequently, it would be safe to assume that most members of Western society would understand the definition and usefulness of forgiveness.

Forgiveness is an integral part of positive aging. From a positive aging framework, it is necessary not only to value forgiveness but to apply it in one's everyday life. Forgiveness involves giving and receiving. In essence, good forgivers know how to forgive and how to receive forgiveness (Enright, 2001).

In some instances, it may be necessary to forgive yourself. In fact, a central aspect of positive aging is a lifestyle pattern of self-forgiveness and self-compassion. In old age, forgiveness can play an important role in self-acceptance (Dayton & Krause, 2005).

Forgiveness can be defined as a series of changes that occur within an individual who has been offended or hurt in some way. The hurt can be caused by another person, by nature (or God), or by one another. Forgiveness is a strategy to heal any hurt from these instances. When someone forgives, his or her thoughts and actions toward the offending person, thing, or oneself become more positive (e.g., more compassionate) and less negative (e.g., less angry or vengeful). Forgiveness is a source of positive emotions and, therefore, is a critical positive aging strategy. It is important to remember that forgiveness cannot be forced but must be freely chosen by the individual who decides that he or she wants to engage in forgiveness.

Forgiving does not mean forgetting. A person who forgives may still remember the event. The key is that the person no longer harbors the hate and anger that was once felt. In this sense, forgiveness takes flexibility.

Forgiveness and Positive Aging

Research has documented that forgiving reduces the following: (a) chronic anger and its personal corollaries, including depression; (b) hostility; (c) high blood pressure and cardiovascular reactivity; (d) susceptibility to disease (preserves immune response); and (e) negative emotions (Lawler et al., 2005).

Make forgiveness an affirmative life choice. Hill (2005) described the following five simple ideas that will help one integrate forgiveness into his or her lifestyle:

1. Seeking and giving forgiveness are for you first and secondarily for others.
 - a. Ask yourself how engaging in forgiveness can help you.
2. Forgiveness is primarily a way of thinking and secondarily a behavior.
 - a. Ask yourself how you should be thinking about a situation before you can act in a forgiving way.
 - b. Try to understand the other person's point of view. Ask yourself why that person may have acted in a certain way. Next, ask yourself if there is another more positive way that you could be acting towards the situation (be flexible).
3. You can forgive and feel better in any situation.
 - a. Ask yourself if you will feel better after forgiving.
4. Forgiveness is an assertiveness tool; forgivers are assertive.
 - a. Ask yourself if forgiving will allow for your own needs to be met.
5. Forgiveness always helps you move on.
 - a. Ask yourself if forgiving will allow you to put that part of your life behind you.

Making Forgiveness More Likely

Researchers have identified factors that make forgiveness more or less likely. These factors are as follows:

1. People tend to be more likely to forgive when the offense took place within a close, satisfying relationship (Finkel, Paleari, & Regaria, 2002; McCullough et al., 1998).
2. Forgiveness is related to empathy. Individuals are better able to forgive when they can empathize or put themselves in the shoes of the person who

offended them (McCullough et al., 1998).

3. Boon and Sulsky (1997) stated that individuals are better able to forgive when they do not blame the offender for the act (“It was an accident”).
4. A tendency to think over and over about the act or person who offended makes forgiveness much less likely (McCullough et al., 1998).
5. Individuals are more likely to forgive as they age. Young children tend to be the least willing to forgive, whereas older adults are the most willing (Mullet & Girard, 1999).
6. Apologies help. Individuals are more likely to forgive if they receive an apology from the transgressor (Darby & Schlenker, 1982; McCullough et al., 1998).
7. Forgiving ourselves is just as important as forgiving others.

12:00-12:10
BREAK

12:10-1:00
FORGIVENESS EXERCISE, DISCUSSION, POSTTEST, AND
WORKSHOP EVALUATION

Forgiveness Exercise

Try this experiment with forgiveness by applying the five ideas that were talked about before the break. Take a moment and identify an issue that is bothering you and that you might consider using forgiveness as a way to help you deal with it. This issue could be solved by forgiving someone or something. It could also be through the seeking of forgiveness. In the space below, succinctly write down this issue:

Once you have written this down, take a look at the five ideas below. You will notice that they are a rewording of the five ideas of forgiveness and positive aging mentioned earlier. Use the five questions below to help you consider a way to frame your forgiveness plan as it relates to the issue you identified and wrote above:

Question 1: How do I need to think about this issue for me to engage a forgiveness response?

Question 2: How will seeking (or giving) forgiveness help me?

Question 3: What impact will giving (or receiving) forgiveness have on the other person?

Question 4: In what way will my forgiveness response objectively change the situation in a way that meets my needs?

Question 5: How will a forgiveness response help me to move past this issue?

Discussion

1. What are your reactions to the seven points on making forgiveness more likely?

2. What are your reactions to the five points on forgiving and positive aging?

3. How will forgiveness help you to:

- a. Mobilize resources

- b. Learn flexibility

- c. Cultivate optimism

- d. Make affirmative life choices

Posttest

Please fill out the questionnaire packet, which will be handed to you. DO NOT place your name on any of the questionnaires. These questionnaires should be anonymous.

Workshop Evaluation

Please complete the Workshop Evaluation Form on the next page and turn it in to the trainer before you leave.

Workshop Evaluation Form

Your feedback is critical. We would appreciate it if you could take a few minutes to share your opinions with us so we can serve you and others better in the future.

*Please return this form to the instructor or organizer at the end of the workshop.
Thank you.*

Workshop title: _____

Date: _____ Instructor: _____

1. The content was as described in the manual.

1	2	3	4	5
Strongly agree				Strongly disagree

2. The workshop was applicable to my life.

1	2	3	4	5
Strongly agree				Strongly disagree

3. I will recommend this workshop to others in my life.

1	2	3	4	5
Strongly agree				Strongly disagree

4. The program was well paced within the allotted time.

1	2	3	4	5
Strongly agree				Strongly disagree

5. The instructor was a good communicator.

1	2	3	4	5
Strongly agree				Strongly disagree

6. The material was presented in an organized manner.

1	2	3	4	5
Strongly agree				Strongly disagree

7. The instructor was knowledgeable on the topic.

1	2	3	4	5
Strongly agree				Strongly disagree

8. I would be interested in attending a follow-up or more advanced workshop on this

Recommended Reading List

- Boon, S. C., & Sulsky, L. M. (1997). Attributions of blame and forgiveness in romantic relationships: A policy-capturing study. *Journal of Social Behavior and Personality, 12*, 19-44.
- Cusack, S., & Thompson, W. (2005). *Mental fitness for life: 7 steps to healthy aging*. Denver: Bull Publishing Company.
- Darby, B. N., & Schlenker, B. R. (1982). Children's reactions to apologies. *Journal of Personality and Social Psychology, 43*, 742-753.
- Dayton, B., & Krause, N. (2005). Self-forgiveness: A component of mental health in later life. *Research on Aging, 27*(3), 267-289.
- Enright, R. D. (2001). *Forgiveness is a choice: A step-by-step process for resolving anger and restoring hope*. Washington, DC: American Psychological Association.
- Finkel, E. J., Paleari, G., & Regaria, C. (2002). Forgiveness in marriage: The role of relationship quality, attributions, and empathy. *Personal Relationships, 9*, 27-37.
- Heller, S. (1998, July 17). Emerging field of forgiveness studies explores how we let go of grudges. *The Chronicle of Higher Education*.
- Hill, R. (2005). *Positive aging*. New York: W. W. Norton, Inc.
- Lawler, K. A., Younger, J. W., Piteri, R. L., Jobe, R. L., Edmondson, K. A., & Jones, W. H. (2005). The unique effects of forgiveness on health: An exploration of pathways. *Journal of Behavioral Medicine, 28*, 157-167.
- Luskin, F. (2003). *Forgive for good: A proven prescription for health and happiness*. New York: Harper Collins.
- Manton, K. G., Corder, L., & Stallard, E. C. (1997). Chronic disability trends in elderly United States populations: 1982-1994. *Proceedings of the National Academy of Sciences of the USA, 94*(6), 593-598.
- McCullough, N. E., Rachal, K. C., Sandage, S. J., Worthington, E. L., Jr., Brown, S. W., & Hight, T. L. (1998). Interpersonal forgiving in close relationships: II. Theoretical elaboration and measurement. *Journal of Personality and Social Psychology, 75*, 1586-1603.
- Mullet, E., & Girard, M. (1999). Developmental and cognitive point of view on forgiveness. In N. E. McCullough, K. I. Pargament, & C. E. Thoresen (Eds.),

Forgiveness: Theory, research, and practice (pp. 111-132). New York: Guilford Press.

Rowe, J., & Kahn, R. (1999). *Successful aging*. New York: Random House.

Snowdon, D. (2002). *Aging with grace: What the Nun Study teaches us about leading longer, healthier, and more meaningful lives*. New York: Bantam Books.

Valliant, G. (2002). *Aging well: Surprising guideposts to a happier life from the landmark Harvard Study of Adult Development*. Boston: Little, Brown and Company.

APPENDIX B

NUMBER-MEMORY TRAINING MANUAL

About Your Trainer

Emma Mansour is currently a PhD student at the University of Utah in Salt Lake City. Her advisor is Dr. Robert D. Hill. Emma is currently working on her master's thesis on the impact of positive aging strategies on life satisfaction. Emma is studying in the field of geropsychology and has published articles and coauthored a chapter on the implementation of cognitive behavioral therapy with the elderly.

Emma can be contacted the following ways:

E-mail: emmamansour@hotmail.com

Address: Emma Mansour
Department of Educational Psychology
1705 East Campus Center Drive
Salt Lake City, UT 84112

Workshop OverviewTuesday

10:00-10:30 FILL OUT FORMS AND INTRODUCE EACH OTHER
10:30-10:45 BREAK
10:45-12:00 INTRODUCTION TO POSITIVE AGING

Friday

9:00-10:00 SECTIONS 1 AND 2, INTRODUCTION TO NUMBER-MEMORY
STRATEGY
10:00-10:15 BREAK
10:15-11:00 SECTION 3, DISCUSSION, FORMS, AND WORKSHOP
EVALUATION

10:00-10:30

FILL OUT FORMS AND INTRODUCE EACH OTHER

Informed Consent Form (Copy 1)

A Memory Training Workshop

Introduction/purpose. Dr. Robert D. Hill (Department of Educational Psychology at the University of Utah) and Emma Mansour (graduate student in the Department of Educational Psychology at the University of Utah) are conducting a research study to find out more about the role of learning a number-memory strategy on the overall life satisfaction and subjective well-being of older adults. You have been asked to take part because of your response and interest in attending this workshop. There will be approximately 60 participants in this research.

Procedures. If you agree to participate in this workshop, the following will occur: You will be asked to attend a single 4-hour training session on positive aging and a memory training strategy.

Risks. You may experience arousal and increase in affective states. However, these emotions will not exceed those experienced in everyday life.

Unforeseeable risks. Since this is a research study, there may be some unknown risks that are currently unforeseeable.

Benefits. There may or may not be benefits to you as a result of your participation in this workshop. Some benefits that you may experience include a greater ability to memorize pin numbers, phone numbers, and so on by using the memory mnemonic strategy you will learn. Information gained in this study may further psychological and medical knowledge for others in the future.

Explanation and offer to answer questions. I am available to answer any questions you may have. If you have other questions related to this workshop or research-related questions, you may reach Emma Mansour at 801-232-1161 or Dr. Robert D. Hill at 801-581-5081.

Voluntary nature of participation and right to withdraw without consequences. Participation in this workshop is entirely voluntary. You may refuse to participate or withdraw at any time without consequence. You may withdraw from this workshop without consent from Dr. Robert D. Hill or Emma Mansour.

Confidentiality. All records will be kept confidential except in cases where the researcher is legally obligated to report specific incidents, consistent with federal and state regulations. These include, but may not be limited to, incidents of abuse and suicide risk. Only the trainer and Dr. Robert D. Hill will have access to the information you provide during the workshop. This information will be kept in a locked file cabinet in a locked room. The information will be kept indefinitely, but since your name will not

appear on any of the forms, and since the information will be coded and kept in numerical form, your confidentiality will be protected.

Institutional Review Board approval statement. The Institutional Review Board, for the protection of human subjects at the University of Utah, has reviewed and approved this research project and workshop.

Copy of consent. You have been given two copies of this Informed Consent Form. Please sign both copies and retain one copy for your files.

Investigator/trainer statement. We certify that this research study and workshop have been explained to the individual named below and that the individual understands the nature and purpose of the study and workshop. This includes the possible risks and benefits associated with taking part in this research study. Any questions that have been raised have been answered.

Sign (above line)

Print name

Date

Principal investigator signature (Emma Mansour, MA)

Principal investigator, printed name (Emma Mansour, MA)

Informed Consent Form (Copy 2)

A Memory Training Workshop

Introduction/purpose. Dr. Robert D. Hill (Department of Educational Psychology at the University of Utah) and Emma Mansour (graduate student in the Department of Educational Psychology at the University of Utah) are conducting a research study to find out more memory training and the overall life satisfaction and subjective well-being in older adults. You have been asked to take part because of your response and interest in attending this workshop. There will be approximately 20 participants in this research.

Procedures. If you agree to participate in this workshop, the following will occur: You will be asked to attend a single 4-hour training session on positive aging and a memory training strategy.

Risks. You may experience arousal and increase in affective states. However, these emotions will not exceed those experienced in everyday life.

Unforeseeable risks. Since this is a research study, there may be some unknown risks that are currently unforeseeable.

Benefits. There may or may not be any benefits to you as a result of your participation in this workshop. Some benefits that you may experience include a greater ability to memorize pin numbers, phone numbers, and so on by using the mind power memory strategy you will learn. Information gained in this study may further psychological and medical knowledge for others in the future.

Explanation and offer to answer questions. I am available to answer any questions you may have. If you have other questions related to this workshop or research-related questions, you may reach Emma Mansour at 801-232-1161 or Dr. Robert D. Hill at 801-581-5081.

Voluntary nature of participation and right to withdraw without consequences. Participation in this workshop is entirely voluntary. You may refuse to participate or withdraw at any time without consequence. You may withdraw from this workshop without consent from Dr. Robert D. Hill or Emma Mansour.

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form, your confidentiality will be protected.

Institutional Review Board approval statement. The Institutional Review Board, for the protection of human subjects at the University of Utah, has reviewed and approved this research project and workshop.

Copy of consent. You have been given two copies of this Informed Consent Form. Please sign both copies and retain one copy for your files.

Investigator/trainer statement. We certify that this research study and workshop have been explained to the individual named below and that the individual understands the nature and purpose of the study and workshop. This includes the possible risks and benefits associated with taking part in this research study. Any questions that have been raised have been answered.

Sign (above line)

Print name

Date

Principal investigator signature (Emma Mansour, MA)

Principal investigator, printed name (Emma Mansour, MA)

Participation Contract

By signing this contract, I understand the following concerning the memory training workshop:

- That this workshop is completely voluntary.
- That this workshop will involve a single session that will last 4 hours.
- That I will attend for the full 4 hours.

(Name)

(Date)

Demographic Questionnaire

1. What is your age?
 Years

2. What is your gender? (Please check one)
 Male
 Female

3. What is your race/ethnicity? Please mark the one item that describes the race/ethnicity category with which you primarily identify:
 Asian or Pacific Islander: Origins in any of the peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands (for example, China, Japan, Korea, the Philippine Islands, and Samoa)
 African American (not of Hispanic origin): Origins in any of the Black ethnic groups
 Hispanic: Origins in any of the Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish cultures, regardless of ethnicity
 Native American or Alaskan Native: Origins in any of the original peoples of North America and who maintain cultural identification through tribal affiliation or community recognition
 Caucasian (not of Hispanic origin): Origins in any of the original peoples of Europe, North Africa, or the Middle East

4. What is your marital status (Please check one)
 Single (never been married)
 Unmarried but partnered
 Married
 Separated/divorced
 Widowed

5. What is your highest educational level completed? (Please check one)
 Elementary school
 Junior high school
 High school
 College
 Graduate school
 Other (describe):

6. On a scale from 1 to 5, how would you rate your health?
- 1 Very poor
 - 2 Poor
 - 3 Average
 - 4 Good
 - 5 Very good

Forms

First, we will fill out a few questionnaires. DO NOT place your name on any of the questionnaires.

Introduction to Each Other

Turn to the person sitting next to you or to someone you may have come here with and ask each other the following questions:

Name: _____

1. What do you like to do in your spare time?

2. How many children/brothers/sisters do you have?

3. What are your two favorite movies?

4. What are your favorite TV programs?

5. Do you have a pet? What kind?

6. Where have you gone to school?

7. What famous person do you most want to be like?

8. Who do you think is the greatest man or woman in the world today? Why?

9. If you had \$1,000, what would you do with it?

10:30-10:45
BREAK

10:45-12:00
INTRODUCTION TO POSITIVE AGING

Positive Aging and Its Four Characteristics

Positive Aging

Thematic in the definition of *positive aging* is the idea that it is possible, regardless of one's economic, social, or physical circumstances, for an older person to act on her or his situation for the purpose of enhancing well-being. Hill (2005) postulated that there are certain kinds of behaviors that promote meaning and that may work to facilitate adjustment to life irrespective of one's personal circumstances or situations, including age-related decline. Engaging in these behaviors is the first step towards becoming a positive ager.

These behaviors and/or ways of construing the world could be labeled as *strategies* for living; that is, there may be specific strategies that a person can prospectively cultivate that will lead to optimal adjustment in old age irrespective of one's physical condition or situation. Although not an exhaustive list, Hill (2007) proposed the following seven strategies as guidelines for living that promote well-being in old age:

1. Finding meaning in age-related decline is a strategy that allows for coping with changes that occur in old age and still being able to maintain a high satisfaction with life.
2. You are never too old to learn (learning) is a strategy that suggests that the pursuit of continuing education can promote positive aging characteristics and enhance one's sense of well-being.
3. The cultivation of wisdom is a strategy whereby older adults draw on resources and strengths from the past that may help in managing the present.
4. Strengthening life-span relationships is a strategy whereby older adults can enhance and maintain relationships/social networks.
5. Giving and accepting help is a strategy that allows older adults to focus on the benefits of altruism and to engage in activities that promote a sense of purpose and a greater satisfaction with life.
6. Being grateful is a strategy that helps foster life satisfaction and allows older adults to focus on what they have and what is going right in the present rather than focusing on what has been lost in the past.
7. Forgiving themselves and others is a strategy that allows older adults to cultivate the ability to look back on their lives so far and let go of any

resentment that they may be holding on to from the past.

Four Characteristics

Hill (2005) asserted that there are four characteristics or lifestyle patterns that emerge from a positive-aging approach to living. These characteristics are refined over time with practice and effort. In brief, these characteristics are the ability to do the following:

1. Mobilize resources to cope and maintain satisfaction with life even in the presence of decline.
2. Make lifestyle choices that preserve psychological well-being.
3. Cultivate flexibility or the ability to problem solve by identifying a range of solution sets to deal with issues.
4. Focus on the positives rather than the negatives that are associated with growing old.

Mobilize resources. Given the possibility that there is a 50% chance that a person who lives to be 85 years old will experience at least one age-related disability, it becomes apparent that an older adult should engage in planning for the future with respect to coping with these age-related declines (Manton, Corder, & Stallard, 1997). One way in which this can be done is by mobilizing resources in order to continue to enjoy life. For example, an individual who begins to have vision loss and, consequently, has difficulty reading the newspaper may now begin to listen to the radio (Hill, 2005).

Make lifestyle choices. Lifestyle choices can be made in the following three areas: (a) physical health, (b) growth and personal development, and (c) social networks (Hill, 2005). Making lifestyle choices with regard to physical health may require more regular visits to the doctor for more regular health checkups and engaging in an exercise regimen that could include brisk walking. With regard to personal growth and development, an older adult may decide to find ways in which he or she can engage in ongoing learning and creativity that fit his or her own personality and learning style. The third area would require that older adults begin to develop coping strategies that will help them through the inevitable loss of loved ones and a decreasing social network.

Cultivate flexibility. *Flexibility* can be defined as an individual's ability to think of new strategies for problem solving that will help them better problem solve and cope with age-related decline. Flexibility is a central characteristic of positive aging, it can be acquired through practice and effort, and it refers to the ability to balance existing skills and resources in order to cope with changing resources. Forgiveness is one area of life

that requires flexibility for it to be beneficial and to enhance satisfaction with life.

Focus on the positives. Although age-related decline will occur, it does not preclude the possibility of embracing a positive attitude. In fact, research has indicated that well-being and life satisfaction are emotional states that are independent of objective physical health (Hill, 2005). Therefore, positive aging may be a state of mind that requires cultivating an attitude that focuses on meaningful aspects of old age.

9:00-10:00

SECTIONS 1 AND 2, INTRODUCTION TO NUMBER-
MEMORY STRATEGY

Number-Memory Strategy

As you have grown older, you have probably begun to notice changes in your memory. In this regard, some things are easier to remember than others. One of the more difficult tasks when it comes to remembering information is learning and recalling number facts. Almost everyone has looked up a phone number and then had trouble remembering even before the number is dialed. Another frustrating experience with numbers is forgetting a Personal Identification Number (PIN) when you are trying to obtain money from a bank or an ATM machine.

One way to deal with these kinds of issues is to learn strategies that help you mentally process the “to-be-remembered” information more completely so that it is easier to recall when it is needed.

The number-memory strategy helps you remember numbers by associating each number with a letter, then making the letters into familiar words, which then makes the numbers more meaningful to remember. In this strategy, each number is associated with a letter of the alphabet. For example, the number “1” is associated with the letter “L”. The strategy involves putting letters together, using the vowels “aeiou and y” as placeholders and then organizing the letters into a word or word phrase that will hopefully make it easier for you to remember the number. For example, if you replaced the number “1” with “L” you could form the word “lay” with the “L” standing for the letter “1.”

This example gives you an idea about how the technique works and during the remaining time in this workshop you will learn this strategy, called the “number-to-consonant” mnemonic to learn numbers. The strategy will go through a series of easy-to-understand steps as follows:

1. Generating words using consonants
2. Transforming numbers into consonants
3. Transforming consonants into numbers
4. Transforming numbers into words
5. Transforming words into numbers

Section 1

Exercise 1: Generating Words Using Consonants

Directions: Create words with three or four consonants. Remember, you can use any consonants or vowels from the list below.

List of Consonants

b
d
f
g
k
l
m
n
p
r
s
t
v
z

List of Vowels

a
e
i
o
u

Examples:

1. BANK (where I keep my money)
2. DIRT (from my garden)
3. FINGER (what I use everyday)
4. PARROT (my favorite bird)

Now, write down three words that contain three consonants (write down words that are meaningful to you):

1. _____
2. _____
3. _____

Now, write down four words (or two word phrases) that contain four consonants:

1. _____

2. _____

3. _____

4. _____

Section 2

The Number-to-Consonant Key

The heart of this memory strategy will focus on helping you learn to transform numbers to consonants in order to make words. In order to make this transformation, you will need to learn the number-to-consonant key.

In the column labeled “Recall Aid,” I have provided you with some associations that might make it easier to pair the numbers and letters together. It is important that each number is connected to a specific sound (or related group of sounds). For example, “4” corresponds to the “rrrrr . . .” sound in the number four. Once you have memorized this key, move on to the next exercise. Here is the complete number-to-consonant key.

Number	Consonant Sound	Recall Aid
1	l	l has <u>one</u> downward stroke
2	n	n has <u>two</u> downward strokes
3	m	m has <u>three</u> downward strokes
4	r	r is the last sound in the word <u>four</u>
5	v or f	v is the last sound in the word <u>five</u> v is the Roman numeral for <u>five</u> f is the first sound in the word <u>five</u>
6	b or d	b looks like 6 d is the mirror image of 6
7	k	k is two 7s mirroring each other
8	t	t is the last sound in the word eight
9	p or g	g looks like 9 p is the mirror image of 9
0	z or s	“z” is the letter in the word “zero” s is used like z in some words (e.g., hose and nose)

Take a few minutes and review this key before proceeding to the next exercise.

Exercise 2

Directions: In this exercise, list the numbers that correspond with the given consonants as quickly as you can.

Consonant	Number
n	
r	
l	
m	
v	
l	
f	
n	
v	
m	
r	
f	
l	
n	
v	

Exercise 3

Directions: List the numbers that correspond to the given consonants.

Consonant	Number
v	
k	
z	
l	
k	
r	
f	
p	
m	
g	
n	
z	
k	
s	
l	
t	
n	
b	
v	
r	
p	

At this point, you should have mastered the number-to-consonant key. In the next

section, you will learn how this key can be used to help you remember everyday numbers. You will soon see why it is important that you are able to perform these exercises in the order that they have been provided.

10:00-10:15
BREAK

10:15-11:00
SECTION 3, DISCUSSION, FORMS, AND
WORKSHOP EVALUATION

Section 3

Making Numbers Into Words

In this next exercise, you will learn how to use the number-to-consonant key to transform number strings into words. Specifically, you will practice making words whose consonants correspond to a particular number string you wish to remember.

For example, suppose you wanted to remember the birthday of a neighbor, Lillian, who was born on November 6th. This date is represented numerically as 11/6. You would first transform the numbers into their corresponding consonants from the number-to-consonant key. 11/6 corresponds to the letters L,L,D. You might then create a two-word phrase: Lil day. In this instance, the date is embedded in a shortened version of Lillian's name. The phrase would be a strong reminder of Lillian's birthday.

There are some important points to keep in mind as you begin to make words to help you remember important numbers such as dates, times, and security codes. These points are described next.

Important Points for Making Numbers Into Words

1. Because the number of consonants is limited, select words that fit the numbers and have special meaning to you. Nonsense words should not be used because they are no easier to remember than random numbers.

For example, a NONSENSE word for 60 would be BAZ

A MEANINGFUL word for 60 would be BEEZ or BEEES

2. Numbers can be paired together to form two short words or grouped together to form one longer word.

EXAMPLES: 3 2 5 2 = MOON FAN
 5 5 4 0 = FAVORS

3. Consonants should follow in the order of the number string that is to be memorized.

EXAMPLES: 82 = TN = TAN *not* NT
 92 = PL = PAL *not* LP
 1032 = LZMN = LAZY MAN *not* NMLZ

4. Create words that are spelled the way they sound.

EXAMPLES: 78 = KT = KAT (instead of cat)
 31 = ML = MAL (instead of mall)

AND:

20 = NZ = NOZE or NS = NOSE
 6071 = BSKL = BISYKLE (instead of bicycle)

5. Use slang words, common expressions, proper names, foreign words, or meaningful silly words because they are often easier to remember.

EXAMPLES: 71 = KOOL, 56 = VIBE, 11 = LIL' (slang for little or the name "Lillian")
 66 = BOB, 78 = KATE, 83 = TOM
 55 = VIVA, 008 = SIESTA
 60 20 = BOZO NOSE
 11 91 = LIL' GAL

6. When remembering numbers for specific items such as bank cards, locks, and birthdays, it might be helpful to use words that are related to the items.

EXAMPLES: bank card = 0532 = SAVE MONEY
 Lock = 6717 = BIKE LOK
 Mom's birthday = 12/03 = LOAN SOME (more money to me)
 Mom's birthday = 12/03 = LONESOME (I'm lonesome without mom)

Here is a summary of the six rules:

1. Select words whose consonants fit the numbers and have meaning.
2. Numbers can be grouped into short words or into one long word.
3. Order consonants to exactly match the order of the digits.
4. Words may be spelled the way they sound.
5. Slang words, proper names, and silly words may be used.
6. Use the words that relate to the purpose of the numbers.

Exercise 4

Directions: Convert words back to the number strings. The final task involved in using the number-to-consonant mnemonic is converting the “remembered” word back into the original number strings. For example, if you had memorized your bank PIN, which is a four-digit number, using the following phrase:

SaVe MoNey

How would you retrieve the numbers? The first step is to recall the consonant-to-number key. If you cannot recall the key, you could even write it down and refer to it when you are presented with the phrase. However, below is the consonant-to-number key with the numbers missing:

Fill in the blanks:

Consonants	Numbers
l	
n	
m	
r	
f or v	
b or d	
k	
t	
p or q	
z or s	

Now, translate SaVe MoNey into the correct numbers and obtain your PIN:

_a_e_o_ey

_ _ _ _ (place consonants here)

Exercise 5

Directions: Convert numbers back to the letters. In this exercise, you will practice taking a set of numbers (two digits) and generating letters that, when put together, make memorable words. Last, you will decode the words you just made.
Fill in the blanks:

Numbers	Consonants
1	
2	
3	
4	
5	
6	
7	
8	
9	
0	

- Identify consonants from the number-to-consonant key.

EXAMPLE: 34 = m r = more, 12 = l n = loan

Numbers	Consonants
A. 6 3	A.
B. 8 9	B.

- Create the word(s) from the numbers:

A. _____
B. _____

Exercise 6

Directions: In this final exercise, you will use all three of the steps of the number-memory strategy. Commit these two PINs to memory.

1. Identify consonants from the number-to-consonant key.

PINs	Consonants
Calling card PIN: A. 7 8 2 9	A.
ATM PIN: B. 6 4 6 3	B.

2. Create the word(s) from the consonants:
 A. _____
 B. _____

Memorize these words. After memorizing them, divert your attention to something else for 10 minutes. In 10 minutes, return and see how many of the numbers you can remember. Use the worksheet on the following page.

1. Write down the word(s) from memory that you just created to remember the four PINs.
 A. _____
 B. _____
2. Extract the consonant or consonant sounds.
 A. _____
 B. _____
3. Decode the consonant sounds to numbers using your memorized number-to-consonant key.
 A. _____
 B. _____

Exercise 7

Directions: Now let's practice with your own PINs or other numbers that you need to remember.

1. Identify consonants from the number-to-consonant key.

PINs	Consonants
PLACE: _____ A.	PLACE: _____ A.
PLACE: _____ B.	PLACE: _____ B.

2. Create the word(s) from the consonants

PLACE: A. _____

PLACE: B. _____

Congratulations

You have completed learning the number-memory strategy to make and decode words. Your knowledge of this system can aid you in remembering everyday, important numbers. Using the number-memory strategy involves the following three important steps (or skills):

1. Memorizing the number-to-consonant key.
2. Transforming numbers into meaningful words.
3. Decoding numbers from the words.

Discussion

4. What did you like about this way of memorizing information?
5. What did you not like about this way of memorizing information?
6. Will you use this strategy in the future? If so, why or why not?

Before You Go!!!!

RECALL THE TWO PERSONAL IDENTIFICATION NUMBERS

WORDS:

CONSONANTS:

PERSONAL IDENTIFICATION NUMBERS:

Forms

Please take some time to fill out the questionnaires. DO NOT place your name on any of the questionnaires.

Workshop Evaluation

Please complete the Workshop Evaluation Form on the next page and turn it in to the trainer before you leave.

Workshop Evaluation Form

Your feedback is critical. We would appreciate it if you could take a few minutes to share your opinions with us so we can serve you and others better in the future.

*Please return this form to the instructor or organizer at the end of the workshop.
Thank you.*

Workshop title: _____

Date: _____ Instructor: _____

- | | | | | | | |
|----|--|----------------|---|---|-------------------|---|
| 1. | The content was as described in the manual. | | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| | | Strongly agree | | | Strongly disagree | |
| 2. | The workshop was applicable to my life. | | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| | | Strongly agree | | | Strongly disagree | |
| 3. | I will recommend this workshop to others in my life. | | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| | | Strongly agree | | | Strongly disagree | |
| 4. | The program was well paced within the allotted time. | | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| | | Strongly agree | | | Strongly disagree | |
| 5. | The instructor was a good communicator. | | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| | | Strongly agree | | | Strongly disagree | |
| 6. | The material was presented in an organized manner. | | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| | | Strongly agree | | | Strongly disagree | |
| 7. | The instructor was knowledgeable on the topic. | | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| | | Strongly agree | | | Strongly disagree | |
| 8. | I would be interested in attending a follow-up, more advanced workshop on this | | | | | |

Recommended Reading List

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