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ENHANCING EXPLANATORY STYLE, WELL-BEING & COGNITIVE COPING IN OLDER ADULTS: A PRELIMINARY INVESTIGATION

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SARAH BELL-BOOTH

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ABSTRACT

The beliefs that a person holds about the origin, pervasiveness, and potential recurrence of life events is referred to as ‘explanatory style’. Explanatory style is a theoretical approach to optimism. Previous studies are unclear about the specific role that explanatory style has in the well-being of older adults and how it relates to their coping style. Furthermore, interventions that directly target explanatory style have not yet been trialed with older adult samples.

The current study is separated into two parts using a sample of one hundred and thirty older adults’ from fifteen community organisations in New Zealand. Part one evaluates explanatory style and its relationship to their well-being and the cognitive coping strategies they use. Part two evaluates the effectiveness of a one-month self-help cognitive optimism intervention. This optimism intervention was initially developed by Fresco and Craighead (1993) and was modified and pilot tested for the current study, for suitability, clarity, and readability. After the pilot test, a controlled experiment was conducted using two groups. The treatment group received a cognitive self-help optimism intervention, while the control group received an event-recording task to complete over four weeks. Treatment outcome measures were administered at pre-treatment, post-treatment, and follow-up.

Findings indicate that older adults have high levels of optimism and well-being and that these two variables are only moderately correlated. Theories of socio-emotional selectivity and realistic optimism help to explain these findings. Results also suggest that catastrophising, rumination and blaming are maladaptive coping strategies while positive reappraisal, putting into perspective, and refocusing on planning are adaptive in older adults.

There was mixed evidence regarding the effectiveness of the self-help optimism intervention. Quantitative results showed no significant change in explanatory style and well-being for the whole treatment group. Although pessimistic participants experienced a significant increase in optimism, this is likely due to regression toward the mean. Nevertheless, qualitative results indicated that the intervention was

somewhat helpful for putting into perspective and reappraising problems. Both the treatment and control group experienced significant reductions in self-blame, rumination, and catastrophising, indicating that the task of recording good and bad events may be helpful. The limitations of the current study and recommendations for future research are discussed.

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THESIS OVERVIEW

The current exploration began with researching a theory of optimism called 'explanatory style', which is interweaved throughout both the established literature on mental health and the more recent literature on positive psychology. The decision to explore explanatory style in older adults developed from an interest in conflicting theories about this unique age group's well-being. Some theories propose that emotional problems are inevitable due to the accumulation of losses, indicating that they are pessimistic. However, other theories emphasise older adults' comparatively happy and content outlook, suggesting an optimistic stance. A number of questions arise from these contrasting perspectives – are older adults in fact optimistic? Does optimism make a difference to their well-being? How do optimistic older adults cope with stress and loss? And, would they benefit from an existing self-help intervention that directly targets pessimistic explanatory style? The answers to these questions have not yet been explored in a non-clinical community sample of older adults. If the intervention outcomes were positive, then implementation of the intervention on a larger scale could reduce future strain on mental health services due to the current aging population.

This thesis is separated into eight chapters. Chapters One to Four review relevant literature. Chapter One provides an overview of the literature on normal aging theories and the emotional problems in late life. The second chapter explores the origin, the characteristics, and the current research on explanatory style, especially as related to older adults. Differences from younger age groups are highlighted and the relationship between optimism and other coping strategies is explored. Chapter Three focuses on various types of interventions including cognitive-behavioural therapy, positive psychology, and self-help and their effectiveness with older adults. The fourth chapter explores the interventions specifically developed to increase optimism and introduces a promising study that was modified for the present study. Chapter Five lists the specific research questions, hypotheses, and rationale for the current study alongside the adaptations made from previous studies. Chapter Six includes the methodology, which describes the participants, procedures, materials, and data

analysis techniques. Results are presented in Chapter Seven and these are discussed in the context of previous research in Chapter Eight.

CHAPTER ONE – OLDER ADULTS

CHAPTER OUTLINE

This chapter explores the current literature on the emotional well-being of older adults. Specifically, it focuses on changes in positive emotions, depression and its etiology, and cognitive strategies that are used to cope. In addition, the factors that are important to consider when researching and treating older adults are outlined.

Although there are some variations, 'older adults' typically include those aged 65 years and over. Neugarten (1974), one of the first to pioneer the study of aging, noticed the diversity between groups of older adults, and categorised them into 'young-old' (between 65 and 75 years), 'old-old' (between 75-85 years), and recently included 'oldest-old' (85 years and older). These groups are reported to reflect the normative patterns of functioning.

Research on older adults is necessary for two main reasons. First, there is a pattern of increasing longevity across societies in the developed and developing world (Laidlaw, Thompson, Dick-Siskin, & Gallagher-Thompson, 2003; Zarit & Zarit, 2007). Recent statistics show that the world's older adult population is estimated to reach 16.2% in 2050 – that growth rate is more than two-fold in 40 years (United Nations, 2008). In New Zealand, the proportion of older adults is even higher, predicted to be 23.2% to 2050 (UN, 2008). Although this is a major societal achievement it is also a challenge to health services. Second, the large generation of 'baby-boomers' (people born after the end of World War II) are progressing into late adulthood, so that the most rapid increase is expected between 2010-2030 when they reach age 65 (Glicken, 2009; Zarit & Zarit, 2007).

EMOTIONAL WELL-BEING IN OLDER ADULTS

Well-being consists of both happiness and life satisfaction. Happiness refers to emotional state and how one feels about themselves and the world, while life satisfaction is a more global judgement about the acceptability of one's life (Compton, 2005). In addition, low neuroticism (i.e., the tendency to have a less negative outlook in general) is sometimes part of subjective well-being.

Theories regarding changes in well-being during the aging process have changed in the past 40 years (Glicken, 2009). Older theories such as the loss-deficit model viewed emotional problems as a typical response to the series of losses that occur in late life, such as loss of health, income and companionship through bereavement (Berezin, 1963; Gitelson, 1948). However, over time, scientific gerontology has portrayed normal aging in a more positive light (Glicken, 2009).

Positive emotions

There appears to be mixed evidence about the level of positive emotions experienced in older adults. A study of 60,000 adults from forty nations found that life satisfaction increases slightly with age, pleasant affect declines slightly, and negative affect remains unchanged (Seligman, 2002). Other research shows that there is a shift toward more positive emotion and better emotional regulation, consistent with the *Socioemotional Selectivity Theory* described below (Mather & Carstensen, 2005).

Carstensen (1992) developed the Socioemotional Selectivity Theory when it was observed that although social support networks reduce with age, life satisfaction remains stable. Later in adulthood, when endings become important, individuals realise that time is finite and consequently become present-oriented. As a result, they prioritise their goals and become more concerned with emotional regulation (either avoiding or dampening negative emotions) and become more emotionally invested in smaller closer and more positive social networks. Consequently, there is a general shift toward positive affect in later life. This control in shaping their daily lives is believed to be a pivotal element in adaptation in later life (Zarit & Zarit, 2007).

In contrast, younger adults are more future-oriented and motivated to seek information and develop a large network of contacts so that they have opportunities to find a mate and a career. This age difference was found in a study of mother-daughter relationships, where the daughters emphasized the negative qualities of the relationship while the older women acknowledged only the positive qualities (Lefkowitz & Fingerman, 2003).

Depression in older adults

Depression is one of the most common emotional problems among older adults (Blazer, 2002). Although the proportion of older adults who are depressed is relatively low, the proportion of older adults in the general population is increasing with time, and therefore the total number of older adults presenting with depression is increasing also (Zarit & Zarit, 2007). In New Zealand, older adults (65 years and over) represent 12.3% of the population (Statistics New Zealand, 2006), while the 12-month prevalence of any mental disorder in older people is 7.1% (Oakley-Browne, Wells, & Scott, 2006).

While rates of Major Depressive Disorder (MDD) are believed to be lower in late life than in early or middle adulthood (Zarit & Zarit, 2007), these rates may be underestimated for a number of reasons. Some believe that the diagnostic criteria for MDD may be too restrictive to apply for older people and therefore depression is underdiagnosed. Cross-sectional and longitudinal comparisons of community samples show differences in the types of depressive signs and symptoms reported by young and old, which may not be recognised by health practitioners (Gatz & Hurwicz, 1990; Newmann, Engel, & Jensen, 1991). For example, somatic complaints such as poor sleep, poor appetite, and fatigue, are complicated with chronic health problems or may be perceived as due to 'normal aging' (Stek, Gussekloo, Beekman, van Tilburg, & Westendorp, 2004). In addition, the presentation or expression of depressive symptoms in older adults reflect depletion, rather than intense changes in affect or overt depressive emotions (Powers et al., 2002, cited in Laidlaw, 2003). That is, they often report lower rates of positive feelings compared with younger people (Thomsen, Mehlsen, Viidik, Sommerlund, & Zacariae, 2005).

Despite lower rates of diagnosed MDD, depressive symptoms themselves are quite common in older adults. The proportion of older people with clinically significant depressive symptoms (also called subclinical levels of depression) has been found to range between 10 and 25% (Blazer, 2002). Although these do not meet the criteria for MDD, symptoms may be severe enough to interfere with functioning and therefore warrant treatment.

Etiology of depression

Biological influences, early life experience, stressful life events, loss of positive reinforcement, and cognitive style can contribute to the development of depression (Fiske, 2006). Of particular interest to the present study are the contributions of psychosocial factors and cognitive style.

Psychosocial theories propose that stressful/negative life events (either a single event or accumulation of events) can precipitate depressive symptoms/episodes in older adults (Kraiij, Arensman, & Spinhoven, 2002). Around 60% of older adults reported experiencing at least one major negative life event in the year prior (Kraiij & de Wilde, 2001). Examples of stressors include the adjustment to retirement, physical illnesses, abuse, relational problems or death of loved ones, and financial insecurities (Glicken, 2009). However, people who experience negative life events can be stressed but most often do not become clinically depressed, particularly when there are no existing diatheses, such as neurotic personality traits or specific genes (Caspi et al., 2003; Kraiij, Pruymboom, & Garnefski, 2002; Ormel, Oldenhinkel, & Brilman, 2001). Whether people are affected by stressful events depends largely on their ability to cope adequately (Lazarus, 1993; 1998). Consequently, research needs to evaluate the presence of stressful life events and also prevention programmes that improve coping resources in older adults, so as to reduce the vulnerability to depression.

Beck and his colleagues (Beck, 1976; Beck, Rush, Shaw, & Emery, 1979) have developed a model proposing that thinking (cognition) influences mood and behaviour and therefore plays a role in the etiology and maintenance of most psychological disorders (Hollon & Beck, 2004). Specifically, depression is associated with exaggerated negative thinking about him/herself, other people and his/her future. Not only are cognitive distortions proposed to be associated with depression, they may be a cause of depression itself. An example of a common cognitive distortion in older adults is the age-related beliefs about the inability to cope, which is activated by losses (e.g., diminished hearing may be viewed catastrophically resulting in a distorted self-concept). These negative distortions can be successfully targeted for modification to alleviate depression in older adults (DeRubeis, Gelfans, Tang, & Simons, 1999).

A lowered sense of well-being may also be associated with deficits in fulfilling the three components of '*successful aging'* outlined by Rowe and Kahn (1998). These include: 1) good health (including regular exercise, a healthy diet, and regular check ups) and a low risk of disease and disability, 2) high mental functioning (meaning they are intellectually active and stimulated) and high physical functioning, and 3) an active engagement with life and a strong social support system (cited in Glicken, 2006). Other risk factors for lowered well-being in late life include previous psychopathology, being unmarried and low levels of educational attainment (Mojtabai & Olfson, 2004; Vink, Aartsen, & Schoevers, 2008). There is mixed evidence about the gender differences, with some believing that females are at higher risk (Crawford, Prince, Menezs, & Mann, 1998; Thomsen et al., 2005; Vink et al., 2008), while others say there is no relationship between gender and depression (Glicken, 2009).

COPING IN OLDER ADULTS

Problem-focused versus emotion-focused coping

The ability to cope is a crucial factor in the etiology and maintenance of emotional problems such as depression. Lazarus's transactional model has had the most profound impact on the conceptualisation of coping (Lazarus, 1993; Lazarus & Folkman, 1984). This model proposes that psychological distress arises when an individual perceives a mismatch between demands and resources. As a result, the individual is required to modify the stressor through problem-solving (termed *problem-focused coping* or *primary control*), and/or manage the emotional impact of the stressor by changing one's own beliefs, motivation, and emotions, for example by making the best of a bad situation (termed *emotion-focused coping* or *secondary control*; Eisenberg, Fabes, Guthrie, & Reiser, 2000; Garnefski, Van Den Kommer et al., 2002; Schulz & Heckhausen, 1999; Thompson, 1991). In general, problem-focused strategies are more beneficial for well-being than emotion-focused strategies (Kraaij, Pruymboom et al., 2002). However, it is also acknowledged that under certain circumstances where there is little or no control over the stressor, problem-focused coping may fail or even be counterproductive, and so emotion-focused coping is a better strategy (Lazarus, 1993).

Some age differences have been found in the types of coping used. Problem-focused coping is found to increase throughout childhood and adolescence, peak in adulthood,

and gradually decline in older age, whereas, emotion-focused coping continues to increase throughout all developmental stages including old age. The current cohort of older adults, in particular, were socialised during the Great Depression which promoted an adaptive response of suppressing of one's feelings and keeping a "stiff upper lip" (Blanchard-Fields, 1998). In general, emotion-focused strategies are adaptive in late life as opportunities for active problem-focused strategies diminish due to the type of stressors older adults face (Blanchard-Fields et al., 2004; Folkman, Lazarus, Pimley, & Novacek, 1987; Strack & Feifel, 1996). By altering their expectations or perceptions to take into account losses or disappointments (e.g., physical illness), older adults are able to maintain positive emotions and minimise negative ones. This is consistent with the above discussed socioemotional selectivity theory in that older adults are motivated to regulate their affect. Also supporting this theory is older adults' preference to use emotion-focused strategies in interpersonal events so as to avoid confrontation with people and maintain the close support network and emotional balance (Birditt, Fingerman, & Almeida, 2005). The subsequent perception of being in control can help older people to function better and help promote independence. Research shows that one specific type of control belief, perceived mastery, has been associated with independence and well-being two years later, even when the effects of initial levels of health are controlled for (Femia, Zarit, & Johannson, 1997; Schulz & Heckhausen, 1999; Zarit & Zarit, 2007).

Specific cognitive coping strategies

The process of emotion-focused coping (also called 'cognitive coping' or 'cognitive emotion regulation') has been examined in a series of studies by Garnefski, Kraaij, and co-authors. They identified nine conceptually distinct cognitive coping strategies in the literature and measured them using the Cognitive Emotion Regulation Questionnaire (CERQ; Garnefski, Kraaij, & Spinhoven, 2002). These nine strategies are described in Table 1.

Although the capacity of cognitive emotion regulation is universal, individual differences exist in the specific cognitions that are used in response to life experiences. It is important to determine whether these coping strategies are adaptive or maladaptive so that interventions can be developed to target the appropriate

strategies, rather than just targeting specific maladaptive beliefs, as cognitive therapies tend to do currently (Garnefski & Kraaij, 2007).

Table 1.

Description of cognitive coping strategies

Cognitive Coping Strategy	Description
Self-blame	Thoughts of putting the blame of what you have experienced on yourself
Other-blame	Thoughts of putting the blame of what you have experienced on the environment or another person
Rumination	Thinking about the feelings and thoughts associated with the negative event
Catastrophising	Thoughts of explicitly emphasizing the terror of what you have experienced
Putting into Perspective	Thoughts of brushing aside the seriousness of the event/ emphasising the relativity when comparing it to other events
Positive Refocusing	Thinking about joyful and pleasant issues instead of thinking about the actual event
Positive Reappraisal	Thoughts of creating a positive meaning to the event in terms of personal growth
Acceptance	Thoughts of accepting what you have experienced and resigning yourself to what has happened
Refocus on Planning	Thinking about what steps to take and how to handle the negative event

Older adults report using *positive refocusing*, *putting into perspective*, *catastrophising* and *acceptance* more than any other age group (Garnefski & Kraaij, 2006). In general, it is proposed that with experience comes the development of advanced cognitive abilities (Garnefski & Kraaij, 2006). A longitudinal study suggests that these cognitive coping strategies also play an important role in relation to depressive symptoms in late life (Kraaij, Pruymboom, & Garnefski, 2002). One recent study shows that the

relationship between specific cognitive emotion regulation strategies (*rumination*, *catastrophising*, and lack of *positive reappraisal)* and symptoms of depression is relatively stable across the age groups (early adolescents, late adolescents, adults, and older adults). However, the relative strength of the relationship differs (Garnefski & Kraaij, 2006). No significant relationships have been found between depressive symptoms and *positive refocusing* or *other-blame* across any age group (Garnefski & Kraaij, 2006). Yet, all age groups except the elderly show a positive relationship between *self-blame* and depression (Garnefski & Kraaij, 2006; Garnefski, Kraaij, & Spinhoven, 2001). Although *refocus on planning* and *putting into perspective* were significantly related to depression in younger adults, there were not in older adults (Garnefski & Kraaij, 2006).

A distinction can be made between two types of *acceptance*; an active process of self-affirmation, or a passive form of resignation to negative experiences (Wilson, 1996). The current study focuses on the latter type, which has been identified as a negative adjustment style (such as giving up with no hope for a positive future), which is associated with depression and consistent with the learned helplessness theory (Garnefski & Kraaij, 2006; Kraiij, Pruymboom et al., 2002). In fact, after controlling for negative life events and prior depressive symptoms, *acceptance and positive reappraisal* retain their significant relationship with current depressive symptoms. This research suggests that in addition to early depression, cognitive coping strategies are important predictors of late-life depressive symptoms (Kraiij, Arensman et al., 2002).

FACTORS TO CONSIDER IN TREATING OLDER ADULTS

After emotional problems and poor coping abilities have been identified, an appropriate treatment should be selected and modified, giving consideration to factors unique to older adults, as specified by the *Components of the Contextual Adult Life Span Theory for Adapting Psychotherapy* (CALTAP; Knight, Lee, & Poon, 2008, cited in Knight & Poon, 2008).

The CALTAP is a revision of an earlier transtheoretical model - the Contextual, Cohort-based Maturity, Specific Challenge model (CCMSC; Knight, 2004). This model proposes that although developmental maturity changes set the *broad*

parameters for aging, their influence is relatively small. Developmental changes include slowing reactions (Salthouse, 1996), poorer memory recall (Small, Dixon, & Hultsche, 1999), declining fluid intelligence (Dixon, 2003), and diminishing strength, flexibility and sensory functioning. However, older people also become more mature and wise and they can compensate for these changes with practice, training, and by drawing on psychological and social resources (Knight, 2006). In addition to maturity factors, the CALTAP emphasises other factors that are important to consider when adapting psychotherapy for older adults including culture, social context, cohort, and the unique challenges of later life, as described below and shown in Figure 1.

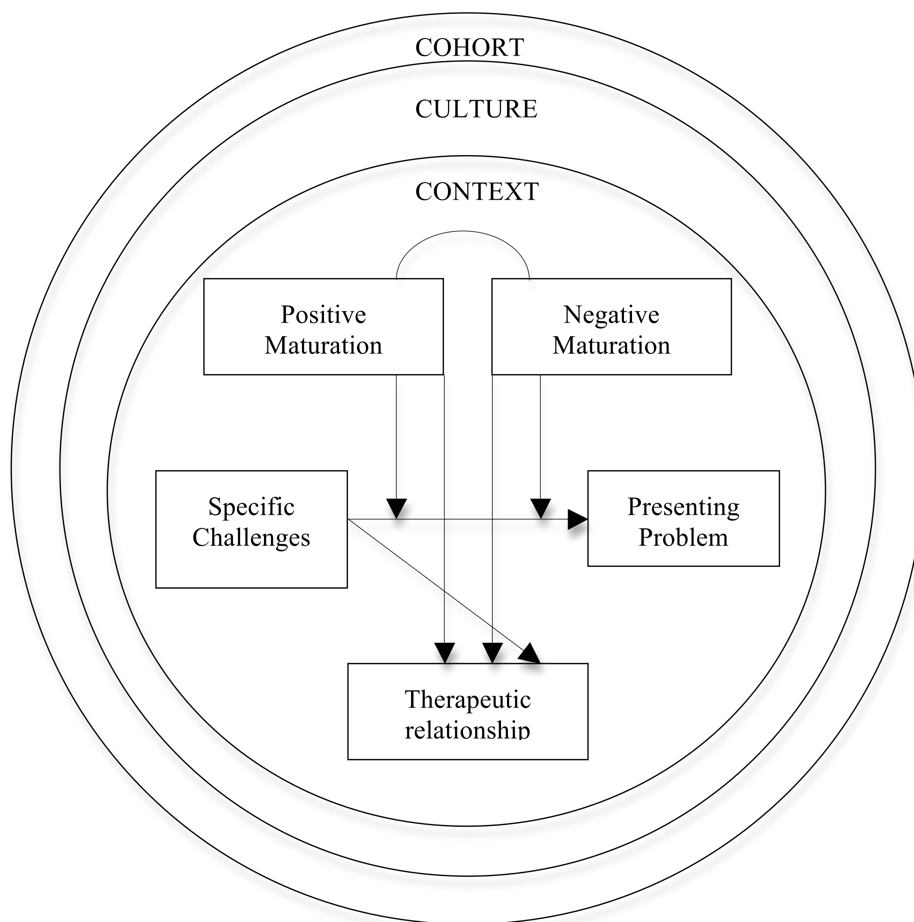

Figure 1. Components of the Contextual Adult Life Span Theory for Adapting Psychotherapy (CALTAP; Knight, Lee, & Poon, 2008).

Consideration of the older adult's *culture* is the key component that differentiates the CALTAP from the CCMSC. Specifically, culture includes the ethnic and racial differences in socioeconomic resources and opportunities, as well as cultural values

and beliefs such as individualism versus collectivism. Cultural factors such as the value placed on harmony, support or autonomy, are found to influence illness interpretation, emotional expression, and help-seeking, and are therefore important to acknowledge in assessment and treatment (Knight & Poon, 2008).

Understanding older adults' *social context* is also valuable. Social context factors include the living arrangements, medical settings, recreational settings (such as older adult community organisations), family, and society with its specific stereotyped ageist beliefs and laws affecting older adults. This can provide information on their lifestyle and the support or concerns they may have (Knight, 2006).

Furthermore, *cohort* factors are the beliefs, attitudes, personality dimensions, and even academic abilities attributed to a group defined by their birth year. As a result, they are shaped by the occurrence of social and historical events, for example, the Great Depression or military service during World War II. Research shows that cohort differences can be more meaningful than age differences, as dual age identity (age group vs. generation) represents a significant component of the self-concept and well-being in older adults (Weiss & Lang, 2009). One cohort effect is that later born cohorts are believed to have increased familiarity and acceptability with psychology and psychotherapy (Knight & Poon, 2008), while earlier born cohorts are more likely to associate mental illness with personal failure, weakness, poor social skills, or spiritual deficiency (Lebowitz & Niederehe, 1992; Segal, Coolidge, Mincic, & O'Riley, 2005). This cohort difference is important as perceived stigma can lead to feelings of embarrassment, poorer inclination to seek mental health treatment, and downplaying the seriousness of symptoms (Robb et al., 2003).

Finally, the *specific challenges* that older adults are more likely to face should be considered in adapting psychotherapy. These include chronic illness, disability, grief, and prolonged caregiving for family members with severe cognitive or physical difficulties. It is recommended that specific losses are recognised and reconceptualised as challenges to overcome or adjust to (Knight, 2006).

CHAPTER SUMMARY

The current chapter has given an overview of older adults, their emotional well-being and their coping style. In general, research shows that older adults experience successful aging and consequently experience fewer negative emotions. However, as the population ages, there is an exponential growth in the number of people who have emotional difficulties such as depression. Ideally, these people need assessment and treatment which sensitively considers factors such as their social context, their cohort, their biological changes, and acknowledges the specific challenges they face, as well as targeting specific maladaptive coping strategies. The following chapters will explore how the construct of optimism and subsequent interventions are different or applicable for older adults.

CHAPTER TWO – EXPLANATORY STYLE

CHAPTER OUTLINE

Explanatory style, also known as attributional style, is a theoretical approach to optimism that has become a popular topic in psychology. This chapter will review the explanatory style literature including the background and origins of the approach, the dimensions involved, how it affects well-being and varies across events. It will also introduce the modest amount of research on how explanatory style affects coping. Importantly, the explanatory style approach will be differentiated from another theoretical approach to optimism called the expectancy approach (or dispositional optimism), given that they are commonly mistaken for one another. Later in the chapter, the literature will be reviewed on the age differences in levels of explanatory style and the mixed evidence regarding its relationship with well-being in older adults. Finally, the theory of 'unrealistic optimism' will be introduced to help explain why extreme levels of optimistic explanatory style may be unrealistic and unhelpful in late life. Figure 2 presents the constructs that are discussed in this chapter and circles the main areas of interest in the present study. The two-way arrows signify correlations.

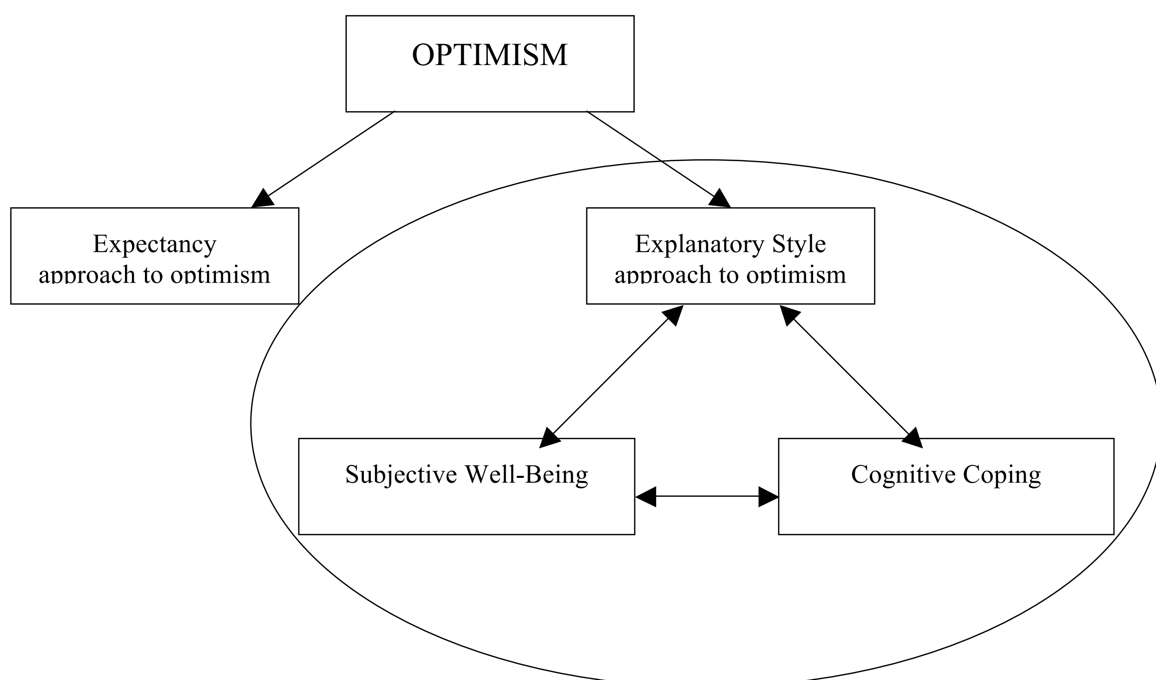

Figure 2. Constructs of interest.

Background & Origins

Dr Martin Seligman and colleagues developed the construct of explanatory style (1991). Explanatory style is a cognitive mediation process referring to the way in which people routinely explain events in their lives. Although reality or social consensus can sometimes influence the causal explanations people use, in more ambiguous circumstances, people have immediate, reactive, habitual tendencies to explain events in a certain way (Boman et al., 2009).

The theory of optimistic explanatory style stemmed from theories on learned helplessness with the appreciation that negative consequences come from the inability to control important environmental events (Maier, Peterson, & Schwartz, 2000). Specifically, research on learned helplessness began in the animal laboratory of Richard L. Solomon in the mid-1960s. It focused on the behavioural psychology of learning and not directly on depression or other problems of human adaptation. In the testing of the occurrence of avoidance learning, Seligman and Maier (1967) discovered that inescapable shock interfered with later learning of escape. This was termed the Learned Helplessness Hypothesis (Maier, Seligman, & Soloman, 1969), which was described as "an expectation that highly desired outcomes will not occur, or that highly aversive outcomes will occur, and that one cannot change this situation" (Abramson, Alloy, & Metalsky, 1989, p. 359). From here, Seligman (1974, 1975) proposed that learned helplessness plays a causal role in depression.

Later, Seligman, in collaboration with Abramson and Teasdale, published a Reformulated Learned Helplessness Theory of depression (RLHT; Abramson, Seligman, & Teasdale, 1978), which incorporated ideas from explanatory style theory, previously in the domain of social psychology. RLHT proposed that when individuals encounter an uncontrollable aversive event, they question why that event occurred. The causal attribution they entertain may lead to helplessness. In this way, it is a diathesis-stress theory, proposing that a pessimistic explanatory style (the diathesis) and bad events (the stress) are necessary for negative emotional and behavioural outcomes to develop.

There are still queries over the exact origins of explanatory style. An individual is believed to primarily acquire their explanatory style over the course of development

beginning in childhood. Some research shows that the explanatory styles of parents and children converge (Seligman et al., 1984). That is, parental depression may contribute to the development of pessimistic cognitive styles in offspring through a number of factors including genetic transmission, modelling, and direct teaching of ways to attribute events (Snyder, Higgins, & Stucky, 2005). Specifically, twin studies show that explanatory style may be heritable (Schulman, Keith, & Seligman, 1993), perhaps through factors that lead to success or failure in life, such as intelligence, attractiveness, and health. Failure and trauma early in life, such as abuse/maltreatment, neglect, or parental divorce, have also been found to foreshadow pessimism later in life (Peterson, Maier, & Seligman, 1993). There is considerable debate over whether explanatory style is then stable over the lifespan.

Dimensions

There are three dimensions of explanatory style (Seligman, 1991). The first is the *internality* (internal – external) dimension, relating to whether the event is perceived as due to one's own actions or other situational/environmental factors. The second dimension is *stability* (stable – unstable), which predicts whether the cause of the event is permanent or temporary. The third dimension of explanatory style is *globality* (global – specific), which is the prediction of whether the cause is pervasive in many areas of one's life or isolated to one life domain.

Optimistic explanations for negative events are external, unstable, and specific. That is, negative events are attributed to environmental or situational factors that are temporary and affect few domains in one's life. For example, an optimistic explanation for a failure may be, "that particular task was more difficult than most", and as result, may lead to increased self-efficacy, hopefulness, and positive emotions. In contrast, pessimistic explanations for negative events are internal, stable and global, for example, attributing a failure to being "stupid". That is, negative events are attributed to characteristics of the individual, due to factors that are likely to endure over time, and generalized to circumstances that affect multiple domains. Consequently, the pessimistic individual can become vulnerable to helplessness deficits, for example, decreased motivation, hopelessness, and dysphoria. The opposite pattern is true for positive events (e.g., a success), where an optimistic explanation is often internal, stable and global (e.g., "I am conscientious"), and a

pessimistic explanation is external, unstable, and specific (e.g., “I was just lucky”; Gillham, Shatte, Reivich, & Seligman, 2001; Seligman, 1991).

Optimistic and pessimistic explanations lead to different expectations about the future; that is, whether outcomes are perceived as controllable or uncontrollable, respectively. These expectations subsequently influence their behaviour. The former will likely take steps to control outcomes and be resilient, whereas the latter may be vulnerable to helplessness and failure to adapt in the face of adversity (Gillham et al., 2001).

Differentiating between the explanatory and expectancy approaches to optimism

From the outset, explanatory approach must be differentiated from the expectancy approach (also known as dispositional or trait optimism) as they are proposed as distinct constructs (see Table 2). The expectancy approach, developed by Scheier and Carver (1985), is a goal-based approach that is activated when a fairly major value is attached to a perceived outcome. It conceptualises optimism as hopeful expectations in a given situation (Scheier & Carver, 1988), or more recently, general outcome expectancies that are positive (Scheier & Carver, 1993). Alternatively, pessimism is expecting bad experiences in the future.

Table 2.
Theoretical approaches to optimism

Theoretical approach	Definition of optimism	Definition of pessimism
1. Explanatory style (attributional style)	External, unstable, specific explanations for bad events and/or internal, stable, global explanations for good events	Internal, stable, global explanations for bad events and/or external, unstable, specific explanations for good events
2. Expectancy approach (dispositional optimism)	Expecting good outcomes in the future	Expecting bad outcomes in the future

Only recently has there been discussion of the relationship between the explanatory and expectancy approaches (Gillham et al., 2001). Scheier and Carver (1993) argued that the theories of each are conceptually related; however, other researchers believe that causal attributions and expectations/predictions are unrelated (Abramson et al., 1989; Tusaie & Patterson, 2006; Zullow, 1991). Furthermore, contrasting findings in the optimism research are believed to stem from the different theoretical focus. For example, while control expectancies are considered to be independent of dispositional optimism, they are an essential aspect of explanatory style. Although both approaches are related to enhanced well-being, they have different relationships to other constructs such as anxiety, depression, mania and physical health complaints, suggesting that distinct pathways are present, which have separate patterns of information processing (Chiara & Alloy, 2000). It is also believed that they play different roles in the onset of depression. For example, the hopelessness model (Abramson et al., 1989) proposed that explanatory style attributions were distal contributing factors of depression, while negative expectations were the proximal cause of depression. Furthermore, a few empirical studies have found some support for the role of expectations as a mediator between attributions and depression (Garber, 2000).

Explanatory style and well-being

The explanatory approach has received widespread attention for its hypothesised role in the etiology and maintenance of depression for a number of decades (Beck, 1967; 1987; Peterson & Seligman, 1984; Wise & Rosqvist, 2006). In particular, both prospective and retrospective studies show that high optimistic explanatory style can protect against depression, while pessimistic explanatory style remains a robust predictor of future depressive episodes and suicidal ideation (Isaacowitz & Seligman, 2002; Hirsch, Wolford, LaLonde, Brunk, & Parker-Morris, 2009). In addition, pessimistic explanatory style can negatively impact several other facets of well-being including physical health, academic and career achievement, popularity and satisfaction in interpersonal relationships (Fincham, 2000), and mental health functioning such as anxiety (Snyder & Lopez, 2007; Wise & Rosqvist, 2006). Therefore, pessimistic explanatory style is believed to be a valid target for intervention.

The specific dimensions of explanatory style leave the person vulnerable to depression, yet in different ways. The stable and global dimensions of explanatory style are believed to have a stronger impact on motivation and depression than the internal dimension (Abramson et al., 1989). In fact, correlations between the different explanatory style dimensions, particularly between the internal dimension and other dimensions, are quite low. This raises the question of whether these dimensions reflect a single construct (explanatory style) and should still be weighted equally (Gillham et al., 2001). It also reflects a need in research to look at patterns across each specific dimension, rather than just overall explanatory style.

Variability in explanatory style across events

Explanatory style for positive events is only weakly correlated with explanatory style for negative events (Peterson, 1991). Furthermore, there is a self-serving attributional bias, in that, on average, people make more optimistic attributions for positive events than for negative events. This is observed in all samples, but the largest biases are seen in children and older adults. Also, western samples display larger bias than other cultures such as Asian cultures (Mezulis, Abramson, Hyde, & Hankin, 2004). The attributional bias is believed to be an adaptive response to maintain mental health and has been associated with greater happiness and less depression (Mezulis et al., 2004). Further research is needed into the distinction between explanatory style for these types of events.

The majority of recent empirical findings show that there is also variability in the attributions made in different types of situations (for example, interpersonal or achievement; Garber, 2000; Morris, 2007). This may help to explain why internal consistency levels are low in measures, such as the Attributional Style Questionnaire, which assess general explanatory style (Gladstone & Kaslow, 1995). The degree of variability that an individual displays in assigning causes to events is termed ‘explanatory flexibility’ (Moore & Fresco, 2007). High flexibility and low rigidity is related to lower levels of depression (Fresco, Rytwinski, & Craighead, 2007).

Explanatory style and coping

Although explanatory style is related to a variety of psychological, behavioural, and physical outcomes, its relationship with coping strategies remains unclear (Gillham et

al., 2001). In fact, research interest in coping has not extended far beyond dispositional optimism to explanatory style.

One study found that pessimistic attributional style contributes to the development of depressive symptoms through the use of certain emotion-focused coping strategies and the non-use of problem-focused coping strategies (Sanjuan & Magallares, 2007). In addition, for controllable events, pessimistic explanatory style has been found to predict appraisals of adequate resources to cope with demands, which in turn predicts increased attempts to cope (Sellers & Peterson, 1993). In another study with young adults and university students, those who made stable and global attributions for bad events were less likely to take active steps to improve their course performance following a poor grade or when they experienced symptoms of illness, which is consistent with the Reformulated Learned Helplessness Theory. However, there was mixed evidence about whether internal attributions led to active coping attempts (Peterson, Colvin, & Lin, 1992).

Although the available research indicates that there is an association between optimistic explanatory style and active problem-focused coping in a range of age groups, there are limitations when it is applied to older people due to the types of events they face, as discussed in chapter one (Seligman, 1991). Furthermore, there is no known research on the relationship between the explanatory style and emotion-focused coping in older adults.

Explanatory style in older adults

There is a wealth of evidence demonstrating a predictive link between pessimistic explanatory style and depressive symptoms in children and young adults (Snyder & Lopez, 2007). However, only a modest amount of research has evaluated explanatory style in older adults. There are two questions that are commonly asked in research of this kind. First, are older adults more optimistic than younger adults? Second, does the relationship between well-being and explanatory style vary across the life-span?

Are older adults more optimistic than younger adults?

Firstly, the literature is unclear on whether explanatory style changes across the lifespan. Older evidence suggests that explanatory style crystallises by about age nine

and, without intervention, remains stable across the life span (Burns & Seligman, 1989). Specifically, documents written by individuals over periods of up to 50 years revealed relative stability in the way people perceived negative but not positive events over time (Burns & Seligman, 1989). However, recent research (Morris, 2007) refutes the idea that explanatory style is a trait and shows that it is not temporally stable. For example, older adults have been shown to make more stable and specific explanations for negative events than college students (Lachman, 1990).

Other results show that age differences in levels of explanatory style depend on the type of event. For positive affiliation/social events, older adults are more optimistic than younger adults (Isaacowitz, 2005; Lachman, 1990). This effect remains significant after controlling for a number of demographic and affective covariates. These results are consistent with the socioemotional selectivity theory (Carstensen, 1992) and its focus on emotional balance and close positive social support networks. In contrast to positive affiliation events, older adults reported less optimistic explanatory styles for negative health/cognitive events than younger people (Isaacowitz, 2005). This is hypothesised to be due to the loss of control in physical or intellectual functioning which are caused by stable and global causal factors in late life, rather than temporary and specific causal factors (Lachman, 1991). Furthermore, older adults, compared with middle-aged adults, perceive achievement events in less optimistic ways, perhaps because midlife is a time of work-related success and relatively high control beliefs (Lachman & Weaver, 1998).

Does the relationship between well-being and explanatory style vary across the lifespan?

There has been further conflicting evidence regarding age differences in the relationship between optimistic explanatory style and well-being. Some research has shown consistent patterns of higher optimistic explanatory style and health across younger and older adults (Lachman, 1990). Yet, there are also studies that find no significant interactions between optimistic explanatory style and depression/life satisfaction across the age groups (Isaacowitz, 2005).

It is not always true that the higher the older adults' level of optimism, the higher their level of well-being. Isaacowitz's (2005) most recent study only found one significant

relationship between all the domains of explanatory style and life satisfaction, and that was between pessimistic explanatory style and depression for affiliation events. In another study, older adults who pessimistically ascribed events to internal and global causes reported poorer health than those who ascribed events to external and specific causes, indicating a positive relationship between optimistic explanatory style and well-being (Lachman, 1990). Yet, other studies have found only a modest relationship between pessimistic explanatory style and depressive symptoms in healthy older adults (Kamen-Siegel, Rodin, Seligman, & Dwyer, 1991; Sharpley & Yardley, 1999). A diathesis-stress interaction was found when evaluating the maladaptive effects of community dwelling older adults' extreme optimistic explanatory style (Isaacowitz & Seligman, 2001, 2002). Those participants who were highly optimistic were at higher risk for depressive symptoms, although only in the presence of intervening negative life events, compared with pessimist participants. This effect was present, regardless of stressor level and was maintained at both six-month and one year follow-ups. In contrast, the extreme optimists who had not experienced negative life events reported low levels of depressive symptoms, while the more pessimistic participants tended to experience moderate levels of depressive symptoms regardless of life events.

Theory of realistic optimism

The concept of 'realistic optimism' is proposed to help explain why higher levels of optimistic explanatory style may not correlate highly with well-being (Schneider, 2001). A 'realistic outlook' is one that helps improve an individual's chances to negotiate the environment successfully, whereas an 'optimistic outlook' emphasises feeling good and may include optimistic biases that involve self-deception without appropriate reality checks. Although an abundance of research suggests that the optimistic outlook is advantageous and related to positive outcomes, other scholars have argued that research does not convincingly demonstrate that optimistic perspectives are superior to realistic perspectives. For example, optimistic illusions may lead to underestimating risk and therefore not engaging in preventative action (Weinstein & Klein, 1996). Also, the avoidance of negative emotions has been found to lead to significantly stronger physiological reactions to stress compared with those who were more realistic about their negative emotions (Brown et al., 1996; Derakshan & Eysenck, 1999; Gross & Levensen, 1997). There are also researchers that argue that

there may be an optimal margin of illusion, and that slight optimistic illusions are beneficial provided that do not distort reality in ways that may be harmful (Baumeister, 1988; Epstein, 1992, cited in Schneider, 2001).

Therefore, the concept of ‘realistic optimism’ was developed. It is defined as the tendency to maintain a positive outlook that is simultaneously positively biased and within the range of what is reasonable to conclude given the individual, social, and physical constraints (DeGrandpre, 2000). Those who have extreme or unrealistic levels of optimism are believed to persist in attempts at active coping even when they face problems that are not amenable to such attempts. This can lead to detrimental effects on long-term well-being, particularly when they are faced with cumulative negative events (Abramson et al., 2001; Schneider, 2001; Seligman, 1991).

What is realistic?

Schneider (2001), however, highlights the limitations of conducting research on realistic optimism from a social constructionist epistemology. In particular, she emphasises that it is difficult to “objectively” or accurately assess what is realistic or unrealistic, as meaning is constructed by agreed-upon social systems and changes over time. Nevertheless, she states that “this complexity does not imply that truth and accuracy are fictions; however, it does highlight the importance of a reasonable amount of leeway needed in accepting what is true or accurate” (p.252). Therefore, having a clear cut and agreed upon criterion (involving cutoffs) is difficult and so evidence used to describe unrealistic optimism is only indirect.

Realistic optimism and older adults

Despite the variation in defining what is realistic, some research shows that for older adults, a realistically optimistic perspective is associated with better adaptation to negative life events (Isaacowitz & Seligman, 1998; Ryff, 1991). This involves accepting that some events occur regardless of their efforts and are likely to occur again in the future, for example, permanent negative health/cognitive events. As a result, they are less likely to be affected by the inevitable changes that accompany aging. In one study, older unemployed workers who were more optimistic became more depressed than their less optimistic counterparts after 18 months of continued unemployment (Frese, 1992). It was asserted that being hopeful of change in the short

term is not beneficial when such change is actually unlikely. Consequently, the research emphasises the benefits of realism in older age and, therefore, intervention and prevention programs should emphasise the importance of adaptive thinking.

CHAPTER SUMMARY

In summary, explanatory style is a theoretical approach to optimism that was developed from theories of helplessness. It includes three dimensions (internality, stability, and globality) and varies across types of events and over time. How explanatory style specifically affects coping is largely unknown, particularly in older adults. In general, optimistic explanatory style is found to be higher in older adults than younger age groups for affiliation events, but not health/cognitive events or achievement events. Although there is mixed evidence about the relationship between explanatory style and well-being in older adults, it appears that extreme optimistic explanatory style can lead to poorer well-being in the face of negative life events, possibly because goals are set at an unrealistic level. Therefore, it appears preferable for interventions to either create or enhance a realistic optimistic perspective. Optimism interventions will be described in chapter four, after an overview of the types of interventions.

CHAPTER THREE – INTERVENTIONS

CHAPTER OUTLINE

The previous chapter outlined the construct of explanatory style and how it applies to older adults. The present chapter reviews the literature on the two types of interventions that have been developed to improve well-being: preventions and enhancements, which can be further divided into primary or secondary types (see Table 3 below for the slogans identified by Snyder & Lopez, 2007, p. 347). More specifically, these include various methods of delivery such as standard psychotherapy including cognitive behavioural therapy, positive psychology, and self-help. Similar to previous chapters, there will be a focus on older adults.

Table 3.
Types of interventions

Type of intervention	Slogan
Prevention	
Primary prevention	“Stop the bad before it happens.”
Secondary prevention	“ Fix the problem.”
Enhancement	
Primary enhancement	“ Make life good.”
Secondary enhancement	“Make life the best possible”.

PREVENTIONS

In general, preventions involve efforts to stop negative things from occurring later. *Primary prevention* interventions lessen or eliminate the likelihood of subsequent psychological difficulties, whereas *secondary prevention* interventions lessen or eliminate the psychological difficulties that are already present (often called psychotherapy), which are discussed further below (Snyder & Lopez, 2007).

Primary preventions

Advances have been made in the field of primary prevention. Although they are shown to be cost-effective and effective in reducing the probability of future

psychological problems and poor quality of life, general awareness and understanding is still limited (Holden & Black, 1999; Kaplan, 2000). One barrier to implementing primary prevention programmes is the common belief that bad things will only happen to other people (called the *unique invulnerability;* Snyder, 1997); although by normalising the problem, people are more willing to seek help (Snyder & Ingram, 2000). Furthermore, primary preventions can be divided into three types based on a continuum of risk, from *indicated preventions* for high-risk individuals who do not meet full diagnostic criteria, *selective preventions* for at-risk individuals who do not yet show signs of the disorder, and *universal preventions* targeting all individuals regardless of their relative risk (Karp, Lenze, Solai, Rosen, & Reynolds, 2006; Konnert, Gatz, & Meyen Hertzsprung, 1999).

Primary prevention for older adults

Few studies have focused specifically on primary preventative interventions with older adults (Sriwattanakomen et al., 2008). Specific primary prevention programmes that have been developed have focused on either modifying the social environment or strengthening psychological resources and coping skills (Konnert et al., 1999). Specifically, social environment interventions have included friendly visitor programmes for isolated older adults (Korte & Gupta, 1991), support groups for widows (Mrazek & Haggerty, 1994), grandchildren ringing their grandparents after school (Szendre & Jose, 1996), voluntary work to help debilitated neighbours (Baumgarten, Thomas, Poulin de Courval, & Infante-Rivard, 1988), and community education. Skill-building interventions have targeted communication and assertion, educational or work performance, managing stress by anticipating events, altering perceptions of events, or enlarging cognitive repertoires (Konnert et al., 1999). More research is needed to understand what types of preventions work with older adults as results are mixed (Snyder & Lopez, 2007).

Secondary preventions (psychotherapy)

Secondary prevention is synonymous with the standard common psychotherapy interventions, of which there are over 400 types (Roth, Fonagy, & Parry, 1996). It is consistently found that evidence-based secondary prevention can reduce the severity and frequency of problems and improve lives of older adults (Gallagher-Thompson et al., 2000; Snyder & Lopez, 2007). When psychotherapy is effective, it may also act as

a primary prevention to lessen/prevent the recurrence of similar problems in the future. A major barrier to implementing secondary treatment is the stigma surrounding seeking mental health care. Positive psychological treatment (discussed further later) with its inherent focus on enhancing strengths can help to reduce this stigma.

Secondary prevention for older adults

The demand for secondary mental health services is increasing exponentially due to the aging population, which includes the baby boom cohort who report higher rates of depression than previous cohorts (American Psychological Association, 2004; Futterman, Thompson, Gallagher-Thompson, & Ferris, 1995; Lewinsohn, Rohde, Fischer, & Seeley, 1993; Kessler et al., 2003; Soldo, Mitchell, & McCabe, 2007). While the percentage of older people in the population is growing, they remain underrepresented in all forms of psychotherapy (Glicken, 2009). In fact, access to mental health services for older people in New Zealand has been described as “well below expectations” (Ministry of Health, 2005, p.17).

There are a number of possible reasons for this under-utilisation of psychological services. It is possibly due to poor identification of psychological problems by primary care physicians and incorrect diagnosis of a degenerative disease such as dementia, which both lead to low referral rates (Roth & Fonagy, 2004). It may also be due to a lack of adequate training and supervised clinical practice for psychologists working with older adults, leading to limited numbers as well as lower confidence and effectiveness in those that are available (Glicken, 2009). Furthermore, some professionals traditionally held reservations regarding the value and utility of psychotherapy with older people due to perceived lack of mental plasticity and the false notion that emotional problems are inevitable as people age (Butler, Lewis, & Sutherland, 1998). However, more recently, professionals are more optimistic about the range of benefits older people can gain from psychotherapy due to supporting clinical research and scientific gerontology (Knight, Nordhus, & Satre, 2003; Zarit & Zarit, 2007).

In addition to the low referral rate and availability of mental health services, older adults have been reluctant to seek help due to the perceived stigma attached to mental

illness, feelings of guilt at their inability to deal with the difficulties themselves, and notions that it is wrong to discuss problems outside the family unit (Laidlaw, 2006). Nevertheless, compared with the past, older adults are increasingly turning to mental health professionals in outpatient services for help with problems, especially depression (APA, 2004; Zarit & Zarit, 2007). Specifically, one study showed older people consider psychotherapy (such as Cognitive Behavioural Therapy) and antidepressant medications as equally acceptable treatments for late life depression (Landreville, Landry, Baillargeon, Guerette, & Matteau, 2001). In line with Erikson's (1963) theories, psychotherapy is believed to fit in well with the developmental processes of life (Morgan, 2003). That is, late life is about "putting into perspective and negotiating between ego integrity and despair. The expectable events of aging, such as retirement or relationships with adult children and grandchildren, often serve as an impetus for self-reflection and psychotherapy" (p.117).

Cognitive Behavioural Therapy for older adults

Cognitive Behavioural Therapy (CBT) is one type of psychotherapy that has considerable potential for alleviating emotional problems in older adults (Blazer, 2002; Butler, Chapman, Forman, & Beck, 2006; Gallagher-Thompson & Thompson, 2010). Compared to five years ago, the current status of CBT research with older people is promising (Beck, 2005; Butler et al., 2006; NIMH, 2006). There are now approximately 332 published controlled outcome studies and 16 meta-analyses of CBT. One meta-analysis (Pinquart et al., 2006) used 89 treatment studies (involving 5328 participants) for late-life depressive conditions whereas fewer than 200 participants had been studied in 2001. The results from this meta-analysis included high effect sizes for clinician-rated improvements, and moderate effect sizes for self-rated improvements. In fact, CBT is shown to be so effective that the National Insititute for Health and Clinical Excellence (NICE) depression guidelines recommend CBT as the treatment of choice for mild depression for older adults, as an option for moderate depression, and as an adjunct to medication for severe depression. This efficacy has been demonstrated for community-dwelling older adults who are cognitively intact (Gatz et al., 1998).

Cognitive behavioural interventions can be particularly effective with older people for a number of reasons (Morris & Morris, 1991). First, the idiosyncratic nature of

cognitive behavioural interventions is ideally suited to the homogenous population of older adults. Specifically, the focus is on the 'here and now' where current needs are identified and interventions are developed to target specific stressors (Pinquart & Sorenson, 2001). This goal-oriented approach challenges stereotyped beliefs such as "You can't teach an old dog new tricks". Second, the interventions are educative, especially regarding the connections between thoughts, mood and behaviour, and the negative cycles of depression upon the old person's activity level and vice versa. Although educative, this approach is also based on collaborative empiricism where the therapist and older adult work together as a team, so that the therapist is not perceived as the expert and disrespectful of the older adult's wisdom and life experience. Third, the older adult is taught to self-monitor and recognise mood fluctuations and to develop specific practical strategies that enhance coping ability. Lastly, cognitive behavioural interventions are structured, which can help keep the older adult oriented to tasks within and across sessions (NIMH, 2006).

Specific cognitive interventions

Despite intensive research on the effectiveness of whole cognitive therapy packages, there is little understanding about the mechanisms of change and value of specific techniques/components (Bennett-Levy, 2003). Cognitive restructuring is a key component of CBT and aims to modify negative automatic thoughts. One effective method of cognitive restructuring is through the use of a worksheet called the Dysfunctional/Daily Thought Record (DTR; also known as an Automatic Thought Record). A DTR is commonly used initially in-session and later for homework for practice and to help reduce relapse rates (Greenberger & Padesky, 1995). Specifically, the DTR is a self-monitoring written form that has space for clients to record their thoughts, their rational responses to their thoughts, and to note the impact on their mood. It is suggested that the DTR impacts a logic-based propositional information processing system, which is less reliant on the therapist than other cognitive techniques such as Behavioural Experiments, which test the validity of thoughts in the real-world (Bennett-Levy, 2003). There are many versions of DTRs in CBT textbooks that are empirically supported for older adults (Coon, Rider, Gallagher-Thompson, & Thompson, 1999; Dick, Gallagher-Thompson, & Thompson, 1996; Laidlaw et al., 2003; Zeiss & Steffen, 1996). Initially, clients complete the short version which includes three columns, identifying the 'Antecedent' - the event or situation during

the week that was stressful or upsetting; the 'Belief' - a list of automatic thoughts that were connected to the event; and the 'Consequence' - a list of emotions that were experienced as a result, which are then rated for intensity on a scale of 1-10. When the three-column version has been mastered, the next stage involves developing alternative thoughts using longer versions of the DTR, with either five columns (Beck et al., 1979) or seven columns (Padesky & Greenberger, 1995). The seven-column version is believed to be more effective as it allows for a more balanced analysis of the validity of negative thoughts by collecting evidence that both supports and does not support the thoughts (de Oliveira, 2007). After weighing up the evidence, alternative, more helpful thoughts are developed and the emotions are re-rated for the client to learn that he/she is able to regulate their mood (DeVries, 2007; Gallagher-Thompson & Thompson, 2010).

ENHANCEMENTS

In contrast with preventative interventions, enhancements involve increasing what people want in their lives. *Primary enhancements* establish optimal functioning and satisfaction, whereas *secondary enhancements* go even further to build upon already-optimal functioning and satisfaction to achieve peak experiences. The line between optimal and peak experience may be very subtle (Snyder & Lopez, 2007). One field that predominantly focuses on enhancement is positive psychology.

Positive psychology

Positive psychology is an applied approach that focuses on enhancing positive emotions, strengths, and finding untapped resources for change, rather than just focusing on the problem; Seligman (2002, cited in Compton, 2005) states that it is "not just fixing what is wrong, it is also building what is right" (p.4). That is, instead of achieving the movement from a state of negative emotionality to what might be described as a state of neutral emotionality, the aim is to move from a neutral position to a positive state of environmental mastery, personal growth, purpose in life, autonomy, self-acceptance, and/or positive relations with others (Compton, 2005; Fava, 1999; Fava & Ruini, 2003; Frisch, 2006). Concern has been expressed over whether the definition of positive psychology is inconsistent and overly broad (Kalata & Naugle, 2009). Although it emphasises enhancement and primary prevention, it is also often used as a secondary prevention (Allan, 2008). Although it is used with

many disorders, depression is explicitly targeted at present since the symptoms of depression are lack of positive emotion, lack of engagement, and lack of meaning.

The positive psychology approach was developed from the fields of counselling psychology and humanistic psychology and can include solution-focused therapy, well-being therapy, hope therapy, values clarification, resiliency training, pleasant events therapy, behavioural therapy, or Fordyce's happiness training programme. Some examples of interventions/exercises are *three good things/blessings,* which involves recording three things that went well that day and why they went well, *savoring* (Bryant & Veroff, 2007)*,* which involves taking your time to enjoy something that you usually hurry though (e.g., eating a meal)*, use your signature strengths,* which involves identifying your strengths and thinking of ways to use them in your daily life. These interventions have been administered with a variety of samples from undergraduates to depressed patients, in both individual and group formats, delivered via therapy sessions and via the Internet. Whether people reach the lower or higher end of the "happiness continuum' is influenced by both genetic inheritance of positive emotionality and the surrounding environment and training (Seligman, Rashid, & Parks, 2006).

The effectiveness of positive psychology interventions has been evaluated using traditional scientific methods that were developed for understanding and treating psychopathology (Seligman et al., 2006). Positive outcomes have included increased life satisfaction, more rewarding interpersonal relationships, higher productivity and satisfaction at work, and a higher likelihood of reaching desired goals (Diener, Suh, Lucas, & Smith, 1999; Seligman & Steen, 2005). In addition, people who express more positive emotions are more likely to be physically healthier, more resistant to illness, and may even live longer than others (Danner, Snowdon, & Friesen, 2001). More specifically, individual positive psychotherapy with severely depressed clients has led to enhanced happiness, more symptomatic improvement, and more remission than did 'treatment as usual' and 'treatment as usual plus antidepressant medication'. In addition, group positive psychotherapy given to mildly to moderately depressed students led to significantly greater symptom reduction and increases in life satisfaction than in the no-treatment control group. This improvement lasted for at least one year after treatment. The effect sizes in both individual and group studies

were moderate to large (Seligman et al., 2006). Furthermore, studies have shown that positive psychology exercises delivered on the Internet have relieved depressive symptoms for at least 6 months compared with placebo interventions that lasted less than one week. These exercises were particularly effective for severe depression (Seligman et al., 2006).

Enhancements for older adults

Compared with secondary preventions, only a modest number of enhancement or positive psychological interventions have been implemented with older adults. Hope therapy has been given to depressed older adults, in which they learnt goal-directed activities, leading to reduced depression and increased activity levels (Klausner, Snyder, & Cheavens, 2000). Also, reminiscence and life review interventions where older adults recall earlier pleasurable times in their lives, on average, have been reasonably successful for increasing well-being. For example, one study found that a small-scale intervention that involved compiling a book of wartime experiences in a group of housebound community-dwelling older people led to a significant improvement in psychological well-being (Houston, McKee, & Wilson, 2000). This improvement was highest for those with depressogenic styles and low efficacy. In addition, involving socially isolated older people in mentored and individually tailored creative and social activity has shown to be effective in increasing self-reported alertness, social activity, self-worth, optimism about life, and positive changes in health behaviour (Greaves & Farbus, 2006). Unfortunately, a meta-analysis found the beneficial effect of these interventions on older adults' subjective well-being often dissipate within one month of post-treatment (Okun, Olding, & Cohn, 1990).

SELF-HELP INTERVENTIONS

The literature above outlines the two major types of intervention (preventions and enhancements). There are also various modalities in which these are delivered, one being psychotherapy which has been described throughout the chapter, and another being self-help, which is currently described as a "massive, systemic, and yet largely silent revolution" in mental health (Norcross, 2000, p.370). Self-help commonly refers to "endeavours occurring outside of formal treatment or psychotherapy" (Norcross, 2006, p.683). It aims to do more than merely give information and advice

and its success depends on the “dynamic interaction between materials and users so that they are able to set their own goals, learn relevant skills and understand how to protect against relapse” (Richardson & Richards, 2006, p. 14). Self-help includes bibliotherapy, films, and internet sites, which are developed as stand alone materials but can also be supported and guided by a health care practitioner to increase its efficiency, efficacy and applicability (Lewis et al., 2003). It is estimated that over 2000 self-help books are published every year, though there is great variability in the quality of these materials (Jacobs, 2009).

Self-help approaches are popular among both clients and practitioners with up to 99.6% of clinical and counselling psychologists recommending or using self-help materials (MacLeod, Martinez, & Williams, 2009). In addition, large population-based surveys have found that self-help approaches are rated highly among the general public. Furthermore, self-help is regarded more favourably than treatment with medication or psychotherapy conducted by a health care practitioner.

Potential advantages of using self-help materials outlined by Norcross (2006), include: accessibility with minimal delay; avoidance of a referral and less stigma involved; cost of written materials are low compared with face-to-face therapy; increases client responsibility, empowerment and sense of control; allows flexibility in pace and timing; allows the client to update their knowledge and skills whenever they choose, and provides support and knowledge for family members. In addition, when used as a supportive component of treatment, self-help approaches are found to reduce the length and number of sessions with the client (Gould & Clum, 1993).

There are also a number of disadvantages of using self-help materials, particularly when used on their own. These include the possibility that deterioration or a crisis may go undetected if therapist contact is limited; high reading ages are required (Martinez, Whitfield, Dafters, & Williams, 2008); inappropriate self-diagnosis and inappropriate application of skills due to lack of patient knowledge which may exacerbate problems; those who are severely depressed may have difficulty with concentration and memory; and non-compliance with drop-out rates as high as 50% (Cuijpers, 1997; MacLeod et al., 2009). Five factors that were identified as predictors of successful patient outcome with self-help include higher levels of patient

motivation, credibility, likely adherence, self-efficacy, and a lower degree of hopelessness (MacLeod et al., 2009).

Decades of meta-analyses underscore the effectiveness self-help approaches compared with wait-list and no-treatment controls with mean effect sizes between .70 and .80 (Bowman, 1997; Cuijpers, 1997; Den Boer, Wiersma, & Van Den Bosch, 2004; Gould & Clum, 1993; Mains & Scogin, 2003; Norcross, 2006). However, some recent randomised controlled trials and reviews have cast doubt on the quality of the earlier studies and on the effectiveness of self-help (Lewis et al., 2003; Mead et al., 2005; Gellatly et al., 2007). This is due to research showing the importance of "common factors" (Norcross, 2002; Rosenzweig, 1936) of psychotherapy (e.g., therapeutic alliance and empathy) in determining treatment outcome, which are often not present in self-help interventions (Richardson, Richards, & Barkham, 2010). Specifically, it is argued that as much as 30% of the improvement in psychotherapy is due to common factors in contrast to a supposed 15% contribution by specific techniques (Lambert & Barley, 2002). Nevertheless, research shows that self-help is more effective in patients who are recruited from non-clinical settings, with existing depression (rather than those 'at risk'), who have contact with a therapist (i.e., guided self-help), and when the self-help uses CBT techniques (Gellatly et al., 2007).

CBT self-help approaches

The majority of systematic reviews and meta-analyses completed in the area of therapeutic self-help have used a CBT approach. CBT-based self-help materials have shown promising effectiveness (Lewis et al., 2003), and the "specific factors" of CBT such as its "empirically grounded clinical interventions" are believed to be the reason for its success. In fact, self-help CBT approaches have been recommended as one important component of services in the recent National Institute for Health and Clinical Excellence (NICE, 2004) guidelines on the treatment of mild depression, panic disorder, and generalised anxiety disorder. Nevertheless, recent researchers have suggested that there is an association between the therapy relationship and the outcome, independent of the specific CBT techniques, which has been somewhat neglected in the analysis of its effectiveness (Richardson et al., 2010). A few of the most popular self-help books have been selected and evaluated for the presence of common factors, based on a model by Cahill et al. (2008) which defines the three

stages in a therapeutic alliance – "establishing", "developing" and "maintaining" a relationship (Richardson et al., 2010). Although some common factors (e.g., empathy, warmth, and genuineness) have been found in self-help books to a certain extent, further development is recommended to incorporate these and other less prevalent factors further (Richardson et al., 2010). These less prevalent factors in non-guided self-help include flexibility, lack of responsiveness and rupture repair.

Self-help for older adults

The question remains, are self-help treatments worthwhile for older adults since they often have beliefs that others need (face-to-face) services more than themselves? (Arean, Alvidrez, Barrera, Robinson & Hicks, 2002). The lack of professional training in geriatrics and gerontology has contributed to the lack of psychological provision for older adults and a sense of hopelessness (APA, 2004; Laidlaw et al., 2003). While the number of trained therapists is limited, it appears that self-help interventions have a niche for the older adult population.

In one study, self-help books with either cognitive or behavioural therapy techniques were given for older adults with mild-moderate depression to complete over four weeks (Roth & Fonagy, 1996). Results showed a clinically significant change in depression with both types of self-help books, and these gains were maintained at six-month and two-year follow-ups. In four other studies (Floyd, Scogin, McKendree-Smith, Floyd, & Rokke, 2004; Landreville & Bissonette, 1997; Scogin, Hamblin, & Beutler, 1987; Scogin, Jamison, & Gochneaur, 1989), the self-help book called *Feeling Good* (Burns, 1980) was used as the primary intervention with minimal therapist/researcher contact over four weeks. All studies were found supportive of this cognitive bibliotherapy in comparison to control conditions (Scogin & Yon, 2006).

There is still debate over whether cognitive bibliotherapy should be counted as separate from CBT as a psychological treatment (Scogin & Yon, 2006). Furthermore, little has been written about using bibliotherapy as an adjunct to individual psychotherapy with older adults (Floyd, 2003). Nevertheless, CBT homework/self-help books can accelerate learning and therefore treatment progress when older adults are avid readers and open to the therapist's suggestions. In line with other studies

(Richardson et al., 2010), it can free up in-session time to focus on the interpersonal process (Floyd, 2003).

CHAPTER SUMMARY

Various methods have been used to change levels of well-being. Although there is more evidence for secondary prevention such as Cognitive Behavioural Therapy to treat existing mental illness, there is growing support for primary prevention and enhancement. In addition, the research into modes of delivery other than face-to-face psychotherapy, such as self-help, is mounting. From this literature, it appears that community-dwelling older adults are likely to benefit from evidence-based cognitive interventions since they have been shown in some studies to enhance their quality of life and prevent mental illness in the future. Self-help seems to be particularly suitable for older adults given the underutilisation of mental services due to low referral rates for psychotherapy, low availability of specialists in gerontology, and the existing stigma associated with seeking help from mental health professionals. The following chapter outlines cognitive interventions that aim for prevention and enhancement of well-being by directly targeting explanatory style.

CHAPTER FOUR – OPTIMISM INTERVENTIONS

CHAPTER OUTLINE

The previous three chapters have introduced older adults, explanatory style, and the types of interventions developed as they relate to older adults. The current chapter combines all of these areas to discuss the literature on the types of cognitive interventions that focus on increasing realistic optimism. The literature for both types of optimism - dispositional optimism/expectancy style and explanatory style - will be introduced. Although the latter is more relevant to the current study, the former is also of interest due to directly modifying optimism. Finally, a study that will be modified in the current research is discussed. Given that these studies are all conducted using children and younger adult samples, there is a gap for interventions to be applied with older adults.

COGNITIVE OPTIMISM INTERVENTIONS

Only in recent years have interventions been developed to increase optimism using Beck's empirically supported cognitive principles (Hollon & Beck, 2004; Pretzer & Walsh, 2001). Researchers support the development of these optimism interventions in order to improve well-being and help prevent suicidal activity (Hirsch et al., 2009). Specifically, optimism interventions adapt standard cognitive interventions to directly focus on reducing pessimism and increasing realistic optimism. This approach is thought to be more efficient and effective than simply targeting negative thinking in the hope of indirectly increasing optimism (Fresco, Moore, Walt & Craighead, 2009; Seligman, 1990). As described earlier, aiming for a realistic optimism is beneficial as opposed to extreme optimism. There are two main reasons for this emphasis on a balanced realistic view in therapeutic interventions; first, it is easier to believe as it is less discrepant from the current view, and second, there is a significantly lower chance that it will be disconfirmed when tested in real life situations (Pretzer & Walsh, 2001).

While only a modest amount of research has evaluated the effectiveness of these cognitive optimism interventions, the available research is positive (Pretzer & Walsh, 2001). However, it seems that all studies have been conducted with younger adults

and undergraduate university samples and therefore have limited generalisability (Pretzer & Walsh, 2001). It is suggested, however, that the absence of research should in no way imply their lack of importance and, therefore, further research needs to be conducted using older adult populations. Despite numerous opportunities emerging to design prevention programmes to make old age a productive and fulfilling period of life, none have specifically focused on optimistic explanatory style (Zarit & Zarit, 2007).

Interventions for dispositional optimism

Dispositional optimism, which is the expectancy of positive outcomes in the future, is believed to be a valuable target for intervention. An approach developed by Riskind et al. (1996) explicitly focuses on challenging optimism-suppressing schemas. Based on Beck's (1967) early suggestions, optimism-suppressing schemas are defined as rigid, absolute beliefs about the future that promote hopelessness and pessimism, while suppressing optimism. An example of an optimism-suppressing schema is "if I think too positively, I'll just be disappointed". The presence of optimism-suppressing schemas may explain the poor outcome of CBT in a study in which a sample of depressed patients who did not believe they could positively affect their own futures only experienced a reduction in negative automatic thoughts, and not a concomitant rise in positive thoughts (Stewart et al., 1993).

Burns (1980) developed an *antipessimism sheet* to evaluate specific expectancies. The sheet has a column in which the client lists an upcoming event that is likely to approach with a pessimistic outlook, then columns alongside in which to note the outcome expected, the worst, best and most likely outcomes imagined, and the actual outcome. The therapist and the client can then examine the discrepancies between the individual's expectations and the actual outcome, the impact that a pessimistic outlook has on the actual outcome, and what the client can do to influence the outcome. Specific techniques used to modify these expectancies include *pump priming*, based on the principle of cognitive priming, which involves intentionally attending to positive experiences that are relevant to the optimism schema that they wish to encourage. A similar technique is *silver lining*, which is the simple but effective task of taking a negative experience and identifying one genuinely positive element of it. Yet another technique consists of practicing *positive visualisation* by

choosing a problematic situation and visually rehearsing the steps involved in attaining the positive outcome (Riskind et al., 1996).

One study compared the effects of an optimism intervention with three other treatments including standard cognitive therapy, cognitive priming, and progressive relaxation (control group) in a sample of 83 college students (Riskind et al., 1996). Results for the optimism intervention group were encouraging, obtaining scores that were superior to those in the control group in four out of five measures. These measures depicted a significantly higher level of optimistic interpretations for negative events and a higher level of positive self-statements. However, they did not demonstrate a significant effect on the level of negative self-statements. Nevertheless, the optimism intervention group did noticeably better than the other group treatments, as the standard cognitive therapy yielded scores that were superior to the control group in only two out of five measures, while the cognitive priming group's scores were not significantly superior on any measures. Research has also shown that optimism interventions can be used as an adjunct to Positive Behaviour Support (PBS) training, by helping parents of children with developmental disabilities develop more optimistic beliefs about their child's functioning than parents who only received PBS. In addition, the optimism intervention has been found to have a moderate influence on parents' persistence in parent training programs (Kessler, 2003). Furthermore, clients who engage in optimism training have experienced significant improvements in optimism and quality of social interactions, as well as a reduction in cardiac-related depression from pre- to post- intervention. These improvements were maintained at follow-up (Frothingham, 2006).

Interventions for explanatory style

In addition to dispositional optimism, explanatory style interventions have been developed and applied to a number of settings. These interventions use Seligman's (1990) techniques of paying attention to how events in life are explained (termed *learned optimism*; Compton, 2005). One preventative intervention called the Penn Optimism Program (POP) was developed to help school children build an optimistic orientation to life and reduce the risk of depression by using cognitive behavioural techniques (Seligman, Reivich, Jaycox, & Gillham, 1995). It is a highly structured 12-session programme conducted by a highly skilled facilitator. The cognitive

component of the programme teaches children to recognise the differences between positive and negative thoughts and 'dispute' their overly negative, pessimistic attributions and predictions for events through the use of role-play and story telling. Through this process they learn to generate problem-solving options for generalisation to real world problems. The behavioural component equips children with the skills to act on these options. Overall, skills that are learnt include understanding the ABC (Antecedents – Behaviour – Consequences) model, Explanatory Style, Generating Alternatives and Evaluating Evidence, Decatastrophising, The ABC's of Family Conflict and Rapid-Fire Thought Disputing, Assertiveness and Negotiation, Relaxation and other coping strategies such as dealing with procrastination, social skills, and decision making. In an experiment, children who engaged in POP reported significantly fewer symptoms of depression and increased optimistic explanatory style, compared with those not engaging in POP, both immediately post-treatment as well as at a two-year follow-up (Gillham, Reivich, Jaycox, & Seligman, 1995). It has also been shown to be effective in young adults (Seligman, Schulman, DeRubeis, & Hollon, 1999).

Interventions using similar techniques have been used in other studies. In one study, middle-school students who were depressed received one hour of after-school 'explanatory style training' for five weeks. Results showed a significant increase in optimistic explanatory style for positive events and showed that the training was a protective factor against the development of pessimism in the face of negative events. Although the explanatory style training reduced depressive symptoms, so did the relaxation group and the no-contact/control group (Gleason, 1998). In addition, a sample of undergraduate students experienced larger changes in cognitive style, level of hopelessness, and depressive symptoms after a 28-day workshop involving direct instruction on how to change pessimistic attributions to optimistic ones for actual negative life events, relative to participants who did not receive this instruction (Jalbert, 2004). Furthermore, the effectiveness of two types of optimism intervention (which included self-monitoring and disputing pessimism) was evaluated over four weeks, one that focused on negative events and the other on positive events. The positive events group reported feeling significantly more happy and viewed negative events as less negative than those in the negative events group. Moreover, the positive event group's feelings of psychological well-being, their optimistic way of explaining

events and level of enjoyment of pleasant events increased significantly, while the negative events group demonstrated no significant change (Cantrell, 2007).

A PROMISING STUDY

Most optimism interventions that have been described are intensive and administered by others in individual or group formats, rather than being in a brief self-help format. A promising study by Fresco and colleagues (2009) in the United States developed a 28-day Self-administered Optimism Training (SOT; Fresco & Craighead, 1993) programme and then evaluated its effectiveness using a sample of pessimistic college students. The SOT is informed by both Beck's (1976) cognitive theory and the reformulated learned helplessness model. Specifically, it involves a combination of cognitive techniques including self-monitoring of negative events to help the individual become aware of their explanatory style and cognitive restructuring. The aim was to teach participants to reflect on the causes of events regarding internality, stability and globality, to challenge those causes, and to foster alternate causes that are more realistic, objective, and adaptive. These techniques were fostered through what they called The Daily Attributions Questionnaire (DAQ; Fresco & Craighead, 1993), which examined whether an individual can learn the cognitive restructuring exercise without having to take part in psychotherapy.

The results of this study by Fresco et al. (2009) are hopeful. Compared with a control group (no treatment), the SOT group experienced a significantly greater reduction in pessimistic explanatory style. In addition, a hierarchical multiple regression analysis found that the optimism training might moderate the effects of the diathesis-stress interaction for depression. Interestingly, the task of rating causes of events initially produced increases in pessimism as the focus was on problems (rather than solutions to the problems), which may have primed negative cognitions and rumination. However, the task eventually led to a reduction in pessimism six weeks later. This supports evidence that rumination may not be unambiguously negative, and may lead to more adaptive cognitive processing in the longer term (Watkins, 2004; Watkins & Moulds, 2005).

Although Fresco and Craighead's (1993) approach to increasing optimistic explanatory style was designed as a self-administered treatment, the techniques used

were perceived as equally appropriate in the context of ongoing cognitive therapy. They stated that with additional research and refinement, self-administered optimism training holds the promise of providing an accessible, cost-effective intervention for illnesses exacerbated by life stress (Fresco, Sampson et al., 1995).

The present study is an extension of Fresco et al.'s (2009) study with an older adult sample. Their study was chosen due to its effectiveness in increasing optimistic explanatory style and reducing the risk of depression. In addition, it was selected because it was delivered in a self-help format, which may be appropriate for the older age group given the poor access to mental health services. The adaptations are described in the following chapter.

CHAPTER SUMMARY

This chapter outlines the interventions that tailor evidence-based cognitive techniques to target various types of optimism. These techniques can be used either independently or integrated in the context of ongoing cognitive therapy. Although optimism interventions have shown promising results, their generalisability is limited as they have only been used with younger samples. Therefore, an effective self-help optimism intervention, developed by Fresco and Craighead (1993) has been selected for a community sample of older adults. The following chapter will outline the research questions, hypotheses, and how the intervention and design of the study will be modified and applied.

CHAPTER FIVE - CURRENT STUDY

CHAPTER OUTLINE

Thus far, the literature on older adults, explanatory style, types of interventions, and interventions specifically targeting explanatory style has been introduced. This chapter outlines the current study with its specific research questions, hypotheses, and rationale. These are separated into the two main parts: first, the levels and relationships between various variables, and second, the optimism intervention outcome. Part One informs Part Two and uses the same sample of community-dwelling older adults.

PART ONE: LEVELS AND RELATIONSHIPS

Research Questions for Part One

1. What are the levels of explanatory style, perceived optimism, subjective well-being, and use of coping strategies[1]?
2. What is the relationship between
    a. explanatory style and well-being?
    b. explanatory style, well-being and the use of cognitive coping strategies?

    (see Figure 3 below)
3. What beliefs do older adults hold about their ability to change and about the value of self-help[2]?

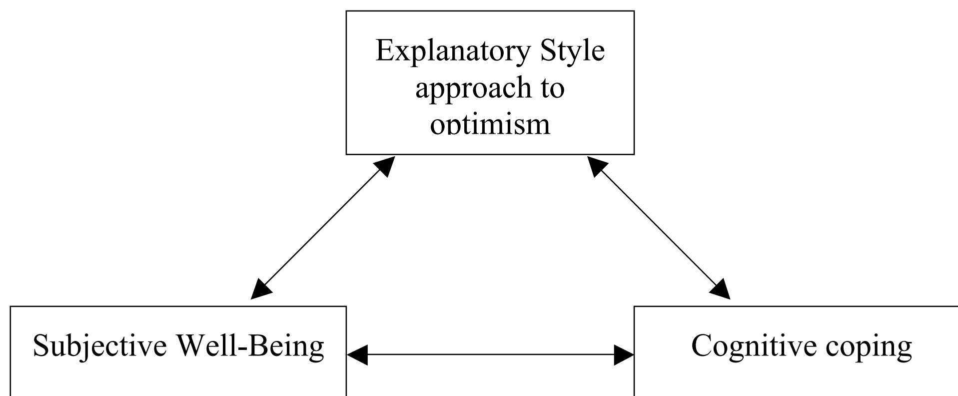

Figure 3. Relationships assessed in research question 2.

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[1] Age and gender differences in levels of explanatory style and well-being will be evaluated.
[2] Age differences in beliefs will be evaluated.

Hypotheses for Part One

1. It is hypothesised that older adults will have similar levels of explanatory style and subjective well-being to older adults in other studies, and these will be higher than in younger adults from other studies. Males and older cohorts will have higher levels of well-being and optimistic explanatory style than females and younger cohorts, respectively. The most frequently used cognitive coping strategies are predicted to be *acceptance, putting into perspective, positive refocusing, refocus on planning,* and *positive reappraisal*, as identified in a Dutch older adult normative sample (Garnefski, Kraiij et al., 2002).
2. a. It is expected that there will be a moderate positive correlation between optimistic explanatory style and well-being given the evidence about realistic optimism and different types of events.
   b. Both optimistic explanatory style and well-being will likely be positively correlated with the use of *positive appraisal* and negatively correlated with *acceptance, rumination*, and *catastrophising*.
3. Due to widely held stereotypical beliefs, it is predicted that, on average, older adults will not believe they can change their thinking patterns but will perceive self-help positively, since they value independence. Age differences will be found, with the younger participants having stronger beliefs in their ability to change and being more accepting of self-help.

Rationale for Part One

Part One will be valuable for giving insight into the levels and relationships between explanatory style, well-being, and coping strategies, as they specifically relate to a community sample of older adults in New Zealand. This is necessary as there are many conflicting results, theories and gaps in the literature, as described previously. For example, previous results are unclear about whether higher levels of optimistic explanatory style are related to higher levels of well-being. By clarifying this, suggestions can be made about whether it is worthwhile targeting older adults' explanatory style through optimism interventions (which is planned in Part Two). Also, exploring which coping strategies are more beneficial can help in the development and selection of interventions that target certain cognitive techniques. Furthermore, exploring older adults' beliefs about their ability to change as well as

their acceptability of self-help interventions will be valuable for gauging current stereotyped beliefs, and predicting access to help via the self-help approach.

In addition, cohort differences in the beliefs and levels of explanatory style and well-being will be briefly assessed by splitting the sample into two age groups, the 'under 75 year olds' ('young old') and the 'over 75 year olds' ('old-old'). This division has not previously been examined in research (Huyck, 1990; Robb, Small, & Haley, 2008). In addition, differences in the levels of optimistic explanatory style and well-being between males and females will be evaluated, as the research is mixed on whether gender differences exist in older adults (Glicken, 2009; Vink et al., 2008).

PART TWO: OPTIMISM INTERVENTION OUTCOME

Research questions for Part Two

1. Does the optimism intervention affect
    a. explanatory style[3]?
    b. subjective well-being[3]?
    c. cognitive coping?
2. How helpful are the optimism intervention forms?
    a. Formal ratings of helpfulness
    b. Helpfulness inferred from change in mood and explanatory style
3. What is the general feedback about the optimism intervention?
    a. Quantitative feedback
    b. Qualitative feedback

Hypotheses for Part Two

1. Optimism intervention outcome:
    a. The optimism intervention will achieve statistically significant reductions in pessimistic explanatory style in the treatment group. The most pessimistic participants will experience a significant increase in their optimistic explanatory style, while the most optimistic participants will not as they are already optimistic.

[3] Changes will be evaluated in the whole sample, the most pessimistic, and the most optimistic participants

b. The treatment group will experience significant improvements in levels of subjective well-being. The most pessimistic participants will experience a significant increase in their well-being, while the most optimistic participants will not.
c. Given the focus of the intervention, it is expected that the treatment group will experience statistically significant increases in the use of *putting things into perspective* and *positive appraisal*, and significant decreases in the use of *self-blame*, *other-blame*, and *catastrophising*. There will be no significant change in the other coping strategies.

2. & 3. Feedback from within the optimism intervention forms as well as the general feedback at the end of the study will show that the optimism intervention is perceived as helpful, although to what degree is uncertain, given that it is a non-clinical sample using self-help without common factors that are shown to be important for positive treatment outcomes.

Rationale for Part Two

Part Two evaluates the effectiveness of the self-administered cognitive optimism intervention, developed by Fresco and Craighead (1993), with a sample of older adults. There are a number of reasons for selecting this intervention. Most importantly, it was chosen for its proven effectiveness in directly reducing pessimistic explanatory style. It was also chosen because of its self-help format, which has some evidence of effectiveness, particularly when using cognitive behavioural techniques. Since it involves little actual therapist contact (only 10 minutes of briefing instruction) it is largely independent of common factors (such as therapeutic alliance), and therefore its specific effectiveness may be more readily determined. Nevertheless, despite being a self-help approach, it has been suggested that it can also be used in the context of therapy. Furthermore, although it was originally used as a preventative intervention to reduce the risk of depression in those who had a pessimistic explanatory style, it appears that it could fit into any of the four types of interventions described earlier depending on who the sample is and how optimistic they were to begin with. For example, it may be used as a primary prevention for non-clinical populations such as in rest-homes, as a secondary prevention for clinical populations used as a psychotherapy homework technique or waiting list exercise, or as an enhancement intervention to enhance the quality of life of those in the general public.

Adaptations of the original study and the original intervention

Although the present study is similar to the original study by Fresco et al. (2009), it has been modified in the following seven ways.

1) Older Adult sample

First, an older adult sample is used. This is valuable, as the generalisability of the optimism intervention is limited to younger, student samples. As described earlier, as the aging population increases in size so too will the pressure on mental health services. Therefore, having a self-help intervention that increases optimistic explanatory style and well-being would be beneficial for this age group. A number of aspects of the optimism intervention contribute to its potential for effectiveness with older adults, including its aim to create a balanced, realistic view of events. This is beneficial given the previous evidence showing that an extreme optimistic explanatory style does not necessarily lead to better well-being. Also, since older adults typically confront negative life events that are almost inevitable (such as the lessening of income and health, loss of friends and spouse), the development of adaptive views about one's circumstances and the self is especially important (Gallagher-Thompson et al., 2000). Another advantage is that the optimism intervention focuses on current events which is consistent with the socio-emotional selectivity theory with its present time orientation and focus on maximising emotional satisfaction (Lennings, 2000). Allowing older adults to specify what type of events to work on also appears to be valuable, given that older adults are a homogenous group with different concerns. In addition, allowing them to draw their own conclusions is believed to be a popular approach with older adults (Laidlaw et al., 2002).

2) Non-clinical sample

Second, similar to other studies on optimism training approaches, the current study uses a non-clinical community sample (Goldwurm, Belli, Corsale, & Marchi, 2006). That is, participants' general explanatory style scores can lie anywhere on the continuum of optimism to pessimism. This permits a thorough evaluation of the intervention's effectiveness for all people (labelled as a 'universal prevention' sample, as described earlier). The intervention appears relevant to many older adults as it focuses on a process that is central to later life – how people respond to setbacks and losses in their lives. Having a nonclinical sample is consistent with the philosophy of

positive psychology that individuals need not have problems in order for their quality of life to be enhanced. The decision to use this general sample is also supported by research showing that explanatory style is variable across domains (e.g., social, health and so on), leaving room for improvement in the domains in which they are more pessimistic. Furthermore, the optimism intervention that is used in the current study is cognitive, rather than behavioural, as it focuses on the overgeneralised or catastrophic distorted interpretations of the events in one's life. The literature recommends cognitive interventions for higher functioning individuals such as the current community sample (Laidlaw, 2003).

Within the sample, there are likely to be people at both ends of the continuum, those who are more optimistic and those who are more pessimistic. Therefore, in addition to analysing the results of the whole sample, some parts of the analysis will divide the sample into pessimists and optimists to evaluate who benefits from the intervention the most. This will allow for a comparison with the original study that selected the most pessimistic people (i.e., those who scored in the lowest quartile of explanatory style scores). It will also allow for an analysis of whether people who are optimistic can enhance their optimism further. Despite the research showing that extreme optimism can be unrealistic, it is unlikely that they will develop unrealistic levels of optimism, given that the intervention focuses on adaptive, realistic thinking. Given the earlier discussion over the difficulty in defining what is objectively realistic (Schneider, 2001), it appears more useful to assess how 'helpful' the level of explanatory style is to the individual so that one can gage whether the level of optimism is excessive and unhelpful for their well-being.

3) Extra questions in the Optimism Intervention Form

Third, the original Daily Attributions Questionnaire (termed the 'Optimism Intervention Form' in the present study) was modified for the present study. The aim was to focus explicitly on adaptive optimism and to promote a rational-emotional shift in thinking, as is consistent with other thought records. Specifically, the Optimism Intervention Forms included extra questions relating to the participants' feelings and level of belief in their explanations. Another additional question is the participant's perceived importance of the event they select for the optimism

intervention form. This question is included due to research (Abramson, Metalsky, & Alloy, 1989) showing that it is a possible factor that may relate to explanatory style.

4) Pilot test

Before administering the modified version of the Optimism Intervention Form to a large sample in the controlled experiment, it was trialled with fifteen older adults across one week. This was to ensure that the instructions, questions and scale items are clear and easily understood and that there were enough simple examples. It also gauged the perceived difficulty and usefulness of the Optimism Intervention as a whole.

5) Control group task

In the controlled experiment, the task that the control group undertook was different from the original study. Instead of no-treatment, the control group completed a simple task of recording events. This aimed to eliminate any positive treatment outcomes due to either gaining enjoyment or a sense of achievement through engaging in an activity and having contact with the researcher. This was particularly important for the older adult age group as they may be more isolated and inactive than younger age groups.

6) Assessment

A sixth adaptation from the original study was the way in which treatment outcome is assessed. In addition to the treatment outcome measure (Older Adult Attributional Style Questionnaire), scores was extracted from within the optimism intervention forms to measure change in explanatory style. This was because research shows that attributions about hypothetical events may be different than attributions about real life events, and that the latter is better for predicting depression (Butters, McClure, Siegert, & Ward, 1997; Fresco, 1994).

As well as assessing changes in general explanatory style scores, changes in specific dimensions of explanatory style are also evaluated given the research indicating that they do not correlate highly and may relate to well-being in different ways (Abramson et al., 1989). The current study will also assess whether the intervention is more helpful for certain types of events, either positive or negative, and either achievement, social, or health. This supports the research indicating that explanatory

style may vary in these domains, particularly for older adults who face some life events that may require a less optimistic stance (Cantrell, 2007; Morris, 2007).

Furthermore, rather than using a measure with a unipolar scale of negative affect/depression, the effects of the optimism intervention were assessed on a bipolar scale of overall subjective well-being. This allowed a better assessment of change in well-being, given that a non-clinical sample is used. Also, using a bipolar scaled measure is supported by research showing that older adults display lower positive feelings, rather than depressed feelings (Powers et al., 2002).

Although the assessment is predominantly quantitative, qualitative data were also collected to gather a more comprehensive overview of the effectiveness of the optimism intervention. Including both types of data is supported by researchers who suggest that only using standard quantitative methods can be less effective than other methods such as observation and qualitative interviews for giving a representative picture of research phenomena (Johnson & Barer, 1997).

7) Cognitive coping

In line with Beck's theory and past research showing that emotional change is mediated by a change in cognitive style (Jalbert, 2004), it appeared beneficial for the present study to assess changes in older adults' cognitive coping strategies. Cognitive coping strategies may be viewed as dependent variables, like explanatory style and well-being. Alternatively, they may be viewed as mechanisms of change, an area that is neglected in research (Bennett-Levy, 2003). For example, the optimism intervention form aims to promote optimistic thinking about events and so the coping strategy *positive reappraisal* may be the mechanism/process through which change in well-being occurs.

CHAPTER SUMMARY

This chapter has outlined the research questions, the hypotheses, and the rationale for the present study. Some questions, particularly regarding levels and relationships between variables, aim to clarify the previous mixed results as they relate to a community sample of older adults, while others explore new areas such as how

effective the optimism intervention will be for enhancing optimism, well-being, and adaptive coping strategies in older adults.

CHAPTER SIX - METHOD

CHAPTER OUTLINE

The previous chapter outlined the research questions, hypotheses and rationale for the two parts of the present study. Part One evaluates the levels and relationships between variables and Part Two evaluates the optimism intervention outcome. The current chapter reviews the methodology, including the research design, participants, materials, and procedure that are used to collect data for both Part One and Part Two of the study.

PERMISSION GRANTED

Before the specifics of the method are described, it should be noted that the authors of the Self-administered Optimism Training granted permission for their Daily Attributional Questionnaire to be modified and used in the current study. Prior to data collection, ethical approval was also obtained from the Massey University Human Ethics Committee: Southern A (Application 08/03). Furthermore, presidents and organising committees of each of the community organisations allowed access and recruitment of their members.

RESEARCH DESIGN

For Part One, a cross-sectional repeated measures design was used to examine the levels of variables and their relationship to one another. The data were drawn from the pre-treatment questionnaires that were distributed as a component of Part Two. For Part Two, a controlled experimental design was used to examine the effectiveness of the intervention. Group (Treatment and Control) was the between-groups factor, and various variables (explanatory style, subjective well-being, and cognitive coping strategies) were within-group factors measured at different time points (pre-treatment, post-treatment and one-month follow-up).

PARTICIPANTS

Participants for both Part One and Part Two were older adults aged 65 and over who were members of various community organisations around Auckland. These organisations primarily focus on helping older people remain active, lively,

contributing members of their local community by holding monthly meetings, study groups, and/or social outings. In exchange for their time, morning/afternoon teas were provided at all meetings for all members whether they participated or not. Inclusion criteria included the ability to read and understand English, no serious cognitive impairment (as evidenced by the ability to fill out questionnaires), not currently receiving psychotherapy, and if participants were taking medication for depression or psychological issues, they had to be stabilised on it.

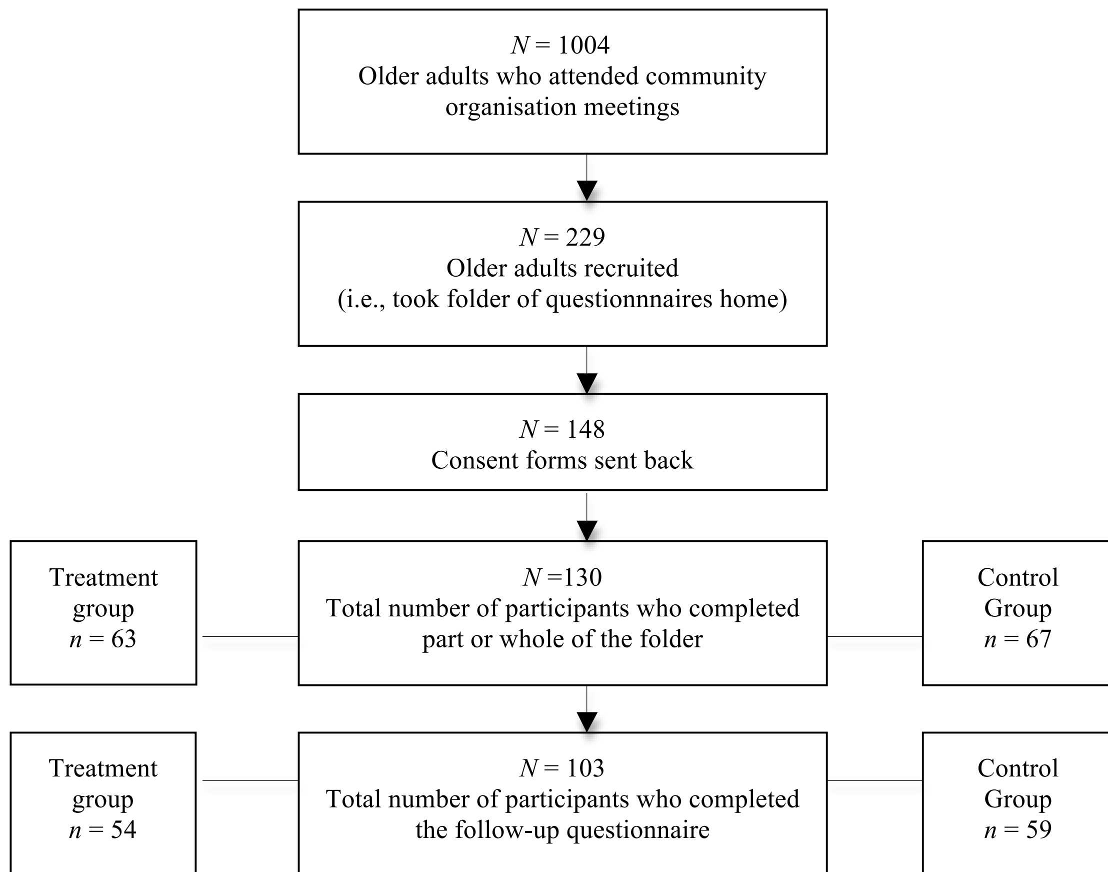

Figure 4. Sample sizes at each time point.

Sample size

A flow diagram of samples sizes at each time point is illustrated in Figure 4 above. The sample size was calculated using Cohen's (1992, p.158) method with Power = .80, Alpha = .05, Effect size = medium (based on the Fresco et al. (2009) study). The aim was to get a larger initial sample size than necessary to allow for the possibility of high attrition due to the time-consuming nature of the experiment and the likelihood that older adults may develop physical illnesses that prevent them from completing the study.

In total, 33% (n = 229) of all people who attended community organisation meetings volunteered to take questionnaires home with the assumed intention to participate. Of those, 56% completed part or whole of the questionnaire folders. The same 130 participants were used for Part One and Part Two. Reported reasons for participant attrition throughout Part Two included the perception that the study was too long or challenging, they were too busy with visitors or other events, they had commenced antidepressant medication, or they were experiencing physical illnesses or grief.

Demographic statistics for the whole sample

Table 4 outlines the demographic statistics. The age of participants ranged from 64 to 91 years of age, with a mean age of 75 years. The majority of participants were female, New Zealand European/Pakeha, living in a private house/unit, with 14 years of education on average.

Table 4.

Demographic statistics

Demographic	Descriptive statistic
Age	M = 75 (SD = 6)
Sex	
Female	78% (n=115)
Male	22% (n=32)
Ethnicity	
New Zealand European	90% (n = 101)
British	8% (n = 9)
Indian	0.9% (n = 1)
Maori	0.9% (n = 1)
Living situation	
Private house/unit	(93%; n = 108)
Retirement villages	(7%; n = 8)
Years of education	M = 14 (SD = 4)

Past psychological help

Table 5 presents information about past psychological help, as recommended by Norcross (2006). Although only a minority of participants had sought professional help, a larger percentage had read self-help books. The majority of these participants had found the professional help and self-help helpful.

Table 5.

Past psychological help

Variable / Question	% (*n*)
Had received professional help for psychological difficulties	15% (*n* = 18)
When	
Past year	27% (*n* = 4)
1 year ago	7% (*n* = 1)
3-9 years ago	13% (*n* = 2)
10-20 years ago	20% (*n* = 3)
30 years ago	33% (*n* = 5)
From	
Psychologist or Psychotherapist	35% (*n* = 7)
Counsellor	30% (*n* = 6)
Doctor	25% (*n* = 5)
Psychiatrist	10% (*n* = 2)
Type	
Psychotherapy/counselling	67% (*n* = 12)
Medication	33% (*n* = 6)
How many participants found the professional input helpful?	87% (*n* = 13)
How many participants have read/used self-help books? (e.g., for coping with grief or low self-esteem)	41% (*n* = 48)
How many found self-help books helpful?	89% (*n* = 42)

Physical health and level of activity

Participants rated their physical health status from 1 (*poo*r) to 5 (*excellent*), how active they perceive themeselves to be (including their physical exercise, social life,

involvement in community organisations etc.) from 1 (*not at all active*) to 5 (*extremely active*), and also rated how much contact they have with other people (including friends and family) from 1 (*no contact*) to 5 (*a lot of contact*). On average, participants believed their physical health was *very good* (M = 3.50, SD = 0.86), believed they were *very* active (M = 3.74, SD = 0.69), and had *a lot* of contact with other people (M = 4.54, SD = 0.60).

MATERIALS

Materials used in the present study included Folders and Follow-up packs that consisted of intervention forms and outcome measures, as described below. These materials were self-administered individually at home rather than in a group format to prevent embarrassment, discomfort or feelings of obligation.

Folders

The folders used simple instructions in a step-by-step manner with coloured pages for different weeks and flowcharts. Visual aids were used to enhance encoding and free recall. The folders consisted of the following forms and measures:

- Information sheet (Appendix C)
- Consent and Demographics Form (Appendix D; with return envelope)
- Pre-Treatment Assessment Questionnaires:
    - Older Adults' Attributional Style Questionnaire (OAASQ; Appendix H)
    - Affectometer 2 (Appendix I)
    - Cognitive Emotion Regulation Questionnaire (CERQ; Appendix J)
- Intervention forms:
    - Optimism Intervention Forms for the treatment group (Appendix E) OR
    - Event Record Forms for the control group (Appendix G)
- Post- treatment assessment questionnaires:
    - Older Adults' Attributional Style Questionnaire (OAASQ)
    - Affectometer 2
    - Cognitive Emotion Regulation Questionnaire (CERQ)
- Large envelope for return of the folder

Follow-up packs

- Follow-up Assessment Questionnaires
    - Affectometer 2
    - Cognitive Emotion Regulation Questionnaire (CERQ)
- General Feedback Questionnaire (Appendix K)

The OAASQ was excluded from the follow-up pack to reduce the likelihood of a low response rate, since there was a substantial amount of negative feedback from participants about the complexity and length of the measure.

Intervention Forms

Optimism Intervention Form – Treatment Group

The Optimism Intervention Form (shown in Appendix E) is the current study's modified version of the Daily Attributions Questionnaire (DAQ; Fresco & Craighead, 1993), which itself is similar to the Attributional Style Questionnaire (Peterson et al., 1982). This was used as the treatment group task in the controlled experiment.

As mentioned in chapter five, the Optimism Intervention Form was modified to suit the aims of the present study. One question that was added included specifying the type of event that was chosen (e.g., achievement, health, social, or personal). Other questions were added to prompt reflection on rational-emotional thinking about the cause of event, including "how negative does this make you feel?" which taps into emotions about the cause, and "how much do you believe this to be true?" which refers to the rational stance about the cause. In addition, a question was included about how helpful the process was.

This Optimism Intervention Form was initially pilot tested with fifteen older adult participants over a week (see Appendix A for details of pilot test including the participants, materials, procedure, and results). The pilot test was to ensure that the instructions and items were clear. A number of further changes were made to the Optimism Intervention Form as a result of the pilot test feedback. These changes included clarifying the instructions and items on the optimism intervention form so that it used less jargon words/phrases and was easier to understand. Both brief examples as well as detailed examples were added for each type of event (see Appendix F). In addition, a *Tips Sheet* (see Appendix F) was developed to

supplement the Optimism Intervention Form. The Tips Sheet provided a thorough step-by-step explanation of how they should answer the intervention forms, such as techniques for developing optimistic explanations for good and bad events. One technique was 'cognitive distancing' which involves imagining how another person (e.g., friend, famous person) would view and respond to the same situation. Another technique was considering past situations. This is especially applicable for older adults who can draw on their wisdom and strengths from past difficult experiences (Laidlaw, 2003). These changes were tested with five participants who stated that it was clearer than the previous version.

Specifically, each Optimism Intervention Form (i.e., for one event) takes approximately 10 minutes to complete and includes the following steps:

Step A) Identify and describe either a good and bad event that has occurred in your life this week. Circle the type of event - achievement/ability, health, social, personal, other. Rate how important the event is to you on a scale from 1 (*not all important*) to 5 (*extremely important*).

Step B) Describe the first cause of each event that pops into your mind. Rate how good/negative the cause makes you feel on a scale from 1 (*not at all good/negative*) to 5 (*extremely good/negative*). Rate how strongly you believe the cause on a scale from 1 (*not at all*) to 5 (*very strongly*). Rate the cause along the three dimensions of explanatory style including internality, stability, and globality on three 5-point Likert scales.

Step C) Develop a more optimistic (positive yet realistic) explanation/cause for the event. Rate how good/negative this alternative cause makes you feel on a scale from 1 (*not at all good/negative*) to 5 (*extremely good/negative*). Rate how strongly you believe this alternative cause on a scale from 1 (*not at all*) to 5 (*very strongly*). Rate this alternative cause along the three dimensions of explanatory style including internality, stability, and globality on three 5-point Likert scales.

Step D) Re-rate how strongly you believe that the first cause was the reason for why the event happened on a scale from 1 (*not at all*) to 5 (*very strongly*). Rate how much the above process helps you to feel better about the event on a scale from 1 (*not at all*) to 5 (*a lot*).

Event Record Form – Control Group

The Event Record Form (shown in Appendix G) was developed as the control group task. The Event Record Form requires participants to briefly describe either a good or bad event that they experience during the week. For example, a good event may be, "our team won golf and we celebrated by going out for coffee", and a bad event may be, "I had my family around for dinner but burnt the meal". Events can either be minor or major events. The Event Record Form took approximately two minutes to complete.

Outcome measures

In the current study a questionnaire was developed to gather the demographic information and ratings of perceived optimism on a five point Likert scale (from 1 *not at all optimistic* to 5 *extremely optimistic*). In addition, three formal outcome measures were used, as shown in Table 6.

Table 6.

Outcome measures used in the current study

Measure	Construct measured
Older Adult Attributional Style Questionnaire	Explanatory style
Affectometer 2	Subjective well-being
Cognitive Emotion Regulation Questionnaire	Cognitive coping strategies

Older Adults' Attributional Style Questionnaire (OAASQ)

The Older Adults' Attributional Style Questionnaire (OAASQ; Isaacowitz & Seligman, 2001; Appendix H) is a 12-item measure of explanatory style (optimism/pessimism) suitable for community-dwelling older adult samples. This measure takes approximately 10-15 minutes to complete. It is based on the well-known and widely utilised Attributional Style Questionnaire (ASQ; Peterson et al., 1982). The affiliation vignettes of the ASQ were kept; however, the achievement vignettes were replaced with more age appropriate health/cognitive vignettes. Examples of new items are "you misplace your wallet and can't remember where you put it last" and "your doctor tells you that you are in good shape". Half of the vignettes are positive and half are negative. For each vignette, respondents are

instructed to 1) vividly imagine the event happening to them, 2) write down one major cause for why that event occurred, and 3) rate scales for internality, stability, and globality. To score the OAASQ, the ratings for positive and negative vignettes are summed and averaged separately. The negative average is then subtracted from the positive average, yielding a final composite score. Higher scores for positive events and lower scores for negative events indicate a more optimistic explanatory style. Coefficient alpha reliability coefficients were .63 for the affiliation items and .66 for the health/cognitive items. While modest, these coefficients are consistent with those in past research on explanatory style using the ASQ and related measures across various ages (Isaacowitz & Seligman, 2001; Peterson et al., 1982).

Affectometer 2

The Affectometer 2 (Kammann & Flett, 1983; Appendix I) is a five-minute questionnaire used to assess subjective well-being during the time period in question (e.g., *over the past week*). It consists of ten items: confluence, optimism, self-esteem, self-efficacy, social support, social interest, freedom, energy, cheerfulness and thought clarity. The items are rated on a five-point Likert scale of frequency of feelings from 0 (*not at all*) to 4 (*all of the time*). There are four parallel forms of the Affectometer 2 to account for re-testing which use either sentences or adjectives to describe different feelings. In the present study Form B-1 was used at pre-treatment assessment, Form B-2 at post-treatment assessment, and Form B-1 at one-month follow-up (all sentences). The test has satisfactory test-retest reliability of 0.92 for one day. Kammann and Flett (1983) state that, "since the Affectometer is concerned with the overall balance of positive and negative feelings, it is a strong criterion by which to evaluate any form of treatment" (p.43). The advantage of the Affectometer 2 over depression measures such as the Geriatric Depression Scale is that affect is measured on a bipolar scale from positive to negative affect, which allows for greater specificity of change of well-being in this 'non-clinical' community sample (as recommended by Woods, 2008). Nevertheless, the negative half of the Affectometer 2 does have a high correlation with measures of neuroticism and anxiety.

Cognitive Emotion Regulation Questionnaire (CERQ)

The Cognitive Emotion Regulation Questionnaire (CERQ; Garnefski, Kraiij et al., 2002; Appendix J) is a relatively new but well-researched 36-item self-report

questionnaire that can be completed in approximately 10-15 minutes. It characterises the individual's use of cognitive coping strategies in unpleasant events using nine conceptually distinct subscales, including: self-blame, other-blame, rumination, catastrophising, putting into perspective, positive refocusing, positive reappraisal, acceptance, and refocus on planning (see Table 1 for a description of each strategy). Each subscale consists of four items measured on a five-point Likert scale ranging from 1 (*never*) to 5 (*always*). These four items are summed to get a total subscale score. The higher the subscale score, the more the specific cognitive strategy is used. Research has shown that all subscales have good internal consistencies (Garnefski, Kraaij et al., 2002). In the sample of older adults, alpha reliabilities ranged from .76 to .82. In addition, the CERQ has been shown to have good construct validity, factorial validity, and discriminative properties. The advantage of the CERQ over other coping questionnaires is that cognitive strategies are measured, while excluding the dimension of behavioural coping strategies. The CERQ is useful in the present study to evaluate the relationship between coping strategies and explanatory style and well-being as well as to evaluate the mechanisms of the cognitive optimism intervention.

Feedback Questionnaire

The Feedback Questionnaire (shown in Appendix K) was developed for the purpose of the controlled experiment. Items ask how difficult, how enjoyable, and how helpful the assessment questionnaires and treatment interventions are. Other items include whether participants would recommend the intervention to other people, whether older people can change their thinking patterns, and whether self-help is an effective method for doing so. Responses are rated on a 5-point Likert scale from 1 *strongly disagree* to 5 *strongly agree*. Qualitative feedback about the positive aspects and/or ways to improve the treatment intervention or the study in general is also obtained.

PROCEDURE

Figure 5 shows the procedure for the experiment. As recommended by Laidlaw (2003), introducing the technique through multiple modalities (i.e., the use of presentation, phone conversations, and written forms) is necessary for increasing effectiveness in older adults.

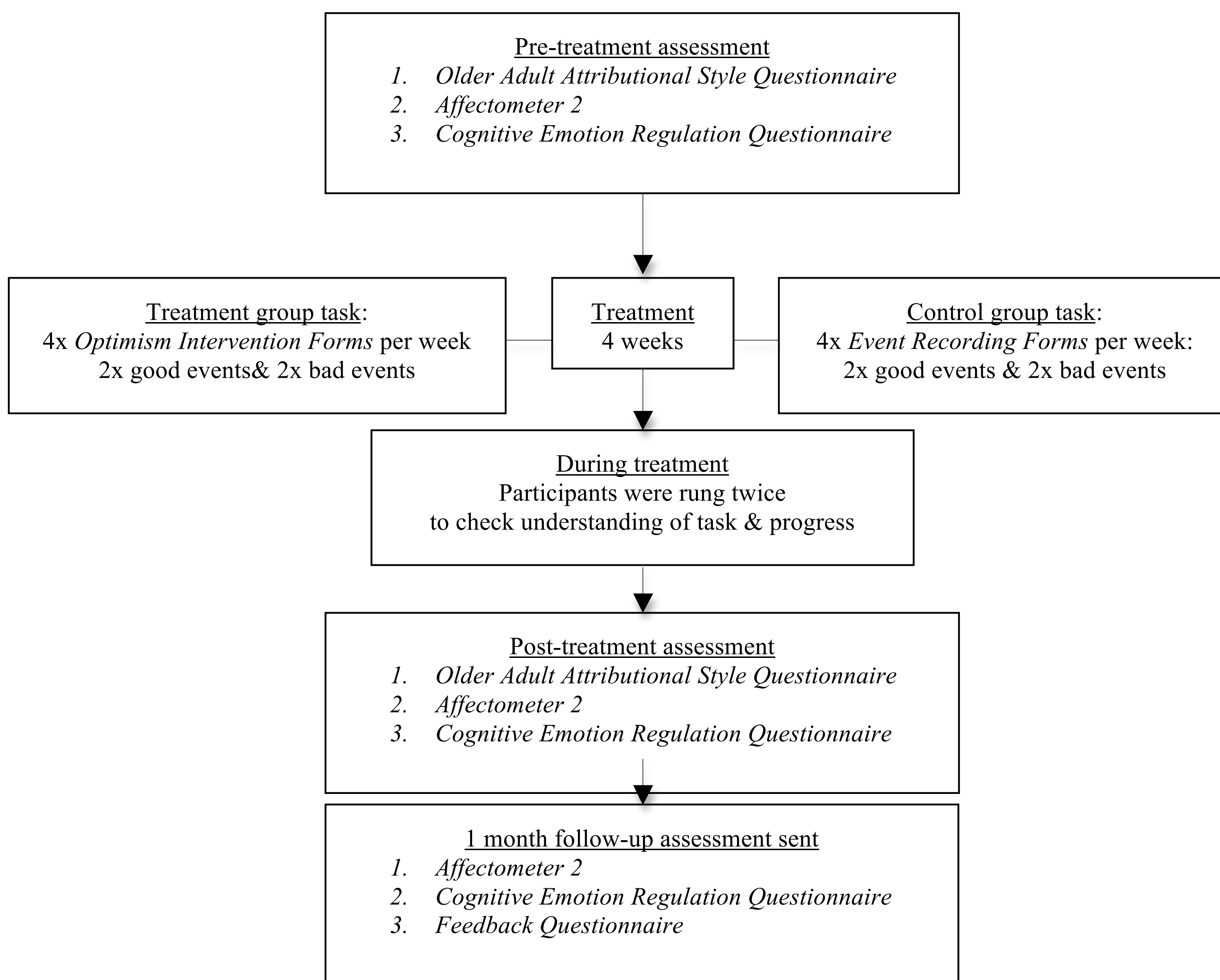

Figure 5. Procedure for controlled experiment.

For this experiment, the same presentation was given at fourteen different community organisation meetings around Auckland. Members who attended these meetings received approximately ten minutes of briefing regarding the experiment and the tasks for both the treatment group and the control group. Instruction for the treatment group task included how to complete the Optimism Intervention Form which consists of self monitoring of how they assign causes to events in their lives and how to develop alternative helpful explanations for those events. Specific and detailed examples were given for different types of events. Members were told that completing this reflection would help them develop positive yet realistic reasons for 'good' and 'bad' events that happened in their lives. For example, they were encouraged to take credit for the good events (e.g., the event occurred because they

are kind or persevered) and consider external factors for bad events (e.g., bad luck or task difficulty). Instruction for the control group task included how to record events. Examples were also given. They were advised to call the researcher using the 0800 number provided should they have any questions or concerns (to ensure it was 'guided' self-help). Paper slips with the researcher's contact details were also available at the briefing for those who may have known of others who may have been interested in participating.

Members were randomly allocated to groups. Specifically, the researcher gave interested members a folder (see the 'Materials' section for a description of the 'folder') from one of the two piles at the back of the room. One pile was for males and the other was for females to help balance gender across the treatment and control groups. Each pile had treatment group folders and control group folders in alternate order. Members did not have choice about which group they were assigned to even if their friend/spouse were in a different group.

At home, participants read through the information sheet, signed and returned the 'Consent and Demographics Form' using the self-addressed stamped envelope provided. After participants had sent in the consent form, they completed the pre-treatment assessment questionnaires. In the first week, participants were rung to ensure that they understood the instructions and to answer queries. Few participants had questions. Some questions related to the OAASQ items, for example, seeking clarification when they had not experienced the hypothetical event and had difficulty imagining it, while others asked whether they should drop out of the study because they believed they were highly optimistic.

Participants were requested to independently complete their Optimism Intervention/Event Recording Forms across four weeks. Some participants stated that they received help from their spouses, family members, or friends, who were either participating or interested in assisting them. Consequently, they were encouraged to call the researcher if they needed help. In the last week, participants were rung as a reminder to complete the post-treatment assessment questionnaires. Over half of the participants reported that they were not up to that stage, but would be soon. Participants were thanked for their time and effort.

After completing their intervention forms, participants completed the post-treatment assessment questionnaires and returned the whole folder using the self-addressed stamped envelope provided. Although this process was expected to take approximately five weeks, the actual time it took for participants to send back their questionnaires ranged from five to eight weeks. Some reasons given for this delay included physical illness, trips away, or visitors coming to stay.

A month after participants received a folder, they were sent a thank you letter and a follow-up assessment questionnaire to return by mail.

DATA ANALYSIS TECHNIQUES

The majority of the data were quantitative. Responses were coded and entered into the Statistical Package for the Social Sciences (SPSS, version 16.0) database. A random check was completed to check for errors. Preliminary analyses were performed to ensure there was no violation of assumptions of normality, linearity and homoscedasticity.

The only variables that were normally distributed were the OAASQ pre-treatment and OAASQ post-treatment scores measuring explanatory style. Standard parametric tests were therefore used for these variables. However, both non-parametric and parametric tests were conducted for all non-normally distributed variables that were unable to be transformed. If the results were similar in significance and effect size, then the parametric results were reported, as they are deemed to be more powerful and are robust to violations of assumptions (Field, 2009). Examples of parametric tests that were used are Pearson's *r* correlations to evaluate relationships between variables, independent samples *t*-tests to evaluate the difference between two groups (e.g., treatment and control groups), and paired samples *t*-tests to measure differences over time. In addition, one-way repeated-measures Analysis of Variance (ANOVA), one-way between-groups ANOVA, and mixed between-within subjects ANOVAs were used to evaluate differences in scores between the treatment group and control group over time. Following ANOVAs, post-hoc comparisons were conducted using Tukey's Honestly Significant Different (HSD) test with an adjusted significance level using the Bonferroni correction (Field, 2009) to account for over-testing of the data. For all

other tests, the level of significance was set at the recommended $p < .05$ level unless otherwise stated.

Only two parametric and non-parametric test results were dissimilar and those were found when pre-treatment group differences in *putting into perspective and refocus on planning* were evaluated. As a result, the non-parametric (specifically, Mann-Whitney *U* test) results were reported. For these results, descriptive statistics include medians, rather then means and standard deviations due to the nature of the variables (Field, 2005).

Effect sizes were calculated for all results that were close to or met significance, referred to as *r* (Rosenthal, 1991, p.19). Descriptives were determined according to Cohen's (1988, 1992) widely accepted guidelines of effect size thresholds, where .10 = small effect, .30 = moderate effect, and .50 = large effect. The magnitude for correlations were described as small (.10 to .29), medium (.30 to .49), and large (.50 to 1.0) (Cohen, 1988).

Differences between the treatment group and the control group's pre-treatment scores were compared prior to comparing their treatment outcomes. The pre-treatment differences and subsequent changes in testing are described in the results chapter.

The sample was split into different groups for some analyses. To compare age/cohort differences, two age groups were developed: under 75 year-old participants ($n = 66$) and over 75 year-old participants ($n = 64$). Also, the most pessimistic and the most optimistic participants were those who scored in the lower quartile and upper quartile of pre-treatment OAASQ scores, respectively. Using quartiles as cut off points is similar to the Fresco et al. (2009) study.

Thematic analysis was used to evaluate the qualitative data from the general feedback questionnaire. This method is described as a valuable descriptive data reduction strategy to segment, categorise, summarise and reconstruct important concepts (Ayres, 2008). Specifically, common themes were identified under the sections 'positive feedback', 'negative feedback', and 'qualitative observations and informal comments made over the phone'.

CHAPTER SEVEN - RESULTS

PART ONE: LEVELS AND RELATIONSHIPS

1. What are the levels of explanatory style, perceived optimism, subjective well-being, and use of coping strategies in older adults?

Table 7 shows participants' pre-treatment levels of perceived optimism rated on a 5-point Likert scale, explanatory style rated on the OAASQ, and subjective well-being rated on the Affectometer 2 measure. On average, participants perceived themselves to be *very optimistic* with 74% (*n*= 96) believing they were either *very optimistic* or *extremely optimistic*. There was a wide range of explanatory style scores, with the average score in the lower end of the optimistic range. There was also a wide range of subjective well-being scores, with the majority reporting reasonably high levels of well-being.

Table 7.
Descriptive statistics of optimism, explanatory style and well-being in older adults

Variable	*M*	*SD*
Perceived level of optimism	4.00	0.87
Explanatory style	2.54	2.32
Subjective well-being	10.35	5.36

Table 8 shows the descriptive statistics of the cognitive coping strategies found in the current sample, compared with the normative sample of the CERQ in the Netherlands (for elderly females, given that the majority of the current sample were female; Garnefski, Kraiij et al., 2002).

The most frequently used strategy was *putting it into perspective*, while the least frequently used strategy was *catastrophising*. Compared with the norms, participants in the current sample scored in the high range for *positive reappraisal* and *self-blame*.

Table 8.

Cognitive coping strategies in order from most to least frequently used

Coping Strategy	*M*	*SD*	Norm range
Putting into perspective	14.57	3.02	Above average
Refocus on planning	14.47	3.08	Above average
Positive reappraisal	14.36	3.40	High
Acceptance	12.95	3.26	Average
Positive refocusing	11.95	3.74	Average
Rumination	9.66	3.20	Average
Self-blame	9.28	2.20	High
Other-blame	8.01	2.13	Above average
Catastrophising	7.10	2.58	Average

2a. What is the relationship between explanatory style and well-being in older adults?

No significant relationship was found between participants' perceived level of optimism and optimistic explanatory style rated on the objective measure OAASQ [$r = .13$, $n = 128$, $p = .14$]. However, there was a significant moderate positive correlation between subjective well-being and both perceived level of optimism [$r = .47$, $n = 127$, $p < .01$] and optimistic explanatory style [$r = .42$, $n = 132$, $p < .01$].

Demographic variables, explanatory style and subjective well-being

Table 9 shows a significant moderate positive correlation between explanatory style and both perceived physical health and how active participants perceive themselves to be. In addition, subjective well-being has a significant relationship with three variables: perceived physical health, activity levels, and social contact. The former two correlations were small sized and the latter was moderate-sized.

As shown in Table 9, there was no significant correlation between age and either explanatory style or subjective well-being. The sample was split into two groups according to age for some tests. No significant difference in explanatory style mean scores was found between participants under 75 years of age ($M = 2.82$, $SD = 2.17$) and participants over 75 years ($M = 2.23$, $SD = 2.42$; t (130)= 1.47, $p = .14$). The

effect size was small (r = .02). In addition, there was no significant difference in subjective well-being scores between under 75 year olds (M = 1.47, SD = .07) and over 75 year olds (M = 1.49, SD = .08) (t (127)= -1.31, p = .19). The effect size was small (r = .01).

Further, no significant difference in explanatory style mean scores was found between males (M = 2.22, SD = 2.42) and females (M = 2.61, SD = 2.23; t (130)= 0.76, p = .45). In addition males' well-being scores (M = 1.48, SD = 0.07) did not significantly differ from females' (M = 1.48, SD = 0.08; t (127)= -0.29, p = .77).

Table 9.

Correlations between demographic variables and explanatory style and subjective well-being

Demographic Variable	Explanatory style		Subjective well-being	
	r	*p*	*r*	*p*
Age	-.13	.15	-.08	.37
Education	-.11	.21	.03	.72
Physical health	.29**	<.01	.24**	.01
Activity levels	.30**	<.01	.23**	.02
Social contact	.14	.15	.44**	<.01

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

2b. What is the relationship between the use of cognitive coping strategies and explanatory style and subjective well-being in older adults?

Table 10 shows the correlations between all of the cognitive coping strategy scores and both the explanatory style scores and the subjective well-being scores.

Significant small-sized positive correlations were found between optimistic explanatory style and two coping strategies, *positive reappraisal* and *putting things into perspective*. There were also small significant negative correlations between optimistic explanatory style and the use of *self-blame*, *other-blame*, and *catastrophising*.

Subjective well-being was significantly correlated with all of the cognitive coping strategies except *acceptance* and *positive refocusing*. These correlations were small to medium sized. The highest positive correlation was with *positive reappraisal* while the highest negative correlation was with *catastrophising*.

Table 10.

Correlations of coping strategies with explanatory style and well-being

Coping strategy	Explanatory style		Subjective well-being	
	r	*p*	*r*	*p*
Putting into Perspective	.28**	<.01	.37**	<.01
Catastrophising	-.27**	<.01	-.31**	<.01
Positive reappraisal	.24**	<.01	.45**	<.01
Self-blame	-.23*	.01	-.28**	<.01
Other-blame	-.19*	.03	-.29**	<.01
Rumination	-.17	.06	-.32**	<.01
Refocus on planning	.09	.33	.42**	<.01
Positive refocusing	.03	.74	.13	.13
Acceptance	-.02	.82	-.06	.53

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

* Correlation is significant at the 0.05 level (2-tailed).

3. What are older adults' beliefs about their ability to change and the value of self-help?

Participants were asked to rate their general beliefs about older adults' ability to change their thinking patterns and the value of self-help on a 5-point Likert scale (from 1 *strongly disagree* to 5 *strongly agree*). There was a wide range of responses. Participants, on average, agreed that older people *can* change their thinking patterns (M = 3.78, SD = 0.81). There was no significant relationship between the extent to which they believed older adults could change and their age [r = -.10, n = 111, p = .28]. There were also no significant relationships between their belief in change and either their current level of optimistic explanatory style [r = .05, n = 110, p = .64], or subjective well-being [r = -.01, n = 109, p = .95]. On average, participants agreed that

self-help is an effective method for helping older people change their thinking (*M* = 3.79, *SD* = 0.75).

PART TWO: OPTIMISM INTERVENTION OUTCOME

Pre-treatment group differences

Prior to evaluating the effect of the optimism intervention, a number of tests evaluated whether the treatment group and the control group were equal at pre-treatment. Independent samples *t*-tests showed that the treatment group (*M* = 75.47, *SD* = 6.46) did not differ significantly in age from the control group (*M* = 75.32, *SD* = 5.64) [*t* (144) = .153, *p* = .88]. The treatment group (*M* = 13.82, *SD* = 3.93) also did not differ significantly from the control group (*M* = 14.77, *SD* = 3.91) in total years of education [*t* (134) = -1.42, *p* = .16, *r* = .00]. Furthermore, a Pearson's chi-square test showed that there was no significant association in the gender between the treatment and control groups χ^2 (1) = .281, *p* = .60. That is, an equal number of males and females were in each group.

An independent-samples *t*-test showed no significant differences in the explanatory style mean scores between the treatment group (*M* = 2.93, *SD* = 2.20) and the control group (*M* = 2.13, *SD* = 2.37) at pre-treatment [*t* (127) = -1.85, *p* = .59, *r* = -.03]. However, the control group (*M* = 1.49, *SD* = .08) had a significantly higher subjective well-being mean score than the treatment group (*M* = 1.47, *SD* = .07) at pre-treatment (*t* (128)= -2.04, *p* = .04). Nevertheless, the effect size was very small (*r* = .03).

The pre-treatment differences in use of coping strategies between the two groups were evaluated. Two significant differences were found[4]. The treatment group (*mdn* = 15) used *putting into perspective* significantly more than the control group (*mdn* = 14; *U* = -1.98, *p* = .05, *r* = .17). The treatment group (*mdn* = 15) also used *refocus on planning* significantly more than the control group (*mdn* = 13.5; *U* = -2.09, *p* = .04, *r* = .18). The effect sizes were small. Table 11 shows the independent-samples *t*-test results for the remaining coping strategies.

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[4] Although both parametric (independent-samples *t*-test) and non-parametric (Mann-Whitney *U* test) statistics were conducted, the latter are reported because the results were dissimilar.

Table 11.

Comparison of cognitive strategies between treatment and control groups

Cognitive Coping	Treatment Group		Control Group				
Strategy	*M*	*SD*	*M*	*SD*	*df*	*t*	*p*
Positive reappraisal	14.98	2.99	13.87	3.71	132	1.92	.06
Rumination	10.05	3.58	9.22	2.73	122	1.50	.14
Other-blame	7.76	2.21	8.19	2.07	131	-1.17	.24
Acceptance	13.27	3.46	12.69	3.03	132	1.04	.30
Positive refocusing	12.24	3.85	11.66	3.61	132	0.90	.37
Catastrophising	7.24	3.16	7.04	1.91	106	0.44	.66
Self-blame	9.31	2.22	9.25	2.20	130	0.14	.89

Events chosen for optimism intervention forms

Positive and negative events

In total, the treatment group completed 478 optimism intervention forms about good events and 434 optimism intervention forms about bad events. The types of events are shown in Figure 6. Overall, social events were most frequently chosen (e.g., going out to lunch or family dispute), followed by personal events (e.g., buying themselves new clothes or losing the keys). Achievement/ability events were chosen the least often. The most frequently chosen type of bad event was social while the most frequently chosen type of bad event was categorised as 'other' (e.g., car breaking down).

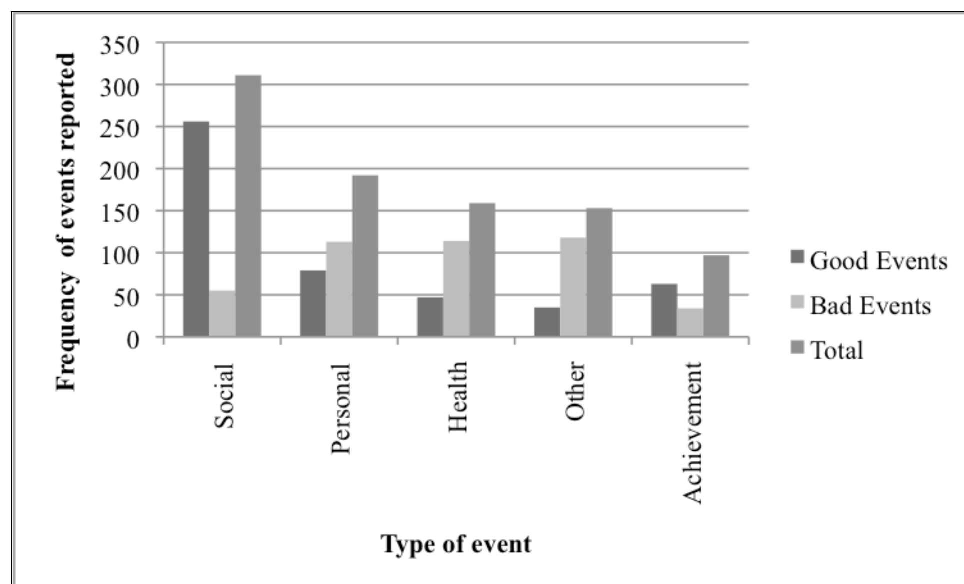

Figure 6. Types of events chosen for intervention forms.

Importance of events

Participants rated the importance of the events they chose for the optimism intervention forms. On a 5-point scale from 1 *not at all important* to 5 *extremely important*, the mean was 4.34 (*SD* = 0.77), meaning that, in general, the events were of high importance to the participants. A paired-samples *t*-test showed that the good events (*M* = 4.33, *SD* = 0.76) were significantly more important to participants than the bad events (*M* = 3.99, *SD* = 1.02) [*t* (423) = 5.46, *p* < .01, *r* = .07]. There was a small but statistically significant positive correlation between how important the events were to participants and how helpful they perceived the intervention forms to be [*r* = .16, *n* = 860, *p* < .01].

1a. Does the optimism intervention affect explanatory style in older adults?

Whole sample

A mixed between-within subjects analysis of variance was conducted to assess whether there was a significant change in explanatory style mean scores between the treatment and control groups and between pre-treatment and post-treatment (see Table 12 below for descriptive statistics).

Table 12.

Explanatory style scores of treatment and control groups at different time points

Group	*n*	Timepoint	*M*	*SD*
Treatment	52	Pre-treatment	2.93	2.20
		Post-treatment	2.68	2.15
Control	61	Pre-treatment	2.13	2.37
		Post-treatment	2.62	2.48

The assumption of sphericity was not violated. There was no statistically significant within-subjects effect/time effect, Wilks' Lambda = 1.00, [*F* (1, 111) = .00, *p* = .95, *d* = .00]. The interaction effect (whether there was a different amount of change over time for the treatment and control group) was also not statistically significant, Wilk's Lambda = 0.97, [*F* (1, 111) = 1.62, *p* = .21]. No significant between-subjects/group effects were found [*F* (1, 111) = 2.3, *p* = .13]. The effect size was small (*r* = .20).

Furthermore, the treatment group and control group's post-treatment explanatory style scores were not significantly different, even when controlling for the covariate pre-treatment well-being score differences [t (111) = .047, p < .83].

Pessimists and optimists

The 'pessimists' were identified as those who scored within the lowest quartile on the pre-treatment OAASQ, while the optimists had scores in the upper quartile. Paired-samples *t*-tests evaluated the impact of the treatment and control group interventions on participants' explanatory style scores. In the treatment group, there was a statistically significant increase in optimistic explanatory style from pre-treatment (M = 0.33, SD = 1.26) to post-treatment (M = 2.01, SD = 2.22) in the pessimist group (t (13) = -3.37, p = .01). The effect size was medium-to-large (r = .46). In contrast, there was a significant decrease in explanatory style scores from pre-treatment (M = 5.86, SD = .95) to post-treatment (M = 4.12, SD = 1.68) in the optimist group (t (14) = 3.21, p = .01). The effect size was also medium-to-large (r = .42). These changes are illustrated in Figure 7 below.

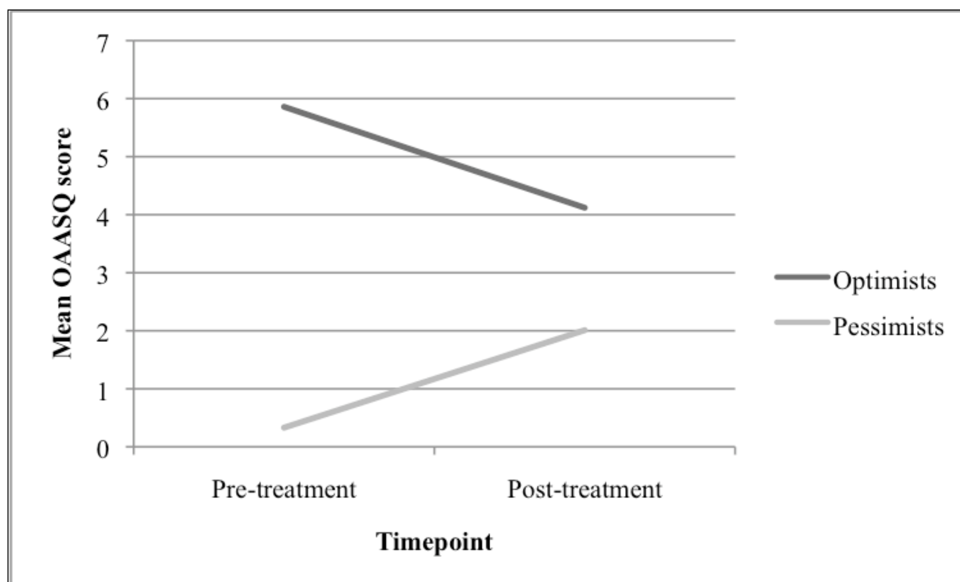

Figure 7. Change in explanatory style scores over time in the treatment group pessimist and optimistic groups.

Nevertheless, the control group results were similar. A significant increase in explanatory style was also found from pre-treatment (M = - 0.36, SD = .96) to post-treatment (M = 2.38, SD = 3.80) in the pessimist group (t (16) = -2.45, p = .03). The

effect size was medium-to-large (r = .44). In addition, there was a significant decrease in explanatory style scores from pre-treatment (M = 5.17, SD = 1.60) to post-treatment (M = 3.36, SD = 1.94) in the optimist group (t (18) = 4.07, p = .01). The effect size was also medium-to-large (r = .48). These analyses indicate regression toward the mean.

1b. Does the optimism intervention affect subjective well-being in older adults?

Whole sample

Given the small but significant difference in well-being scores between the treatment and control group at pre-treatment, a one-way repeated measures ANOVA was conducted to evaluate change in well-being scores across the three time points (pre-treatment, post-treatment, and follow-up) for the treatment group and control group separately. Results (see Table 13) showed that there were no statistically significant differences in well-being scores over time for either group.

Table 13.

Well-being scores of treatment and control groups at different time points

Group	*n*	Pre-treatment		Post-treatment		1 month Follow-up		Wilks' Lambda			
		M	*SD*	*M*	*SD*	*M*	*SD*		*F*	*p*	*r*
Treatment	45	11.80	4.64	12.07	4.91	11.60	4.27	.98	.44	.65	.02
Control	54	9.83	5.27	10.67	4.61	10.15	4.77	.91	2.56	.09	.09

Table 14.

Difference in the pessimists' and optimists' explanatory style scores over time

Group	*n*	Pre-treatment		Post-treatment		1-month Follow-up		Wilks' Lambda		
		M	*SD*	*M*	*SD*	*M*	*SD*		*F*	*p*
Pessimists	11	11.45	4.18	12.91	3.78	11.91	2.81	.86	.70	.52
Optimists	12	13.92	3.26	13.58	4.50	12.92	3.65	.89	.63	.55

Pessimists and optimists

A one-way repeated measures ANOVA was conducted to evaluate whether the optimism intervention impacted on subjective well-being across the three time points in either the pessimist group or the optimist group. No significant difference was found in either of these groups over time (see Table 14 above).

1c. Does the optimism intervention affect cognitive coping styles in older adults?

Within treatment-group differences

One-way repeated measures ANOVAs measured change in the treatment group's use of each coping strategy over three time points (see Table 15). Paired-samples *t*-tests were used to determine where the differences lay for the three coping strategies that changed significantly over time. A Bonferroni correction was applied; so all effects are reported at the .017 level of significance.

Table 15.

Changes in treatment group's use of cognitive coping strategies over time

Coping strategy	*n*	Pre-treatment		Post-treatment		1 month Follow-up		Wilks' Lambda			
		M	*SD*	*M*	*SD*	*M*	*SD*		*F*	*p*	*r*
Self-blame	50	9.14	2.17	9.14	2.22	8.30	1.89	0.81	5.49	<.01	.19
Acceptance	53	13.43	3.40	12.98	3.31	12.89	3.60	0.96	1.05	.36	.04
Rumination	53	9.91	3.22	9.36	3.27	8.15	2.63	0.76	7.86	<.01	.24
Positive Refocusing	53	12.09	3.63	12.30	3.24	12.40	3.52	0.99	0.26	.77	.01
Refocus on planning	53	15.00	2.96	15.08	2.97	14.92	2.83	1.00	0.09	.92	.00
Positive Reappraisal	53	15.32	2.97	14.98	3.43	14.96	3.22	0.96	0.97	.39	.04
Putting into perspective	53	15.19	2.93	14.53	3.27	15.30	3.28	0.94	1.65	.20	.06
Catastrophising	53	6.79	2.84	6.91	2.63	6.09	1.99	0.88	3.54	.04	.12
Other-blame	53	7.73	2.04	7.60	1.97	7.69	2.48	0.99	0.21	.81	.01

A number of specific differences were found. Two significant differences in the reported use of *self-blame* were found; there was a decrease from pre-treatment to follow-up [t (53) = 3.34, p < .01, r = .17], and also post to follow-up [t (50) = 2.75, p < .01, r = .13]. Significant reductions in the use of *rumination* were also found from pre-treatment to follow-up [t (55) = 4.34, p < .01, r = .26], and from post to follow-up [t (52) = 3.03, p < .01, r = .15]. Furthermore, a significant decrease in the use of *catastrophising* was found from post-treatment to follow-up [t (52) = 2.65, p = .01, r = .12]. All effect sizes were small-to-moderate. These significant changes are shown in Figure 8.

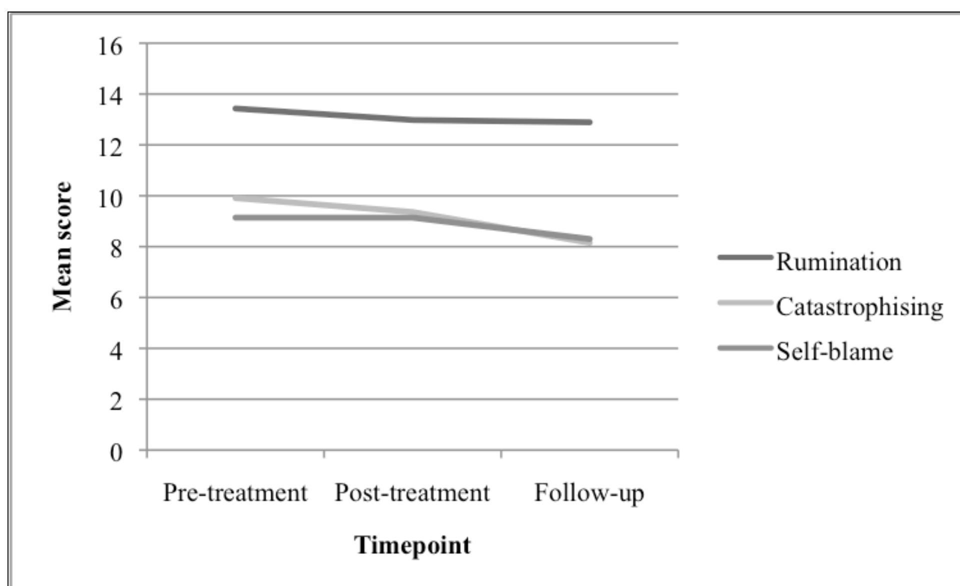

Figure 8. Coping strategies that changed significantly over time.

Between group differences

Independent-samples *t*-tests compared the treatment group and control group's coping strategy scores at post-treatment (except *refocus on planning* and *putting into perspective* since these were significantly different at pre-treatment). Table 16 shows that no significant differences were found.

Table 16.

Comparison between treatment and control group's coping strategies at post-treatment

Cognitive Coping	Treatment group		Control group				
Strategy	*M*	*SD*	*M*	*SD*	*df*	*t*	*p*
Self-blame	9.11	2.19	8.89	1.91	118	0.58	.56
Acceptance	12.93	3.26	12.28	2.71	119	1.20	.23
Positive reappraisal	15.00	3.34	14.53	3.25	119	0.78	.44
Positive refocusing	12.51	3.22	12.42	3.61	119	0.14	.89
Rumination	9.44	3.21	9.33	2.57	119	0.21	.83
Other-blame	7.48	1.99	7.67	2.26	117	-0.47	.64
Catastrophising	7.00	2.65	6.58	2.12	119	0.98	.33

2. How helpful are the individual optimism intervention forms?

Helpfulness was assessed from the formal ratings at the end of the optimism intervention forms, and also by assessing changes in mood and explanatory style within the optimism intervention forms.

a) Formal ratings of helpfulness on individual intervention forms

At the end of each optimism intervention form, participants rated (on a 5-point scale of helpfulness with 1 being *not at all* and 5 *a lot*), whether it helped them to feel better about the event. The mean score of perceived helpfulness for all the optimism intervention forms (both good and bad events combined) was 3.15 (SD = 1.43). This suggests that the process within each form was moderately helpful. Participants reported that the process was significantly more helpful when the optimism intervention form focused on good events (M = 3.57, SD = 1.35), rather than bad events (M = 2.71, SD = 1.37) [t (389) = 8.80, $p < .01$]. The effect size was small (r = .17).

As presented in Figure 9, the optimism intervention forms were rated as most helpful when they focused on social events. The one-way between-groups ANOVA also showed a significant difference in how helpful the intervention was for different types of events [F (4, 866) = 5.53, $p < .01$].

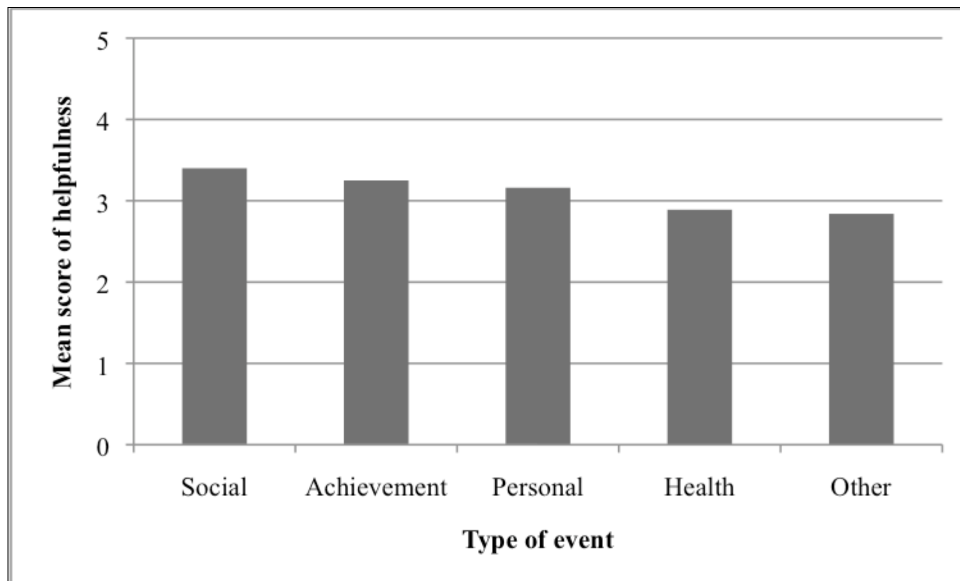

Figure 9. Mean helpfulness by types of events chosen for optimism intervention forms.

Post-hoc comparisons using the Tukey HSD test determined where the differences lay, and a Bonferroni correction was applied (p=.01). Specifically, the intervention was significantly more helpful for social events (M = 3.40, SD = 1.40) than for health events (M = 2.89, SD = 1.44) and 'other' events (M = 3.15, SD = 1.43). All effect sizes were small.

b) Helpfulness inferred from change in mood and explanatory style

Change in mood

The optimism intervention forms required participants to write down the reason for why that event happened (called the 'initial cause'), and develop an alternative reason that is more positive and/or realistic (called the 'alternative cause'). Participants rated how good the initial and alternative causes made them feel on a 5-point scale, and these were compared using paired samples *t*-tests.

On the good event optimism intervention forms, mood was rated from 1 (*not at all good)* to 5 (*extremely good)*. The score was significantly higher for the initial cause (M = 4.48, SD = 0.76), than the alternative cause (M = 4.25, SD = 0.97) on these good event forms [t (461) = 4.59, p < .01]. The effect size was small (r = .04). This indicates that there was a small tendency for participants to report feeling better about

the initial cause than the alternative cause, and that reflection about the good event did not improve their mood.

For the bad event optimism intervention forms, mood was rated on a scale from 1 (*not all negative)* to 5 (*extremely negative)*. For these bad events, the mean score for the initial cause (*M* = 3.42, *SD* = 1.21) was significantly higher than the mean score for the alternative cause (*M* = 2.86, *SD* = 1.36) [t (403) = 8.62, $p < .01$]. The effect size was small ($r = .16$). This indicates a significant reduction in negative feelings about the bad event when the participant developed an alternative cause for why the event happened. That is, they tended to use a more optimistic explanatory style.

Change in explanatory style dimensions

The results from the paired samples *t*-tests, comparing the changes of explanatory style dimensions within the optimism intervention form completed by the treatment group (i.e., changes in ratings between initial causes and alternative causes), are reported in Table 17 and are described below.

Table 17.

Comparison between initial and alternative causes on explanatory style dimensions

Type of Event	Explanatory Style Dimension	Initial Cause		Alternative cause				
		M	*SD*	*M*	*SD*	*df*	*t*	*p*
Good	Internality	3.09	1.41	3.11	1.44	463	-0.17	.86
	Stability	3.74	1.22	3.77	1.17	459	-0.54	.59
	Globality	3.11	1.50	3.19	1.44	461	-1.16	.25
Bad	Internality	3.05	1.70	2.86	1.66	403	2.54	.01
	Stability	3.33	1.21	3.30	1.26	401	0.43	.67
	Globality	2.43	1.48	2.46	1.45	401	-0.37	.71

1. Internality (something about the individual)

Internality was rated on a 5-point bipolar scale where 1 was *totally due to other people and/or circumstances* and 5 was *totally due to me*. In the good event form, participants perceived good events as being equally due to themselves and other

people/circumstances. In the bad event form, participants rated the initial cause significantly higher than the alternative cause. The effect size was small (r = .02). This suggests that they tended to blame themselves slightly less for the bad event when they developed an alternative cause, which indicates a more optimistic explanatory style of thinking.

2. Stability (happens all the time)

Stability was rated on a 5-point bipolar scale where 1 was *will never be present again* and 5 was *will always be present*. In the forms for both good events and bad events, participants indicated that they believed both initial and alternative causes equally. On average, participants believed the good events were due to causes that were likely to be present again, and bad events were due to causes that may/may not be present again.

3. Globality (happens in all situations)

Globality was rated on a 5-point bipolar scale from 1 *affects just this particular event* to 5 *affects all areas of my life*. Again, there was no significant difference in initial and alternative scores for the initial cause and the alternative cause for both good and bad events. On average, participants reported that the cause for the good event affects some areas of their life, but not all. However, on average, participants believed that the cause for the bad event affects some other areas of their life but mainly just that particular event.

3. What is the general feedback about the optimism intervention?

The quantitative and qualitative responses from the feedback questionnaire are described below.

a) Quantitative feedback

All participants gave feedback about the present study by responding to a series of questions on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Table 18 shows the descriptive statistics and comparisons of the treatment group and control group responses. On average, participants *agree* that the interventions/tasks were easy to complete and that they would recommend others try the

interventions/tasks. However, on average, they neither agreed nor disagreed that the interventions were enjoyable, helpful, and increased their level of optimism.

Table 18.

Descriptive statistics for optimism intervention feedback

Feedback items	*M*	*SD*
The treatment intervention was easy to complete	3.60	0.69
The treatment intervention was enjoyable	3.42	0.77
The treatment intervention was helpful	3.25	0.83
The treatment intervention increased my level of optimism	3.29	0.76
I would recommend other older people try the treatment intervention	3.58	0.77

Beliefs and helpfulness

There are significant positive correlations between the belief in whether older people can change their patterns of thinking and three variables: 1) whether they believed the treatment intervention was helpful [$r = .27$, $n = 107$, $p < .01$], 2) whether they believed the treatment intervention increased their level of optimism [$r = .30$, $n = 106$, $p < .01$], and 3) whether they would recommend the treatment intervention to other older people [$r = .40$ $n = 106$, $p < .01$]. There is a moderate-sized positive correlation between participants' belief that self-help is useful for older people and the belief that the current treatment was helpful [$r = .45$, $n = 104$, $p < .01$].

b) Qualitative feedback

Most (79%; $n = 44$) of the treatment group participants wrote between one and eight sentences at the end of the feedback questionnaire expressing their thoughts on what was good about the study and how it could be improved. The following themes were found.

Positive feedback

Fifty percent ($n = 28$) of the treatment group believed the treatment intervention was helpful. Statements were made regarding an increase in mood, for example, "it made me feel better and more confident or forgiving". The following are ways in which it was perceived as helpful.

Reflection about reactions to events

Thirty-four percent of participants stated that the intervention increased their awareness of how they reacted to, accepted, or coped with different events in their lives, according to the severity of the event. Others commented that it also improved the way they coped with negative reactions. For example, “I looked at my feelings in a more clinical way instead of an emotional way” and, “It made me look at alternative interpretations. Perhaps decreased self-blame”. One participant stated that it provoked her to increase her use of coping strategies that she had previously followed without much thought or analysis.

Focusing on the positive

Twenty participants stated that the intervention helped them to be more positive and content with situations; “It seems to have increased my positive attitude and optimism”. It was commonly stated that it made participants feel grateful for what they have. Other comments included, “it drew my attention from being too much focused on the disappointment, to other more pleasantly rewarding preoccupations and activities”, and “it emphasised that being positive and optimistic is important and one should strive to take this approach with every unpleasant situation”.

Recommendation to other people

Eleven participants affirmed that they would recommend the intervention to others; “I think anyone taking the study would benefit. I can only repeat that I feel changed for the better”.

Helpful for others with a negative outlook on life

Nine participants stated that although they did not believe that the intervention helped them personally, they believed that “the treatment intervention has undoubted merit” and it would be beneficial for those with psychological difficulties. In particular, one believed “if you did have low self-esteem it would no doubt be beneficial”, another stated “it may be effective for lonely, depressed, or house-bound people, or those in retirement homes/villages”, and yet another participant thought that, “this study may help people in the early stages of grieving”. One participant stated that, “going through has helped me to understand how some people (e.g., friends) can feel”.

Negative / constructive feedback

Three people stated that the intervention was not effective; "it was not sufficient to change my state of mind". One of them stated that, "few people would be able to be objective about difficulties and most of us cope in our own way", and perceived that it would not be useful if the bad events were minor. A number of reasons were given for why it was unhelpful:

Perception of pre-existing optimism

Thirty-nine percent (n = 22) of participants in the treatment group stated that they already had a positive/optimistic attitude before the study, and did not believe that the intervention changed this attitude in a significant way; "My level of optimism has always been very high. Perhaps the treatment has reinforced it".

Older people are "set in their ways"

Seventeen percent (n = 10) believed that older people cannot change due to the combination of genes, personality, and past experience. One participant, however, stated the opposite, "older people can change their thinking with new information and encouragement".

Other specific problems with the treatment intervention

Four participants stated that it was difficult to find negative/bad events in their lives, four believed that it was difficult to decide on answers in the Likert scale, particularly when the examples/situations were either absent or hypothetical (such as in the CERQ and OAASQ, respectively). Participants thought the questions should be more concrete and detailed while the response options should be simplified. One participant stated that, "not many older people would be motivated enough to complete this treatment intervention. It is easier to answer these questions orally, rather than by reading and writing answers. Too much like school exams perhaps. Others may think differently".

Qualitative observations/Informal comments over the phone

Observations and informal comments may also help to explain the intervention's effectiveness. Most participants stated they were happy to be rung during the process.

It appeared that guidance over the phone was helpful, particularly to clarify instructions and normalise the difficulty in completing the task.

Many participants found it hard to identify events in their lives, especially when they were termed “good” and “bad” events; however, they found it easier when they were termed “best” and “worst” events. Some made comments that they do not experience many major events in life, but when probed, they often came up with a number of seemingly ‘major’ events such as funerals or diagnosis of illness. Therefore, it appeared that they minimized the severity of the events and accepted them as part of normal aging, and instead looked for the positive (e.g., going to the funeral was a good chance to say goodbye and to catch up with the family). Some participants found the process of collecting an even amount of good and bad events useful as it put things into perspective (more good events than bad).

Comments were made about the difficulty in generating alternative causes for events, perhaps because they were thinking concretely and not taking credit for their part in good events (e.g., stating that they ‘organised a birthday party’ only because it was that ‘person’s birthday’ (concrete reason), rather than reasons such as being kind or caring). However, some participants stated that the Tips Sheet with examples of alternative causes was useful, and found that the intervention forms became easier with practice. Some believed the intervention was interesting and enjoyed the stimulation.

A number of people stated that they would not think to seek ‘psychotherapy/treatment’ if they were struggling with problems. Instead, they stated that they are resilient (e.g., due to past experiences including WWII and the depression) and that they ‘have’ to accept events, ‘have’ to cope, and ‘have’ to be positive, especially when others rely on them.

CHAPTER EIGHT - DISCUSSION

CHAPTER OUTLINE

The previous chapter included results for each of the research questions posed in chapter five. These results will be discussed further in the current chapter, with regards to the hypotheses made, the past studies, and theories proposed in the literature. This chapter is divided into four sections: a summary of the results from the Part One and Part Two of the current study, implications of the findings, the current study's limitations, and recommendations for future research.

PART ONE: LEVELS AND RELATIONSHIPS

There are many conflicting theories and gaps in the current literature regarding the levels of, and relationships among explanatory style, subjective-well-being, and cognitive coping, particularly in older adults. The current study aimed to clarify these as they relate to New Zealand community dwelling older adults aged 65 and over.

Optimism and well-being in older adults

Given the past research, it is not surprising that the majority of older adults perceived themselves as 'very' or 'extremely' optimistic. Older adults are more optimistic than younger people and, in general, report less negative emotions (Thomsen et al., 2005). This type of reporting may be also a function of their cohort (APA, 2004). However, contradictory to predictions, this subjective perception of optimism was not significantly related to explanatory style, as measured by the OAASQ. It is possible that the lack of definition for the term 'optimism' may have provoked different interpretations, since the two approaches (explanatory style and expectancy) are commonly mistaken for one another (Isaacowitz, 2005).

As hypothesised, older adults from New Zealand have similar levels of optimistic explanatory style as older adults in other studies overseas (combining the affiliation and health/cognitive domain scores but excluding the achievement domain scores; Isaacowitz & Seligman, 2001, 2002). In addition, the levels of subjective well-being, as measured by the Affectometer 2, seem to be similar to those found in older adults in both New Zealand and the United Kingdom (Tennant, Joseph, & Stewart-Brown,

2007). In line with previous research, these levels of optimistic explanatory style and well-being found in the current sample of older adults are higher than those found in other studies of younger adults. These results are consistent with theories on age differences. One is the socioemotional selectivity theory, which proposes that older people's attitudes change when they realise that the time they have left in life is limited and they attempt to maximise positive experiences, for example, by actively maintaining positive relationships and avoiding people and situations that generate negative feelings (Mroczek & Almeida, 2004). In addition, research suggests that older adults use emotion-focused coping, which helps them to maintain positive emotions and minimise negative ones (Johnson & Barer, 1997; Schulz & Heckhausen, 1999; Zarit & Zarit, 2007).

Despite the differences in levels of optimistic explanatory style and well-being between younger adults and older adults, no significant age differences were found within the current older adult sample (i.e., between the 'young-old' and the 'old-old'). This is possibly due to having a relatively small range of ages and few participants in the 'oldest-old' (over 85 years old) age group to compare more contrasting cohorts. Other demographic variables such as gender and education did not make a difference on explanatory style and well-being scores in this sample either. These results help to clarify the mixed results on well-being in previous studies, while contributing a new finding on explanatory style to the literature. Since some demographic factors do not play an important role in explanatory style and well-being, it can be suggested that predictors of successful aging are within the individual's control (such as attitude and coping; Glicken, 2009).

Nevertheless, other factors such as physical health and activity levels were found to significantly relate to levels of explanatory style and subjective well-being. This is consistent with past research of successful aging and well-being in a number of settings (Jeste, 2005; Fiske, 2006; Park, 2009; Vaillant & Mukamal, 2001). The corresponding increase in social contact and well-being also supports research that reduced isolation and increased social support (either emotional, physical or personal contact) has direct effects on health and can buffer stress in late life (Glicken, 2009; Fiske, 2006). However, since these are subjective reports (rather than assessed on an objective measure) it is possible that those who have higher well-being or who are

more optimistic have a positive bias and overestimate how healthy they are (Carstensen, Fung, & Charles, 2003). This is consistent with research showing that 56-58% of older people rated their health as good or fairly good, despite having a limiting long-term illness (Evandrou, 2005). If so, having an unrealistic perspective can be problematic, particularly in regards to managing physical health (Weinstein & Klein, 1996). Nevetheless, other research shows that subjective measures of perceived physical health and social support are more important in predicting well-being than objective measures (Qualls & Knight, 2006).

Past research has been inconsistent regarding how optimistic explanatory style and well-being relate to one another. The current study demonstrated a significant moderate positive relationship between the two constructs in older adults in New Zealand. This relationship was larger than the modest size expected; however, it is not surprising that it is in the positive direction given that optimism is one of the six strongest predictors of subjective well-being in older adults, alongside positive self-esteem, sense of perceived control, extroversion, positive social relationships, and a sense of meaning and purpose to life (Compton, 2005). Given that the relationship is weaker than in younger adults, the theory of realistic optimism is supported, where a less extreme level of optimistic explanatory style may be more conducive to well-being in older adults, given the higher number of loss-related events they experience. Another possibility is that by merging the affiliation (social) and health/cognitive domains into one explanatory style score, the analysis distorted the size of the relationship with well-being. This possibility is consistent with past research demonstrating a stronger relationship between explanatory style and life satisfaction for affiliation events than health/cognitive events; again, supporting the socioemotional selectivity hypothesis and the declining control in physical and intellectual functioning, respectively. The presence of this relationship between explanatory style and subjective well-being supports the implementation of optimism interventions for enhancing happiness and life satisfaction with this age group.

Coping in older adults

The New Zealand sample uses similar cognitive coping strategies as the Netherlands normative sample (Garnefski, Kraiij et al., 2002). The five most used strategies are *putting into perspective*, *refocus on planning, positive reappraisal, acceptance,* and

positive refocusing. Compared to the normative sample, the current sample's use of *self-blame* and *positive appraisal* was in the high range (Garnefski, Kraaij et al., 2002). This indicates that although people have a high sense of guilt and responsibility for unpleasant events, they also reframe their negative experiences in more positive ways. These differences may in some way be due to cultural differences (e.g., the stereotyped "rugged individualism" and self-reliance of New Zealand Europeans) and/or the nature of the sample (e.g., the current sample had a slightly older mean age, more males, and were members of active organisations which may be different from the community sample in the normative group).

Some of the present results on the relationship between coping strategies and well-being were consistent with previous research in older adults. For example, the more an older adult positively reappraises a stressful event, the higher their level of well-being is likely to be. Whereas, both ruminating about, and catastrophically interpreting an event are not effective methods for reducing stress. However, new findings were also established in this study, possibly due to the difference in sample (e.g., with cultural and gender distinctions), the measure (bipolar scale of well-being, rather than unipolar scale of depression) or some other factors. Acceptance was not significantly correlated with well-being. This may be due to the contrasting types of acceptance (either active process of self-affirmation or passive form of resignation to negative experiences) that may have been employed, depending on the hypothetical events which respondents imagined (Wilson, 1996). Both blaming oneself and blaming others for unpleasant events were significantly related to poorer well-being, whereas previous research found no such relationship, except in younger age groups (McGee, Wolfe, & Olsen, 2001; Tennen & Affleck, 1990). The current results support theories proposing that 'blame' can hinder adaptation to negative life events or trauma (Tedeschi, 1999). Furthermore, both putting things into perspective and refocusing on planning during stressful events were associated with higher well-being. These are both active forms of coping, perceived as adaptive in late-life only in the face of events that are not associated with a higher probability of failure (Schulz & Heckhausen, 1996).

There is a lack of research evaluating how the explanatory style approach to optimism relates to cognitive coping strategies in older adults. The current results show that the

majority of relationships between specific coping strategies and explanatory style are similar to those with subjective well-being, which is not surprising given the moderate relationship found between explanatory style and well-being. However, well-being is an emotional state or sense of life satisfaction, whereas explanatory style is a cognitive style. Therefore, the explanatory style and coping cognitive styles can be theoretically linked. For example, self-blame and other-blame coping strategies appear congruent with the internal-external dimension of explanatory style (McGee et al., 2001). Catastrophising is similar to the exaggerated and overgeneralised nature of stable and global attributions; whereas, specific and unstable attributions are ways of putting a negative event into perspective and positively reappraising it as temporary and isolated.

PART TWO: OPTIMISM INTERVENTION OUTCOME

Directly targeting explanatory style through specific optimism interventions has been found to promote well-being. Although optimism interventions have been used with young adults, particularly student samples, there have been no studies evaluating their effectiveness with older adults. Therefore, the present study is based on Fresco et al.'s (2009) study using a modified version of the Optimism Intervention Form that was pilot tested and trialled in a controlled experiment with a community sample of older adults.

Changes in explanatory style and well-being outcome measures

The optimism intervention did not appear to make any statistically significant difference to explanatory style or subjective well-being in the treatment group as a whole. Furthermore, although the pessimist sample experienced a significant moderate sized increase in optimistic explanatory style, this may be better explained by regression toward the mean. The present results are consistent with two other studies that found no significant changes in depression after optimism interventions (Cantrell, 2007; Gleason, 1998). Despite these non-significant effects, it has been suggested that any results, whether positive or negative, be widely disseminated as it is important that interventions are evaluated at inception (Findlay, 2003).

There are a number of possible reasons for the current non-significant changes such as the stability of the variables across the lifespan, the sample and the modality of

intervention. First, explanatory style may indeed be rooted in genetics, personality and childhood experiences and therefore reasonably stable, as is consistent with some research discussed earlier (Burns & Seligman, 1989; Peterson, Maier, & Seligman, 1993; Schulman, Keith, & Seligman, 1993; Snyder, Higgins, & Stucky, 2005). In addition, affect (or emotional expression/emotional reporting) is believed to fluctuate less in older adults accounting for less change in the Affectometer 2 scores (well-being) across time in the current study (Knight & Poon, 2008; Rocke, Li, & Smith, 2009).

Second, the nature of the current sample may have influenced the results. Specifically, as highlighted by participants in their qualitative feedback, the sample was generally high functioning and optimistic to begin with and therefore the potential for enhancing optimism was reduced. This is in contrast to the pessimistic sample used in the original study by Fresco and colleagues (2009). Despite the differences in age of samples (older adult compared with college student), these null results do not necessarily indicate that older people cannot understand abstract psychological concepts. In fact, there were no complaints by participants throughout the process regarding the complexity of the cognitive intervention. Instead, it is possible that this specific optimism intervention may simply be insufficient to produce change by itself and may be more useful as one exercise used within psychotherapy guided by a clinician. Although the older adult participants rated self-help as an acceptable method for change, research suggests that common/non-specific factors such as therapeutic alliance account for the substantial portion of treatment outcome and so unguided self-help may not be effective (Richardson et al., 2010).

Finally, participants' beliefs about the ability to change were associated with whether they found the current treatment intervention helpful, whether they believed the treatment intervention increased their level of optimism, and whether they would recommend the treatment intervention to other older people. However, no cause-effect relationship can be established since participants were asked about beliefs and helpfulness at the same time point (follow-up). Therefore, it is unclear whether participants' prior beliefs/expectations influenced the benefits they received from the intervention in a self-fulfilling prophecy way or whether their beliefs were a result of

the intervention's effectiveness. In future, it would be advantageous to assess beliefs and expectations at pre-treatment.

Changes in cognitive coping strategies

In addition, participants experienced a significant reduction in *self-blame* and *catastrophising* over time, as expected given the aims of the intervention. Interestingly, there was a significant reduction, in *rumination* at post-treatment suggesting that the focus on problems was constructive and not unhealthy. This difference in rumination between Fresco's study and the present study may be due to the introduction of the *Tips Sheet* in the present study which offers practical help and examples of how to change their thinking, rather than dwelling on the problem.

Nevertheless, both the treatment and control group's use of self-blame, catastrophising and rumination reduced over time, suggesting that a common component of their tasks was responsible for the change. Possible common components were the actual task of recording good and bad events, merely focusing on a task (i.e., having a purpose and volunteering with research), or even receiving attention from the researcher via phone and mail. This is consistent with positive psychology research that recording positive events daily can lead to increased happiness and reduced depression (Seligman & Steen, 2005).

Neither *positive reappraisal* nor *putting into perspective* significantly increased after the optimism intervention. This outcome was inconsistent with the hypotheses since the intervention introduced the possibility of other factors that may have caused the event to occur. It is also inconsistent with the qualitative reports of participants' realisation that they experienced many good events in their lives which they took for granted, and that the optimism intervention had put things into perspective and allowed them to reframe their experiences. A possible reason for this inconsistency is that the measure did not accurately target these cognitive changes. Not surprisingly, there was no change in some of the coping strategies such as *acceptance, positive refocusing* and *refocus on planning* as these were not targets of treatment. Finding no change in acceptance and positive refocusing is not problematic because they were not shown to be related to well-being.

General feedback about the optimism intervention

The general feedback was also mixed. Quantitative feedback indicated that on average participants found the optimism intervention forms easy to complete and would recommend others try the intervention. However, there were contrasting results regarding the helpfulness of the intervention. On average, participants rated the actual optimism intervention forms as moderately helpful, whereas their general feedback at follow-up was that they neither agreed nor disagreed that the interventions were helpful, enjoyable, or increased their level of optimism. Nevertheless, qualitative feedback showed that at least half of the treatment group described it as valuable, particularly for reflecting and coping with their reactions to events in a more positive, balanced and grateful way.

Neither age nor education determined how acceptable or helpful the intervention was perceived. This finding is inconsistent with suggestions that earlier cohorts (i.e., the young-old) perceive abstract, cognitive psychological interventions as less acceptable and useful than later born cohorts (old-old; Knight, 2006; Knight & Poon, 2008). However, as mentioned, it is possible that no cohort effects emerged because the age range was not wide enough.

Positive versus negative events

Results were conflicting on whether the intervention was more beneficial when focusing on negative/bad versus positive/good events. Specific changes within the forms indicate that the intervention was more effective for bad events, while, overall, participants perceived the intervention as significantly more helpful when it focused on positive/good events. The latter is consistent with past findings of improved happiness when focusing on positive events (Cantrell, 2007). The perception of helpfulness may reflect participants' preference and/or ease in thinking about pleasant events, as is common in the older adult age group (Carstensen et al., 2003).

Types of events

Participants also found the intervention forms significantly more helpful when they focused on social events compared with events such as health events. This is not surprising, given that it is difficult to become more optimistic (i.e., have stable and global attributions) about health events that are permanent and affect many areas of

one's life, compared with social events such as disputes that are likely to be more temporary and affect few areas of one's functioning.

Dimensions of explanatory style

In general, older adults appear to respond in an optimistic way, attributing positive events to enduring causes that influence many areas of their lives, while attributing negative events to causes that were more temporary and isolated. The intervention appeared to be more effective in altering certain dimensions of explanatory style, namely the 'internality' dimension. However, it is not surprising that the change in internality was not accompanied by a change in well-being, given the research showing that other dimensions are more highly related to depression (Metalsky et al., 1982). The lack of change in the stability and globality explanatory style dimensions may also reflect the types of events older adults experienced (e.g., death of friend).

IMPLICATIONS

The current findings have implications for the practice of psychology with older adults. To begin with, a realistically high level of optimistic explanatory style should be promoted, as it is related to subjective well-being. Furthermore, treatment should also aim to increase specific coping strategies that the current study found to be adaptive such as positive reappraisal, while replacing maladaptive coping strategies such as such as rumination and catastrophising using cognitive restructuring techniques. For example, thought stopping, attention-shift and psychological distancing techniques may be helpful in learning to shift one's perception and disrupt thoughts of rumination (Sharoff, 2002).

Although the optimism intervention was originally developed as a self-help treatment, there were mixed results regarding its effectiveness in the current study. Therefore, as mentioned, it may be more valuable as a cognitive restructuring exercise in the context of ongoing standard cognitive therapy guided by a mental health professional for this age group. That way, it could function like a thought record for an in-session and/or homework task generated by discussions about the specific challenges/presenting problems that are important to the older person (Norcross, 2006). In this way, the mental health professional can help to ensure the optimism intervention form is appropriate (i.e., not used with those who already make

optimistic attributions) and also ensure that unrealistic optimism is not in advertently encouraged (i.e., for certain stable and global events). It will also allow for reflection after each form has been completed, as is recommended for all homework tasks with older adults (Laidlaw et al., 2003). Using the optimism intervention as a type of thought record is also likely to be helpful as behavioural experiments can follow (Greenberger & Padesky, 1995; Wells, 1997). This is based on research proposing that behavioural experiments are powerful and compelling as they use a holistic cognitive system with extensive links with emotion (Bennett-Levy, 2003).

LIMITATIONS

There are a number of limitations of the current findings that relate to the generalisability beyond the current sample, the measures used, and the interpretations drawn from the results.

Sample generalisability

The present findings may not generalise to older adults from other cohorts, living situations, or groups who are not active members of community organisations, consistent with the *Components of the Contextual Adult Life Span Theory for Adapting Psychotherapy* (Knight, Lee, & Poon, 2008). This is supported by research showing that participation in organisations is associated with better health as it involves contact with friends and perceived social support (Woods, 2008). In addition, community-dwelling adults may have a more positive outlook on their own situation when they compare themselves with others (e.g., spouses or friends) who they know are ill, confined to nursing homes or other care facilities (Mezulis et al., 2004). The heterogeneous nature of the older adult age group further limits the generalisation of the current results (Woods, 2008).

Measures and procedure

Caution is advised when interpreting the results from the outcome measures. First, paper-and-pencil questionnaires were selected instead of online questionnaires to account for the variation in technological experience and access to computers. However, there were no safeguards to ensure that participants completed the assessment and intervention forms as instructed, for example, by focusing on four events per week rather than all at one time immediately before submission. In

addition, there may have been confounding variables such as the amount of help they received from their spouses/variables or any negative feelings held by control group members related to being excluded from the treatment group.

Second, the explanatory style score is based on attributions about hypothetical events in the OAASQ, rather than attributions about current personal life events. Participants reported difficulties in imagining hypothetical events cast further doubt on the validity of the results. Also, due to the difficulties in completing the OAASQ, this measure was not used in the follow-up assessment and therefore the longer-term effects of the intervention on explanatory style cannot be determined.

Third, the results from the CERQ refer to conscious cognitive coping strategies and therefore no conclusions can be made about behavioural coping strategies or unconscious emotion regulation strategies such as defence mechanisms. In addition, coping strategies were only assessed in relation to negative events and so coping strategies used for positive events cannot be assumed.

Interpretation of results

Care must be taken in interpreting these results. Specifically, the relationships that are found between variables do not indicate a causal direction. For instance, it cannot be determined whether optimism makes people happier, or whether happier people make more optimistic attributions. Although an early cognitive theory (Beck, 1976) proposes that cognitive errors precede symptoms of depression, there is also a belief that mood and cognition are in a reciprocal relationship (Bower, 1981; Myers, 2000; Teasdale, 1983, cited in Blackburn, James, & Flitcroft, 2006).

RECOMMENDATIONS FOR FUTURE RESEARCH

There are a number of recommendations for future research, which either further evaluate the optimism intervention as a self-help intervention or evaluate its use within the context of therapy for clinical depression. Continued investigation into this intervention's effectiveness as a self-help task may be warranted due to the lack of access to mental health professionals trained in gerontology and also due to high levels of acceptability found in the present study. The optimism intervention could be administered for more weeks than just four so that participants have more opportunity

to learn and practice the complex techniques. This may allow for a slower pace which is recommended for the older age group, particularly since research shows that the ability to comprehend and use recently learned complex abstract information decreases in the later years (Gallagher-Thompson & Thompson, 2010). It may also be useful to include a control group that does not complete any tasks to more thoroughly explore the mechanisms of change in this intervention. In future, longer follow-up periods will also help to evaluate the long-term effectiveness of this intervention. Different samples of older adults could also be used, for example, the 'oldest-old' cohort and rest-home/retirement village residents. This is line with both research and participants' qualitative feedback suggesting that those who would benefit the most are older adults who are pessimistic and/or had psychological difficulties such as low self-esteem, depression, loneliness or who were in the early stages of grieving or experiencing other stressful life events (Vink et al., 2008).

CONCLUSION

With the current ageing population, addressing the mental health needs of older adults will be increasingly important in the years to come. In light of the relatively poor access to services for older people in New Zealand, it is crucial that we implement evidence-based interventions to ensure that those who seek help become engaged, independent, and healthy (Glicken, 2009). Based on the current findings, promoting realistic optimistic explanatory style and adaptive coping strategies such as positive appraisal will likely be valuable for subjective well-being. In addition, interventions should replace maladaptive strategies such as catastrophising and self-blame. However, the value of self-help interventions must be further explored and trialled within the context of psychotherapy for pessimistic, depressed older adults. As a result, a higher proportion of older adults will lead more vibrant and active lives.

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APPENDICES

APPENDIX A: DETAILS OF PILOT TEST

Pilot test participants

Fifteen volunteers were recruited from a community organisation north of Auckland to pilot test the optimism intervention to ensure that it was clear and easily understood by older adults. In exchange for their time and effort, a morning tea was provided at the meeting for all members of the organisation. Inclusion criteria included the ability to read and understand English and no serious cognitive impairment (as evidenced by the ability to fill out questionnaires). All participants were females with an average age of 76 years (ranging from 70 – 80 years). The average number of total years of education was 11, and previous occupations included machinist, nurse, nurse aide, waitress, hairdresser, secretary, and shop assistant. Twenty-five percent of people who attended the meeting volunteered to participate and two dropped out.

Pilot test materials

Each folder contained an information sheet, a consent form, four Optimism Intervention Forms and a Pilot Test Feedback Questionnaire. These were self-administered individually at home rather than in a group format to prevent embarrassment, discomfort or feelings of obligation.

Optimism Intervention Forms

The Optimism Intervention Form is the modified version of the Daily Attributions Questionnaire (DAQ; Fresco & Craighead, 1993), which itself is similar to the Attributional Style Questionnaire (Peterson et al., 1982). Each form (i.e., for one event) takes approximately 10 minutes to complete. Specifically, the Optimism Intervention Form includes the following steps:

Step A) Identify and describe either a good and bad event that has occurred in your life this week. Circle the type of event - achievement/ability, health, social, personal, other.

Step B) Describe the first cause of each event that pops into your mind. Rate how

good/bad the cause makes you feel. Rate how strongly you believe the cause. Rate the cause along the three dimensions of explanatory style including internality, stability, and globality.

Step C) Develop a more optimistic (positive yet realistic) explanation/cause for the event. Rate how good/bad this alternative cause makes you feel. Rate how strongly you believe this alternative cause. Rate this alternative cause along the three dimensions of explanatory style including internality, stability, and globality.

Step D) Re-rate how strongly you believe that the first cause was the reason for why the event happened. Rate how much the above process helped them to feel better about the event.

Pilot Test Feedback Questionnaire

The Pilot Test Feedback Questionnaire is a short survey developed for the purpose of the pilot study (shown in Appendix B). Participants indicated how much they agreed with a number of statements on a 5-point Likert scale (from 1 *strongly disagree* to 5 *strongly agree*). Statements targeted the difficulty and usefulness of the Optimism Intervention as a whole, as well as components within it, such as the instructions and examples that were given. There was space for qualitative comments at the end of the questionnaire.

Pilot test procedure

After an introduction of the pilot test aims, members of a community organisation received approximately ten minutes of briefing regarding the Optimism Intervention. This briefing included instruction on self-monitoring of how they assign causes to events in their lives and how to develop alternative helpful explanations for those events. Examples were given for different types of events. Members were told that completing this reflection would help them arrive at the most positive but realistic causes for good and bad events. If members were interested in volunteering, they collected a folder from a pile to take home.

At home, participants completed four Optimism Intervention forms (two ‘good’ and two ‘bad’ events), over one week. During the week, participants were rung to check their understanding of the task. All reported they were proceeding without any

problems or questions. At the end of the week, participants completed the Pilot Test Feedback Questionnaire regarding the instructions, questions and scale items of the Optimism Intervention. The folders were returned to the researcher using the self-addressed stamped envelope provided. Participants received a letter in the mail thanking them for their participation. These instructions are illustrated in Figure 1 below.

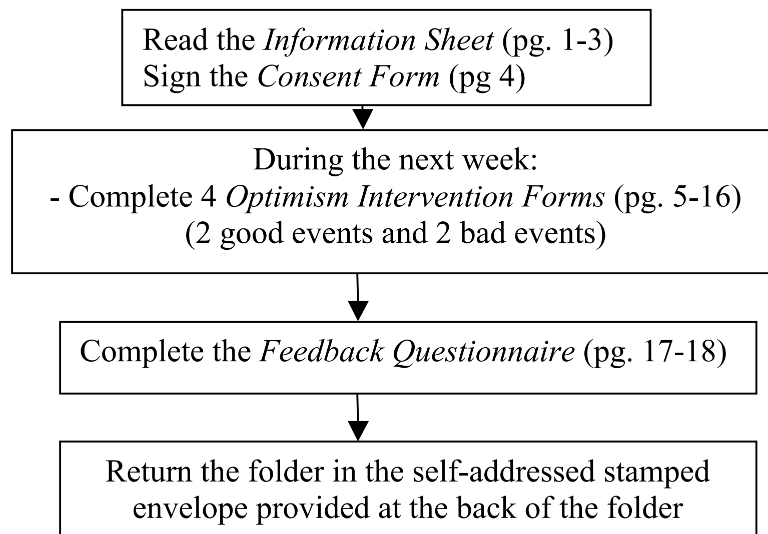

Figure 1. Flow chart of instructions.

Pilot test results

Responses on the Pilot Test Feedback Questionnaire (on scales from 1 *strongly disagree* to 5 *strongly agree*) indicate that the Optimism Form was generally easy to understand (*M* = 3.56; *SD* = 1.13), and the examples helped to make it clearer (*M* = 3.67; *SD* = 0.71). In addition, completing four forms a week was perceived as a reasonable number (*M* = 4.44; *SD* = 1.33) and participants mostly enjoyed the intervention (*M* = 3.78; *SD* = 0.83). Some people found the task difficult (*M* = 2.88; *SD* = 1.25), as it was a challenge to develop alternative causes for events that were both positive and realistic. Overall, participants believed that the intervention would be moderately helpful for increasing their level of optimism (*M* = 2.63; *SD* = 1.77). This perception may be due to the short period they had to complete forms and practice the skills. Some participants also indicated that they were unsure whether they would recommend the intervention to other people (*M* = 2.88; *SD* = 0.99).

Participants' comments were that it was only moderately helpful because they were already optimistic. However, on closer analysis of their intervention forms, it appeared that some participants were not only pessimistic in their initial responses to events, but they also developed alternative, more optimistic responses throughout the intervention forms. It is possible that they were not given enough explanation about the processes underlying the intervention and therefore could not see the changes in their responses. Other comments from participants were that they lacked confidence in filling out the forms, as they were unsure of whether they were doing it correctly. However, they often added that the intervention forms got easier over time with practice.

APPENDIX B: PILOT TEST FEEDBACK QUESTIONNAIRE

Thank you for participating in my pilot study. Your input is greatly appreciated. This is a chance to give feedback and suggestions about the Optimism Intervention.

Please circle one number on each scale below which best describes the extent to which you agree or disagree with the statement.

1. The Optimism Intervention Form was easy to understand

Disagree 1 2 3 4 5 Agree

Comments

____
____
____
____

2. The examples helped me to understand what was required of me

Disagree 1 2 3 4 5 Agree

Comments

____
____
____
____

3. I found the Optimism Intervention difficult

Disagree 1 2 3 4 5 Agree

Comments

____
____
____
____

4. Completing *four* forms is a reasonable number per week

Disagree 1 2 3 4 5 Agree

Comments

____
____
____
____

5. I enjoyed completing the Optimism Intervention

Disagree 1 2 3 4 5 Agree

Comments

6. I believe my level of optimism has increased due to completing the Optimism Intervention

Disagree 1 2 3 4 5 Agree

Comments

7. I would recommend other people try the Optimism Intervention

Disagree 1 2 3 4 5 Agree

Comments

Please write any other comments or suggestions you have:

APPENDIX C: EXPERIMENT INFORMATION SHEET

You are invited to participate in a research study looking at whether optimism can be increased, and how this affects a person's overall sense of well-being. The study is being carried out by myself, Sarah Bell-Booth. I am a student working towards a Doctor of Clinical Psychology in the School of Psychology at Massey University, and I am supervised by Professor Janet Leathem.

We are looking for volunteers aged between 65 and 85 years, who are not currently receiving psychotherapy. Volunteers will be randomly separated into two groups, each with different tasks to complete. The results of each group will be compared at the end. Here is some further information about the study, what you are asked to do, and your rights, should you choose to participate.

Background information:
A person's level of optimism and pessimism is indicated by the way he/she explains events in their lives. High levels of pessimism are related to a low sense of well-being. Therefore it is important to try and increase people's optimistic views of events. A self-help intervention was developed in America and has been shown to be effective for increasing optimistic thinking and well-being in undergraduate students. This intervention has not been used with older adults, and therefore we are interested to see if it will be effective.

What you are asked to do:
A flowchart of instructions is presented on the following page. Your task is to think about significant good and bad events that occur in your life over the course of *four weeks*. As these events occur, we then want you to complete *Optimism Intervention Forms* about the causes for the events that you identify. You must complete *four* forms each week, for two good events and two bad events of that week. Each form should take approximately 5-10 minutes each.

You will also be asked to complete questionnaires regarding your levels of optimism, well-being, and coping strategies at three different times (so we can measure change), including:

1) before the task (*Pre-Treatment Assessment*)
2) immediately after the task i.e., after 4 weeks (*Post-Treatment Assessment*), and
3) one month after the task has been completed (*Follow-up Assessment* – these questionnaires will be sent to you).

Each assessment will take approximately 30 minutes to complete. Once you have completed all the forms in this folder, please return the whole folder (excluding the information sheet) using the large self-addressed freepost envelope provided.

Instructions:

1) Before participating:
- Read the *Information Sheet* (pg. **1-4**)
- Sign and **RETURN** the *Participant Consent Form/Demographics form* in the self-addressed freepost envelope (attached to the cover of this folder)

2) PRE-TREATMENT ASSESSMENT (pg. 5-15)
- Complete the three questionnaires provided
1. *Older Adult Attributional Style Questionnaire* (measures your level of optimism)
2. *Affectometer 2* (measures your well-being)
3. *Cognitive Emotion Regulation Questionnaire* (measures your coping strategies)

(You will be rung by the researcher to go over an example of an Optimism Intervention Form)

3) TREATMENT – OPTIMISM INTERVENTION (pg. 17 - 56) **Duration: Four weeks**
- *Each week*, complete 4x *Optimism Intervention Forms*.
(This includes: 2x forms about *good* events and 2x forms about *bad* events that occur during the week)
= By the end of *four weeks*, you should have a **total of 16** forms.

4) POST-TREATMENT ASSESSMENT (pg. 57-67) **After 4 weeks**
- Complete the same three questionnaires provided
1. *Older Adult Attributional Style Questionnaire*
2. *Affectometer 2*
3. *Cognitive Emotion Regulation Questionnaire*

5) Finished the pre-treatment, treatment, and post-treatment?
- Remove and keep the *Information Sheet* (in case you need for future reference)
- RETURN the **whole folder** using the large self-addressed freepost envelope provided

6) FOLLOW-UP ASSESSMENT **1 month later**
You will be sent questionnaires to complete and **RETURN** using the envelope provided
1. *Affectometer 2*
2. *Cognitive Emotion Regulation Questionnaire*
3. *General Feedback*

Your rights:
You are under no obligation to accept this invitation. If you do not wish to participate, we thank you for your time and ask that you please return the folder using the self-addressed freepost envelope provided. If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study at any time before publication;
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- be given access to a summary of the project findings when it is concluded. If you would like to receive this summary, please circle 'yes' on the *Participant Consent Form.*

Please indicate your willingness to participate by signing the *Participant Consent Form* (pg. 3) and sending this form back using the self-addressed freepost envelope provided.

Support:
Should this study raise any matters of personal concern, do not hesitate to contact either myself or my supervisor.

Contact details:
If you have any questions about the study please contact myself, Sarah Bell-Booth, on 0800 555 022 (please leave a detailed message) or email sezkm@xtra.co.nz. Otherwise, contact my supervisor Professor Janet Leathem at the School of Psychology, Massey University, Wellington campus on 4140800 ext 62035.

This study has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application 08/03. If you have any concerns about the conduct of this research, please contact Professor John O'Neill, Chair, Massey University Human Ethics Committee: Southern A, telephone 06 350 5799 x 8771, email humanethicsoutha@massey.ac.nz.

Thank you very much. Your participation is much appreciated.

Kind regards,

Sarah Bell-Booth

Doctor of Clinical Psychology student
Massey University

APPENDIX D: EXPERIMENT CONSENT FORM AND DEMOGRAPHIC INFORMATION

PARTICIPANT CONSENT FORM

This consent form will be held for a period of five (5) years.

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time. I agree to participate in this study under the conditions set out in the Information Sheet.

Signature: ______________________________ Date: _____________

Full name (printed):
____

Postal address:
____
____
____
Phone number (home): ____
(Mobile): ____
Email address: ____

Would you like to receive a summary of the results in the mail? (Please circle)
YES / NO

DEMOGRAPHIC INFORMATION

The demographic information you provide will only be used to describe my sample better and you will not be identified personally in my research report.

Sex (please circle): Male / Female

Date of Birth _____/_____/_________

Total years of education _________

Occupation / Previous occupation/s:
____
____

Organisation where I heard about this study: ___________________________
Location: _____________________________________

GENERAL INFORMATION ABOUT YOURSELF

Please answer the following questions to help me describe my sample even better.

1. **Your ethnicity** ________________________________
2. **Where do you live?** (*please tick one*)
    - o Private house in community
    - o Other family member/s' house in community
    - o Retirement village
    - o Resthome
    - o Other *(please name)* _____________________________

3. **In general, how would you describe your physical health?** (*please circle*)

1 Poor	2 Fair	3 Good	4 Very good	5 Excellent

4. **In general, how active are you?** *(consider your physical exercise, your social life, your involvement in community organisations etc.)*

1 Not at all active	2 Not very active	3 Somewhat active	4 Very active	5 Extremely active

5. **How much contact do you have with other people?** *(including family, friends, community etc.)*

1 No contact	2 Not much contact	3 Some contact	4 A reasonable amount of contact	5 A lot of contact

6. **Have you sought professional help for psychological difficulties in the past?**

YES / NO

(If yes, please answer the following questions)

When did you seek help? ____

Who was the professional?

Doctor / Psychiatrist / Psychologist / Other _____________________

What kind of treatment did you receive?

- o Medication
- o Psychotherapy / counselling. If so, what type ___________________
- o Other _______________________

Was the treatment helpful? YES / NO

7. **Have you read any self-help books in the past?** YES / NO

If yes, what were they? ____

____

Were these self-help books helpful? YES / NO

APPENDIX E: OPTIMISM INTERVENTION FORM

INSTRUCTIONS

Aim

This study evaluates whether it is possible to make changes in our levels of optimism by changing the way we think about causes of events.

Background information

Almost nothing that happens to you has just one cause; most events have many causes. Whenever events happen, we usually think of a reason *why* it happened (in other words, we assign a cause). Usually assigning the cause is an effortless and relatively automatic process in our mind, which happens without us being aware of it (this is called an automatic appraisal). Generally, our automatic appraisal reflects the reality of the situation fairly well and can help us cope with that situation. Occasionally, however, we may not assign accurate causes to the event which may lead to unhelpful or negative thoughts, feelings or behaviours. Once we give further consideration to that event, other causes / circumstances may come to mind which are more accurate and more helpful for coping with that event.

The Optimism Intervention Forms include four steps (Step A, B, C & D). Please try to complete Step A and B of the form as soon as possible after the event has occurred.

- **Step A. Event:** Choose good / bad events that have recently occurred in your life.
- **Step B. Why did this event happen?** Write down the *first* cause that pops into your mind about why this event happened. Complete the questions about this cause.
- **Step C. Different cause for why this event happened:** Write down another possible cause that may have contributed to this event happening? Try to make this more realistic, more positive, and/or more helpful than the first reason you chose (See the orange coloured 'Tips Sheet' for how to develop a different cause). Complete the questions about this cause.
- **Step D. Was this process helpful?** Answer questions regarding whether the process of thinking about an event and developing a positive, yet realistic cause for why the event happened was helpful (i.e., helped you to feel better about the event).

Each form only takes about 5-10 minutes to complete. See the red boxes on the following pages for examples and keep the orange coloured 'Tips sheet' beside you to guide you in answering the questions.

Questions or concerns?

Call Sarah Bell-Booth on 0800 555 022 if you have any questions, concerns, or if you would like to request additional forms.

OPTIMISM INTERVENTION FORM
GOOD EVENT

Step A: Good event

1. Write down a GOOD EVENT that has happened in your life this week:

____

____

2. What type of event is this? (*please circle*)
achievement/ability health social personal other

3. How important was this event to you? (Circle one number)

Not at all important	1	2	3	4	5	Extremely important

Step B: Why did this good event happen?

4. Why did this event happen? Write the first cause that popped into your mind.
(*please only write one cause*)

____

____

(The following questions are about the cause that you named above. Please circle one number)

5. How good does this cause make you feel?

Not at all good	1	2	3	4	5	Extremely good

6. How strongly do you believe that this is a cause for why the event happened?

Not at all	1	2	3	4	5	Very strongly

7. Is this cause about you OR other people/circumstances?

Totally due to other people/circumstances	1	2	3	4	5	Totally due to me

8. Will this cause be present in the future?

Will never be present again	1	2	3	4	5	Will always be present

9. Does this cause affect just this event OR events in other areas of your life as well?

Affects just this particular event	1	2	3	4	5	Affects events in all areas of my life

(PTO…)

Step C: Different cause for why this good event happened

10. Can you think of any other positive yet realistic cause for why the event happened? *Please only write ONE cause.*
(*Please see the orange 'Tips Sheet' and read the 'Examples' boxes for how to best answer this question*)

____

____

11. How good does this different cause make you feel?

Not at all good	1	2	3	4	5	Extremely good

12. How strongly do you believe that this is a cause for why the event happened?

Not at all	1	2	3	4	5	Very strongly

13. Is this cause about you OR other people/circumstances?

Totally due to other people/circumstances	1	2	3	4	5	Totally due to me

14. Will this cause be present in the future?

Will never be present again	1	2	3	4	5	Will always be present

15. Does this cause affect just this event OR events in other areas of your life as well?

Affects just this particular event	1	2	3	4	5	Affects all areas of my life

Step D: Was this process helpful?

16. Now that you have gone through the above process, how strongly do you believe that the **first** cause was a reason for why the event happened?

Not at all	1	2	3	4	5	Very strongly

17. How much did the above process help you feel better about the event?

Not at all	1	2	3	4	5	A lot

OPTIMISM INTERVENTION FORM
BAD EVENT

<u>Step A: Bad event</u>

1. Write down a <u>BAD</u> EVENT that has happened in your life this week:

____

____

2. What type of event is this? (*please circle*)

achievement/ability health social personal other

3. How important was this event to you? (Circle one number)

Not at all important	1	2	3	4	5	Extremely important

<u>Step B: Why did this bad event happen?</u>

4. Why did this event happen? Write the first cause that popped into your mind. (*please only write <u>one</u> cause*)

____

____

(The following questions are about the cause that you named above. Please circle one number)

5. How negative does this cause make you feel?

Not at all negative	1	2	3	4	5	Extremely negative

6. How strongly do you believe that this is a cause for why the event happened?

Not at all	1	2	3	4	5	Very strongly

7. Is this cause about you OR other people/circumstances?

Totally due to other people/circumstances	1	2	3	4	5	Totally due to me

8. Will this cause be present in the future?

Will never be present again	1	2	3	4	5	Will always be present

9. Does this cause affect just this event OR events in other areas of your life as well?

Affects just this particular event	1	2	3	4	5	Affects events in all areas of my life

(PTO…)

Step C: Different cause for why this bad event happened

10. Can you think of any other positive yet realistic cause for why the event happened? (*Please only write ONE cause*)
(*Please see the orange 'Tips Sheet' and read the 'Examples' boxes for how to best answer this question*)

____

____

11. How negative does this different cause make you feel?

Not at all negative	1	2	3	4	5	Extremely negative

12. How strongly do you believe that this is a cause for why the event happened?

Not at all	1	2	3	4	5	Very strongly

13. Is this cause about you OR other people/circumstances?

Totally due to other people/circumstances	1	2	3	4	5	Totally due to me

14. Will this cause be present in the future?

Will never be present again	1	2	3	4	5	Will always be present

15. Does this cause affect just this event OR events in other areas of your life as well?

Affects just this particular event	1	2	3	4	5	Affects all areas of my life

Step D: Was this process helpful?

16. Now that you have gone through the above process, how strongly do you believe that the **first** cause was a reason for why the event happened?

Not at all	1	2	3	4	5	Very strongly

17. How much did the above process help you feel better about the event?

Not at all	1	2	3	4	5	A lot

APPENDIX F: EXAMPLES AND TIPS SHEET

BRIEF EXAMPLES

Read the "Tips sheet" (on the orange coloured page) to understand how these causes were developed
Sample answers are written in *italics*.

Good events: Notice how each 'Different cause for the event' given below focuses on realistic and often positive aspects about myself or someone else. In other words, I have taken some credit for the good event happening.

Step A) Good event:***I finished knitting a scarf after six months of working on it*** **(*achievement event)***
Step B) First cause for the event: ***I had lots of time to spare***
Step C) Different cause for the event: ***I have good attention to detail***

Step A) Good event: ***I got over my cold*** **(*health event*)**
Step B) First cause for the event: ***Colds usually only last four days***
Step C) Different cause for the event: ***I looked after myself while I was unwell***

Step A) Good Event: ***My friend took me out for lunch*** **(*social event*)**
Step B) First cause for the event: ***She was in the area***
Step C) Different cause for the event: ***I am a nice person to talk to***

Step A) Good Event: ***I felt good after going for a walk*** **(*personal event*)**
Step B) First cause for the event: ***I was bored so I had to get out of the house***
Step C) Different cause for the event: ***I enjoy exercising***

Bad events: Notice how each 'Different cause for the event' given below does not blame oneself for the bad event, but rather it focuses on other circumstances.

Step A) Bad Event: ***Not able to use my new DVD player*** ***(achievement event)***
Step B) First cause for the event: ***I can't understand any new technology***
Step C) Different cause for the event: ***The instructions are complicated***

Step A) Bad event: ***I had a broken hip*** ***(health event)***
Step B) First cause for the event: ***I was being careless***
Step C) Different cause for the event: ***It is common in old age as bones get more frail***

Step A) Bad Event: ***Friend not coming to visit any more*** ***(social event)***
Step B) First cause for the event: ***My friend dislikes me***
Step C) Different cause for the event: ***My friend may have lost confidence in driving***

Step A) Bad Event: ***I did not sleep much last night*** ***(personal event)***
Step B) First cause for the event: ***I was worrying too much about my family***
Step C) Different cause for the event: ***People sleep less in older age***

See the following pages for detailed examples of completed optimism intervention forms (for one good event and one bad event).

DETAILED EXAMPLE OF A COMPLETED OPTIMISM INTERVENTION FORM - GOOD EVENT
Sample answers are highlighted.

Step A: Good event

1. Write down a GOOD EVENT that has happened in your life this week:
My sister invited me to lunch at the garden centre café

2. What type of event is this? (*Please circle one*)
Achievement/ability Health **Social** Personal Other

3. How important was this event to you? (*Circle one number*)

Not at all important	1	2	3	**4**	5	Extremely important

Step B: Why did this good event happen?

4. Why did this event happen? Write the first cause that popped into your mind.
(*please only write one reason*)
She was already going to the garden centre to buy some plants
(The following questions are about the cause that you named above. Please circle one number)

5. How good does this cause make you feel?

Not at all good	1	2	**3**	4	5	Extremely good

6. How strongly do you believe that this is a cause for why the event happened?

Not at all	1	2	3	4	**5**	Very strongly

7. Is this cause about you OR other people/circumstances?

Totally due to other people/circumstances	**1**	2	3	4	5	Totally due to me

8. Will this cause be present in the future?

Will never be present again	1	**2**	3	4	5	Will always be present

8. Does this cause affect just this event OR events in other areas of your life as well?

Affects just this particular event	**1**	2	3	4	5	Affects events in all areas of my life

(PTO…)

Step C: Different reason for why this good event happened

10. Can you think of any other positive yet realistic cause for why this event happened?
(*please only write ONE cause*)
(*please see the orange 'Tips Sheet' and the 'Examples' boxes (pg.18-22) for how to best answer this question)*

I am good company

11. How good does this different cause make you feel?

Not at all good	1	2	3	4	**5**	Extremely good

12. How strongly do you believe that this is a cause for why the event happened?

Not at all	1	2	3	4	**5**	Very strongly

13. Is this cause about you OR other people/circumstances?

Totally due to other people/circumstances	1	2	3	4	**5**	Totally due to me

14. Will this cause be present in the future?

Will never be present again	1	2	3	4	**5**	Will always be present

15. Does this cause affect just this event OR events in other areas of your life as well?

Affects just this particular situation	1	2	3	**4**	5	Affects all situations in my life

Step D: Was this process helpful?

16. Now that you have gone through the above process, how strongly do you believe that the **first** cause was a reason for why the event happened?

Not at all	1	2	**3**	4	5	Very strongly

17. How much did the above process help you feel better about the event?

Not at all	1	2	3	4	**5**	A lot

<u>DETAILED EXAMPLE OF A COMPLETED OPTIMISM INTERVENTION FORM – BAD EVENT</u>
Sample answers are highlighted.
Comments on how the sample answers were formed are written below in italics. YOU <u>DO NOT</u> NEED TO WRITE THESE WHEN COMPLETING THE FORMS.

<u>Step A: Bad event</u>

1. Write down a <u>BAD</u> EVENT that has happened in your life this week:
<u>I can't work my new DVD player</u>

2. What type of event is this? (*Please circle one*)
Achievement/ability Health Social Personal Other

3. How important was this event to you? (*Circle one number*)

Not at all important	1	2	3	**4**	5	Extremely important

(You may choose '4' because you are lonely and want to watch movies)

<u>Step B: Why did this bad event happen?</u>

4. Why did this event happen? Write the first cause that popped into your mind.
(*please only write <u>one</u> reason*)
<u>I can't understand any new technology</u>
(The following questions are about the cause that you named above. Please circle one number)

5. How negative does this cause make you feel?

Not at all negative	1	2	3	**4**	5	Extremely negative

(You may choose '4' because it makes you feel embarrassed not being able to "keep up with the play")

6. How strongly do you believe that this is a cause for why the event happened?

Not at all	1	2	3	4	**5**	Very strongly

(You may choose '5' as you believe it is your fault that you are having trouble understanding the instructions)

7. Is this cause about you OR other people/circumstances?

Totally due to other people/circumstances	1	2	3	4	**5**	Totally due to me

(You may choose '5' because you blame yourself rather than other factors such as the technology)

8. Will this cause be present in the future?

Will never be present again	1	2	3	**4**	5	Will always be present

(You may choose '4' because you think you will have trouble with other technology in the future)

8. Does this cause affect just this event OR events in other areas of your life as well?

Affects just this particular event	1	2	3	**4**	5	Affects events in all areas of my life

(You may choose '4' because you think that if you can't keep up with any new technology, you will have trouble in your daily life such as your household chores, entertaining and communication)

(PTO…)

Step C: Different reason for why this bad event happened

10. Can you think of any other positive yet realistic cause for why this event happened?
(*please only write* ONE *cause*)
(*please see the orange 'Tips Sheet' and the 'Examples' boxes (pg.18-22) for how to best answer this question)*
The DVD player instructions are complicated

11. How negative does this different cause make you feel?

Not at all negative	1	**2**	3	4	5	Extremely negative

(You may choose '2' because you feel a little frustrated that the instructions are unclear)

12. How strongly do you believe that this is a cause for why the event happened?

Not at all	1	2	3	4	**5**	Very strongly

(You may choose '5' because you strongly believe that the instructions are complicated, especially since they include a lot of technical jargon and because your neighbour does not understand them either)

13. Is this cause about you OR other people/circumstances?

Totally due to other people/circumstances	**1**	2	3	4	5	Totally due to me

(You may choose '1' because you blame the company for its poor instructions)

14. Will this cause be present in the future?

Will never be present again	**1**	2	3	4	5	Will always be present

(You may choose '1' because you will understand how to work this DVD player if you get some help from your son and won't be needing another new DVD player in the near future)

15. Does this cause affect just this event OR events in other areas of your life as well?

Affects just this particular situation	**1**	2	3	4	5	Affects all situations in my life

(You may choose '1' because having complicated instructions only affects your/others' entertainment)

Step D: Was this process helpful?

16. Now that you have gone through the above process, how strongly do you believe that the **first** cause was a reason for why the event happened?

Not at all	1	**2**	3	4	5	Very strongly

(You may choose '2' because you do not strongly believe that it is your fault that you can't work the new DVD player and that you CAN understand SOME new technology such as your new microwave)

17. How much did the above process help you feel better about the event?

Not at all	1	2	3	4	**5**	A lot

(You may choose '5' because considering a more realistic cause (rather than blaming yourself) made you feel less negative)

TIPS SHEET (Pull out and use as a guide to help you answer the questions on the Optimism Intervention Form!)

Step A) Choosing an event:
Briefly describe good / bad events that have recently occurred in your life during the week. These may be major or minor events. Circle what type of event this is – did you *achieve* something? …is it related to your *health*? … your *social relationships*? … or, other *personal* matters?

Step B) Selecting the first cause for why the event happened
Ask yourself, "What is the very *first* (i.e., 'knee-jerk'/automatic) cause that popped into my mind for why it happened?" This cause may be related to something you or others did, something you or others are/are not good at, your or others' personality, luck, or circumstances.

Step C) Thinking of a different yet realistic cause for why the event happened
Ask yourself, "What other possible cause may have contributed to this event happening?"

The aim is to think of a realistic cause that is more:
- *likely* (e.g. relating to the aging process), and/or
- *positive* (i.e., makes you feel better about the situation), and/or
- *helpful* (i.e., helps you to cope better with the situation) than the first reason you gave.

Please note: This is not *just* about positive thinking; rather, it is about being *realistic* about the situation!

Good vs. Bad Events: The way you think about *good* events can be different to the way you think about *bad* events. Here are tips of what to consider for each, when answering the questions in Step C:

Good Events
When thinking of a different reason for why a *good* event happened, consider that it may be...
- because of positive aspects about yourself (e.g. you can start the sentence with "I am… likeable, caring, helpful, considerate, patient, sociable, or organised).
- because of something you did well or something you're good at,
- because you persevered (i.e., you kept going), or were proactive
- because you are an interesting person with a wide range of hobbies which you enjoy (e.g. start with, "I like… listening to music, walking, or going out to lunch)

Notice how all of these reasons…
- are to do with positive aspects about yourself and let you take some credit for the good event happening
- affect many situations in your life
- will most probably endure over time,

…and therefore make you feel good about yourself!

Bad Events
When thinking of a different reason for why a *bad* event happened, consider that it may be...
- because of how other people are (e.g. forgetful, unwell, insecure, burdened down by other responsibilities)
- because of things about yourself that can change (e.g. you did not work hard, you made a mistake)
- because of other things that were happening that day
- because there were too many demands/responsibilities placed on you
- because there was not enough time or money
- because the particular task was difficult
- because of bad luck
- because of the normal aging process!

Notice how all of these reasons:
- do not blame yourself and are more to do with circumstances,
- affect very few situations in your life,
- are temporary (i.e., not going to last forever),

…and therefore make you feel better about yourself and/or help you to accept the situation!

If you are still a bit stuck with Step C, don't be discouraged. It can feel awkward, but please stick with it as it will get easier with practice. The following questions may help you further. If you have come up with many positive yet realistic causes, please choose the one that is most true.

- If my friend or someone I love experienced the same event, what would I tell them the reason was?
- If my friend or someone who loves me knew I was thinking that is the reason for the event, what would they say to me? What other things would they suggest were partly responsible for the event occurring?
- When the same event happened in the past, what reason did I give for it happening which helped me feel better?
- Five years from now, if I look back at the situation, will I look at it any differently? Will I focus on any different parts of that situation?
- Are there any small things that may have contributed to the event occurring?
- Am I blaming myself for something over which I do not have complete control?
- Are there any strengths or positives in me or the situation that I am ignoring?
- Take the role of your own defense attorney, who is required to come up with new ways of viewing the situation so that you are not blamed entirely. What would the defense attorney say?
- If you were to step back from the situation and observe yourself as if you were looking down from the balcony, what would you see or think?

Do not hesitate to call Sarah Bell-Booth on 0800 555 022 if you are unsure of what to do.

APPENDIX G: EVENT RECORD FORM

Please describe *two good* events and *two bad* events that you experience each week. This will give you a **total of 16** events by the end of the **four weeks**. These events can either be minor or major events. You may complete these at any time during the week. This will only take a couple of minutes. Examples are provided below.

Examples:
Good Event: ***Our team won bowls and we celebrated by going out for coffee***
Bad Event: ***I had my family over for dinner and I burnt the meal***

WEEK 1.

Good event: ____

____

Good event: ____

____

Bad event: ____

____

Bad event: ____

____

WEEK 2.

Good event: ____

____

Good event: ____

____

Bad event: ____

____

Bad event: ____

____

WEEK 3.

Good event: ____

____

Good event: ____

____

Bad event: ____

____

Bad event: ____

____

WEEK 4.

Good event: ____

____

Good event: ____

____

Bad event: ____

____

Bad event: ____

____

APPENDIX H: OLDER ADULT ATTRIBUTIONAL STYLE QUESTIONNAIRE

Instructions

Over the page you will find some situations that might happen in your life. Please read each situation and vividly imagine it happening to you. Then, write the one major cause of the situation in the blank provided. By major cause, we mean the one primary reason you would give for this situation happening to you. Then, you will be asked to answer three questions about the cause. Circle the number corresponding to your feelings about each question. An example is provided below.

EXAMPLE

***Example of a situation:* You get into an argument with a shop assistant.**
One major cause: You may choose… "The shop assistant was in a bad mood."

Is the cause of the argument something about you OR something about other people or the outside world?

1 **2** 3 4 5 6 7

totally due to other people or circumstances — *equally due to both* — *totally due to me*

*(*it's mostly due to the shop assistant, so I will put a 2.*)*

In the future when you argue with shop assistants, will this cause again be present?

1 2 3 **4** 5 6 7

will never again be present — *may be present* — *will always be present*

(maybe the shop assistant was just in a bad mood; I will put a 4.)

Is the cause something that just affects you arguing with shop assistants OR does it also influence other aspects of your life?

1 2 3 4 5 6 7

influences just this particular situation — *influences several areas of my life* — *influences all situations in my life*

(it is just about this one shop assistant, so I will put a 1.)

The questionnaire starts on the next page.

1. You misplace your wallet, and can't remember where you put it last.
One major cause:

____

____

Is the cause of your wallet being misplaced due to something about you OR something about other people and/or circumstances?

1	2	3	4	5	6	7
totally due to other people or circumstances			*equally due to both*			*totally due to me*

In the future when looking for your wallet, will this cause again be present?

1	2	3	4	5	6	7
will never again be present			*may be present*			*will always be present*

Is this cause something that just influences misplacing your wallet OR does it also influence other areas of your life?

1	2	3	4	5	6	7
influences just this particular situation			*influences several areas of my life*			*influences all situations in my life*

2. You meet a friend who compliments you on your appearance.
One major cause:

____

____

Is the cause of your friend's compliment due to something about you OR something about other people and/or circumstances?

1	2	3	4	5	6	7
totally due to other people or circumstances			*equally due to both*			*totally due to me*

In the future when you are with your friends, will this cause again be present?

1	2	3	4	5	6	7
will never again be present			*may be present*			*will always be present*

Is the cause something that just affects interacting with friends OR does it also influence other areas of your life?

1	2	3	4	5	6	7
influences just this particular situation			*influences several areas of my life*			*influences all situations in my life*

3. Your doctor says you are in good shape.
One major cause:

____

____

Is the cause of your doctor saying you are in good shape due to something about you OR something about other people and/or circumstances?

1 2 3 4 5 6 7

totally due to other people or circumstances — *equally due to both* — *totally due to me*

In your future medical examinations, will this cause again be present?

1 2 3 4 5 6 7

will never again be present — *may be present* — *will always be present*

Is the cause something that just affects what your doctor says to you OR does it also influence other areas of your life?

1 2 3 4 5 6 7

influences just this particular situation — *influences several areas of my life* — *influences all situations in my life*

4. A friend comes to you with a problem and you don't try to help them.
One major cause:

____

____

Is the cause of your not helping your friend due to something about you OR something about other people or circumstances?

1 2 3 4 5 6 7

totally due to other people or circumstances — *equally due to both* — *totally due to me*

In the future when a friend comes to you with a problem, will this cause again be present?

1 2 3 4 5 6 7

will never again be present — *may be present* — *will always be present*

Is the cause something that just affects what happens when a friend comes to you with a problem OR does it also influence other areas of your life?

1 2 3 4 5 6 7

influences just this particular situation — *influences several areas of my life* — *influences all situations in my life*

5. You fall and break your hip.
One major cause:

____

____

Is the cause of the your accident due to something about you OR something about other people and/or circumstances?

1 2 3 4 5 6 7

totally due to other people or circumstances — *equally due to both* — *totally due to me*

In the future when having an accident, will this cause again be present?

1 2 3 4 5 6 7

will never again be present — *may be present* — *will always be present*

Is the cause something that just influences having accidents OR does it also influence other areas of your life?

1 2 3 4 5 6 7

influences just this particular situation — *influences several areas of my life* — *influences all situations in my life*

6. Your performance as a volunteer is highly praised.
One major cause:

____

____

Is the cause of being praised due to something about you or something about other people OR circumstances?

1 2 3 4 5 6 7

totally due to other people or circumstances — *equally due to both* — *totally due to me*

In the future when volunteering, will this cause again be present?

1 2 3 4 5 6 7

will never again be present — *may be present* — *will always be present*

Is the cause something that just influences your volunteering OR does it also influence other areas of your life?

1 2 3 4 5 6 7

influences just this particular situation — *influences several areas of my life* — *influences all situations in my life*

7. You meet a friend who acts in a hostile manner towards you.
One major cause:

___

___

Is the cause of your friend acting in a hostile manner due to something about you OR something about other people or circumstances?

1 2 3 4 5 6 7

totally due to other people or circumstances — *equally due to both* — *totally due to me*

In the future when interacting with friends, will this cause again be present?

1 2 3 4 5 6 7

will never again be present — *may be present* — *will always be present*

Is the cause something that just influences interacting with friends OR does it also influence other areas of your life?

1 2 3 4 5 6 7

influences just this particular situation — *influences several areas of my life* — *influences all situations in my life*

8. You are feeling especially tired and are experiencing a lack of energy.
One major cause:

___

___

Is the cause of your feeling tired due to something about you or something about other people OR circumstances?

1 2 3 4 5 6 7

totally due to other people or circumstances — *equally due to both* — *totally due to me*

In the future when feeling tired, will this cause again be present?

1 2 3 4 5 6 7

will never again be present — *may be present* — *will always be present*

Is the cause something that just affects feeling tired OR does it also influence other areas of your life?

1 2 3 4 5 6 7

influences just this particular situation — *influences several areas of my life* — *influences all situations in my life*

9. Your family has been treating you more lovingly.
One major cause:

____

____

Is the cause of your family treating you more lovingly due to something about you OR something about other people or circumstances?

1 2 3 4 5 6 7

totally due to other people or circumstances — *equally due to both* — *totally due to me*

In future interactions with your family, will this cause again be present?

1 2 3 4 5 6 7

will never again be present — *may be present* — *will always be present*

Is the cause something that just affects how your family treats you OR does it also influence other areas of your life?

1 2 3 4 5 6 7

influences just this particular situation — *influences several areas of my life* — *influences all situations in my life*

10. The cashier at the supermarket makes a mistake and gives you too little change, and you point out the mistake.
One major cause:

____

____

Is the cause of pointing out the mistake due to something about you OR something about other people or circumstances?

1 2 3 4 5 6 7

totally due to other people or circumstances — *equally due to both* — *totally due to me*

In the future when pointing out other people's mistakes, will this cause again be present?

1 2 3 4 5 6 7

will never again be present — *may be present* — *will always be present*

Is the cause something that just influences pointing out other people's mistakes OR does it also influence other areas of your life?

1 2 3 4 5 6 7

influences just this particular situation — *influences several areas of my life* — *influences all situations in my life*

11. You go out to dinner with a friend or relative you have not seen for a long time and it goes badly.

One major cause:

____

____

Is the cause of the dinner going badly due to something about you OR something about other people or circumstances?

1	2	3	4	5	6	7
totally due to other people or circumstances			*equally due to both*			*totally due to me*

In the future when interacting with people you have not seen in a long time, will this cause again be present?

1	2	3	4	5	6	7
will never again be present			*may be present*			*will always be present*

Is the cause something that just influences seeing people you have not seen in a long time OR does it also influence other areas of your life?

1	2	3	4	5	6	7
influences just this particular situation			*influences several areas of my life*			*influences all situations in my life*

12. You get less sleep than normal one night and still have enough energy the next day.

One major cause:

____

____

Is the cause of you having enough energy despite not getting enough sleep due to something about you OR something about other people or circumstances?

1	2	3	4	5	6	7
totally due to other people or circumstances			*equally due to both*			*totally due to me*

In the future when you are not able to sleep as well as usual but have enough energy the next day anyway, will this cause again be present?

1	2	3	4	5	6	7
will never again be present			*may be present*			*will always be present*

Is the cause something that just affects your sleeping and energy level OR does it also influence other areas of your life?

1	2	3	4	5	6	7
influences just this particular situation			*influences several areas of my life*			*influences all situations in my life*

APPENDIX I: AFFECTOMETER 2

Instructions

The Affectometer 2 is a questionnaire for reporting how often you have certain general feelings which are related to your emotional satisfaction and life fulfillment.

Please describe your honest feelings as best you can.

The items are sentences which describe different feelings about yourself and your life. For each item, please check ***<u>how often</u>*** *you have had that feeling* ***<u>over the last week</u>****.*
You have five choices. These are:

Not at all	Occasionally	Some of the time	Often	All of the time

Please make a small checkmark in the column which shows how often the item applies to you. You may wish that you could choose a phrase which is in-between one of the choices given, but if you choose the one which comes closest to your experiences, your results will still be very accurate. You do not need to spend a long time on the items.

The questionnaire is on the next page.

<u>Over the past week</u>, how often have you had the feeling described by each item? (tick one column only)

Feeling	**Not at all**	**Occasionally**	**Some of the time**	**Often**	**All of the time**	Office use (-) (+)
1. My life is on the right track						
2. I seem to be left alone when I don't want to be						
3. I feel I can do whatever I want to						
4. I think clearly and creatively						
5. I feel like a failure						
6. Nothing seems very much fun any more						
7. I like myself						
8. I can't be bothered doing anything						
9. I feel close to people around me						
10. I feel as though the best years of my life are over						
	0	1	2	3	4	

APPENDIX J: COGNITIVE EMOTION REGULATION QUESTIONNAIRE

Instructions

How do you cope with events?
Everyone confronts negative or unpleasant events now and then and everyone responds to them in his or her own way. The following questions ask you to indicate what you generally think when you experience negative or unpleasant events.

How do you cope with negative/unpleasant events?	**(almost) never**	**sometimes**	**regularly**	**often**	**(almost) always**
1. 1 feel that I am the one to blame for it	1	2	3	4	5
2. I think that I have to accept that this has happened	1	2	3	4	5
3. I often think about how I feel about what I have experienced	1	2	3	4	5
4. I think of nicer things than what I have experienced	1	2	3	4	5
5. I think of what I can do best	1	2	3	4	5
6. I think I can learn something from the situation	1	2	3	4	5
7. I think that it all could have been much worse	1	2	3	4	5
8. I often think that what I have experienced is much worse than what others have experienced	1	2	3	4	5
9. I feel that others are to blame for it	1	2	3	4	5
10. I feel that I am the one who is responsible for what has happened	1	2	3	4	5
11. I think that I have to accept the situation	1	2	3	4	5
12. I am preoccupied with what I think and feel about what I have experienced	1	2	3	4	5
13. I think of pleasant things that have nothing to do with it	1	2	3	4	5
14. I think about how I can best cope with the situation	1	2	3	4	5
15. I think that I can become a stronger person as a result of what has happened	1	2	3	4	5

How do you cope with negative/unpleasant events?	**(almost) never**	**sometimes**	**regularly**	**often**	**(almost) always**
16. I think that other people go through much worse experiences	1	2	3	4	5
17. I keep thinking about how terrible it is what I have experienced	1	2	3	4	5
18. I feel that others are responsible for what has happened	1	2	3	4	5
19. I think about the mistakes I have made in this matter	1	2	3	4	5
20. I think that I cannot change anything about it	1	2	3	4	5
21. I want to understand why I feel the way I do about what I have experienced	1	2	3	4	5
22. I think of something nice instead of what has happened	1	2	3	4	5
23. I think about how to change the situation	1	2	3	4	5
24. I think that the situation also has its positive sides	1	2	3	4	5
25. I think that it hasn't been too bad compared to other things	1	2	3	4	5
26. I often think that what I have experienced is the worst that can happen to a person	1	2	3	4	5
27. I think about the mistakes others have made in this matter	1	2	3	4	5
28. I think that basically the cause must lie within myself	1	2	3	4	5
29. I think that I must learn to live with it	1	2	3	4	5
30. I dwell upon the feelings the situation has evoked in me	1	2	3	4	5
31. I think about pleasant experiences	1	2	3	4	5
32. I think about a plan of what I can do best	1	2	3	4	5
33. I look for the positive sides to the matter	1	2	3	4	5
34. I tell myself that there are worse things in life	1	2	3	4	5
35. I continually think how horrible the situation has been	1	2	3	4	5
36. I feel that basically the cause lies with others	1	2	3	4	5

APPENDIX K: GENERAL FEEDBACK QUESTIONNAIRE

The following questions are about the study in general. Please indicate the extent to which you agree or disagree with each statement.

1. The *assessment questionnaires* (those questionnaires before and after the treatment intervention) were easy to complete.

1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree

2. The *treatment intervention* was easy to complete.

1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree

3. I enjoyed the treatment intervention.

1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree

4. The treatment intervention was helpful.

1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree

In what way was it helpful? ____

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5. The treatment intervention increased my level of optimism.
(i.e., it helped me to perceive events in a positive way)

1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree

Please write the reasons for your answer above: ______________________

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6. I would recommend other older people try the treatment intervention.

1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree

7. Older people can change their patterns/ways of thinking.

1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree

8. *Self-help* is an effective method to help older people change their patterns of thinking.

1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree

9. Please write any other comments or suggestions you have about the treatment intervention or the study in general (e.g., positive aspects, ways to improve it, etc):

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