Abstract

The first part of the present project reconceptualised the role of hedonic (pleasure) and eudaimonic (engagement) functions as satisfaction "processes" and distinguished them from well-being "outcomes". Well-being "outcomes" cover the full spectrum of human well-being by encompassing life satisfaction, positive affect, psychological well-being, social well-being, general physical health and absence of depression, anxiety, and stress. It was hypothesised that adaptive emotional functioning as operationalised by emotional intelligence would mediate the relationship between satisfaction "processes" and well-being "outcomes", and that cultural orientation would moderate the relationship among satisfaction processes, emotional intelligence, and well-being outcomes. Participants were university students from both Australia and India. Path analysis using structural equation modelling showed that emotional intelligence fully mediated the relationship between hedonic and eudaimonic satisfaction processes and well-being outcomes. Multi-group analyses showed that cultural orientation did not moderate this mediation model.

An experimental study explored the effect of expressive writing about positive satisfaction experiences with a focus on emotional functioning on the overall well-being of an individual. Participants in the experimental condition wrote about meaningful activities that provide them with an intense sense of enjoyment and pleasure and how satisfaction derived from such activities can be increased by strengthening emotions associated with them. The control group participants were asked to write about their daily activities. Results indicated that writing about positive satisfaction experiences in the context of adaptive emotional functioning led to a significant increase in well-being at post-test as compared to writing about daily activities.

Overview

Listen Mr. Big-words: Just gimme happiness
Big orange lollipops, Purple balloons.

(They're held by that man, Half-hid in the shade.
See there his orange and purple bouquet.)

What is this "contemplate", "Self-detach," "e–man–ci–pate?"
Lemme have happiness, Shiny and smooth

(The lollipops melt. The balloons wilt. The man waits.)

~ From Look Down from Clouds (Marvin Levine, 1997)

The lines from this poem reflect an expression of the human quest for

happiness. Hoping for lollipops and balloons may represent one type of quest, while

contemplation may characterize another type of quest. This PhD project attempts to

explain happiness or more specifically well-being from different theoretical

perspectives.

Prevalent research on well-being illustrates two different traditions of well-

being: hedonic and eudaimonic. Hedonic well-being has been equated with subjective

well-being (presence of life satisfaction and positive affect, and absence of negative

affect); on the other hand, eudaimonic well-being has been equated with

psychological well-being. One line of research indicates an overlap between these

two traditions of well-being.

Furthermore, there has been a call to distinguish between well-being

processes and outcomes. This thesis describes a reconceptualisation of hedonia and

eudaimonia as satisfaction "processes" and various well-being indices such as life

satisfaction, positive affect, and psychological well-being, social well-being, general

mental health, and general physical health as well-being "outcomes". In addition, the

role of emotional intelligence and cultural orientation is examined in the proposed well-being model.

To examine the causality of the proposed well-being model, satisfaction processes were experimentally manipulated via a writing paradigm. Examining the effects of a writing intervention to enhance human well-being builds on the research of James Pennebaker and leads to a better understanding of the relationship between satisfaction processes and well-being outcomes and emotional intelligence.

CHAPTER 1

WELL-BEING

1.1   *Theoretical Underpinnings*

Throughout the history of human civilization, human well-being, or more specifically happiness, has been considered an ultimate motivation for human action. Many thinkers including Aristotle (1985) have posited that everything we do is ultimately aimed at experiencing happiness. In most societies people rank the quest for happiness as one of their most cherished goals in life (e.g., Diener, 2000). Moreover, well-being appears to be associated with characteristics such as empathy, altruism, love, optimism, resilience, forgiveness, trust, compassion, humility, sociability, less hostility, and less vulnerability to disease (e.g., Synder & Lopez, 2002). Such characteristics not only benefit individuals, but also families, communities, and societies (Myers, 1993; Veenhoven, 1984).

Well-being research has become prominent in psychology (Diener, Suh, Lucas, & Smith, 1999; Kahneman, Diener, & Schwarz, 1999; Keyes & Lopez, 2002; Seligman, 2002b; Seligman & Csikszentmihalyi, 2000). A relatively new movement called *Positive Psychology* led to a paradigm shift in thinking about human strengths and virtues rather than focusing on the dominant medical model prevalent in psychology. Martin E. P. Seligman in his American Psychological Association (APA) Presidential Address focussed on the need to study what is good in humans (Seligman, 1999). This movement reflects the increasing recognition that, just as positive affect is not the opposite of negative affect (Cacioppo & Berntson, 1999), well-being is not merely the absence of ill-being (Keyes, 2005b).

Hayes, Strosahl, and Wilson pointed out that "the single most remarkable fact of human existence is how hard it is for human beings to be happy" (1999, p. 1).

Approximately one third of people have a diagnosable mental disorder (Hayes et al., 1999). At any given time, a substantial number of people report feeling moderately to severely depressed or anxious and the incidence of depression is steadily increasing globally (Durand & Barlow, 2003). In addition, about half of the population will face moderate to severe levels of sucidality at some time in their lives (Hayes et al., 1999). Given this grim picture, it becomes all the more imperative to study the correlates and predictors of human well-being, which is one of the main constructs of positive psychology. It is argued that focussing on well-being serves a preventive function as it seems to buffer against future psychopathology and even recovery from ill-being (e.g., Fredrickson, 1998, 2001; Fredrickson and Levenson, 1998; Joseph and Linley, 2006).

Current research on well-being has been derived from two distinct yet overlapping paradigms that revolve around two different philosophical conceptions: hedonism and eudaimonism[1] (Kraut, 1979; Ryan & Deci, 2001; Waterman, 1993). Hedonism, derived from Greek word *hedone* meaning pleasure, defines well-being in terms of pleasure attainment and pain avoidance (Kahneman et al., 1999). On the other hand, eudaimonism, derived from two Greek words *eu* meaning good, and *daimon* meaning inner spirit or true self, defines well-being in terms of the degree to which a person is fully functioning, conveying the belief that well-being consists of actualizing or realizing one's true potential (Waterman, 1993). Subjective well-being and psychological well-being are phrases frequently used as being synonymous with hedonism and eudaimonism respectively (Ryan & Deci, 2001).

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[1] The equivalent psychological states are hedonia and eudaimonia (Strümpfer, 2006).

1.1.1 *The Hedonic View*

Schwartz and Bilsky (1987) identified enjoyment in terms of hedonic pleasure as one of the eight central dimensions of human values including security, achievement, self-direction, restrictive conformity, prosocial action, social power, and maturity. Research that has equated well-being with hedonism or subjective well-being has varied from a relatively narrow focus on bodily pleasures to a much broader focus on self-interests (Ryan & Deci, 2001). Those adhering to the hedonic view focus on the preferences and pleasures of the both mind and body (Kubovy, 1999) and subjective well-being that stems from the experience of pleasure versus displeasure, including judgments about the good or bad events in life (e.g., Diener, 1984).

The majority of the research building on the hedonic view has focused on assessment of subjective well-being to evaluate the pleasure/pain continuum (Diener & Lucas, 1999). Although individuals live in objective environmental contexts, it is their subjectively defined worlds that they respond to, thus giving prominence to subjective well-being as an index of individuals' quality of life (Andrews & Withey, 1976; Campbell, Converse, & Rodgers, 1976), which includes life satisfaction and happiness (Argyle, 2001; Bradburn, 1969; Cantril, 1965; Gurin, Veroff, & Feld, 1960). Life satisfaction is a judgmental, long-term assessment of one's life, whereas happiness is a reflection of pleasant and unpleasant affect in one's immediate experience. Lucas, Diener, and Suh (1996) identified life satisfaction and presence of positive affect and relative absence of negative affect as commonly used indices of subjective well-being.

1.1.2   *The Eudaimonic View*

There has been considerable debate about the degree to which hedonic pleasure adequately defines well-being (Ryff & Singer, 1998). Ryff described well-being not simply as hedonic pleasure, but as "the striving for perfection that represents the realization of one's true potential" (1995, p.100). Seligman and Pawelski (2003) asserted that hedonic pleasure without consideration of strength, virtue and meaning fails to take a full account of the good life. Eudaimonia seems to capture the latter view of good life. Aristotle (1985), from whom came the concept, emphasized the expression of virtues via moral activities such as justice, generosity, and temperance. Eudaimonism is a theory that calls people to recognize and to live in accordance with the daimon or "true self" (Norton, 1976).

Eudaimonia conceptualizes well-being as occurring when a person's life activities are congruent with his/her values and the individual is holistically or fully engaged. Under such circumstances people are thought to feel intensely alive and authentic, existing as who they really are – a state Waterman (1993) labelled personal expressiveness. The daimon refers to those potentialities that distinguish each individual from all others, and the realization of which represents the greatest fulfilment; hence, it can give meaning and direction to one's life.

Ryff and Keyes (1995) described psychological well-being as distinct from subjective well-being and incorporated several theoretical perspectives to define it. As mentioned by Ryff (1989), these perspectives include: Allport's (1961) conception of maturity, Johada's (1958) positive criteria of mental health, Jung's (1933) formulation of individuation, Maslow's (1968) conception of self-actualization, and Rogers' (1961) view of the fully functioning person.

There is a multidimensional approach to the measurement of psychological well-being that taps six distinct aspects of human actualization thought to be indicative of well-being (Ryff & Singer, 1998): autonomy – a sense of self-determination, personal growth – a sense of continued growth and development as a person, purpose in life – the belief that one's life is purposeful and meaningful, environmental mastery – the capacity to manage effectively one's life and surrounding world, positive relatedness – the possession of quality relations with others, and self-acceptance – positive evaluations of oneself and one's past life.

1.2   *Overlap between the Two Traditions of Well-Being*

Eudaimonia may not be completely independent of hedonia. On philosophical grounds it has been claimed that eudaimonia is a sufficient, but not a necessary condition for hedonia (Telfer, 1980). That is, a person regularly engaging in activities providing eudaimonic well-being would also be happy with his/her life (hedonic well-being), although there are plausibly many other routes to hedonic happiness besides engaging in eudaimonic activities. Well-being in the form of experiences of hedonia may arise from a wider array of activities than does well-being in the form of experiences of eudaimonia (Waterman, 1993).

Waterman (1993) maintained that there is no conceptual restriction for hedonic well-being to be linked only to a particular class of activities; it may be felt whenever pleasant affect accompanies the satisfaction of physical, intellectual, or social needs. Keyes, Shmotkin and Ryff (2002) found that people with higher levels of psychological well-being also report feelings of more positive affect and less negative affect and evaluated their life satisfaction more positively, suggesting an overlap between well-being outcomes associated with these two conceptualizations.

Although both hedonia and eudaimonia assess well-being, these two traditions address different features of what it means to be well: hedonia holds that subjective well-being encompasses more global evaluations of affect and life quality (e.g., Diener, 1984), and eudaimonia holds that psychological well-being involves meeting the existential challenges of life (e.g., pursuing meaningful goals, growing and developing as a person, forming quality relationships, contributing to society) and, in turn, thriving and living a fulfilled life (e.g., Keyes, 2005b).

CHAPTER 2

STUDY 1 – THE WELL-BEING MODEL

2.1 *An Alternative Conceptualization of Well-Being: Hedonic and Eudaimonic*

Functions as Satisfaction Processes that Contribute to Well-Being Outcomes

Ryff and Singer (1998) challenged the hedonic/subjective well-being model as being of limited scope in explaining positive functioning, and pointed out that subjective well-being is often a fallible indicator of the good life. In turn, Diener, Sapyta, and Suh (1998) maintained that Ryff and Singer's eudaimonic criteria are too prescriptive and elicit responses biased towards the paradigm. Further, theory and research have often not adequately distinguished between processes and outcomes. This clash of paradigms and overlap between processes and outcomes suggests a need for a different type of inquiry concerning the dynamics of well-being.

Deci and Ryan (1991) and Ryan and Deci (2000) stressed that well-being is a direct function of the satisfaction of three basic psychological needs of autonomy, competence, and relatedness. The need for autonomy involves perceiving that one's activities are congruent with the self, the need for competence is fulfilled by the experience that one can effectively bring about desired effects and outcomes, and the need for relatedness relates to feeling that one is connected to significant others (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000). Deci and Ryan (1991) viewed these needs as fostering well-being, whereas Ryff and Singer (1998) use them to define well-being. Ryan and Deci (2000) stated that needs of autonomy, competence, and relatedness are functionally essential to both hedonia and eudaimonia as experiences of positive affect (Nix, Ryan, Manly, & Deci, 1999), vitality or a state of aliveness (a positive and phenomenologically accessible state of having energy available to the self; Ryan & Frederick, 1997) and self-congruence (Sheldon & Elliot, 1999).

Kasser and Ryan (1993, 1996) stated that factors in the individual or conditions outside an individual that facilitate meeting these needs are likely to enhance well-being, whereas factors that detract from fulfilment of these needs may undermine well-being. For example, Csikszentmihalyi (1990, 1997), Sheldon and Kasser (1995, 1998) stated that well-being is likely to be enhanced when daily activities are congruent with basic needs and long-term goals. Deci and Ryan (1991) found that people who pursue personal strivings (Emmons, 1991) that are congruent with growth-oriented needs are higher on a variety of healthy personality characteristics such as intrinsic motivation.

Self-determination theory (Ryan & Deci, 2000) posited that satisfaction with life and feeling both relatively more positive affect and less negative affect (markers of subjective well-being) do indicate psychological well-being suggesting that affective states may be indicative of events and conditions of life with respect to the self (e.g., Rogers, 1963). Ryan and Deci (2001) also maintained that there are different types of positive experiences and that some conditions that foster subjective well-being do not promote psychological well-being. People can sacrifice happiness for other goals yet still maintain a sense of fulfilment (King & Napa, 1998). In other words, psychological well-being may involve more than possessing positive personality traits and avoiding stress and conflict and attaining pleasure; it also may depend on finding personal value and meaning in everyday activities.

Bauer, McAdams, and Sakaeda's (2005) growth-oriented approach (also referred to as organismic, humanistic, and eudaimonic) considers well-being to be more than simply wanting pleasurable experiences in life (Ryan & Deci, 2001). This approach emphasizes the individual's striving as a process that optimizes human

potentials. Bauer et al. (2005) described both hedonic and eudaimonic well-being as equal contributors to a comprehensive understanding of the good life.

Seligman (2002a) stated that well-being comes from the satisfaction derived from engaging in meaningful activities. Seligman (2002a) and Seligman and Ciskszentmihalyi (2000) proposed a distinction between pleasures and satisfactions. Pleasures are the good feelings that come from satisfying basic physiological needs such as hunger, sex, and bodily comfort. On the other hand, satisfaction is a state of absorption, the suspension of consciousness, and the flow that the satisfactions produce may be defined as liking the activities – not the presence of pleasure. Seligman (2002a) equated such states known as *enjoyments* with the satisfactions of the mind; in contrast, pleasures are equated with the satisfactions of biological needs.

Seligman (2002a) described the psychological components of satisfaction as a challenging task that requires skill, concentration, deep and effortless involvement, having clear goals, a sense of control, and total immersion in the activity where sense of self vanishes, and time stops. Thus, satisfactions can be derived by enacting personal strengths and virtues, in contrast, pleasures can be discovered, nurtured, and amplified (e.g., Seligman, 2002a). Flow is the state of satisfaction that we enter when we feel completely engaged in what we are doing (Csikszentmihalyi, 1990). Waterman (1990a, 1993) suggested that flow involves a combination of both eudaimonic and hedonic satisfactions in that involvement in meaningful activities provides optimal satisfaction.

Ryan and Deci's (2000, 2001) and Waterman's (1990b, 1991, 1993) lines of research support the notion that satisfaction strivings or processes may underlie different indices of well-being. In Waterman's (1993) conceptualisation of well-being, the activities a person finds most important are indices of satisfaction

processes. Waterman (1990b, 1993) distinguished between hedonic and eudaimonic processes as follows:

- Hedonia may arise when we are either actively or passively involved in activities, whereas eudaimonia is experienced only in association with active strivings for excellence.

- Hedonia may be experienced without regard to the quality of outcome of activities, whereas experiences of eudaimonia may be more likely to be associated only with making progress with respect to the development of personally significant potentials.

- The repeated engagement in hedonic activities may result in satiation, whereas opportunities for the repeated experience of eudaimonia are expected to be more continually sought.

In the present project, well-being is conceptualized as consisting of aspects of both hedonic and eudaimonic traditions of well-being. A distinction is made between well-being "processes" and "outcomes". Hedonic and eudaimonic functions are viewed as the satisfaction processes (labelled here as *satisfaction processes* rather than *well-being processes* for greater clarification) that contribute to well-being outcomes. This distinction between processes and outcomes can be explained with the help of an analogy of cognitive processing. The mechanism of memory involves both processes and actual outcome, in that incoming information gets processed through working memory, short-term memory and long-term memory before the actual production of memory as an outcome. In the same way, satisfaction is derived from engaging in meaningful activities (process) which may lead to the experience of well-being (outcome) captured through various well-being indices.

Further, well-being outcomes cover the full spectrum of human well-being such as life satisfaction, positive mood, psychological well-being, social well-being, general mental health, and general physical health. This is reflected in the broad three approaches defining health or well-being – the pathogenic approach, the salutogenic approach, and the complete state of health model (Keyes, 2007). The pathogenic approach, derived from the Greek word *pathos*, views health as the absence of defect, disease, and infirmity. The salutogenic approach, derived from the Greek word *salus* and was popularized and empirically validated by Antonovsky (1979, 1987) and humanistic psychological tradition (e.g., Carl Rogers and Abraham Maslow), views health as the presence of positive state of human capacity and functioning in thinking, feeling, and behaviour (Strümpfer, 1990, 1995). The model of complete state of health derives from the ancient word *hale* and views health as a state of being whole, strong, and retaining exceptional health and vigour (Keyes, 2007). This last approach to define health as whole can draw parallel to the fortigenesis approach (Strümpfer, 1995). The term fortigenesis, derived from the Latin word *fortis* (the Greek equivalents are *ischurogenesis* meaning strength or *biagenesis* meaning force, bodily power, strength), views health as more holistic and embracing strength and courage in adversity or pain (Strümpfer, 1995).

The complete state of health approach is also illustrated in the World Health Organisation's (1948) definition of overall health as a complete state, consisting of the presence of a positive state of human capacities and functioning as well as the absence of disease or infirmity. In 2004, the World Health Organisation published the first report on mental health promotion conceptualizing mental health as not merely the absence of mental illness but the presence of a "state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life,

can work productively and fruitfully, and is able to make a contribution to his or her community" (World Health Organisation, 2004, p. 12). Keyes stated that the "whole states" approach is "the only paradigm that can achieve true population health" (2007, p. 96).

2.2   *Rationale of Study 1*

A rationale behind the proposed reconceptionalisation of well-being as processes and outcomes is that both hedonism and eudaimonism are the philosophical conceptions that traditionally have only been equated with subjective well-being and psychological well-being respectively. However, recently a different kind of analysis distinguishing between processes and outcomes has come forth (Peterson, Park, & Seligman, 2005). Keyes et al. suggested that both subjective well-being and psychological well-being can be interpreted either "as antecedent, consequent or mediating variables, depending on one's guiding theory" (2002, p. 1018). This provides a basis for the present study to conceptualise subjective well-being and psychological well-being as outcomes different from hedonic and eudaimonic satisfaction processes.

It may be useful to investigate well-being outcomes as a holistic state consisting of not merely the absence of illness or psychopathology but the presence of something positive (Ryff & Singer, 1998; Sigerist, 1941; World Health Organization, 1948) and/or the state of flourishing with high levels of subjective well-being, psychological well-being, and social well-being (Keyes, 2002, 2003, 2005b). Well-being may be operationalised as the subjective evaluation of life via satisfaction and affect (e.g., Bradburn, 1969; Diener, 1984), positive functioning (Ryff, 1989; Ryff & Keyes, 1995), the complete state of positive mental health (Keyes, 2005b), and

physical health, as physical symptoms are reflective of both bodily and psychological states (e.g., Keyes, 2005a; Keyes & Ryff, 2003).

Although most of the prevalent well-being models emphasize the personal domain of well-being, the public or social domain of well-being has been neglected for quite a long time (Keyes, 1998). Aristotle (1985) emphasised concern for others as part of eudaimonia. Keyes (1998) observed that individuals are rooted in social structures and communities, and thus face numerous social tasks and challenges. Therefore, to fully understand well-being, it may be pertinent to investigate the role of social well-being along with other personal well-being indices (Keyes, 1998; Larson, 1992, 1996). We have insight into the complete state of well-being only if we include *we*, *our*, or *us* perspective in the prevalent *I* or *me* perspective in the well-being research (C. L. M. Keyes, personal communication, June 17, 2007). The present conception of complete state of health is an amalgam of many facets of human well-being.

Keyes (2005b) posited two distinct but correlated well-being factors: mental health and mental illness. Diener et al. (1999) suggested that each of the specific aspects of well-being warrant study in its own right, despite the fact that most of these well-being indices tend to correlate, and argued for the need for research on a higher order well-being factor. Therefore, there remains a need to examine whether the various constructs that have previously been proposed as indices of well-being group together on a single continuum (Diener et al., 1999) or separately as two distinct but correlated continua (Keyes, 2005b).

In this context, well-being may be conceptualized as the complete and holistic state encompassing emotional well-being (life satisfaction and positive affect), psychological well-being, social well-being, general mental health and general

physical health – all influenced by hedonic and eudaimonic satisfaction "processes".

Myers and Diener called for more research in the area of well-being to help people

"rethink their priorities" and better understand how to build a world that "enhances

human well-being" (1995, p.17).

2.3   Antecedents and Correlates of Well-Being

Psychologists have traditionally focused more on human unhappiness

(depression, anxiety, emotional disorders, etc.) than on positive aspects of human

potential (Seligman, 2003). Under the umbrella of positive psychology, which

focuses on the study of human strengths, efforts have been made to understand better

the conditions that promote well-being (e.g., Diener et al., 1999; Lyubomirsky, 2001;

Ryff, Singer, Love & Essex, 1998). In a comprehensive review, Myers (2000) agreed

with what William Cowper (1782)[2] said: "*Happiness depends, as Nature shows, Less*

on exterior things than most suppose", in that an individual's age, gender, income, or

race might give little clue to his/her happiness. Myers and Diener (1995) found that

quality of work life (Csikszentmihalyi, 1999), social support with close-knit

relationships, and hope and purpose in life are likely to enhance experience of well-

being. Keyes et al. (2002) suggested contouring of both subjective well-being and

psychological well-being by socio-demographic variables, e.g., age and educational

level and personality characteristics, to illuminate overlap between these two

traditions of well-being.

The predictors of subjective well-being have been found to be associated with

heredity (Lykken & Tellegen, 1996), personality (McCrae & Costa, 1994), satisfying

social connections (e.g., Argyle, 1999), characteristics or living conditions of a

society e.g., economic, political, environmental (Veenhoven, 1984, 1991), judgments

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[2] In his poem, Table Talk (Line 246).

based on current accessible information about an individual's life (Schwarz & Strack, 1999), and to a somewhat little extent socio-demographic variability (e.g., Keyes et al., 2002).

The influence of genetics on human behaviour has led researchers to explore the role heredity plays in determining an individual's level of subjective well-being (Lykken & Tellegen, 1996; Lyubominsky, Sheldon, & Schkade, 2005). For example, using twin methodology, Lykken and Tellegen (1996) found that genes accounted for 44% to 52% of the variance in the heritability of subjective well-being, whereas educational level, socioeconomic status, family income, marital status, and religious faith accounted for about only 3% of the variability in subjective well-being. The authors also reported that the heritability of subjective well-being was 80% over a 10 year time interval. Lykken and Tellgen (1996) concluded that happiness or subjective well-being is more or less a stable temperamental set-point that is characteristic of the individual.

A large body of evidence has shown personality to be a strong predictor of subjective well-being (DeNeve &Cooper, 1998; Diener & Lucas, 1999; Diener et al., 1999). Costa and McCrae (1980) demonstrated the differential links between extraversion and positive affect and between neuroticism and negative affect, findings confirmed in later studies (e.g., Emmons & Diener, 1985; Headey & Wearing, 1989; Watson & Clark, 1992) and purportedly explained by an array of genetic, biological, psychological, and social mechanisms (Diener et al., 1999). Beyond these two dimensions, other personality variables, namely conscientiousness and agreeableness, may influence subjective well-being by creating behaviours, conditions, and life events that may facilitate or moderate subjective well-being. Of the Big Five personality dimensions, openness to experience has shown the weakest associations

with subjective well-being, possibly because it may evoke both positive and negative affects (DeNeve & Cooper, 1998; McCrae & Costa, 1991).

Research reviews indicate that personality can explain some of the variability in subjective well-being and its reactivity to mental processes and life experiences (DeNeve & Cooper, 1998; Diener & Lucas, 1999). Personality traits, mainly extraversion and neuroticism, have been found to be among the strongest predictors of subjective well-being, accounting for up to half of the total variance in various measures (Argyle & Lu, 1990; Brebner, 1998; Eysenck, 1990; Francis, 1999; Furnham & Brewin, 1990; Furnham & Cheng, 1997, 1999, 2000; Headey & Wearing, 1992; Lewis, Francis, & Ziebertz, 2002; Myers & Diener, 1995). A few studies have compared happiness or subjective well-being to stable extraversion (e.g., Francis, Brown, Lester, & Philipchalk, 1998).

Personality has also been strongly linked with psychological well-being dimensions. Controlling for problems related to construct overlap (e.g., blurred item content) and source overlap (e.g., using the same individuals to assess both personality and well-being), Schmutte and Ryff (1997) found that neuroticism, extraversion, and conscientiousness emerged as strong and consistent predictors of multiple aspects of psychological well-being, in particular self-acceptance, environmental mastery, and purpose in life. Other aspects of psychological well-being revealed distinctive personality correlates. For instance, Keyes et al. (2002) found that openness to experience and extraversion were likely to be associated with personal growth dimension of psychological well-being, whereas agreeableness was found to be related with positive relations with others. Autonomy was found to be most strongly associated with low neuroticism.

Keyes et al. (2002) found that adults who have low perceived subjective well-being and low psychological well-being tend to be younger in age with less education. Those who are high on psychological well-being but show low perceived subjective well-being tend to be young adults who have, however, much higher levels of education than do adults who have low perceived subjective well-being and low psychological well-being. Alternatively, adults with high perceived subjective well-being but low psychological well-being tend to have less education and are more likely to be midlife and older adults. Optimal well-being is clearly tied to education and age. Midlife and older adults with higher levels of education were most likely to have both high subjective well-being and high psychological well-being.

Keyes et al. (2002) found that of the Big Five dimensions, neuroticism seemed to discriminate most strongly between the subjective well-being and psychological well-being in that neuroticism is more likely to be associated with subjective well-being. This finding converges with extensive prior research (Costa & McCrae, 1980; Diener & Lucas, 1999; Diener et al., 1999; Emmons & Diener, 1985; Headey & Wearing, 1989; Schmutte & Ryff, 1997; Watson & Clark, 1992). In a meta-analytic study, DeNeve and Cooper (1998) reported that low neuroticism is the strongest predictor of life satisfaction, happiness, and negative affect. Furthermore, Keyes et al. (2002) found that high extraversion and high conscientiousness differentiated those who reported lower on both subjective well-being and psychological well-being.

These findings coincide with prior evidence linking extraversion to positive affect as well as to numerous dimensions of psychological well-being. However, the considerable attention paid to extraversion, particularly as the counterpart of neuroticism, has perhaps led researchers to overlook the role of conscientiousness as a

strong predictor of subjective well-being as well as psychological well-being (e.g.,

DeNeve & Cooper, 1998; Schmutte & Ryff, 1997).

Keyes et al. (2002) reported that those with high levels of psychological well-

being and low levels of subjective well-being were distinguished from their opposite

counterparts (i.e., low psychological well-being/ high subjective well-being) by their

high levels of openness to experience, conscientiousness, and neuroticism. Keyes et

al. (2002) also pointed out that conscientiousness and neuroticism were less strongly

associated with high psychological well-being/low subjective well-being profile.

Thus, Keyes et al. (2002) highlighted the prominence of three personality

characteristics (openness to experience, conscientiousness, and neuroticism) in

furthering the understanding of combinations of both subjective well-being and

psychological well-being, either at low or at high levels.

McCrae and Costa (1991) suggested that high levels of openness to

experience may enlarge the potential and capabilities of individuals for self-fulfilment

at the same time that it may invoke costs regarding negative feelings and evaluations

of life. In contrast, low levels of openness to experience may preserve a restricted,

possibly safer range of individuals' potentialities, a constraint that may facilitate

greater life contentment. The authors reported that agreeableness did not differentiate

between those with low psychological well-being and high social well-being (McCrae

& Costa, 1991).

Subjective well-being research has pointed out the importance of social

connections. Prior studies have found that satisfying social relationships contribute to

well-being and lasting happiness (e.g., Argyle, Martin, & Crossland, 1989). Marriage

has been found to be associated with greater well-being for both sexes, with women

reporting slightly more favourable outcomes than men (Wood, Rhodes, & Whelan,

1989). Research has also consistently found religious faith to be associated with greater happiness (Inglehart, 1990). Parenting variables such as perceived parental love (both maternal and paternal) and parental nurturance, care and support seem to predict happiness levels (Amato, 1994; Cheng & Furnham, 2004; Furnham & Cheng, 2000; Hopkins & Klein, 1993; Sillick & Schutte, 2006; Young, Miller, Norton, & Hill, 1995).

Furnham and Cheng (2000) explored the extent to which parental rearing styles (authoritarian, authoritative, and permissive), personality, and self-esteem predicted happiness levels. Results suggested that self-esteem was both a direct predictor and mediator of young people's self-reported happiness. Maternal authoritativeness was the only direct predictor of happiness when maternal and paternal rearing styles were examined together. Cheng and Furnham (2004) examined the effects of specific parental rearing styles such as care, discouragement of behavioural freedom, and denial of psychological autonomy, self-criticism, and self-esteem on self-reported happiness. The authors found that maternal love and care was found to be the only direct correlate of happiness when maternal and parental rearing styles were examined together.

Amato (1994) found that emotional closeness to parents significantly predicted children's happiness and life satisfaction, with both mother and father making unique contributions to children's happiness and life satisfaction. Similar research showed that perceived parental support significantly predicted adolescent life satisfaction (Young et al., 1995). Three elements of parental support – intrinsic, extrinsic, and closeness – were assessed in the study, with intrinsic support being identified as the strongest predictor of life satisfaction. Intrinsic support was

conceptualized as encouragement, appreciation, being satisfied with the child, trust, and love.

Gerontology studies have examined subjective well-being as an outcome of the aging process (Okun, 1995). Research indicates that aging is not uniformly related to the levels of subjective well-being (Keyes et al., 2002). Studies have found that positive affect seems to both increase and decrease with age, whereas negative affect remains the same for some but declines for others. For example, Mroczek and Kolarz (1998) found that negative affect was unrelated to age for females but decreased with age for married males, after controlling for socio-demographic, personality, and health variables. Other studies found that life satisfaction may increase with age (e.g., Charles, Reynolds, & Gatz 2001; Diener & Suh, 1997; Shmotkin, 1990). These findings may explain the adaptation process for the elderly, such as the need to reconcile to the hardships of old age (e.g., Liang, 1984; Shmotkin, 1998; Shomtkin & Hadari, 1996).

Veenhoven (1984, 1991) pointed out the role of mutable living conditions in determining subjective well-being of individuals. Veenhoven (1984) identified certain characteristics of societal fabric such as economic and political conditions, to be associated with subjective well-being. For example, Diener and Suh (2000) reported that throughout the world most people consider a high level of material wealth and prosperity important in determining their happiness. Krugman wrote, "In the end, economics is not about wealth, it's about the pursuit of happiness" (1998, p.24).

Research shows that personal income up to a certain level is important in predicting subjective well-being (e.g., Diener, 1984). However, once basic needs are met, additional income adds nothing to happiness and satisfaction with life (Inglehart,

1990). This can be attributed to the human capacity for adaptation (Diener, 2000). Significant events, good and bad, seem only to temporarily influence moods. The emotional impact of these significant events and circumstances decreases with the passage of time (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998). Further, strong economic growth does not seem to increase societal happiness levels (Myers, 2000). Diener, Diener, and Diener (1995) pointed out that national wealth is intertwined with civil rights, literacy, and democratic government and suggested that these factors explain the tendency for people in wealthy nations to be more satisfied and happy (Diener, 2000).

Other studies of demographic correlates of subjective well-being do not seem to consistently distinguish the people who are happy from those who are unhappy (e.g., Myers & Diener, 1995). In a recent study, Seligman, Steen, Park, and Peterson (2005) reported older people were happier ($r = 0.18$, $p < .001$) and less depressed ($r = -0.17$, $p < .001$) than the people younger in age. Keyes et al. (2002) also reported small but significant correlations between age ($r = .13$, $p < .001$) and level of education ($r = .07$, $p < .001$). Argyle (2001) also reported an association between education and subjective well-being, but noted that this relationship was likely to disappear after controlling for occupational status and income. Mixed results have been found in gender differences in subjective well-being. In an extensive review of the literature, Diener (1984) concluded that there were no overall mean differences between males and females in reported levels of subjective well-being.

Prior research has also documented demographic variability in psychological well-being (Clarke, Marshall, Ryff, & Rosenthal, 2000; Keyes & Ryff, 1998; Keyes et al., 2002; Marmot, Ryff, Bumpass, Shipley, & Marks, 1997; Ryff & Keyes, 1995;

Ryff & Singer, 1996). For example, Keyes et al. (2002) found a significant

correlation between psychological well-being and educational level (r = .20,

p < .001), but no association with age. Ryff and Keyes (1995) analysed psychological

well-being at a subscale level and found that age showed an incremental profile with

environmental mastery, $F(2, 921)$ = 3.05, p <.05, positive relations with others,

$F(2, 921)$ = 7.12, p <.001, autonomy, $F(2, 921)$ = 4.97, p <.01, whereas a decremental

profile with purpose in life, $F(2, 921)$ = 19.80, p <.001 and personal growth, $F(2, 921)$

= 16.40, p <.001, and self-acceptance showed no significant age differences. There

were no significant gender differences on various dimensions of psychological well-

being except positive relations with others, $F(1, 921)$ = 8.94, p <.01, with women

scoring higher than men.

Schwarz and Strack (1999) proposed a judgment model of subjective well-

being. This model pointed out that judgments are based on potentially applicable

information that is chronically or temporarily accessible at that point in time. For

example, Schwarz and colleagues (Schwarz & Bless, 1992; Schwarz & Strack, 1999)

found that individuals are likely to base their judgments on their current affective

state, however, when this affective information is not too salient, individuals draw on

the information that is accessible, i.e., whatever comes to mind first and is relevant to

the judgment at hand. In addition to information about his/her own past, present or

future, the individual may also use information about others' lives in assessing the

quality of their own lives (Schwarz & Strack, 1999).

High psychological well-being seems to be associated with meeting various

life challenges, such as recovery from and buffer against depression (Fava, 1999;

Fava, Rafanelli, Grandi, Conti, & Belluardo, 1998), health changes of later life

(Heidrich & Ryff, 1993), personal projects (McGregor & Little, 1998), work

aspirations and achievements (Carr, 1997), caregiving (Li, Seltzer, & Greenberg,

1997), marital status change (Marks & Lambert, 1998), body consciousness

(McKinley, 1999), life transitions and experiences such as parenthood (Ryff,

Schmutte, & Lee, 1996), and community relocation (e.g., Kling, Ryff, & Essex, 1997;

Smider, Essex, & Ryff, 1996).

Much research has been done on the effect of personality, social connections,

and socio-demographic variables on well-being. However, in the present study, it is

deemed important to examine the role of two correlates of well-being, adaptive

emotional functioning and cultural orientation in detail.

2.4. *Emotions*

Emotions are central to human nature (Ekman, 1992). Both positive and

negative emotions have an adaptive role in evolution. For example, where positive

emotions entail feelings of delight and happiness that encourage individuals to seek

out the conditions that promote these feelings, negative emotions serve protective and

guidance functions in the physical and mental domains, including mediating

advantageous decisions. However, epidemiological evidence has suggested that

negative emotions (e.g., depression, anxiety, anger) may play an important role in the

development of a variety of diseases, such as hypertension (Everson, Goldberg,

Kaplan, Julkunen, & Salonen, 1998; Jonas, Franks, & Ingram, 1997) and diabetes

(Carnethon, Kinder, Fair, Stafford, & Fortmann, 2003). For example, Jonas et al.

(1997) found that high levels of anxiety were associated with two or three times

greater risk of hypertension individuals, relative to their less anxious counterparts.

In a population-based study, Carnethon et al. (2003) reported certain

physiological symptoms, such as activation of the hypothalamic-pituitary-adrenal

axis, inflammation, or an interaction between genetic predisposition and depression or

stress that may explain the association between depressive symptoms and diabetes. A

dysregulation of the hypothalamic-pituitary-adrenal axis in depressed persons may

result in elevated cortisol levels (Bjorntorp, 1997). These elevated cortisol levels may

antagonize the actions of insulin-mediated glucose disposal or cause preferential

deposition of fat in the abdomen, which is a risk factor for developing diabetes

(Carnethon et al., 2003). Wales (1995) proposed that stress precipitates clinical

diabetes only in persons predisposed to developing diabetes.

Kaplan, Manuck, Williams, and Strawn (1993) randomly assigned

cynomolgus monkeys to test a combination of negative emotions by repeatedly

disrupting their social dominance hierarchies in the experimental groups. All other

aspects of the monkeys' lives were held constant. The monkeys having distrupted

social dominance hierarchies showed both heightened cardiovascular reactivity and

more advanced coronary heart disease, as measured by atherosclerotic lesions of the

coronary arteries, vasomotor abnormalities, and endothelial injury in the thoracic

aorta. These data strongly suggest that the negative emotions coupled with frequent

and prolonged cardiovascular reactivity have adverse effects on cardiovascular health

(e.g., Fredrickson, 1998).

2.4.1 *Negative Emotions*

Models of emotion and health have been developed to explain the

mechanisms that might link negative emotion to poor health. Such models relate to

both direct pathways that involve physiological activation and indirect pathways that

involve behaviour, cognitions, and coping mechanisms (Richman, Kubzansky,

Maselko, & Kawachi, 2005). A number of physiological effects have been proposed

(depending on the specific emotion under study), such as electrophysiological

changes in the heart, chronic sympathetic nervous system activation with catecholamine (dopamine and adrenaline) release, serotonergic deregulation, endothelial[3] dysfunction, and dysregulation of the hypothalamic-pituitary-adrenal axis (e.g., Carnethon et al., 2003; Richman et al., 2005).

Although inevitable and at times useful, experiences of negative emotions can trigger a wide array of immediate and long-term effects on physiology and health (Fredrickson, 2000). For example, fear and anxiety can trigger phobias and other anxiety disorders (Ohman, 1993), and along with acute and chronic stress may affect immune functioning and lead to psychosomatic disorders (O'Leary, 1990). In some instances, sadness and grief may develop into unipolar depression (Nolen-Hoeksema, Marrow, & Fridrickson, 1993), severe levels of which can lead to immunosuppression (O'Leary, 1990), loss of work productivity (Coryell, Scheftner, Keller, & Endicott, 1993), and in some cases even suicide (Chen & Dilsaver, 1996).

Anger and its poor management have also been found to be a risk factor for developing heart disease (Barefoot, Dahlstrom, & Williams, 1983; Fredrickson, Maynard, Helms, Haney, Siegler, & Barefoot, 2000; Scheier & Bridges, 1995; Williams, Haney, Lee, Kong, Blumenthal, & Whalen, 1980), certain types of cancers (Eysenck, 1994; Greer & Morris, 1975), and aggression and violence, especially in males (Buss, 1994; Lemerise & Dodge, 1993).

Furthermore, high levels of negative emotions like anxiety, anger, and depression are also linked to adverse health behaviours, such as smoking, excessive alcohol intake, greater body mass, and lower physical activity (Kawachi, Sparrow, Spiro, Vokonas, & Weiss, 1996; Spielberg & Jacobs, 1982). In addition, cognitions concerning health are thought to be influenced by emotions and may affect symptom

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[3] inner lining of body cavities

perception, illness beliefs, and/or coping mechanisms (e.g., Mayne, 2001). For

instance, Richman et al. (2005) reported that individuals with greater emotional

distress seek health care more frequently than non-distressed individuals for a variety

of medical conditions, including psoriasis[4] (Scharloo, Kapstein, Weinman, Bergman,

Vermeer, & Rooijmans, 2000), irritable bowel syndrome (Drossman, 1999), and

arthritis (Vali & Walkup, 1998).

2.4.2 *Positive Emotions*

Experiences of positive emotions contribute richly to the quality of

individuals' lives (Diener & Larsen, 1993; Fredrickson, 1998; Myers & Diener,

1995). Positive emotions also enhance an individual's resources and capacities for

effective interpersonal interactions and intellectual endeavours (Fredrickson, 1998;

Izard, 2001). People with positive mood are likely to have better chances at

friendships, love, and coalitions (Fredrickson, 2001). Positive mood leads to a mental

set that is expansive, tolerant, and creative, and individuals who have positive mood

are open to new ideas and new experience (Fredrickson, 2001; Fredrickson &

Branigan, 2005).

Fredrickson (1998) argued that joy and related high-energy positive emotions

create the urge to play and be playful, which when acted on, can build personal

resources such as physical and psychological resources. A few controlled

experiments have tested the causal relationship between play and physical resource

building. For instance, in one experiment rats were either deprived of juvenile social

play or not. Later testing showed that deprived rats were slower to learn a complex

motor task, suggesting that play also fosters overall behavioural flexibility (Einon,

Morgan, & Kibbler, 1978).

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[4] a skin disease marked by red scaly patches.

Experimental studies also have documented support for the claim that positive emotions build intellectual resources through enhanced learning and performance (Fredrickson, 1998). In one experiment, 4-year old children were randomly assigned to recall an emotional or non-emotional experience from their lives before doing a learning task (Masters, Barden, & Ford, 1979). The experimental manipulation employed three levels of affect (positive, neutral, and negative) with two levels of pace (active and passive). The active, positive affect condition reflected joy (e.g., "Can you remember something that happened to you that made you feel so happy that you wanted to jump up and down?"), whereas the passive, positive affect condition reflected contentment (e.g., "Can you remember something that happened to you that made you so happy that you just wanted to sit and smile?"). Children were given half a minute to recall and think about their assigned memory before learning a shape discrimination task. Positive emotion conditions, either active or passive, produced significantly faster mastery of the task compared to all other conditions (Fredrickson, 1998).

Similar experimental studies have yielded comparable results among students ranging from elementary to high school, and for those with and without learning disabilities (Bryan & Bryan, 1991; Bryan, Mathur, & Sullivan, 1996; Yasutake & Bryan, 1995). Remarkably, simply asking students to think for less than one minute of a happy moment from their lives before learning or test taking produces significant increases in intellectual gains and performance (Fredrickson, 1998). Related evidence can be drawn from Isen and colleagues' research. In one experiment, individuals who were given a small bag of candy as a gift were better able to comprehend a complex integrative bargaining task, and were also more likely to negotiate an optimal agreement (Carnevale & Isen, 1986). Isen (1987) suggested that positive affect

promotes improved understanding of complex situations. Taken together, these experiments support the claim that positive emotions, even if short-lived, facilitate learning and mastery, the products of which can become part of the individual's enduring intellectual resources (Fredrickson, 1998).

Positive emotions also build social resources (Fredrickson, 1998). Enduring social relationships are critical to both individual and collective survival, particularly for infants, who depend almost exclusively on parents to care for their basic needs. Shared experiences of positive emotions – through mutual smiles or social play – create not only shared enjoyment in the moment, but also enduring alliances, friendships or family bonds. These relationships become enduring resources that individuals can draw on later in times of need. The shared smile between caregiver and infant, for instance, is the reward that ensures that the caregiver will continue to attend to and support the needs of the child (Tomkins, 1962).

Studies of newborns suggest that the smile is an innate response, appearing even before the infant can perceive the contours of a human face (Emde, Gaensbauer, & Harmon, 1976; Izard, Huebner, Risser, McGinnes, & Dougherty, 1980). These early infant smiles, then, can initiate the rewarding affective interchanges that build attachment and infant-caregiver bonds (Oatley & Jenkins, 1996). Ethologists have also noted that cooperation and turn taking are common and critical features of social play, and have argued that these practices serve to build enduring social relationships (Boulton & Smith, 1992). These relationships in turn become a reliable source not only of future play and enjoyment but also of social support (Fredrickson, 1998).

The above evidence shows that positive emotions broaden attention, thinking, and action and build physical, intellectual, and social resources (Fredrickson, 1998, 2001). In broadening an individual's momentary thought-action repertoires, whether

through play, exploration, or savouring and integrating, positive emotions promote

discovery of novel and creative ideas and actions, which in turn expand the

individual's personal resources, whether they be physical resources (e.g., the ability to

outmanoeuvre a predator), intellectual resources (e.g., a detailed cognitive map for

way finding), or social resources (e.g., someone to turn to for help or compassion). In

other words, over time and through the processes of learning and social connection,

the broadened momentary thought-action repertoires sparked by positive emotions

also build up an individual's store of physical, intellectual, and social resources.

Importantly, these resources are durable and can be drawn on in later moments.

However, Fredrickson (1998) pointed out that the adaptive value of positive

emotions for our forefathers would not necessarily be direct and immediate as would

the adaptive value of negative emotions. Rather, human ancestors would have

benefited from resource building in the long run. Although it is obvious that our

ancestors needed at least one social relationship to reproduce, Fredrickson (1998)

argued that resource building had an even greater impact on differential rates of

survival. Those ancestors who succumbed to the urges induced by positive emotional

states (i.e., to play, explore, savour, and integrate) would have by consequence

accrued more physical, intellectual, and social resources. When these same ancestors

later faced inevitable threats to life, these resources would have translated into

increased odds of survival and, in turn, increased chances of living long enough to

reproduce. To the extent that the capacity to experience positive emotions is

genetically encoded, this capacity, through the process of natural selection, is likely to

have become part of universal human nature.

Fredrickson (1998) also posited that positive emotions may undo the after-

effects of negative emotions. If the broaden-and-build model is accurate in describing

positive emotions as expanding an individual's momentary thought-action repertoire, then positive emotions ought to function as efficient antidotes for the lingering effects of negative emotions, which serve to narrow an individual's thought-action repertoire. The idea that positive emotions might "correct", "restore", or "undo" the after-effects of negative emotions has been developed by a few emotion theorists (e.g., Cabanac, 1971; Fredrickson & Levenson, 1998; Lazarus, Kanner, & Folkman, 1980; Solomon, 1980). Fredrickson and Levenson (1998) suggested that one effect of positive emotions may be to loosen the hold that (no-longer-relevant) negative emotions gain on an individual's mind and body by undoing the psychological and physiological preparation in dealing with that specific situation.

Fredrickson and Levenson (1998) tested the undoing hypothesis in a series of studies. In one experiment (Fredrickson & Levenson, 1998, Study 1), negative emotional arousal was induced by having participants view a short film that reliably elicited self-reports of fear and heightened cardiovascular activity. Into this context of negative emotional arousal, they randomly assigned participants to view one of four secondary films. In one positive emotion condition, they elicited contentment, and in a second positive emotion condition they elicited mild amusement. In a negative emotion control condition, they elicited sadness, and in a neutral control condition, the authors elicited no emotion by showing an abstract visual display.

All participants showed comparable levels of cardiovascular activation to the initial fear film. But participants who viewed either of the two positive films exhibited faster recovery from their initial negative emotional arousal, returning to their own baselines levels of cardiovascular activation within 20 seconds, compared to roughly 40 and 60 seconds for those who viewed the neutral and sad films, respectively. This pattern of results represents the undoing effect of positive emotions

(Fredrickson, 1998). It has also been observed in subsequent experiments using the same secondary films, but in which the initial negative emotional arousal was induced using an anxiety-provoking speech-preparation task (Fredrickson et al., 2000).

Fredrickson and Levenson (1998) tested the undoing effect using a naturalistic association of negative and positive emotions by examining the effects of spontaneous smiling during negative emotional arousal. They induced negative emotional arousal by having participants view a short film that reliably elicits sadness and heightened cardiovascular activity. Behavioural coding revealed that, for whatever reasons, two-thirds of the sample smiled at least once during the film. Although those who smiled and those who never smiled did not differ in their reports of negative affect or in the magnitude of cardiovascular arousal during the film, smilers, on average, recovered from this arousal about 20 seconds faster then non-smilers.

These studies provide empirical support for the undoing hypothesis that positive emotions, elicited by films or marked by smiles, seem to speed recovery from the cardiovascular after-effects of fear, anxiety, and sadness. These results, in turn, provide indirect evidence for the broaden-and-build model of positive emotions. Assuming that the cardiovascular activation that accompanies negative emotions serves to prepare the body for specific action, it may be that by suppressing this cardiovascular activation, positive emotions help the body efficiently trade a (no-longer-useful) narrow thought-action repertoire for a broader one, allowing the individual to pursue a wider array of thoughts, actions, and behaviours (Fredrickson, 1998).

A second facet of the undoing hypothesis predicts that positive emotions also restore flexible thinking following prolonged negative emotional experiences. Some

indirect evidence can be drawn from a collection of correlational studies that show

that laughter and a coping style marked by the use of humour are associated with the

ability to distance oneself from stressful events (e.g., Martin, Kuiper, Olinger, &

Dance, 1993; Keltner & Bonanno, 1997). For instance, Keltner and Bonanno (1997)

coded the facial behaviour of bereaved adults and found that Duchenne smile, which

involves a smile, with muscle action around the eyes as well as the mouth, correlated

with reduced awareness of distress (as measured by a verbal-autonomic dissociation

score). Furthermore, Martin and colleagues have found that individuals with higher

levels of humour responded to a stressful academic exam with more problem-focused

coping and greater emotional distance (Martin et al., 1993). Correlational studies like

these are consistent with the proposition that positive emotions let go the adverse

effects negative emotions can have on people's thinking, a process that can prompt

them to explore avenues of thought and action other than those prompted by the initial

negative emotion (Fredrickson, 1998).

Positive emotions also change individuals' bodily systems (Fredrickson,

1998). Evidence that positive emotions can undo the after-effects of negative

emotions raises the possibility that positive emotions may protect health. Positive

emotions may interrupt or cut short the damaging effect of the negative reactivity on

the cardiovascular system. Studies have shown that induced positive affect speeds

recovery from the cardio-vascular after-effects of negatives affect (Fredrickson et al.,

2000), reduces frontal brain asymmetry and increases immune function (Davidson,

2000).

Positive emotions also predict good mental and physical health outcomes

such as resilience to adversity (Fredrickson, Tugade, Waugh, & Larkin, 2003),

increased happiness and psychological well-being (Fredrickson & Joiner, 2002,

Fredrickson & Losada, 2005), reduced inflammatory responses to stress and lower levels of cortisol (Steptoe, Wardle, & Marmot, 2005), reductions in subsequent-day physical pain (Gil, Carson, Porter, Scipio, Bediako, & Orringer, 2004), resistance to rhinoviruses[5] (Cohen, Doyle, Turner, Alper, & Skoner, 2003), better immune system (Stone, Cox, Valdimarsdottir, Jandorf, & Neale, 1987; Stone, Neale, Cox, Napoli, Valdimarsdottir, & Kenndy-Moore, 1994), and reductions in stroke (Ostir, Markides, Peek, & Goodwin, 2001). Many longitudinal studies have documented an association between frequent positive affect and longevity (Danner, Snowdon, & Friesen, 2001; Levy, Slade, Kunkel, & Kasl, 2002; Ostir, Markides, Black, & Goodwin, 2000), including lower risk of AIDS mortality (Moskowitz, 2003).

Indirect evidence for the health benefits of positive emotions comes from studies in behavioural medicine that have documented the effectiveness of relaxation therapies for treating cardiovascular disorders (Blumenthal, 1985). Relaxation techniques vary greatly, and although they are not typically discussed in terms of positive emotions, some techniques expressly direct people to conjure up positive images (e.g., being in a favourite spot in nature), and thus perhaps capitalize on the undoing effects of contentment (Fredrickson, 1998). Another link between positive affective states and health has been recently documented in studies that track changes in moods, physical symptoms, and immune system indices on a daily basis. Individuals may increase control over their own physical health by cultivating experiences of positive emotion. Given the individual and societal costs associated with physical disease and illness, this possibility justifies continued investigations of the nature and effects of positive emotions (Fredrickson, 1998, 2001).

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[5] a virus that causes infections of the upper respiratory system including common cold.

Fredrickson (1998, 2001) maintained that positive emotions serve us best not when life is easy, but even when life seems to be difficult. She argued that, although positive affect is transient, the personal resources accumulated over time are long-lasting. For example, these resources can function as reserves that can be drawn on to manage future and increase odds of survival. Thus, experiences of positive emotions, although transient, can fuel dynamic processes of growth (Fredrickson & Joiner, 2002) and resilience (Fredrickson et al., 2003).

Whereas traditional thinking asserts that positive affect marks current health and well-being (Diener, 2000; Kahneman, 1999), the broaden-and-build theory of positive emotions goes further to suggest that positive affect also produces future health and well-being (Fredrickson, 2001). Positive affect can transform individuals for the better by making them healthier, more socially integrated, knowledgeable, effective, and resilient (Fredrickson, Brown, Cohn, Conway, & Mikels, 2005). An attempt to comprehensively operationalise adaptive emotional functioning has been done through theories and research focusing on what has been termed 'emotional intelligence'. Most people seem to benefit from expressing their emotions in a meaningful way (Snyder & Lopez, 2007), and emotional intelligence provides this adaptive functional opportunity.

2.4.3   *Emotional Intelligence*

Emotional intelligence can be defined as the ability to adaptively perceive, understand, regulate, and harness emotions in the self and others (e.g., Salovey & Mayer, 1990; Schutte et al., 1998) and involves the capacity to control and utilize feelings wisely. It is a positive human trait that is related to a variety of life outcomes including well-being.

Emotional intelligence may be linked to adaptation – the person's adjustment to external circumstances in order to minimize harm and maximize benefits. For example, the emotionally intelligent person is successful in adapting to circumstances that elicit emotion, either through effective regulation of emotion itself, or through application of more general coping and interpersonal skills. Emotional intelligence may be attributed to a higher level of integrative brain system, especially the frontal lobe systems, residing in higher-level executive control of emotion (e.g., Rolls, 1999).

For example, Bechra, Tranel, and Damasio (2000) have shown deficits in decision-making on a gambling task in patients with damage to the ventromedial frontal cortex. They link these deficits, such as risking incurring a large delayed loss for immediate benefit, to impulsiveness and inability to delay gratification. Emotional intelligence can be contrasted with general intelligence, in that these patients often present with normal IQ. According to Damasio's (1994) "somatic marker" theory of emotion, choosing a response option depends on activating somatic state information that attaches values to outcomes, without the need for conscious reflection. Bechara et al. (2000) attributed the failure to activate somatic state information to impairment of higher-order conditioning; for example, in gambling, the failure to associate losing cards with the negative somatic states associated with losing money.

Consistent with this hypothesis, ventromedial frontal cortex patients fail to learn anticipatory skin conductance responses when playing with a losing deck of cards, supposedly indicating lack of the hunches or gut feelings on which people normally rely. Bechara et al. (2000) also pointed out that other structures such as the amygdala and somatosensory cortex also support more adaptive decision-making, but there are subtle differences in the nature of the deficit. The deficit shown by patients

with damage to the amygdala seems to relate to more immediate rewards and punishments; for example, they fail to show skin conductance responses to winning and losing money. Bechara et al. (2000) concluded by linking emotional intelligence to multiple emotional processes that may contribute to higher order decision-making, including perception of emotion in self and others, response inhibition and emotional conditioning.

However, the analysis of Bechara et al. (2000) regarding emotional intelligence presented little evidence for the existence of somatic states as proposed by Damasio (1994). Somatic feedback does not seem to be critical for the experience of emotions (Heilman, 2000), and thus far research offers no independent means for assessment of somatic state. Even if the somatic state hypothesis is correct, it does not follow that these patient studies are relevant to variation in emotional intelligence in normal, non-lesioned populations. Poor decision-making may depend on factors other than lack of access to somatic-state information, such as use of inappropriate cognitive strategies. There may be faults in the algorithms used to weigh up items of evidence, rather than in the evidence itself. In normal individuals, effects of emotion on decision making are highly contingent upon the type of information-processing performed (Forgas, 1995), and the patient studies do not make contact with this important research literature.

This deregulation in decision-making processes suggests a multiplicity of brain systems for emotion. Tooby and Cosmides maintained that, "the emotions appear to be designed to solve a certain category of regulatory problem that inevitably emerges in a mind full of disparate, functionally specialized mechanisms – the problem of coordinating the menagerie of mechanisms with each other and with the situation being faced" (1992, p. 99). They suggested that there are both emotional

and motivational mechanisms specifically involved in dealing with adaptive problems such as aggression, emotional communication, parenting, and sexual attraction.

Emotions may be the conscious expression of control signals that serve to coordinate the functioning of otherwise seemingly independent systems (Tooby & Cosmides, 1992). For example, the experience of anxiety may be associated with the activation and intercommunication of multiple cortical and subcortical systems for handling threat adaptively, such as selective attention, retrieval of relevant memories and motor inhibition (e.g., Gray, 1987). Thus, a regulative role of emotions provides a more sound basis for emotional intelligence than the hypothesis of multiple, independent modules. There may be attributes of regulation that generalize across different emotions.

Different models of emotional intelligence have been proposed (e.g., Bar-On, 1997; Cooper & Sawaf, 1997; Goleman, 1995; Mayer & Salovey, 1997; Salovey & Mayer, 1990; Weisinger, 1998). These models can be classified into fairly distinct groups that are ability models and mixed (consisting of self-reports and performance measures) models (Mayer, Salovey, & Caruso, 2000; Neubauer & Freudenthaler, 2005). Ability versus mixed models of emotional intelligence not only vary considerably regarding the conceptualizations of emotional intelligence but also with respect to the proposed instruments used to measure emotional intelligence (Austin, Saklofske, Huang, & McKenney, 2004; Petrides & Furnham, 2000; Saklofske, Austin, & Minski, 2003). Mixed models rely on self-report measures of emotional intelligence, while the ability model focuses on performance-based measures of emotional abilities (Furnham & Petrides, 2003).

The four-branch model of emotional intelligence (Mayer, Salovey, & Caruso, 2004) proposes that emotional intelligence involves the interrelated abilities of (a)

perception of emotion in the self and others (e.g., recognising when one feels angry or another person feels impatient), (b) using emotion to facilitate decision making (e.g., using a positive emotion to stimulate create problem solving), (c) understanding emotion (e.g., knowing why a friend feels sad), and (d) regulating emotion in the self and others (e.g., dwelling on an accomplishment to prolong a feeling of pride). Mayer et al. (2004) argued that emotional intelligence is best conceived of as an ability, similar to cognitive intelligence. In line with this conceptualization they developed maximal performance tests modelled after traditional cognitive ability tests (MEIS; Mayer, Caruso, & Salovey, 1999 & MSCEIT; Mayer, Salovey, Caurso, & Sitarenois, 2003).

Emotional intelligence has also been conceptualized as a trait (Neubauer & Freudenthaler, 2005; Petrides & Furnham, 2001), similar to personality dimensions such as extraversion, openness to experience, or conscientiousness. A trait conceptualization and measurement of emotional intelligence such as one proposed by Bar-On (2000), and operationalised through EQ-I. Bar-On's (2000) mixed model suggests that emotional intelligence comprises emotional self-awareness as well as various skills or characteristics that may stem from the effective use or regulation of emotions, such as good interpersonal relationships, problem solving, and stress tolerance. Other trait conceptualizations of emotional intelligence are offered by the Assessing Emotions measure developed by Schutte et al. (1998) based on the original model proposed by Salovey and Mayer (1990), or the Trait Meta Mood Scale (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995).

Emotional intelligence may compliment the predictive value of traditional cognitive factors that leave a considerable amount of variance unexplained in educational and organizational outcomes (Dulewicz & Higgs, 2000). Van Rooy and

Viswesvaran (2004) found that emotional intelligence is relatively independent of other aspects of personality and cognition. Further, emotional intelligence has incremental validity in predicting academic and social life outcomes, life satisfaction, and happiness above traditional measures of academic intelligence and personality (Furnham & Petrides, 2003; Gannon & Ranzijn, 2005; Van der Zee, Thijs, & Schakel, 2002). A meta-analytic study of various emotional intelligence measures showed a predictive validity of .24, .10, and .22 for employment, academic, and other performance (which included mental and physical health along with other characteristics) respectively (Van Rooy & Viswesvaran, 2004).

2.4.4. *Relationship between Emotional Intelligence and Well-Being*

A recent meta-analysis by Schutte, Malouff, Thorsteinsson, Bhullar and Rooke (2007) exclusively emphasized on the association between emotional intelligence and mental, physical and psychosomatic health functioning. Schutte et al. (2007) found the following predictive validity of emotional intelligence for three types of health: mental, .29; physical, .22; and psychosomatic, .31. The overall medium effect sizes for the association between emotional intelligence and mental and psychosomatic health might be explained by better perception, understanding, and management of emotion of individuals with higher emotional intelligence making it less likely that they will experience mental health problems, and also lower emotional intelligence and poorer psychosocial functioning that may make individuals more susceptible to psychosomatic symptoms respectively. The significantly lower effect size for physical health than mental and psychosomatic health could reflect the relative importance of other causal factors in physical health.

Matthews, Zeidner, and Roberts (2002) pointed out that medical disorders, especially ones with psychosomatic aspects, are often co-morbid with mood or

anxiety disorders. Lack of awareness of emotion and inability to manage emotions are key symptoms in some personality disorders and impulse control disorders (Matthews et al., 2002). Supporting a link between lower emotional intelligence and lack of awareness of emotional processes as well as impulse control problems, Schutte et al. (1998) found that lower emotional intelligence is associated with more alexithymia and less impulse control.

Higher emotional intelligence is linked with aspects of better psychosocial functioning (e.g., Brown & Schutte, 2006; Salovey & Grewal, 2005; Schutte et al., 1998; Schutte et al., 2001), including intrapersonal factors such as greater optimism and interpersonal factors such as better social relationships. Some of these psychosocial factors, such as more social support and more satisfaction with social support for those with higher emotional intelligence (Brown & Schutte, 2006), may serve as buffers to physical illness. Further, those with higher emotional intelligence might be better able to follow through on commitments to health behaviour and show better medical compliance.

Despite these grounds for predicting that higher emotional intelligence would be related to better mental health, under certain circumstances higher emotional intelligence may have maladaptive consequences. Petrides and Furnham (2003) found that individuals with higher emotional intelligence reacted more strongly to mood induction procedures, including a negative induction. Such greater sensitivity to mood-related stimuli might for some individuals lead to greater distress under adverse circumstances.

Emotional intelligence has been found to be associated with markers of subjective well-being such as more positive mood (Schutte, et al., 2002; Wang, 2002) and greater life satisfaction (Austin, Saklofske, & Egan, 2005; Bar-On, 1997;

Ciarrochi, Chan, & Bajgar, 2001; De Lazzari, 2001; Gannon & Ranzijn, 2005;

Martinez-Pons, 1997-1998, 1999-2000; Mayer et al., 1999; Palmer, Donaldson, &

Stough, 2002), as well as more psychological well-being (Brackett & Mayer, 2003;

De Lazzari, 2001).

Further, emotional intelligence has been associated with signs of positive

mental health such as lower levels of depressed mood, anxiety, and less occupational

stress (Schutte et al., 1998; Slaski & Cartwright, 2002; Tsaousis & Nikolaou, 2005;

Wang, 2002), and positive characteristics such as prosocial behaviour, empathy,

parental warmth, family and peer relations, good quality social interaction, general

health, and varied organizationally relevant outcome variables such as job

satisfaction, organizational commitment, organizational productivity, and trust

(Ciarrochi, Chan, & Caputi, 2000; Jain & Sinha, 2005; Lopes, Brackett, Nezlek,

Schütz, Sellin, & Salovey, 2004; Lopes, Salovey, Côté, & Beers, 2005; Mayer et al.,

1999; Rice, 1999; Rubin, 1999; Salovey, Mayer, Caruso, & Lopes, 2001). In

addition, studies have found that lower emotional intelligence is related to negative

outcomes, including illegal drug and alcohol use, deviant behaviour, and conflict and

poor relations with friends (Brackett, Mayer, & Warner, 2004; Lopes, Salovey, &

Straus, 2003).

It has been found that effective emotional orientation, an aspect of emotional

intelligence, is associated with lower levels of depression, anxiety, hopelessness,

suicidality, neuroticism and less number of health problems (Ciarrochi, Scott, Deane,

& Heaven, 2003; D'Zurilla, Chang, Nottingham, & Faccini, 1998; Elliot, Herrick,

MacNair, & Harkins, 1994; Elliot & Marmarosh, 1994). For example, Chang and

D'Zurilla (1996) found that, even after controlling for optimism, pessimism, positive

and negative affect, and stressful life circumstances, effective emotional orientation was associated with positive coping strategies and low psychological distress.

Previous research provides some evidence that emotional intelligence is related to various facets of well-being. In the present study, an attempt was made to explore how adaptive emotional functioning, as operationalised by trait emotional intelligence, is related to hedonic and eudaimonic satisfaction processes as well as overall well-being. No empirical research to date has been reported that searched for connections between emotional intelligence and hedonic and eudaimonic satisfaction processes. It was expected that the effective perception and regulation of emotion processes that comprise emotional intelligence would facilitate hedonic and eudaimonic satisfaction processes. Thus, emotional intelligence processes may build on satisfaction processes, and amplify the effect of these satisfaction processes on well-being outcomes.

2.5   Cultural Orientation

Cultural psychological approaches examine the ways in which culture and human behaviour intersect and interact (Markus & Kitayama, 1991; Shweder, 1991). The cultural perspective assumes that psychological processes, such as in the present study the nature and experience of well-being, are culturally constituted. A cultural psychological approach does not automatically assume that all behaviour can be explained by the same set of constructs and enquires first whether a given construct is meaningful in a given culture and how it is used in that culture (Lu & Gilmour, 2004).

Although there are undoubtedly cultural universals for well-being, cultural differences have also been found for the nature and patterning of well-being as well as what causes it. Kitayama and Markus (2000) asserted that what it means "to be well"

differs across cultures, and that culture and well-being are most productively analysed together as a dynamic of mutual constitution.

Culture as a broad concept is an important influence on individual and group attitudes, values, trends, and behaviours (Yetim, 2003). It consists of shared elements (Shweder & LeVine, 1984) that provide the standards for perceiving, believing, evaluating, communicating, and acting among those who share a language, a historic period, and/or a geographic location. The culture of a group is generally seen as a single, unitary concept common and more or less exactly the same for all members of that group. There is little doubt that culture is relevant for all members of the group on some level. Cross-cultural research is based on this assumption that all people who have roots in that specific culture are relatively homogenous with regard to some psychological trait, characteristic, or behaviour (e.g., Diener & Suh, 2000). In the past one decade, there has been an increased awareness regarding culture as a global social construct (Matsumoto, 2000).

Matsumoto (2000) posited that culture is a dynamic system of both implicit and explicit rules, including attitudes, values, belief systems, norms that govern people in order to ensure their survival. These set of cultural norms and behaviours are shared by a group (however, often expressed differently by each specific individual within the group), passed down to the next generation, relatively stable but may change across time (Matsumoto, 2000). Culture exists on multiple levels, across individuals within groups, across groups within larger groups (e.g., within an organization), and across nations (Diener & Suh, 2000). Ratzlaff, Matsumoto, Kouznetsova, Raroque, and Ray (2000) posited that individual differences in a culture can be observed among people in the degree to which they embrace and engage in the attitudes, values, beliefs, and behaviours that reflect and constitute their culture.

Thus, few members of a culture tend to match the prototypical member of that culture on all attributes.

Triandis, Bontempo, Leung, and Hui (1990) described culture at three levels: (1) the cultural-level, typically measured by country or other grouping by geographic location, (2) the demographic-level, measured by ethnicity, race, gender, or other demographic variables, and (3) the individual-level, which Triandis and colleagues defined as reflecting "a pattern of construct variation unique to the individual, which can not be meaningfully interpreted by reference to demographic or cultural membership" (Triandis et al., 1990, p. 303).

Ratzlaff et al. (2000) reported that both the cultural-level and demographic-level[6] cultural variance mainly describe average thinking and behavioural patterns; these do not represent all behaviours of all people in any culture. Thus, the variance at either the cultural-level or the demographic-level may be as large as or larger than the individual-level cultural variance on any given attribute of individuals (e.g., Diener & Suh, 2000).

The constructs of individual culture are of great interest to a wide range of cross-cultural researchers (Kagitcibasi & Berry, 1989). The interest can be traced to several factors: (1) the constructs link most of psychology, which was developed in the largely individualistic West (e.g., North America, Australia, Europe, etc.) to the largest concentrations of the population of the world, which are found in predominantly collectivist Asia. About 70 percent of human population reside in non-Western cultures, of which almost 35 percent live in two countries: China and India (e.g., Triandis, 1996), (2) many US minorities, such as Asians (Triandis et al., 1986)

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[6] Ratzlaff et al. (2000) used the term *ecological culture* to refer to both the cultural-level and the demographic-level contexts.

and Hispanics (Marin & Triandis, 1985) tend to be collectivist, (3) modern, industrial-urban, fast-changing cultures tend to be individualistic, whereas traditional, agricultural-rural, static cultures tend to be collectivist, (4) the upper affluent classes in all cultures where status differentiation is present, as well as the extremely impoverished sections of a population[7] (e.g., the Ik of northern Uganda, in Turnbull, 1972; Brazilian poor mothers, in Scherper-Hughes, 1985) tend to be individualist, whereas the lower and middle classes tend to be collectivist; and (5) numerous social phenomena, such as different forms of interpersonal relationships in organizations, and different forms of political system tend to have links with these cultural constructs (Triandis, 1995).

With such a great interest in the constructs of culture comes a demand for their measurement. The definitions of culture at the individual-level seem to be a bit ambiguous, and tend to overlap with personality characteristics (Ratzlaff et al., 2000). Thus, the measurement of cultural constructs has not been easy (e.g., Diener & Suh, 2000). Measurements at the cultural-level (Chinese Culture Connection, 1987; Hofstede, 1980; Hofstede & Bond, 1984; Triandis et al., 1986, 1993) and the individual-level (Hui, 1984, 1988; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988; Triandis, Leung, Villareal, & Clack, 1985; Triandis, McCusker, & Hui, 1990) have only been partly successful. The most important limitation, especially for measurements at the individual level, has been low internal reliabilities. Singelis, Triandis, Bhawuk, and Gelfand (1995) pointed out that both individualism and collectivism are broad constructs, hence, high internal consistencies i.e., above 0.70, have been difficult to obtain.

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[7] because the in-group has little resources to dispense (Triandis, 1996).

One of the most widely used dimensions of psychological culture is individualism-collectivism. To distinguish cultural analysis at different levels, Triandis (1989, 1995; Triandis et al., 1985) labelled the individual levels of individualism-collectivism as idiocentrism and allocentrism[8] respectively. In general, individuals with idiocentric tendencies endorse attitudes, behaviours, and values similar to individualistic or independent cultures and individuals with allocentric tendencies endorse attitudes, behaviours, and values similar to collectivistic or interdependent cultures (Ratzlaff et al., 2000). For example, Triandis et al. (1985) studied allocentric and idiocentric tendencies in the US and found attributes of allocentrism (within a highly individualistic culture) similar to defining factors of collectivism, such as subordination of personal to group goals, the in-group as extension of self and in-group identity. However, Triandis (1996) and Triandis et al. (1985) reported that these two levels of cultural analysis (individualism-collectivism and/or allocentricism-idiocentrism) are negatively correlated, but cautioned against assuming that they represent exactly opposite poles of the same construct.

There are many advantages in measuring individualism and collectivism on the individual level (Ratzlaff et al., 2000). For example, it assists in defining the individualism-collectivism nature of different groups within or across nations or ethnicities and in examining the relative importance of individualism and/or collectivism in those groups. Triandis and his colleagues (e.g., Triandis et al.,1990; Triandis & Gelfand, 1998), for instance, have administered their measures of individualism-collectivism to samples in different cultures and nations across the world. Triandis et al. (1990, 1993) and Triandis and Gelfand (1998) have been able

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[8] Conceptually, idiocentric and allocentric tendencies were measured in this project, however, for the sake of simplicity; they are referred to as individualism and collectivism respectively.

not only to define the cultures as relatively individualistic or collectivistic but also to

determine the estimated percentage of the population in each of these samples to

display primarily individualistic or collectivistic tendencies on the individual level.

Hui (1984, 1988) developed the Individualism-Collectivism (INDCOL) Scale

to assess an individual's individualism-collectivism tendencies in connection with six

collective groupings, such as spouse, parents and children, kin, neighbours, friends,

and co-workers and classmates. Matsumoto, Weissman, Preston, Brown, and

Kupperbush (1997) developed the Individualism-Collectivism Interpersonal

Assessment Inventory (ICIAI) that covers interpersonal relationships that vary in

different social contexts as suggested by Triandis et al. (1988). This 19-item scale

measures individualism-collectivism tendencies across four different social contexts

(family, close friends, colleagues, and strangers) in relation to values and behaviours.

Assessing individualism-collectivism tendencies in different social contexts helps in

identifying behaviours that accurately describe differences in specific social

relationships (Ratzlaff et al., 2000).

Triandis (1995) and Triandis and Gelfand (1998) reviewed several studies

that designed and tested different scales to measure individualism-collectivism on the

individual level. Triandis and his colleagues (Singelis et al., 1995; Triandis et al.,

1990) have made a concerted effort to develop reliable and valid measures. These

attempts have resulted in the use of different scales across a number of studies. For

example, Triandis et al. (1990) used a multimethod approach to measure

individualism-collectivism. The multimethod approach employed five techniques

involving attitude and value ratings, perceptions of in-groups and out-groups,

perceptions of social distance, and ratings of the social content of the self. More

recently, Singelis et al. (1995) and Triandis and Gelfand (1998) developed measures

assessing both horizontal (emphasizing equality) and vertical (emphasizing hierarchy) individualism and collectivism, signifying further advances in the understanding of individualism-collectivism.

Triandis' et al. (1990) multimethod system and Triandis and Gelfand's (1998) Individualism-Collectivism scale for measuring both horizontal and vertical individualism-collectivism are among the most advanced and sophisticated assessment techniques available to cross-cultural researchers. These techniques measure individualism-collectivism tendencies in different contexts, combining individualism-collectivism tendencies across a wide array of cultural phenomena into a single measurement instrument.

There are substantial differences in the types of ideas that emerge from individualistic and collectivistic orientations. It is important to remember, however, that neither is "better" than the other. This is especially relevant for discussions regarding strengths. Therefore, we must use culture as a lens for evaluating whether a particular characteristic might be considered a strength or a weakness within the context of a particular group (Pedrotti, 2007). Different thinking styles may influence the development of goals in the lives of individuals with either individualistic or collectivistic orientations. Differences also exist in the routes that each group uses to move toward its goals. Individualistic thinking focuses on the individual's goal, whereas collectivistic thinking suggests a different focus, one in which group is highlighted.

2.5.1 *Relationship between Cultural Orientation and Well-Being*

Ratzlaff et al. (2000) reported that most of the studies examining the relationship between individualism-collectivism measured on the individual level and subjective well-being have directly correlated both variables. For example, Kasri

(1997) attempted to address two of the most fundamental research questions: (1) whether people of different psychological cultures describe and experience well-being in the same way, and (2) whether people report the same or different level of well-being. To analyse these differences in the levels of well-being, Kasri (1997) compared well-being on three measures of individualism and collectivism. She measured individualism and collectivism with Matsumoto's (1997) Intercultural Assessment Inventory, the Individualism-Collectivism scale from Triandis et al.'s (1990) Multimethod approach, and Hui's (1980) Individualism-Collectivism (INDCOL) Scale. Well-being in terms of psychological functioning was measured by the open-ended questionnaire based on a series of interview questions originated by Ryff (1989: Ryff & Keyes, 1995), and subjective well-being was assessed by Diener, Emmons, Larsen, & Griffin's (1985) Satisfaction with Life Scale and Neugarten, Havighurst, & Sheldon's (1961) Life Satisfaction Index. Results showed significantly higher subjective well-being for individualists, however, no significant conclusions were drawn for psychological functioning (Kasri, 1997).

Florsheim (1997) and Watson, Sherbak, and Morris (1998) also used individual measures of individualism-collectivism to assess associations of these measures with subjective well-being. In a study identifying possible correlates of adjustment for adolescent Chinese immigrants to the United States, Florsheim (1997) used items from the Schwartz Value Survey (Schwartz, 1994) to measure individualism and collectivism. He compared these items (pertaining to individualism and collectivism) to three subscales of the Offer Self-image Questionnaire (QSIQ; Offer, Ostroc, & Howard, 1982): (1) Coping Self, assessing a range of mental problems, including depression and suicidality, (2) Social Self, assessing perceptions of peer relations and friendship patterns, vocational and educational goals, and

perceived ability to realize those goals, and (3) Psychological Self, assessing

emotions, impulse control, and body image.

Florsheim (1997) found that collectivism was associated with greater levels of

Coping Self, Social Self, and Psychological Self; whereas, individualism was

correlated with only Coping Self, but somewhat less strongly than collectivism.

These results can be interpreted in the light that the participants were living in a large,

cohesive community of Chinese immigrants and therefore part of a collectivistic

society. Thus, maintaining cultural identity and its associated values may enhance

psychosocial functioning of the individuals with collectivistic tendencies (e.g.,

Martinez & Dukes, 1997; Verkuyten, 1995).

Using a Rational Emotive Behaviour Therapy model, Watson et al. (1998)

looked at the interaction among irrational beliefs, self-esteem, social responsibility,

and individualism-collectivism in American undergraduate students. Results showed

that individualism was associated with self-esteem and normlessness after controlling

for collectivistic tendencies. On the other hand, collectivism was related positively to

self-worth, social responsibility, and irrational beliefs, but negatively related to

normlessness when individualistic tendencies were statistically controlled (Watson et

al., 1998). Watson et al. (1998) concluded that both individualism and collectivism

have positive as well as negative implications for psychosocial adjustment; hence,

well-being.

People in individualistic cultures often have greater skills in entering and

leaving new social groups than people in collectivistic cultures (Triandis, 1996).

Individualists tend to make friends quite easily, but for them, a friend just means a

non-intimate acquaintance. People in collectivist cultures have fewer skills in making

new friends, but in their case, a friend signifies a life-long intimate relationship with

many social obligations. So the quality of relationships is different in individualistic and collectivistic tendencies. This difference in quality tend to complicate the understanding of the construct of collectivism, since people with individualistic orientation are likely to appear more sociable, however, intimacy is not a readily observable trait (e.g., Triandis, 1996).

Individuals with a collectivistic orientation are more likely to have good quality and satisfying relationships. In collectivistic cultures, the individual has a few in-groups and often everyone else is in the out-group, and behaviour toward out-groups can be perceived as highly individualistic (Triandis & Vassiliou, 1972). These behaviours are complex patterns of social behaviour that require the distinction between in-group behaviour (e.g., conformity) and out-group behaviour (e.g., do whatever you can and get away with) for collectivists. On the other hand, in individualistic cultures, the individual has many in-groups and those who are not in-group members are not necessarily in the out-group. Triandis and Vassiliou (1972) observed that the in-group's influence on behaviour is broad, profound, and diffuse in the collectivist cultures; whereas in the individualist cultures, it is narrow, superficial, and specific.

Cultural orientation can be a major force that influences and shapes the subjective experience of well-being. It may also constrain preferences for different types of well-being by giving shape and form to the self (Lu & Gilmour, 2004). Different self views (independent self versus interdependent self) function as regulatory mechanisms when the individual attempts to judge his/her well-being. These self-regulatory mechanisms guide the individual to attend to and process information pertaining to certain aspects of the environment emphasized by the culture. Such mechanisms also determine how people think, feel and behave in their

pursuit of wellness (Lu & Gilmour, 2004). Kitayama and Markus (2000) pointed out

that well-being is a concerted effort in that the very definition of well-being and its

experience take culture-specific forms (e.g., Shweder, 1998). These differences can

make a difference in the ways that individuals achieve and maintain well-being (Lu,

2001; Lu & Shih, 1997; Lu, Gilmour, & Kao, 2001; Lu et al., 2001).

Research has shown that levels of subjective well-being are higher in

individualistic nations (Diener & Diener, 1995; Michalos, 1991; Myers & Diener,

1995). Individualistic cultures place more importance on emotions, and emotions

provide direct feedback about the fit between the one's needs and goals (e.g., Frijda,

1988; Lazarus, 1991; Schimmack & Diener, 1997). Hence, for people in

individualistic cultures, emotions provide important information about life

satisfaction. A life filled with many pleasant emotions and few unpleasant emotions

indicates that one's needs and goals are fulfilled and that life is good. Various

explanations for these cultural differences include the differences in resources

available to meet basic needs, upward or downward comparison among societies, and

cultural differences in valuing personal happiness (Diener & Lucas, 2000; Diener &

Suh, 1999; Diener, Suh, Smith, & Shao, 1995).

People in individualistic cultures base their life satisfaction judgments on

their emotional states, while those in collectivistic societies base these judgments on

not only emotional states but also societal norms (Suh, Diener, Oishi, & Triandis,

1998). Thus, to make sense of well-being judgments across cultures, it may be

important to focus on the differences in how the self is perceived in that particular

culture (e.g., King, Eells, & Burton, 2004; King & Napa, 1998).

An important aspect of the collectivist culture is the blurred distinction

between self and others (Triandis, 1995). In these cultures a major normative task is

to maintain harmony with others by coming to terms with their needs and expectations. In such settings, individuals' thoughts and feelings acquire full meaning only in reference to the thoughts and feelings of others who are crucially important in the very definition of the self (Markus & Kitayama, 1991, 1994). Therefore, while making global self-judgments, those with a strong collectivist orientation attend to their inner subjective experiences as well as the relational and normative factors of a situation (Suh et al., 1998). For an individualist, the desirability of a life is based on the quality of his/her own life as an individual.

In collectivistic cultures, fulfilment of personal goals is considered to be important, but members of these cultures are expected to subordinate personal goals to the interest of in-group members, especially those with a higher status (Radhakrishnan & Chan, 1997). For collectivists, following cultural norms is more important than maximising pleasure (Rozin, 1999; Suh et al., 1998). Hence, collectivists tend to pay less attention to the emotional consequences of events, and emotions feature less prominently in their life-satisfaction judgments. For example, Rozin (1999) asked students in India (a collectivistic culture) and the United States (an individualistic culture) to agree or disagree with the statement "whether or not an outcome of an action will be pleasant or unpleasant for me is not an important consideration". Whereas only 12% of the students in the United States agreed this statement, 34% of the students in India agreed with this statement. This finding has direct implications for cultural influences on well-being. A possible explanation can be that Asian cultures have a dialectical way of thinking that is different from thinking in Western culture. Schimmack, Oishi, and Diener (2002) suggested that a dialectical way of thinking perceives emotions of the opposite valence (e.g., happy and sad) as compatible with each other. In contrast, Western philosophy considers these emotions

to be in conflict with each other. These differences in thinking influence emotional responses (Schimmack et al., 2002).

The meaning of well-being and the factors that facilitate it are a particularly important issue in cross-cultural studies in which a principal quest is the search for systematic variants versus invariants in well-being dynamics across widely discrepant social arrangements. Christopher (1999) argued that definitions of well-being are inherently culturally rooted and that there can be no such thing as a value-free assessment of well-being. All understandings of well-being are essentially moral visions based on individuals' judgments about what it means to be well.

Suh et al. (1998) studied the relationships among emotions and norms of social approval, and life satisfaction in 61 nations. They found that whereas emotions were a stronger predictor of life satisfaction in nations classified as individualist, norms and emotions were equally predictive within collectivist nations. Oishi, Diener, Lucas, and Suh (1999) found that in poorer nations satisfaction with wealth was a stronger predictor of life satisfaction, whereas satisfaction with home life was more predictive in wealthier nations, suggesting to them a hierarchy of needs. They also found evidence that satisfaction with freedom was less predictive of subjective well-being in collectivistic nations than in individualistic ones.

Oishi et al. (1999) used this finding to dispute Stimulus Determination Theory's (SDT; Ryan & Deci, 2000) claims about the importance of volition to well-being, although their discussion reveals misconceptions about the meaning of autonomy and about SDT's position on needs. However, the findings reveal that deeply held values play a role in well-being, a position with which SDT concurs.

A major conceptual issue in research regarding the relationship between autonomy and well-being concerns the confusion in the literature between

independence (nonreliance) and autonomy (volition). For example, Markus,

Kitayama, and Heiman (1996) equated autonomy (volition) with independence (non-

reliance) in their conceptions of East-West differences and thus did not investigate

separately the effects of these two dimensions. Diener and Lucas (2000) also

identified autonomy as separateness or independence from others rather than self-

endorsement or volition. Thus, this pattern of equating autonomy with independence

persists despite research indicating that interdependencies tend to support the

development of more autonomous regulatory systems (e.g., Ryan & Lynch, 1989).

From the stimulus determination theory perspective (Ryan & Deci, 2000),

cultural styles associated with independence should, of course, detract from

relatedness satisfaction and well-being, but this is a separate issue from the relation to

well-being of the relative autonomy of one's goals, life tasks, and values. However,

there is some evidence of the importance of autonomy is in collectivist cultures. For

example, Hayamizu (1997) found that autonomy was associated with the motivation

and adjustment of Japanese students.

Deci et al. (2001) examined the relationship of well-being with the autonomy,

competence, and relatedness needs both in Bulgarian workers in collectivistic, state-

owned and managed companies and in a sample of workers in US. The authors found

no significant difference in the autonomy, competence, and relatedness in these two

samples, suggesting the generalisability of these constructs. They also found that

satisfaction of these needs in the workplace significantly predicted the workers'

general well-being in both countries, in spite of the different cultural contexts. The

intriguing finding was that the mean levels of autonomy at work were higher in

Bulgaria, a collectivistic culture (Deci et al., 2001); suggesting that autonomy

(volition) and independence (non-reliance) are distinct constructs.

Previous research provides evidence for different pattern of associations between cultural orientations and both subjective and psychological well-being. In the present study, an attempt was made to explore how individualism and collectivism are related to various facets of well-being as well as hedonic and eudaimonic satisfaction processes. No empirical research to date has been reported that searched for connections between individualism and collectivism and both hedonic and eudaimonic satisfaction processes. It was expected that both hedonic and eudaimonic satisfaction processes would interact differently with different cultural orientations. Individuals with individualistic orientations may be more likely to engage in hedonic processes, whereas individuals with collectivistic orientations may be more likely to engage in eudaimonic processes and may also derive more gratification from others' satisfaction because of their interdependent self-construal, emotional interdependence, and in-group membership (Scott, Ciarrochi, & Deane, 2004).

The aim of positive psychology is to study and promote optimal human functioning. Although humans share this common goal, they pursue it along many different routes. Snyder and Lopez (2007) pointed out three recurring issues in regards to the culture free or culture embedded nature of positive psychology. These issues are: (1) the effects of professionals' cultural values on their research and practices, (2) the universality of human strengths, and (3) the universality of the pursuit of happiness (Synder & Lopez, 2007).

2.6 *Emotional Intelligence and Cultural Orientation*

Cultural orientation influences emotional experiences (e.g., Briggs, 1970; Levy, 1973; Lutz, 1987; Saarni, 1999). One of the common notions regarding those with collectivist orientations is that they are less emotionally expressive than

individualists (Kang, Shaver, Sue, Min, & Jing, 2003). Ekman and Friesen's (1969) concept of "display rules" suggested that these cultural differences may exist because of inhibitory display rules imposed by collectivistic societies, and not because collectivists experience less emotion than individualists (Mesquita & Frijda, 1992). Oyserman, Coon, and Kemmelmeier (2002) suggested that members of collectivistic societies are socialized to control and regulate their emotional expressions so as to maintain in-group harmony. On the other hand, Markus and Kitayama (1991) reported that individualists are encouraged to express their feelings more directly because they do not expect others to read their minds in social exchanges.

Although there are important cultural differences in causes and consequences of emotion, it appears that emotions have similar personal meanings, and elicit almost similar responses in all cultures (e.g., Scherer & Wallbott, 1994). It is, however, unclear whether there are similar universals of emotional intelligence, in that much of what constitutes appropriate behaviour during interpersonal reaction is culturally determined. The emotionally intelligent person may not just be successfully adapted but adaptable, in the sense of being competent to deal with new challenges.

Several studies have revealed interesting cross-cultural differences in emotionality. For example, North Americans tend to maximize experiencing positive emotions and minimize experiencing negative emotions. This tendency is weaker in Asian societies (Diener et al. 1995; Kitayama & Markus, 1999; Kitayama, Markus, & Kurokawa, 2000). Van Rooy, Alonso, and Viswesvaran (2005) found group differences for ethnicity in emotional intelligence with Hispanics (Latin American cultures tend to be more collectivistic) scoring higher on emotional intelligence.

While exploring the culture-specific psychological processes involved in the prediction of life satisfaction, Kang et al. (2003) found that emotion differentiation

was associated with life satisfaction among students in collectivistic cultures, but

emotional expression contributed to life satisfaction among the individualists. Saarni

(1997) argued that individuals may benefit from having varied and well-differentiated

emotional experiences because understanding others' feelings is based at least in part

on understanding one's own feelings. Scott et al. (2004) found that individualism was

associated with less skill in managing both self and others' emotions. Thus, it may be

that emotional intelligence is differentially related to individualism and collectivism.

2.7   Objectives of Study 1

Building on the literature reviewed above, the present study examined the

paths between emotional intelligence, cultural orientation, satisfaction processes and

well-being. The study examined the following hypotheses:

1. Well-being is a latent construct that consists of higher (a) life satisfaction, (b)

   positive affect, (c) psychological well-being, (d) social well-being, (e)

   subjective physical health, and lower (f) depression, anxiety and stress.

2. Higher emotional intelligence is associated with greater well-being.

3. Higher levels of both hedonic and eudaimonic satisfaction processes are

   associated with greater well-being.

4. Emotional intelligence mediates the relationship between hedonic and

   eudaimonic satisfaction processes and well-being "outcomes", according to

   the model set out in Figure 2.7.1.
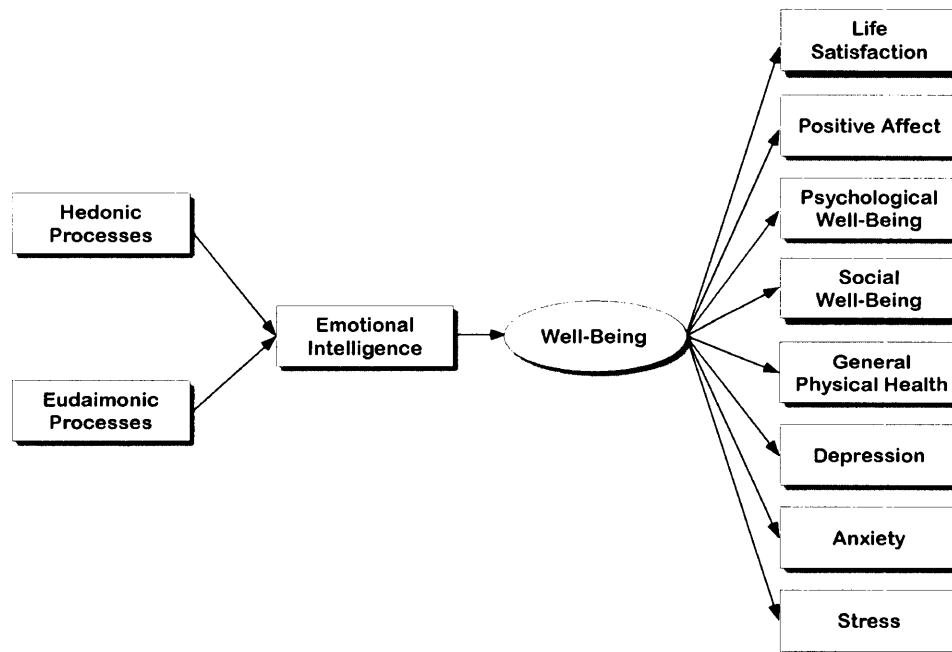
Figure 2.7.1: Proposed conceptual model of well-being and its relationship with hedonic processes, eudaimonic processes, and emotional intelligence.

5. Higher emotional intelligence is related to higher collectivism and lower individualism.

6. Collectivism is associated with higher (a) life satisfaction, (b) positive affect, (c) psychological well-being, (d) social well-being, (e) subjective physical health, and lower (f) depression, anxiety and stress.

7. Individualism is associated with lower (a) life satisfaction, (b) positive affect, (c) psychological well-being, (d) social well-being, (e) subjective physical health, and higher (f) depression, anxiety and stress.

8. Individualism and collectivism moderate the mediation model set out in hypothesis 4. It is expected that collectivism will magnify the effects of satisfaction processes while individualism may diminish them.

Method

2.8.1 *Participants*

Three hundred and seventy university students (Mean age = 27.38;

SD = 10.01) from Australia and India participated in the study. One participant did

not report her age. There were 262 females and 108 males. Participants were

recruited from a university located in a country town in New South Wales, Australia

and from three universities in medium-sized cities in northern India. The 370

participants represent a 72.98% response rate of those 507 individuals originally

contacted. Two hundred and seven of the participants (mean age = 30.16, *SD* =

11.90; 74.9% women) resided in Australia. One hundred and sixty three of the

participants (mean age = 23.78, *SD* = 5.04; 65.6% women) resided in India.

2.8.2 *Measures*

All the measures used were in English language. The participants recruited

from India were university students. The language of instruction in Indian

universities is English, so there did not seem to be any problem for participants to

understand the English version of the measures. Further, most of these measures have

been translated and used in various Asian countries including India and have shown to

be reliable and valid in these settings, indicating that concepts seem to have relevance

in a range of cultural contexts.

Well-being was assessed by the Satisfaction with Life Scale, the

Psychological Well-Being Scale, the Social Well-Being Scale, the Depression

Anxiety Stress Scales, the Positive and Negative Affect Schedule, and the physical

health perceptions subscale of the SF-36.

The Satisfaction with Life Scale (SWLS)

The 5-item SWLS (Diener, Emmons, Larsen, & Griffin, 1985) is a measure of a person's general satisfaction with life. Respondents rated how they felt about their life on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). Sample items include "In most ways my life is close to ideal", "So far I have gotten the important things I want in life" and "I am satisfied with my life"

In previous studies the internal reliability of the scale ranged from .83 to .87 (Diener et al, 1985; Gannon & Ranzijn, 2005; Pavot, Diener, Colvin, & Sandvik, 1991). The scale has been shown to be negatively correlated with measures of negative affect (Larsen, Diener, & Emmons, 1985), and scores are lower for psychiatric patients, prisoners, students in poor or turbulent countries, and abused women (Pavot & Diener, 1993). The Cronbach's alpha for the present study was .78, with N = 370. This scale has been used in Indian settings (Biswas & Diener, 2001; Diener, Napa-Scollon, Oishi, Dzokoto, & Suh, 2000).

Psychological Well-Being Scale (PWB)

The PWB scale (Ryff, 1989) measures six dimensions of PWB: self-acceptance, environmental mastery, purpose in life, positive relations with others, personal growth, and autonomy. Each subscale consists of 14 items, with a mix of positive and negative sentences. Respondents indicate whether an item describes how they thought and felt on a scale ranging from 1 (strongly disagree) to 6 (strongly agree). Negative items were reverse coded so that higher scores on each subscale reflect the presence of more positive appraisals. Sample items include "I like most parts of my personality", "For me, life has been a continual process of learning, changing, and growth", and "I tend to be influenced by people with strong opinions".

Previous studies exhibited good internal reliability of the six subscales ranging from .86 to .93 for a 20-item per scale version (Ryff, 1989) and from .80 to .88 and the composite total scale score reliability of .94 for a 14-item per scale version (Brackett & Mayer, 2003). Each scale showed convergent and discriminant validity and reduced 14-item versions of each scale confirmed the proposed theoretical structure of well-being and replicated age and gender differences in nationally representative U.S. samples (Keyes & Ryff, 2003; Ryff & Keyes, 1995). Total scale scores correlated positively with positive affect and life satisfaction, and negatively with depression and negative affect (Ryff, 1989; Ryff, Lee, Essex, & Schmutte, 1994; Ryff & Keyes, 1995). In the present study, the overall scale score was used. The Cronbach's alpha for the composite score in the present study was .96, with N = 370. This scale has been used in Asian countries (Ryff, Magee, Kling, & Wing, 1999), including India and Japan (C. D. Ryff, personal communication, August 30, 2005).

Social Well-Being Scale (SWB)

The SWB (Keyes, 1998) has five dimensions: social acceptance, social actualization, social contribution, social coherence, and social integration. A short version (15-items) scale was employed in the present study. Each subscale consists of 3 items, with a mix of positive and negative sentences. Respondents indicated whether an item described how they functioned on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). Negative items were reverse scored so that higher scores reflected greater social well-being. Sample items include "I have something valuable to give to the world", "I feel close to other people in my community", "I have nothing important to contribute to society".

In previous studies the internal reliability of the five subscales for the short version (15 items) ranged from .57 to .81 (Keyes, 1998, Study 1) and for the overall

scale was .81 (Keyes, 2005b). Validity evidence showed positive correlations with generativity (reflecting how well individuals perceive that they are valued by others and contribute to others' well-being), neighbourhood health, subjective physical health, and self-described optimism and negative correlations with perceived constraints (reflecting obstacles and unpredictable contingencies as perceived by individuals), and dysphoria (Keyes, 1998). In the present study, the overall scale score was used. The Cronbach's alpha for the overall scale for the present study was .77, with N = 370. This scale has been used in Asian countries, including China and South Korea, and also in Italy, Spain, and the Czech Republic (C. L.M. Keyes, personal communication, August 23, 2005).

Depression Anxiety Stress Scales (DASS)

The 21-item version of the DASS (Lovibond & Lovibond, 2002) was used to assess general mental health as defined by levels of depression, anxiety, and stress. Each scale consists of 7 items. Respondents indicated whether an item described how they felt on a scale ranging from 0 (did not apply to me at all) to 3 (applied to me very much, or most of the time). Low scores on these scales reflect better mental health. Sample items for Depression include "I couldn't seem to experience any positive feeling at all" and "I felt that I had nothing to look forward to"; for Anxiety: "I was aware of dryness of my mouth" and "I was worried about situations in which I might panic and make fool of myself"; and for Stress: "I tended to over-react to situations" and "I found it difficult to relax".

The internal reliabilities for the DASS–21 subscales were .94, .87, and .91 for depression, anxiety, and stress respectively in prior research (Antony, Bieling, Cox, Enns, & Swinson, 1998). Antony et al. (1998) validated the scale with depressive patients scoring highest on the Depression and Stress subscales, and the panic

disorder group scored highest on the Anxiety subscale. Further, a non-clinical population scored lower on all the three subscales than a clinical group. The Cronbach's alphas for depression, anxiety, and stress in the present study were .89, .83, and .84 respectively, with N = 370. The DASS has been used in numerous countries (Lovinbond & Lovinbond, 2002), including China, which has certain cultural similarities to India. Attempts are being made to translate and use the DASS in the Indian setting (V. Augustine, personal communication, August 25, 2006).

The Positive and Negative Affect Schedule (PANAS)

The 10-item positive affect subscale of the PANAS (Watson, Clark, & Tellegen, 1988) was used to measure positive mood. Respondents were asked to rate the extent to which they have experienced each particular emotion within a specified time period on a scale ranging from 1 (very slightly or not at all) to 5 (extremely). A number of different time-frames have been used with the PANAS, but in the present study the time-frame adopted was 'in general'. High scores mean greater positive mood. Sample descriptors include "interested", "excited", and "attentive".

Prior research showed good internal reliability for the positive affect scale and ranged from .86 to .90 for the present moment time instructions (Schutte et al., 2002; Watson et al., 1988), and .89 for during the past week time instructions (Crawford & Henry, 2004). Positive affect scores discriminated between psychiatric inpatients and a non-clinical population, with especially large differences on negative affect and correlated negatively with measures of psychopathology (Schutte et al., 2002). The Cronbach's alpha for the present study was .78, with N = 370. This scale has been used in Indian settings (Srivastava, Sharma, & Mandal, 2003).

The Short-Form – 36 Health Survey (SF – 36)

A 5-item General Health Perceptions subscale of the SF-36 (Ware &

Sherbourne, 1992) was used to measure subjective physical health in general.

Respondents indicate whether an item described how they view their health on a scale

ranging from 1 (definitely true) to 5 (definitely false). Items were coded such that

lower scores mean better subjective physical health. Sample items include "I seem to

get sick a little easier than other people", "I expect my health to get worse", and "I am

as healthy as anybody I know".

The internal reliability for this subscale ranged from .78 to .95 in previous

studies (Brazier et al., 1992; McHorney, Ware, Lu, & Sherbourne, 1994; Kantz,

Harris, Levitsky, Ware, Davies, 1992; Ware & Sherbourne, 1992; & Ware, Snow,

Kosinski, & Gandek 1993). Validity evidence included patients with panic disorder

scoring worse than the general population (Sherbourne, Wells, & Judd, 1996),

differentiation of groups on the basis of severity of chronic medical illness

(McHorney, Ware, & Raczek, 1993), and a positive correlation between physical

functioning subscale of SF-36 and a two-item scale assessing walking and stair-

climbing adapted from the Knee Society's physical function measure (Insall, Dorr,

Scott, & Scott, 1989). The Cronbach's alpha for the subscale in the present study was

.77, with N = 370. The SF-36 has been used in Indian settings (Kumar, Jacquot, &

Hall, 2001; Misra, Sivakumar, Bambery, & Bacon, 2004; Rajeswari, Muniyandi,

Balasubramanian, & Narayanan, 2005).

Observer Measure of Well-Being

Previous research has found that family members and close friends (Pavot et

al., 1991; Sandvik, Diener, & Seidlitz, 1993) are able to judge the happiness of

individuals. Building on this finding an external assessment of well-being was

provided by a rating on a 5-point scale (where 1 = very poor and 5 = very good) on all the well-being indices such as positive affect, satisfaction with life, psychological well-being, social well-being, mental health in terms of lack of depression, anxiety and stress, and physical health as judged by an individual close to the participant.

This rating was used as an external check of the validity of the self-rating described above provided for this study. A composite score comprising all six observer ratings was created to equate with the two latent well-being factors. The creation of these indices will be explained in the results section. The Cronbach's alpha for the total composite measure for the present study was .81, with N = 370. The Cronbach's alpha for the composite observer score reflecting first latent well-being factor (Fulfilment) was .77. The Cronbach's alpha for the composite observer score reflecting the second latent well-being factor (Dejection) can not be computed as it comprised only 1 item measuring general mental health.

The Karnofsky Performance Status Scale (KPSS)

The KPSS (Karnofsky & Burchenal, 1949) was used to assess illness status of the respondents. It is an objective appraisal of reported physical functioning and was used as an additional external check on the validity of the self-reported physical well-being. The scale is commonly used in oncology practice as a proxy of health status (Ganz, Haskell, Figlin, La Soto, & Siau, 1991). The original scale consists of 11 conditions ranging from 0 (dead) to 100 (normal, no complaints, no evidence of disease) with a rating of 60 indicating that considerable assistance and the frequent medical care are required.

The scale has been modified for the present study to be applicable for the general university population with only the first seven conditions being used. Respondents indicated whether the item described how they felt on a scale ranging

from 40 (disabled: requires special care and assistance) to 100 (normal, no complaints, no evidence of disease). High scores mean lower illness burden (or better health status). This scale has been used in Indian settings (Chandy & Babu, 1999; Pant et al., 2005).

Personal Expressive Activities Questionnaire – Standard (PEAQ-S)

The PEAQ-S (Waterman, 1993) was used to assess hedonic and eudaimonic satisfaction processes. The instructions call for respondents to identify five activities important to them that they would use to describe themselves to another person. Thus, the activities identified are personally salient and identity-related. Each of these activities are then scored for hedonic and eudaimonic processes on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). There are 6 scoring items pertaining to hedonic satisfaction and 6 items pertaining to eudaimonic satisfaction for each of the activities. High scores mean greater satisfaction. Sample items for hedonic satisfaction include "When I engage in this activity I feel good" and "This activity gives me my greatest pleasure" and for eudaimonic satisfaction include "I feel a special fit or meshing when engaging in this activity" and "When I engage in this activity I feel more intensely involved than I do when engaged in most other activities".

In the development sample the internal reliability for the eudaimonic and hedonic scales was .90 and .93 respectively. Validity evidence comes from correlations with items pertaining to positive cognitive-affective experiences, flow, balance of skills and challenges, and opportunities for satisfaction (Waterman, 1993). The Cronbach's alphas for hedonic satisfaction and eudaimonic satisfaction for the present study were .90 and .89 respectively, with N = 370. This scale has been mainly used with North American samples, along with samples from Chile and Italy

(A. S. Waterman, personal communication, August 24, 2005). No evidence of previous research using PEAQ with samples drawn from Asian countries has been found.

The Assessing Emotions Scale (AES)

The AES (Schutte et al., 1998) was used to measure emotional intelligence in terms of how well respondents identify, understand, regulate, and harness emotions both in themselves and others. This 33-item scale is based on dimensions of emotional intelligence proposed in Salovey and Mayer's (1990) original model. Items are rated on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). High scores indicate high emotional intelligence. Sample items include "I am aware of my emotions as I experience them", "I know why my emotions change", and "I am aware of the non-verbal messages other people send".

Previous studies found the internal reliability of the scale ranging from .86 to .93 (Brackett & Mayer, 2003; Schutte et al., 1998; Scott et al., 2004), and a two-week test-retest reliability of .78 (Schutte et al., 1998). Validity has been demonstrated with its scores correlated with scores on measures of attention to feelings, clarity of feelings, alexithymia, mood repair, optimism and impulse control, closeness and warmth of relationship, marital satisfaction. Also, scores on the Assessing Emotions scale significantly discriminated between therapists and both therapy clients and prisoners, thereby showing evidence for discriminant validity (Schutte et al., 2001; Schutte et al., 1998; Schutte et al., 2002). The Cronbach's alpha for the present study is .90, with N = 370. This scale has been used in Indian setting (Thingujam & Ram, 2000).

Individualism-Collectivism Scale (IC)

The IC scale (Triandis & Gelfand, 1998) was used to assess the individualistic and collectivistic cultural orientations. The IC scale is a 27-item scale giving separate scores for individualism and collectivism. Research indicates that individualism and collectivism are somewhat independent constructs (e.g., Rhee, Uleman, & Lee, 1996; Triandis, 1995). Triandis (1996) argued that both individualism and collectivism could be horizontal (emphasizing equality) or vertical (emphasizing hierarchy). This scale provides a score for each of four attributes – horizontal individualism, vertical individualism, horizontal collectivism, and vertical collectivism. However, by fusing horizontal and vertical dimensions, a single score for the dimension of individualism and collectivism can be obtained (H. C. Triandis, personal communication, July 1, 2005). Therefore, total individualism and collectivism dimensions were obtained for the present study. Sample items for individualism include "Being a unique individual is important to me", "Competition is the law of nature", and for collectivism include "I usually sacrifice my self-interest for the benefit of my group" and "My happiness depends very much on the happiness of those around me".

Previous studies exhibited good internal reliability ranging from .67 to .74 for individualism and .68 to .74 for collectivism (Singelis et al., 1995). Validity evidence includes that those high on individualism scored higher on competition, emotional distance from in-groups, hedonism, and self-reliance; while those high on collectivism scored higher on family integrity, interdependence, and sociability (Triandis & Gelfand, 1998). The Cronbach's alpha for the present study was .74 for individualism and .81 for collectivism, N = 370. This scale has been used in various Asian countries, including South Korea (Triandis & Gelfand, 1998).

2.8.3 *Procedure*

Participants were recruited in both Australia and India either through verbal announcements at the start of the university lectures or by postings on unit electronic websites asking for volunteers. About 36% of the Australian respondents were first year university undergraduates recruited through the psychology subject pool of a university. Participants in the present study responded anonymously and returned completed questionnaire in self-addressed and postage paid envelopes.

Results

2.9.1 *Descriptive Statistics*

All the relevant statistical assumptions were checked. Missing data (0 to 3.2% across variables) were replaced by values imputed by the expectation maximization algorithm in SPSS Version 14.0.2 (SPSS Inc., 2005). Variables such as life satisfaction and general physical health variables were slightly positively skewed, and depression, anxiety, and stress variables were slightly negatively skewed. Square root transformations made these variables normal. Table 2.9.1 presents the means and standard deviations for all the major study variables. Table 2.9.2 presents means, standard deviations and t-test values for all major study variables based on the country of origin. Group means for country of origin were compared to see whether there were any differences between the two different cultures. Results from Table 2.9.2 show that individuals from India scored higher on both individualism and collectivism[9] than that of their Australian counterparts. This provides a basis for analysing data at the individualism and collectivism level rather than on the basis of country of origin.

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[9] In a separate study on university students in western India, Sinha and Verma (1994) reported that students scored high on individualism, though they rated Indian society as collectivistic. One reason could be that any attribute is valued that is not prototypical of that particular society. That is why; Indians tend to value individualistic tendencies.

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Table 2.9.1

Means and Standard Deviations of Major Study Variables (N = 370)

Variables	Mean[a]	SD	Range
LS	2.83	0.90	1-5
PWB	26.12	4.00	14-35
SWB	23.07	4.05	12-34
Depression	1.83	1.18	0-4
Anxiety	1.67	1.14	0-4
Stress	2.40	1.02	0-4
PA	3.58	0.59	2-5
GPH	1.48	0.25	1-2
HS	31.32	4.07	22-42
ES	29.89	4.35	18-40
EI	126.60	14.80	91-163
Individualism	5.86	1.07	3-9
Collectivism	6.63	1.04	4-9

Note. LS = Life satisfaction; PWB = Psychological well-being; SWB = Social well-being; PA = Positive affect; GPH = General physical health; HS = Hedonic satisfaction; ES = Eudaimonic satisfaction; EI = Emotional intelligence. LS and GPH are square root of the reflected[10]; where as Depression, Anxiety and Stress are the square root of original skewed variables.

The other two study variables: Fulfilment and Dejection are the latent factors (M = 0; SD = 1) comprising well-being indices converted into Z-scores (see text for detail).

[a] Means of study variables are similar to means reported in scale development articles.

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[10] According to Tabachnick & Fidell (2001), prior to transforming negatively skewed variable, the best strategy is to reflect the variable first and then apply the appropriate transformation for positive skewness, and it is advisable to re-reflect the variable so that the direction of the interpretation remains the same. To reflect a variable, add one to the maximum score to form a constant that is larger than any score in the distribution. Then create a new variable by subtracting each score from the constant. In this way, a variable with negative skewness is converted to one with positive skewness prior to transformation. Transform the reflected variable, and to re-reflect it, add one to the maximum score to form a constant that is larger than any score in the distribution of the present variable.

Table 2.9.2

Means, Standard Deviations, and Independent t-values of Major Study Variables based on Country of Origin (Australia, n = 207; India, n = 163)

Variables	Australia		India		
	Mean	*SD*	Mean	*SD*	t(368)
LS	3.29	0.98	3.07	0.79	2.26*
PWB	27.38	4.16	24.49	3.25	7.28***
SWB	23.53	4.34	22.45	3.68	2.53*
Depression	1.60	1.10	2.13	1.25	- 4.35***
Anxiety	1.26	1.05	2.21	1.06	- 8.64***
Stress	2.29	1.01	2.54	1.02	- 2.37*
PA	3.52	0.63	3.64	0.55	- 1.96*
GPH	1.76	0.28	1.74	0.23	0.61
Fulfilment	0.09	0.82	- 0.12	0.59	2.91** [a]
Dejection	- 0.22	0.80	0.28	0.90	- 5.70***
HS	30.90	3.85	31.77	4.51	- 2.01*
ES	29.72	4.30	30.04	4.88	- 0.68
EI	127.68	15.33	124.61	15.67	1.89
Individualism	5.55	1.00	6.25	1.05	- 6.53***
Collectivism	6.43	0.90	6.87	1.16	- 4.09***

Note. LS = Life satisfaction; PWB = Psychological well-being; SWB = Social well-being; PA = Positive affect; GPH = General physical health; HS = Hedonic satisfaction; ES = Eudaimonic satisfaction; EI = Emotional intelligence. LS and GPH are square root of the reflected; where as Depression, Anxiety and Stress are the square root of original skewed variables. Fulfilment and Dejection are the latent factors comprising well-being indices converted into Z-scores (see text for detail).
* p < .05, *** p < .001.
[a] equal variances not assumed value (*df* = 365.47)

2.9.2 Validity-Related Information

The correlations between the self-reported well-being indices and observer measures of each of the indices were as follows: positive affect ($r = .31$, $p < .001$), satisfaction with life ($r = .37$, $p < .001$), social well-being ($r = .22$, $p < .001$), psychological well-being ($r = .26$, $p < .001$), general physical health ($r = .28$, $p < .001$), depression ($r = .43$, $p < .001$), anxiety ($r = .29$, $p < .001$) and stress ($r = .28$, $p < .001$). The composite observer rating score was related to self-reported fulfilment ($r = .49$, $p < .001$), the creation of which index will be explained in a subsequent section, and with self-reported dejection ($r = -.38$, $p < .001$), the creation of which index will be explained in a subsequent section. The observer composite rating score reflecting fulfilment was related to self-reported fulfilment ($r = .48$, $p < .001$) and the observer composite rating score reflecting dejection was related to self-reported dejection ($r = .36$, $p < .001$).

Illness status was correlated with the well-being indices and the two latent well-being factors. Table 2.9.3 shows the correlations between illness burden and well-being indices.

Table 2.9.3

Correlations between Illness Status and Well-Being Indices

Variables	Illness Status (whole sample) N = 370	Illness Status (Australia) n = 207	Illness Status (India) n = 163
LS	-.14**	-.08	-.19*
PA	-.14**	-.14*	-.19*
PWB	-.21***	-.18**	-.15*
SWB	-.17**	-.20**	-.10
GPH	-.45***	-.49***	-.38***
Depression	.18***	.16*	.15*
Anxiety	.22***	.22**	.13
Stress	.14**	.14**	.10
Fulfilment[a]	-.30***	-.28***	-.30***
Dejection[a]	.21***	.20**	.14
Observer's Measure	-.14**	-.25***	-.03

Note. LS = Life satisfaction; PWB = Psychological well-being; SWB = Social well-being; PA = Positive affect; GPH = General physical health. LS and GPH are square root of the reflected; where as Depression, Anxiety and Stress are the square root of original skewed variables.

[a] Fulfilment and Dejection are the latent factors of well-being indices (converted into Z-scores; see text for detail)

*p < .05; **p < .01; ***p < .001

2.9.3 *Main Analyses*

Hypothesis 1, that well-being is a latent construct comprised of several well-being outcomes, was tested through an exploratory factor analysis (EFA). A principal components analysis was conducted on all the measured indices of well-being, i.e., life satisfaction, positive affect, psychological well-being, social well-being, general physical health, depression, stress, and anxiety. Cattell's (1966) scree plot, Kaiser's (1960) rule (eigenvalues greater than 1), Velicer's (1976) minimum average partial (MAP) test, and Horn's (1969) parallel analysis suggested two components. The solution with two factors was subjected to direct oblimin rotation ($\Delta = 0$) and the resulting pattern matrix was assessed for interpretability. This solution exhibited simple structure and clearly defined two components.

The two-factor solution, explaining 65.48% of the variance[11], divided the various indices of well-being into two distinct groups. Life satisfaction, positive affect, psychological well-being, social well-being, and general physical health loaded on the first factor, which could be labelled *Fulfilment*. Depression, stress, and anxiety loaded on the second factor, which could be labelled *Dejection*. The correlation between fulfilment and dejection was -.60 ($p < .001$). Well-being indices were standardized[12] prior to computing scale scores using means for further analyses such as correlational analyses etc. Table 2.9.4 provides the factor loadings for the two-component structure of the overall well-being construct.

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[11] After oblique rotation, the variance explained by each factor is not reported. As factors are correlated, percentage of variance explained by each factor is not additive (Tabachnick & Fidell (2001).

[12] All the indices were standardized as they were measured on different scales.

Table 2.9.4

Oblimin Rotated Communalities (h²) and Factor Loadings for 2-Component Structure of Well-Being (N = 370)

		Components	
Well-Being Measures	h^2	Fulfilment	Dejection
Positive Affect	.65	.85	
Life Satisfaction	.52	.76	
Psychological Well-Being	.74	.71	
Social Well-Being	.59	.67	
General Physical Health	.31	.54	
Anxiety	.81		.91
Stress	.79		.91
Depression	.84		.78

Note: Following the recommendations of Tabachnick & Fidell (2001), pattern matrix loadings (overlapping variance among factors has been partialled out) are reported.

Hypotheses 2, 3, 5, 6 and 7, that higher emotional intelligence would be related to greater well-being, higher level of satisfaction processes would be associated with greater well-being, higher emotional intelligence would be related to higher collectivism and lower individualism, and collectivism would be associated with greater well-being and that individualism would be associated with lower well-being, were tested through Pearson's r correlations among the main variables. Table 2.9.5 shows the results of these correlational analyses. Higher scores for both hedonic and eudaimonic satisfaction processes were significantly associated with higher life

satisfaction, psychological well-being, social well-being, and positive affect; and lower levels of depression. There was no significant relation between (a) hedonic and eudaimonic satisfaction processes and (b) general physical health and levels of anxiety and stress.

Higher emotional intelligence was significantly associated with greater life satisfaction, psychological well-being, social well-being, positive affect, and general physical health; and lower levels of depression, anxiety and stress. Also emotional intelligence was significantly related to individualism and collectivism. It is useful to mention here that the magnitude of the correlation between emotional intelligence and collectivism ($r = .41$, $p < .001$) was higher than that between emotional intelligence and individualism ($r = .11$, $p = .03$).

Individualism was significantly positively associated with anxiety, stress, and positive affect. However, there was no significant correlation with life satisfaction, psychological well-being, social well-being, depression, and general physical health. On the other hand, collectivism showed significant positive correlation with psychological well-being, social well-being, and positive affect; and significant lower levels of depression and stress. There was no significant relationship between collectivism and life satisfaction, anxiety, and general physical health.

Table 2.9.5

Bivariate Correlations among Major Study Variables

Variables	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. LS	.43***	.53***	.38***	.23***	-.41***	-.30***	-.22***	.70***	-.35***	.17**	.13*	.32***	-.10	.05
2. PA	-	.55***	.47***	.36***	-.46***	-.23***	-.24***	.77***	-.35***	.29***	.24***	.49***	.15**	.27***
3. PWB		-	.64***	.36***	-.67***	-.53***	-.39***	.84***	-.60***	.25***	.18***	.64***	-.10	.17**
4. SWB			-	.32***	-.53***	-.38***	-.35***	.76***	-.47***	.21***	.14**	.52***	-.06	.26***
5. GPH				-	-.33***	-.29***	-.21***	.62***	-.31***	.06	.06	.25***	.01	.09
6. Depression					-	.68***	.68***	-.65***	.89***	-.17**	-.13*	-.45***	.07	-.18**
7. Anxiety						-	.65***	-.47***	.88***	-.09	-.04	-.30***	.16**	-.10
8. Stress							-	-.38***	.88***	-.09	-.07	-.23***	.13*	-.12*
9. Fulfilment								-	-.57***	.27***	.21***	.61***	-.03	.23***
10. Dejection									-	-.13*	-.09	-.37***	.14**	-.15**
11. HS										-	.86***	.37***	.15**	.35***
12. ES											-	.31***	.12*	.29***
13. EI												-	.11*	.41***
14. Individualism													-	.32***
15. Collectivism														-

Note. LS = Life satisfaction; PA = Positive affect; PWB = Psychological well-being; SWB = Social well-being; GPH = General physical health; HS = Hedonic Satisfaction; ES = Eudaimonic Satisfaction; and EI = Emotional Intelligence. LS and GPH are square root of the reflected; where as Depression, Anxiety and Stress are the square root of original skewed variables. Fulfilment and Dejection are the latent factors of well-being indices (converted into Z-scores prior to computing scale scores; see text for detail)

*p < .05; **p < .01; ***p < .001

Correlations were also run at the subscale levels for both SWB (social coherence, social integration, social acceptance, social contribution, and social actualization) and PWB (autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance) with emotional intelligence, hedonic satisfaction, eudaimonic satisfaction, individualism, and collectivism. Results showed that all the correlations were in the same direction and basically of the similar magnitude, with three exceptions being correlations with the social coherence and social acceptance, autonomy subscales. The correlations between social coherence and hedonic satisfaction, and collectivism were of significant lesser magnitude, the correlation between social acceptance and individualism was of significant higher magnitude, and the correlation of autonomy was of significant lesser magnitude for hedonic satisfaction, emotional intelligence, and collectivism (using Fisher's Z test for correlations). These slight discrepancies from the summed scale correlations may be due to inflated alpha values.

Hypothesis 4, that emotional intelligence would mediate the relationship between the satisfaction processes and well-being outcomes, was tested through structural equation modelling (SEM; Byrne, 2001; Kline, 1998) using AMOS 6.0 (Arbuckle, 2005). Relevant statistical assumptions were checked. There were 9 multivariate outliers that were deleted from the analysis. Following the recommendations of Kline (1998), multiple indices were used to evaluate the goodness of fit of each model. These include the normed chi-square (χ^2/df), the comparative fit index (CFI; Bentler, 1990), the goodness of fit index (GFI; Jöreskog & Sörbom, 1996), the root mean square error of approximation (RMSEA; Hu & Bentler, 1999), and the standardized root mean squared residual (SRMR; Jöreskog & Sörbom, 1996). Each of these indices assesses a slightly different aspect of model fit, and together they cover the main facets recommended by Kline (1998). Following Kline (1998), acceptable fit is defined as χ^2/df less than 3, CFI and GFI values of .90 or greater, a RMSEA of .06 or less, and an SRMR of .05 or less (Byrne, 2001).

Three models were examined. Model 1 examines the traditional model of well-being in which no distinction between hedonic and eudaimonic satisfaction processes and well-being outcomes was made. Emotional intelligence was expected to lead to all the well-being indices (see Figure 2.9.1).
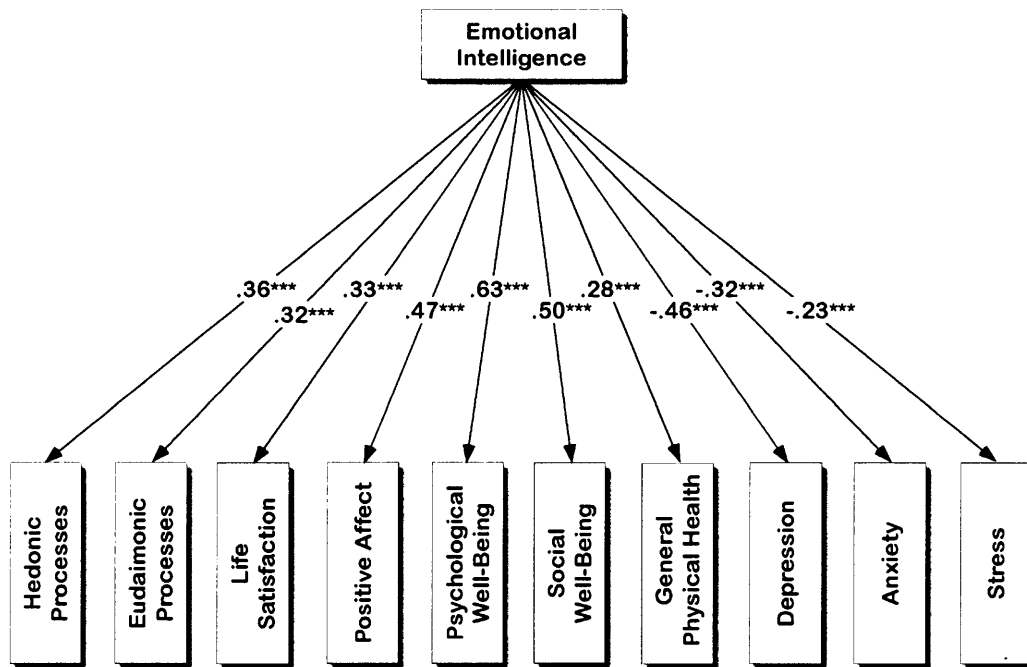
Figure 2.9.1: Model 1: Emotional intelligence leading to well-being as conceptualized by the traditional model of well-being in which hedonic satisfaction and eudaimonic satisfaction are presented as outcomes, along with various well-being indices.

Model 2 examines an alternative model of well-being in which distinction was made between satisfaction processes[13] and two uncorrelated factors (Fulfilment and Dejection) as well-being outcomes[14]. Emotional intelligence was expected to act as a mediator (see Figure 2.9.2). Model 3 reconceptualises the well-being model in

[13] The model having hedonic and eudaimonic satisfaction processes leading directly to emotional intelligence did not run because of the negative error variance for hedonic satisfaction processes. To counteract this problem, both hedonic and eudaimonic satisfaction processes were directed to a latent variable labelled as satisfaction processes. Another reason to collapse both hedonic and eudaimonic satisfaction processes was a high correlation (r = .85) between them.

[14] Ideally, different sample from the one used for exploratory factor analysis should have been used for testing the measurement model (for the confirmatory factor analysis). However, argument for using the same sample is that it was used to test the path analysis comprising both the measurement and structural models, not simply confirming the factor structure of well-being outcomes. Another reason for using the same sample was limited time and financial resources to collect additional data. It would be interesting to see future research confirming the well-being model in samples drawn from different populations.

which both hedonic and eudaimonic satisfaction processes loaded onto one latent

factor - satisfaction processes, and Fulfilment and Dejection as two correlated well-

being outcomes, with emotional intelligence as a mediator (see Figure 2.9.3).
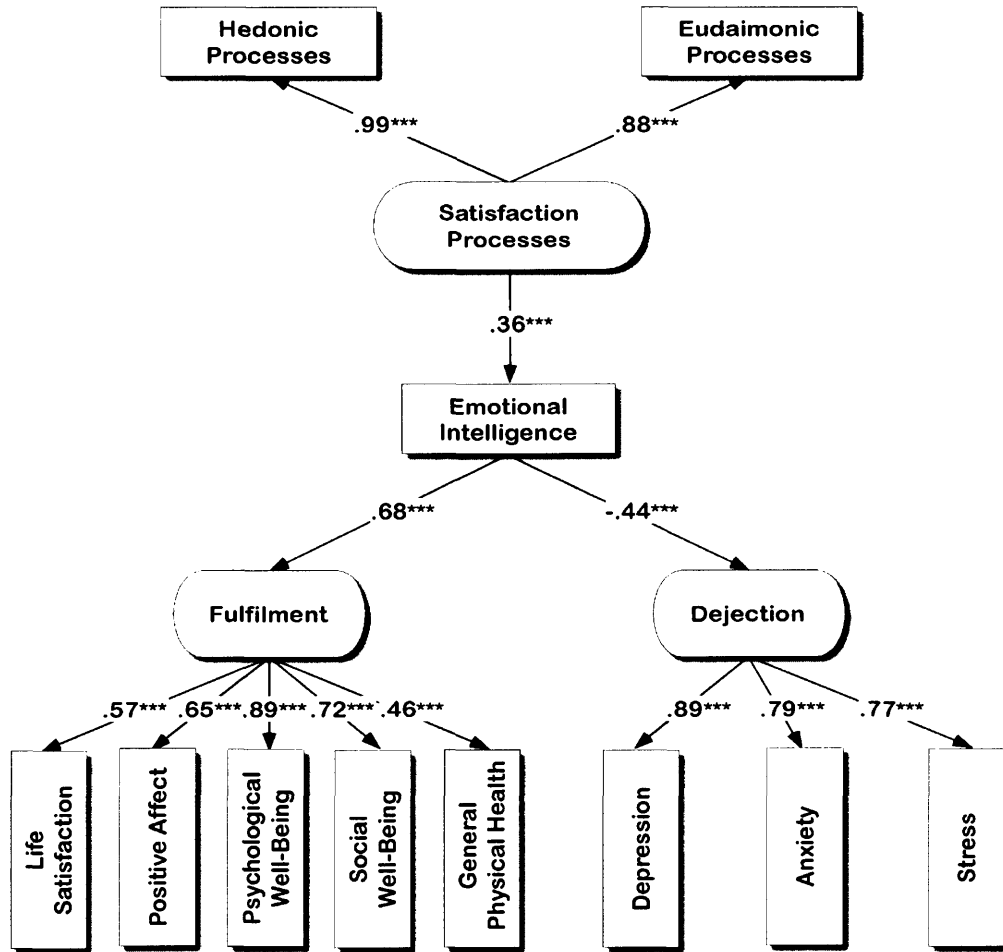
Figure 2.9.2: Model 2: Alternative model of well-being with satisfaction processes
and two uncorrelated factors (Fulfilment and Dejection) as well-being outcomes, with
emotional intelligence as a mediator.
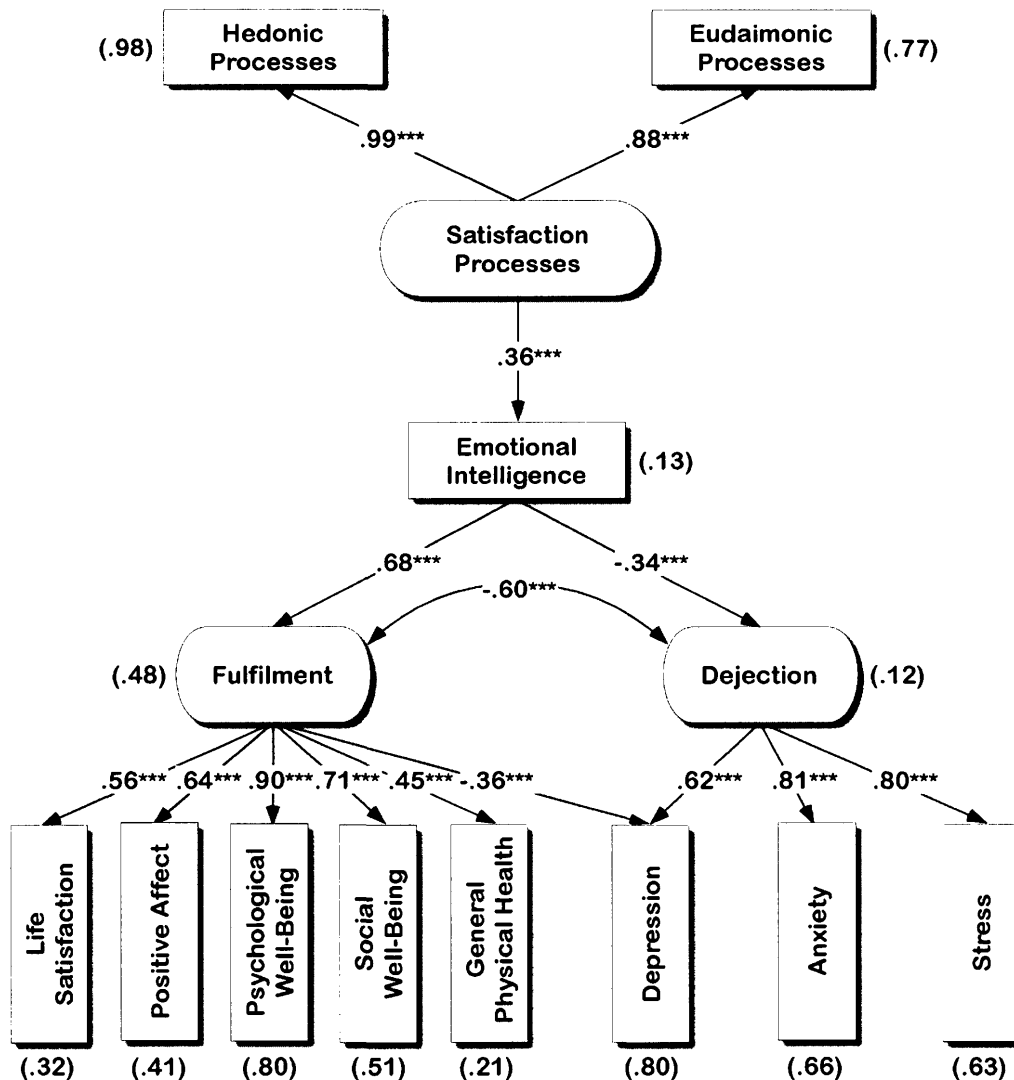
Figure 2.9.3: Model 3: Revised model of well-being with satisfaction processes and two correlated well-being factors (Fulfilment and Dejection) as outcomes, with emotional intelligence as a mediator, along with standardized path coefficients and squared multiple correlations within parentheses.

The initial run of Model 3 which did not specify the path from fulfilment to depression indicated the two fit indices of the model not acceptable (i.e., χ^2/df = 3.11, which was a little above the acceptable fit of less than 3; and RMSEA = .07, which was also more than the acceptable fit of .06 or less). However, GFI and CFI were

above .90 and SRMR was less than .05. The revision with specified path from

fulfilment to depression improved the overall fit of the model.

A summary of the fit indices for Models 1 (Figure 2.9.1), 2 (Figure 2.9.2),

and 3 (Figure 2.9.3) is presented in Table 2.9.6. The best fit model was Model 3 (see

Figure 2.9.3). The results from the mediation analysis, summarized in Table 2.9.6,

indicate that Model 3 (EI as a mediator between satisfaction processes and the two

correlated well-being factors) fits the data acceptably well and significantly better

than Model 1, $\chi^2(7)_{\text{difference}} = 1349.43$, $p < .001$, and Model 2, $\chi^2(2)_{\text{difference}} = 188.56$,

$p < .001$.

To investigate hypothesis 8, that the mediation path (as tested in hypothesis 4)

would be moderated by individualism and collectivism, multiple group SEM analysis

was performed to examine whether the effects differ for high and low individualism,

as well as high and low collectivism. As individualism and collectivism are

continuous variables, data were analysed by dividing them into high and low scores

done by median split. The median for individualism was 5.85, so 172 cases above the

median of 5.85 were computed as high on individualism and 189 cases below the

median of 5.85 were computed as low on individualism. The median for collectivism

was 6.65; 179 cases above the median of 6.65 were computed as high on collectivism

and 182 cases below the median of 6.65 were classed as low on collectivism.

First, to investigate the moderating effect of high and low individualism,

Model 3 was compared using the multiple group SEM analysis in which the direct

effects were constrained to be equal across groups, χ^2 (80, $n_{\text{High Individualism}} = 172$, n_{Low}

$_{\text{Individualism}} = 189) = 128.50$, $p < .001$, with an alternative model in which all parameters

were free to vary across groups present, χ^2 (76, $n_{\text{High Individualism}} = 172$, $n_{\text{Low Individualism}} =$

$189) = 121.60$, $p < .001$. A chi-square difference test revealed that the constrained

model did not fit the data significantly better than the unconstrained model, χ^2 (4, n_{High}

Individualism = 172, $n_{\text{Low Individualism}}$ = 189) = 6.90, p > .05.

Furthermore, to investigate the moderating effect of high and low

collectivism, Model 3 as described above was compared using the multiple group

SEM analysis in which the direct effects were constrained to be equal across groups,

χ^2 (80, $n_{\text{High Collectivism}}$ = 179, $n_{\text{Low Collectivism}}$ = 182) = 126.80, p < .001, with an

alternative model in which all parameters were free to vary across groups present,

χ^2 (76, $n_{\text{High Collectivism}}$ = 179, $n_{\text{Low Collectivism}}$ = 182) = 120.20, p < .001. A chi-square

difference test revealed that the constrained model did not fit the data significantly

better than the unconstrained model, χ^2 (4, $n_{\text{High Collectivism}}$ = 179, $n_{\text{Low Collectivism}}$ = 182)

= 6.60, p > .05.

Additional multiple group SEM analysis was also done on the basis of

country of origin.[15] To investigate the moderating effect of two different cultures

prevalent in Australia and India, Model 3 was compared in which the direct effects

were constrained to be equal across groups, χ^2 (80, $n_{\text{Australia}}$ = 194, n_{India} = 167)

= 123.90, p < .001, with an alternative model in which all parameters were free to

vary across groups present, χ^2 (76, $n_{\text{Australia}}$ = 194, n_{India} = 167) = 114.80, p < .001. A

chi-square difference test revealed that the constrained model did not fit the data

significantly better than the unconstrained model, χ^2 (4, $n_{\text{Australia}}$ = 194, n_{India} = 167)

= 9.10, p > .05.

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[15] This can also be seen as the multiple group SEM analysis on the basis of two different cultures – individualist culture as Australia and collectivist culture as India. Common view (Takano & Osaka, 1999) posits that Asian countries are collectivist cultures whereas Western countries are individualist cultures.

Table 2.9.6

Fit Indices of Path Analysis (Maximum Likelihood Estimation) of the Well-Being Model

Model	χ^2	df	χ^2/df	CFI	GFI	RMSEA	SRMR
Traditional Well-Being Model (Model 1)	1442.08***	45	32.05	.32	.55	.29	.22
Satisfaction processes as a latent variable and two uncorrelated well-being factors with EI as mediator (Model 2)	281.21***	40	7.03	.88	.89	.13	.12
Satisfaction processes as a latent variable and two correlated well-being factors with EI as mediator (Model 3)	92.65***	38	2.44	.97	.96	.06	.04

Note. N = 361. EI = Emotional Intelligence; CFI = Comparative Fit Index; GFI = Goodness of Fit Index; RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Squared Residual. The CFI describes the overall proportion of variance in the data explained by the model, the GFI represents the proportion of observed covariances explained by the covariances estimated by the model, the RMSEA represents the lack of fit of the tested model relative to the population covariance matrix, and the SRMR is a standardized summary of the average difference between the observed covariances and those implied by the model (Kline, 1998).

***$p < .001$

2.10 Preliminary Discussion

Two different paradigms of research illustrate the study of well-being (Keyes et al., 2002). The first paradigm, termed hedonic or subjective well-being emerged in the 1950s as part of a systematic way to study and measure an individual's evaluation of his/her life in the form of cognitions and affect. The other paradigm, termed eudaimonic or psychological well-being, stemmed from earlier theories in clinical and adult developmental psychology that emphasized the striving toward realization of one's true potential (Hudson, 1996) and gave rise to empirical endeavours in the 1980s, especially through the efforts of Ryff (1989).

Both traditions of well-being research entail the study of positive human values to examine what makes life good and worth living. This point was emphasized by Haidt (2006) when he suggested that well-being or happiness can not only be achieved from inside or the circumstances outside the individual, rather it emanates from "between" (p. 238). Happiness can be found, acquired, or achieved, and it seems to be facilitated by the right conditions. Some of those conditions are within the person, such as coherence among the parts and levels of the personality. Other conditions require relationships to things beyond the self. A sense of purpose and meaning may emerge if there is an optimum relationship between the self and others, between self and work, and between self and something larger than the self (Haidt, 2006). These considerations underlie the rationale of the present study in which an attempt was made to examine this "between" pathway leading to well-being.

Using a convenience sample of university students, the study tested an alternative model of well-being. This model posited that hedonic and eudaimonic experiences of well-being are satisfaction processes rather than outcomes. Some researchers posited the well-being model as satisfaction derived from engaging in

meaningful activities (Ciskszentmihalyi, 1990, 1997; Ryan & Deci, 2000, 2001;

Seligman, 2002a; Sheldon & Houser-Marko, 2001; Waterman, 1990b, 1993) that can

be envisioned as "processes". Earlier models of hedonic and eudaimonic traditions of

well-being characterized them as "outcomes" (Diener, 1984; Diener et al., 1998;

Keyes et al., 2002; Ryff, 1989). The present well-being model conceptualises

hedonic and eudaimonic functions as satisfaction processes, and life satisfaction,

positive affect, psychological well-being, social well-being, general mental health,

and general physical health as well-being outcomes.

Exploratory factor analysis showed that the indices of well-being used in the

present study loaded on two separate but correlated latent dimensions of well-being in

that life satisfaction, positive affect, psychological well-being, social well-being, and

general physical health loaded on a factor labelled as Fulfilment, and depression,

anxiety, and stress loading onto a separate but correlated factor labelled as Dejection.

However, the best fit model using the path analysis showed that depression also

loaded negatively at -.36 on Fulfilment factor. This is similar to Ryff's (1989) finding

where depression loaded negatively at -.66 on the same factor as that for life

satisfaction, affect balance, and two subscales (self-acceptance and environmental

mastery) of the psychological well-being. However, Keyes (2005b) reported two

distinct, correlated factors: mental health and mental illness, where depression did not

load on the mental health factor.

This slight discrepancy in results might be explained as an artefact of

different scales used to measure depression. Ryff (1989) and the present study

measured depression using Zung's (1965) Depression Scale and the DASS

(Lovinbond & Lovinbond, 2002) respectively. Keyes (2005b) used the Composite

International Diagnostic Interview Short Form (CIDI-SF; Kessler, Andrew, Mroczek,

Ustun, & Wittchen, 1998) to assess major depressive episode, along with generalized

anxiety, panic disorder, and alcohol dependence, operationalizing mental illness. It

can be speculated that major depressive episode is far more serious than feelings of

depression; hence loading only on mental illness factor in Keyes' (2005b) study.

However, it should be noted that exploratory factor analysis revealed distinctly a two-

factor solution with no cross-loadings[16].

Overall, the present findings are consistent with previous research which

shows a somewhat similar pattern (Keyes, 2005b; Keyes et al., 2002). In the present

study, the correlation between fulfilment and dejection factors came out to be -.60,

which is comparable to the correlation between mental health and mental illness

factors of -.53 as reported by Keyes (2005b). Further, Keyes et al. (2002) suggested

that subjective well-being and psychological well-being are related but distinct

conceptions of well-being. They found a positive correlation ($r = .59, p < .001$)

between the summed scale of subjective well-being (comprising life satisfaction,

positive affect and negative affect) and the summed scale of psychological well-being

(self-acceptance, environmental mastery, purpose in life, positive relations with

others, personal growth, and autonomy) suggesting that those who report higher levels

of psychological well-being also tended to report feeling more positive affect and less

negative affect and to evaluate their life satisfaction more positively.

Keyes et al. (2002) found that none of the measures of subjective well-being

such as life satisfaction, positive affect, and negative affect loaded on the

psychological well-being factor. However, three of the six subscales of psychological

well-being such as self-acceptance, environmental mastery, and positive relations

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[16] It should be noted here that Fulfilment was operationalized by life satisfaction, positive affect, psychological well-being, social well-being, and general physical health, and Dejection was operationalized by depression, anxiety, and stress for the analyses in Study 2.

with others loaded on both the factors, suggesting an overlap between subjective well-being and psychological well-being and somewhat reconfirming that subjective well-being may be a necessary but not a sufficient condition for psychological well-being (Diener, Suh, & Oishi, 1997).

An important finding of the present study is that hedonic and eudaimonic satisfaction processes seemed to complement rather than oppose each other. This balance can be attributed to the fact that there was a strong positive correlation between these two processes ($r = .85$, $p < .001$). Waterman (1993) also pointed out an overlap between hedonic satisfaction and eudiamonic (feelings of personal expressiveness) satisfaction. A strong, positive correlation of $r = .82$ ($p < .001$) was reported between these two kinds of satisfactions (Waterman, 1993, Study 2). It could be argued that those activities providing eudaimonic satisfaction also entail hedonic satisfaction. This relationship between hedonic and eudaimonic satisfaction processes provided a basis for combining these two factors onto one latent satisfaction factor in the path analysis.

Further, the complementary nature of both hedonic and eudaimonic satisfaction processes may also be explained by the fact that in judging the goodness of a life, individuals are likely to take into account not only the eudaimonic satisfaction derived from the meaningful activity engaged in but also the amount of happiness or hedonic satisfaction they derive (King & Napa, 1995).

Another reason for the similarity between both hedonic and eudaimonic processes could be that participants may not have been able to distinguish between the two. They may have been using both hedonic and eudaimonic processes as the same kind of satisfaction processes when engaging in a meaningful activity. Future

research might focus on developing a scale dealing with more specific distinctions between hedonic and eudaimonic satisfaction processes.

Consistent with previous research (Austin, Saklofske, & Egan, 2005; Bar-On, 1997; Brackett & Mayer, 2003; Ciarrochi, Chan, & Bajgar, 2001; De Lazzari, 2001; Gannon & Ranzijn, 2005; Martnez-Pons, 1997-1998, 1999-2000; Mayer, Carouso, & Salovey, 1999; Palmer et al., 2002; Schutte et al., 2002; Schutte et al., 2007; Wang, 2002) higher levels of emotional intelligence in the present study were associated with greater life satisfaction, psychological well-being, social well-being, positive affect, general physical health, and as in other previous research (Schutte et al., 1998; Slaski & Cartwright, 2002; Tsaousis & Nikolaou, 2005; Wang, 2002) lower levels of depression, anxiety, and stress. The present study also found that emotional intelligence was associated with more hedonic satisfaction processes and more eudaimonic satisfaction processes.

The adaptive perception of emotion, use of emotion to enhance cognition, understanding of emotion, and regulation of emotion may contribute to both psychological and physical health in various ways. Matthews et al. (2002) pointed out that level of emotional intelligence may have implications for both mental disorders in which emotion play a central role as well as disorders that relate to non-emotional features of emotional intelligence. Mood and anxiety disorders are examples of disorders that have manipulative emotional state as core symptoms (Matthews et al., 2002). The better perception, understanding, and management of emotion of those with higher emotional intelligence may prevent development of maladaptive emotional states associated with mood and anxiety disorders. Research has shown that those with higher emotional intelligence do tend to have typically

more positive mood and are better able to repair mood after a negative mood induction (Schutte et al., 2002).

In the present study, the distinction between processes and outcomes was further substantiated by the fact that the relationship between satisfaction processes and well-being outcomes was fully mediated by emotional intelligence. The data indicated that the best fitting model posited that satisfaction processes are distinct from well-being outcomes. These findings extend recent research striving to find the nature of authentic happiness (e.g., Seligman, 2002a).

Seligman (2002a) proposed that authentic happiness may comprise pleasant life and meaningful and engaged life. The pleasures are the satisfactions of the bodily sensations and meaningful and engaged life provides the satisfaction of the mind. Thus, authentic happiness may need both (Seligman, 2002a) and may emerge from "between" rather than the conditions within i.e., eudaimonia or the circumstances outside the individual i.e., hedonia (Haidt, 2006). The findings of the present study also intersect with formulations suggesting that personal happiness is contingent on committing oneself to a meaningful and purposeful life (Baumeister & Vohs, 2004; Dykman, 1998; Wong & Fry, 1998).

Higher levels of individualism were associated with numerous psychological and social disadvantages. Individualists reported poorer mental health indicators such as higher levels of depression, anxiety, and stress than people having collectivistic orientations. However, the finding that individualism was not related to lower emotional intelligence is inconsistent with past research (Scott et al., 2004). It can be argued that people with individualistic orientations are able to perceive, understand, and manage emotions but are not as efficient as people with collectivistic orientations.

In previous research, collectivists were found to have greater psychological well-being and social well-being (Deci et al, 2001; Diener & Lucas, 2000; Hayamizu, 1997; Markus et al., 1996). In the present study those with a higher collectivist orientation were more likely to gain greater hedonic and eudaimonic satisfaction from the activities they like to engage in than those with individualistic orientation. It can be argued that to derive optimal satisfaction from the activities the characteristics of a collectivistic orientation may tend to help more than those of the individualistic orientation.

Multiple group analyses showed that both individualistic and collectivistic cultural orientations did not moderate the best-fit well-being model examined in the present study. In other words, cultural orientation did not seem to alter the experience of well-being as presented by the best-fitting model (Model 3). This is an interesting finding in its own right as it suggests that the well-being model (Model 3) is generalisable to different cultural orientations across different cultures. It may suggest that individuals with a high or low individualistic orientation perceive well-being in the same way, and that the same is true for the collectivistic orientation.

However, little variation in the well-being model between the two cultural orientations may be explained by some methodological concerns regarding cultural comparisons of attitude, trait, and value scales. Heine, Lehman and Peng, (2002) argued that people from different cultures adopt different standards when evaluating themselves on subjective Likert scales. Comparing measures with subjective Likert response options conceals the very cultural differences that confound the comparisons with the reference-group effect. Heine and colleagues (2002) maintained that the use of subjective Likert scales is most valid for identifying differences within rather than between groups. They also pointed out that participants rely less on social

comparison when responding to items measuring well-being. Questions such as whether individuals feel satisfied with their life or feel confident about their abilities might rely more on introspection and comparison with internal standards than on implicit comparisons with consensually shared standards, which thus might mute the effects of different referents. Hence, some kinds of items seem to be less influenced by reference-group effects, and more research is necessary to determine the kinds of items that are most problematic.

Those advocating the culture-free approach hold that positive social science is descriptive and objective and that its results can "transcend particular cultures and politics and approach universality" (Seligman & Csikszentmihalyi, 2000, p. 5). In connection with the universality of numerous human strengths, Peterson and Seligman (2004) detailed their comprehensive search for virtues and strengths that are valued by all people across cultures. The pursuit of happiness, or more specifically well-being, is the guiding force or motivator of almost every human action or behaviour (Myers, 1993). Kahneman et al. (1999) found that happiness defines the emotional experiences (on average) of the people in most nations.

The culturally embedded perspective on positive psychology is closely associated with ongoing efforts to contextualize all research and practice efforts. Development of specific competencies may help to account for cultural influences on psychology. Although it is argued that all strengths are culturally embedded, it is conceded that a core group of positive traits and processes might exist across cultures; nevertheless most positive traits and processes manifest themselves in very different ways for different purposes in different cultures.

Rather focusing on the notion of happiness as a universally desired human state, some researchers (e.g., Constantine & Sue, 2006; Leong & Wong, 2003; Sue &

Constantine, 2003) have noted otherwise in that suffering and transcendence are the goals for some individuals who adopt an Eastern perspective on positive psychology. This may be one of the explanations for national differences in happiness levels (e.g., Kahneman et al., 1999). This implies that "happiness may be simply a by-product of life process" (Snyder & Lopez, 2007, p. 89), and life choices (e.g., Ahuvia, 2001).

In the present study, participants from different cultures named and rated meaningful activities that provide maximum satisfaction. This approach gave them the freedom to choose any activities, though meaningful, providing them with optimal satisfaction. Although diverse in nature (e.g., working towards a university degree, riding a bike on a sunny day, repairing own car, cooking for children, or taking care of pets), these activities provide them satisfaction irrespective of different cultural orientations as an end-product. This could be the reason why little variation in cultural orientation is found in the well-being model suggested in the present study. This finding supports two notions, namely the universality of the human strengths – the hallmark of positive psychology (Synder & Lopez, 2007) and the universality of the pursuit of happiness or well-being (Myers, 1993; Synder & Lopez, 2007).

To check the validity of self-report measures, objective measure and illness burden were taken into account. In the present study, self-reported well-being corresponded to ratings of the individual's well-being by a close other. It has been suggested that individuals who report happiness also seem to be happy to their family members and close friends (Pavot et al., 1991; Sandvik et al., 1993). In addition, illness status correlated with the well-being indices in the expected direction in that the less the illness burden, the greater the well-being.

A limitation of the present study is that it used a correlational design. Although this study empirically tested a path model of well-being that differentiated

between well-being processes and outcomes (Peterson et al., 2005) as well as

confirmed and replicated the complete state of mental health paradigm as suggested

by Keyes (2002, 2005b), causal relationships between variables can only be inferred.

A second experimental study based on the writing paradigm was carried out to obtain

more information regarding causal relationships.

CHAPTER 3

STUDY 2 - ENHANCING WELL-BEING

3.1 *Overview*

The main aim of Study 1 described in Chapter 2 was to empirically examine

an alternative conceptualization of well-being that distinguishes between satisfaction

"processes" and well-being "outcomes". Study 2 is based on the results of Study 1

which suggested that satisfaction derived from meaningful activities may result in the

experience of well-being, i.e., greater Fulfilment and less Dejection. This relationship

was found to be fully mediated by emotional intelligence. As Study 1 was

correlational, these results did not provide evidence of causality. To explore the

causal relationship between satisfaction processes and well-being outcomes, an

experimental study intended to increase well-being through impacting satisfaction

"processes" was designed.

One important finding that has emerged from previous research is that

happiness brings many more benefits than just feeling good. Happy people are

healthier, more successful, and more socially engaged, and the causal direction runs

both ways (Lyubomirsky, King, & Diener, 2005). There is little experimental

research on what might bring about changes in levels of happiness or well-being[17],

either positive or negative (Lyubomirsky et al., 2005). Research documenting the

long-term effectiveness of cognitive and behavioural strategies to combat negative

affect and depression (e.g., Gloaguen, Cottraux, Cucherat, & Blackburn, 1998;

Jacobson et al., 1996) suggests the possibility of elevating long-term happiness.

However, the line of research that focuses on combating depression to increase well-

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[17] It should be noted that the word happiness has been used in a very broad sense, not just as denoting feeling positive emotions. Therefore, both happiness and well-being are used interchangeably here.

being does not align with the complete state of well-being model as suggested by Study 1, which supported the notion that the state of flourishing is more than just absence of illness or negativity (Keyes, 2005). Seligman et al. (2005) argued that happiness should not be seen as an epiphenomenon, but rather interventions should be aimed directly at increasing it.

Few well-being or happiness intervention studies have been conducted (Sheldon & Lyubomirsky, 2006). Thus, there is not much information available about how to change well-being. Furthermore, there has been mixed response to the arguments for developing interventions to increase levels of well-being. Some researchers hold that strategies to increase levels of well-being are ineffective. For example, McCrae and Costa (1994) argued that people may be better off by simply accepting their current personality and happiness levels, rather than chasing happiness. However, as described below, there have been arguments for both pessimism and optimism regarding sustainable increases in levels of well-being.

3.1.1 *Reasons for Pessimism Regarding Sustainable Increases in Well-Being*

Part of the reason researchers have neglected the study of sustainable well-being change is the difficulty of conducting prospective studies. However, another reason for this neglect is the considerable scientific pessimism over whether it is even possible to achieve sustainable increases in well-being. One source of pessimism is the idea of a genetically-determined set point for happiness. Based on behavioural-genetic studies, Lykken and Tellegen (1996) have provided evidence that the heritability of well-being may be as high as 80%, although some studies (Branungart, Plomin, De Fries, & Fulker, 1992; Diener et al., 1999; Tellegen, Lykken, Bouchard, Wilcox, Segal, & Rich, 1988) found 50% as a more reasonable figure.

Regardless of the exact effect size, the large magnitude of these estimates suggests that each person has a characteristic level of happiness, from which it may be difficult to digress. Another body of research (Heady & Wearing, 1989; Suh, Diener, & Fujita, 1996) found that there may be substantial variation around the baseline level of happiness on the short-term basis, but in the long-term, people may perhaps come back to their initial set point. Or in other words, "what goes up must come down" (Lyubomirsky et al., 2005, p. 113).

A second, related source of pessimism comes from the concept of hedonic adaptation (Brickman & Campbell, 1971; Frederick & Loewenstein, 1999), which suggests that gains in happiness are transient, because people quickly adapt to change (e.g., Kahneman, 1999; Scitovsky, 1976). That is, new circumstances may cause rapid adjustment and the effect of these new circumstances on well-being then quickly diminishes or even entirely disappears. For instance, Brickman, Coates, and Janoff-Bulman (1978) showed that recent lottery winners and paraplegics were no happier than controls and, furthermore, that recent victims of paralysis were not as unhappy as one would expect (e.g., Dijkers, 1997).

Diener and Oishi (2005) asserted that people adapt over time, but not always completely back to their initial level. For example, Lucas and colleagues found that widowhood and unemployment were associated with lower levels of life satisfaction even many years after the event (Lucas, Clark, Georgellis, & Diener, 2003, 2004). Although individuals may not adapt to all conditions, Suh et al. (1996) found that the rewards and setbacks of everyday life provide only short boosts and downdrafts.

3.1.2 *Reasons for Optimism Regarding Sustainable Increases in Well-Being*

Three lines of research provide grounds for the belief that sustainable increases in well-being are possible: (1) success of various positive interventions, (2)

motivational factors related to the experience of greater levels of well-being, and (3) cognitive factors associated with experience of greater levels of well-being.

First, some researchers reported preliminary short-term success in using interventions to increase well-being (e.g., Fava, 1999; Fordyce, 1977, 1983; Lichter, Haye, Kammann, 1980; Schulz, 1976; Sheldon, Kasser, Smith, & Share, 2002). In recent years, the potential of happiness-increasing interventions is further demonstrated by research showing that focusing on certain human virtues, such as gratitude (Emmons & McCullough, 2003, Seligman et al., 2005), forgiveness (McCullough, Pargament, & Thoresen, 2000), and thoughtful self-reflection (King, 2001; Lyubomirsky, Tkach. & Sheldon, 2004), can increase well-being.

Second, various motivational factors under volitional control have been associated with well-being. Examples of such motivational factors include the successful pursuit of life goals that are intrinsic in content (e.g., Kasser & Ryan, 1993, 1996), concordant with an individual's interests, values, and motives (Brunstein, Schultheiss, & Grassman, 1998; Sheldon & Elliot, 1999), and internally consistent (e.g., Emmons & King, 1988; Sheldon & Kasser, 1995). Thus, one might find greater well-being by choosing meaningful goals.

Third, a variety of cognitive factors, presumably also acquiescent to volitional control, have also been linked to well-being. These cognitive factors include counting one's blessings (Emmons & McCullough, 2003), avoiding social comparisons and contingent self-evaluations (e.g., Lyubomirsky & Ross, 1997), and choosing to feel self-efficacy or a sense of optimism regarding one's life (Bandura, 1997; Seligman, 1991; Taylor & Brown, 1988). Thus, by altering one's patterns of thought and ways of construing events, one might experience greater well-being.

3.1.3 *Possible Sustainable Increases in Well-Being*

Some theoretical perspectives and empirical data suggest that well-being can be increased, while other theories and data suggest that it can not, giving rise to a paradox. Lyubomirsky et al. (2005) tried to resolve these conflicting perspectives. They specified three major determinants of well-being at any given time. These are the person's genetic set point or set range (which reflects personality and temperament), current circumstances (demographic, geographic, and contextual), and current intentional activities (behavioural, cognitive and conative - mental processes involving impulse, desire, or resolve). These major categories have received much of the attention in the well-being literature (Diener et al., 1999), and can help answer the question of how a person might appropriately pursue happiness.

Set point remains constant across the lifespan, reflecting the person's basic temperament, constitution, and personality traits. Such factors are stable and seem to have little impact on variations in well-being over time. However, Lykken (2000) argued that despite a genetically-determined baseline, people are capable of increasing their happiness relative to this baseline through various "happiness makers".

Sheldon and Lyubomirsky (2006) specified two happiness makers: circumstance-based and activity-based. They suggested that the person's current circumstances (e.g., health, income etc.), and the person's current intentional activities (e.g., a behavioural activity of exercising regularly, a cognitive activity of preparing for a Physics Olympiad) can account for variations in the level of well-being.

Activity-based changes involve continual effort and engagement in some intentional process, whereas circumstance-based changes tend to occur independently

of effort and engagement. This distinction between activity and circumstantial changes may not always be clear, as activity may be required to change one's circumstances, and because many circumstances involve activity. Sheldon and Lyubomirsky (2006) found that activity changes led to sustainable gains in the level of well-being. They asked university students to write a paragraph about the most important change that had occurred for them since the beginning of the semester, where the change had to be either a circumstantial or an activity change, as defined by the criteria. Participants completed a set of well-being measures at three time points. Sheldon and Lyubomirsky (2006) found that activity changes led to maintainable increases in well-being over a period of time, while circumstantial changes did not (Sheldon and Lyubomirsky, 2006, Study 3).

A central assumption of Lyubomirsky et al's (2005) model is that hedonic adaptation occurs more quickly with respect to circumstantial changes than to activity changes. For example, the effects of positive circumstantial changes (such as getting a promotion, buying a new car, or moving to countryside) tend to diminish more quickly than the effects of positive changes in intentional activities (such as starting to exercise, changing one's perspective or worldview for the better, or initiating a new goal or project). This differential adaptation assumption is rooted in the proposal that circumstances (e.g., promotion, car ownership, place of residence) represent relatively static and constant factors about one's life. In this sense, it seems not wrong to say that "happiness is a process, not a place" (Diener & Oishi, 2005).

Although changes in circumstances can trigger increases in well-being, such boosts tend to be short-lived, because people quickly begin to adapt to new circumstances and cease to derive positive experiences from them. Indeed, hedonic adaptation to stable situations may explain why life circumstances such as income,

health status, and geographic region have been more weakly associated with cross-

sectional well-being than expected (Diener, 1984; Diener et al., 1999). In cross-

sectional studies, participants are undoubtedly sampled at various lengths of time

following the onset of particular circumstances, "watering down" the effects of

circumstances.

In comparison, intentional activities focus a person's energy and behaviour in

a variety of different ways, leading to a more diverse and varied set of experiences,

relative to the experiences produced by circumstances. Also, intentional activities can

bring about an expanding array of new opportunities and possibilities, potentially

leading to sustained positive effects in the person's life (Fredrickson & Joiner, 2002;

Sheldon & Houser-Marko, 2001). Finally, intentional activities can directly

counteract the tendency toward adaptation as people might make the effort to keep

varying how and when they engage in the activity. These three features of intentional

activity may help to prevent adaptation.

3.2 Interventions to Increase Well-Being

A few intervention studies aimed at raising well-being provide insight into

some of the factors that predict increases and maintenance of positive emotions. For

example, Fordyce (1977, 1983) trained undergraduates in a set of 14 "fundamental"

techniques (e.g., spend time socializing, become present-oriented, stop worrying etc.)

as part of their course curriculum. Those who implemented the suggested techniques

showed significant happiness boosts several weeks later relative to control

participants and a subset of students followed-up a year or more after the study

reported sustained happiness increases (Fordyce, 1983, Study 7). Many of the 14

fundamentals provided participants with valuable tools to use in increasing positive

emotions (e.g., by engaging in positive thinking) and decreasing negative ones (e.g.,

by stopping worrying). Furthermore, Fordyce (1983) found that some of the 14

strategies were more effective than others and that their effectiveness was moderated

by person-strategy fit.

Fava and colleagues (Fava, 1999; Fava & Ruini, 2003) and Frisch (2006)

proposed interventions to increase well-being. For example, Fava (1999) developed a

well-being therapy, which is based on the psychological well-being model proposed

by Ryff (1989; Ryff & Singer, 1998). It consists of building autonomy,

environmental mastery, personal growth, positive relations with others, purpose in

life, and self acceptance, and is provided after patients with affective and

psychosomatic disorders have successfully completed a regime of either drug or

psychotherapeutic treatment. Frisch's (2006) quality of life therapy integrates a life

satisfaction approach with cognitive therapy. However, both Fava's (1999) and

Frisch's (2006) intervention models explicitly target faulty thinking patterns,

disturbing emotions, or maladjusted relationships to increase well-being as a

supplement (Seligman, Rashid, & Parks, 2006).

Seligman et al. (2006) used positive psychotherapy, focusing on increasing

positive emotion, engagement, and meaning, rather than directly targeting depressive

symptoms, as an intervention in treating unipolar depression. The authors found that

positive psychotherapy (PPT) performed significantly better than usual cognitive-

behavioural therapy in increasing satisfaction with life, $d = 1.26$ (or, $r = .53$, 95%

$CI^{18} = .38, .66$), and decreasing depressive symptoms, $d = 1.12$ (or, $r = .49$, 95%

$CI = .32, .63$). Furthermore, PPT was also found to be a significantly better treatment

than cognitive-behavioural therapy plus antidepressant medication treatment in

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[18] CI = Confidence intervals

increasing satisfaction with life, d = 1.03 (or, r = .46, 95% CI = .29, .60), and decreasing depressive symptoms, d = 1.22 (or, r = .52, 95% CI = .36, .65).

Quite a few recent studies have also been successful at enhancing positive mood and well-being through induction of habitual activities, such as counting one's blessings, committing acts of kindness, identifying and using signature strengths, remembering oneself at one's best, and working on personal goals (Emmons & McCullough, 2003; Seligman et al., 2005; Sheldon et al., 2002). These studies have revealed that a number of factors play a role in the success of any mood-enhancing activity. For example, increases in well-being are highest when the activity fits the person's interests and values and when it is performed neither too often nor too infrequently (Sheldon & Lyubomirsky, 2006).

Appropriate strategies and practices must be performed with concentrated effort and habitual commitment to increase well-being sustainably (e.g., Seligman et al., 2005). This notion is consistent with the findings that the pursuit of personal goals boosts well-being only if the goals are actually achieved (Brunstein, 1993; Sheldon & Kasser, 1998). However, if an individual wants to feel happier and greater well-being but does not exert sincere and dedicated effort to regularly perform a relevant mood-enhancing strategy, he or she will see few or little results (Sheldon & Lyubomirsky, 2006).

Another important variable within the sustainable well-being model, consistent with Fordyce's (1983) results, is the notion of fit. A mood-inducing exercise may or may not fit with a particular individual's personality, motives, strengths, or needs. Fordyce (1983) showed that not all mood-boosting behaviours benefit every individual.

Seligman et al. (2005) compared positive interventions such as using signature strengths, doing three good things, paying a gratitude visit and "you at your best" to a placebo control in a random-assignment experiment. They found that two interventions – writing about three good things that happened each day and why they happened and using signature strengths of character in a new way – made people happier and less depressed up to six months later. The gratitude visit exercise produced large positive changes but only for one month. Seligman et al. (2005) found moderate to large effect sizes; this finding defies the notion of inevitable adaptation or an immutable hedonic set point.

Sheldon and Lyubomirsky (2006) compared two strategies to increase positive affect: counting one's blessings (gratitude) and considering one's best possible selves (BPS). They asked participants to continue performing the exercises over a 4-week period, as a means of continuously positively impacting emotional state. They also examined the motivational predictors of the extent to which participants continue to perform the exercise, as well as the affective outcomes of such continuing performance. They found that doing the exercises produced a significant increase in immediate positive affect. Also the exercises resulted in reductions in immediate negative affect. In addition, the BPS exercise prompted the highest degree of self-concordant motivation, that is, participants indicated greater identification with and interest in continuing to do the BPS exercise, relative to the gratitude exercise and the control "pay attention to life details" exercise.

Research suggests that the pursuit of happiness is not futile and that sustainable levels of well-being might be possible. The present study builds on this conclusion. The experimental study that forms the core of the study is based on the

writing paradigm developed by James Pennebaker and uses the writing paradigm to

promote satisfaction processes.

3.3   Expressive Writing

Humans have a need to express feelings (Pennebaker, 1997a, 1997b). This

tendency to disclose emotional reactions to important life events may be both normal

(Jourard, 1971) and healthy (Alexander, 1950, Pennebaker, Colde, & Sharp, 1990).

Translating emotional reactions to events into language, including through writing,

can affect the brain and the immune system through the mind-body connection

(Pennebaker, 1997b; Pert, 2003). Expressive writing can influence the future

feelings, thinking patterns, and behaviours of individuals (Lepore & Smyth, 2002).

From negative events, such as the loss of a loved one or divorce, to positive

events, such as graduation or birth of a child, most people tend to share details of their

emotional experiences with others (Rimé, 1995). It may be argued that disclosing

information allows people to free their mind of unwanted thoughts, helps them to

make sense of upsetting events, teaches them to better regulate their emotions,

habituates them to negative emotions, and improves their connections with their

social world, all of which can lead to beneficial effects on health and well-being

(Frattaroli, 2006).

People tend to remember, think about, and even dream of unresolved issues.

Bluma Zeigarnick (1938) along with Kurt Lewin (1935) found that people had a far

better memory for interrupted tasks than completed ones. For example, if individuals

are interrupted just before the end of an exciting movie, they tend to remember the

movie more clearly and for a longer time than if they saw the complete movie, thus

reaffirming that people have a basic need for completing and resolving tasks. Major

goals or tasks in our lives are often difficult to resolve or complete (Pennebaker, 1997a).

This natural urge to seek completion of disrupted tasks makes the changes that occur following an unexpected trauma quite understandable. For example, people in the midst of a divorce generally ruminate and talk about the many aspects of their lives touched by the break-up of their relationship. Thoughts and dreams have long been considered symbolic ways of completing unresolved life tasks. For example, Freud suggested dreams serve a function of wish fulfilment (Freud, 1965).

Pennebaker (2002) pointed out that humans have a basic need to understand the external world and make sense of what is happening around them. Maslow (1971) suggested that people exhibit a strong drive toward self-expression once their most basic needs are met. Writing as a fundamental form of self-expression facilitates the discovery of meaning, and leads to resolution and psychological completion (Pennebaker, 1997b).

Pennebaker (1999, 2002) proposed that a number of processes may explain the beneficial effects of writing. The writing: (1) translates an event into language, thus reducing cognitive work and hence can bring about a feeling of relief; (2) helps in externalizing a traumatic experience that may allow for a less emotionally laden assessment of its experience and impact; and (3) results in structuring and organization of thoughts. On the other hand, suppressing emotions about an upsetting experience is deleterious. For example, inhibition results in failure to translate thoughts and feelings into language, externalize the consequences, and give meaning for a resolution.

The benefits of expressive writing can be experimentally examined. Such an experimental manipulation was performed by Pennebaker and Beall (1986), who

randomly assigned participants to one of four writing groups: a trauma-fact group, in which participants wrote only about the events surrounding their trauma, a trauma-emotion group, in which participants wrote about the emotions surrounding their trauma; a trauma-combo group, in which participants wrote about both the facts and emotions surrounding their trauma; and a control group, in which participants wrote in an unemotional fashion about some neutral event (e.g., their plans for the day). The results of this study revealed that, several weeks after writing, the trauma-combo group (but not any of the other three) demonstrated a reduction in illness-related doctor's visits. This ground-breaking work concerning the health improvements as a result of writing was the beginning of what is now a growing field of expressive writing research. A recent meta-analysis (Frattaroli (2006) reported that about 250 studies were done on this topic since Pennebaker & Beall's (1986) study.

Some of the most prominent benefits of expressive writing are improvements in immune functioning (Pennebaker, Kiecolt-Glaser, & Glaser, 1988), a reduction in health centre visits (Pennebaker et al., 1990), decreased self-reported upper respiratory problems (Greenberg, Wortman, & Stone, 1996), reduced absenteeism rates from work (Francis & Pennebaker, 1992), and improved grade point average (Pennebaker & Francis, 1996).

Recent studies examined the effects of expressive writing in various samples, typically samples of people who were currently experiencing or had previously experienced an upsetting event. These studies showed beneficial effects such as helping unemployed engineers find jobs faster (Spera, Buhrfeind, & Pennebaker, 1994), decreasing posttraumatic stress in primary caregivers (Campbell, 2003), and reducing trips to the infirmary for incarcerated men (Richards, Beal, Seagal, & Pennebaker, 2000).

3.3.1 *Benefits of Expressive Writing*

Words are the most powerful drug used by mankind.
Rudyard Kipling

Expressive writing has been associated with positive gains in psychological and physical health (Donnelly & Murray, 1991; L'Abate, Boyce, Fraizer, & Russ, 1992; Lepore & Smyth, 2002; Murray & Segal, 1994, Sloan & Marx, 2004, Pennebaker, 2002). For example, expressive writing resulted in improved immune system and lung function (Smyth, Stone, Hurewitz, & Kaell, 1999), decrease in physical, psychological and emotional distress (Greenberg & Stone, 1992; Lepore, 1997; Pennebaker et al., 1990), and enhanced relationships with others and social role functioning (Lepore & Greenberg, 2002; Spera et al., 1994). The beneficial effects of expressive writing are likely to occur because the writing gives people the opportunity to express their inner thoughts and feelings. For example, Gross and colleagues found negative effects on cognitive functioning when the normal expression of emotions is suppressed (Gross, 1998; Richards & Gross, 2000; & Gross & John, 2003).

Smyth (1998) performed an early meta-analysis of the impact of the writing paradigm and found a medium effect size (d) of .47 (or r = .257, p < .001) across 13 studies with positive outcomes such as psychological well-being (positive and negative affect, happiness, anxiety, adjustment to school), physiological (blood pressure, heart rate, liver functioning) and general (reemployment, absenteeism) functioning, health behaviours (alcohol and drug use, sleeping and eating habits), and reported health (number of health centre visits and self-reported symptoms). Frisina, Borod, and Lepore's (2004) meta-analysis of just nine studies also found that expressive emotional disclosure significantly improved health outcomes in clinical populations (d = .19, or r = .084, p < .05).

However, Harris (2006) argued that both these meta-analyses (Frisina et al., 2004; Smyth, 1998) are somewhat erroneous in regarding reductions in health care utilization (e.g., health centre visits etc.) as equivalent to better health outcomes. In his meta-analysis of 30 studies on the effect of expressive writing on health care utilization, Harris (2006) found significant reduction in health care utilization for healthy samples only (Hedges' g = .16, 95% CI = .02, .31, or r = .09), but not in samples defined by pre-existing medical conditions (Hedges' g = .21, 95% CI = -.02, .43, or r = .13) and/or psychological distress (Hedges' g = .06, 95% CI = -.12, .24, or r = .03). He concluded that the effect of writing interventions on health care utilization should not be considered similar to their effect on actual health outcomes, such as self-reported symptoms and respiratory infections.

Frattaroli (2006) provided a very comprehensive meta-analysis negating Harris' (2006) argument that written disclosure influences only health care utilization and not health outcomes as such. She reported numerous health outcomes of written disclosure such as psychological health (e.g., depression, anxiety, dissociative experiences), physiological functioning (e.g., HIV viral load, blood glucose levels, arthritis), health behaviours (e.g., healthy diet, substance use, adherence to medical treatment), reported health (e.g., illness behaviours including fatigue symptoms), subjective impact of intervention (e.g., positive or negative attitude about intervention, attempts to process events), and life outcomes (e.g., work absenteeism, social relationships, forensic outcomes).

Based on this recent meta-analysis of randomized studies examining experimental disclosure, Frattaroli (2006) reported an overall positive and significant random effect of d = .151 (or r = .075, p < .001) of disclosure about either negative or positive life experiences. This overall effect is somewhat smaller in comparison to

the average effect sizes reported by Frisina et al. (2004) and Smyth (1998).

Frattaroli's (2006) reported effect size is also a small effect size by conventional

standards (e.g., Cohen, 1988). However, some researchers have pointed out that

practical significance of an effect depends on its relative costs and benefits (Glass,

McGaw, & Smith, 1981). A reason for the small effect size reported by Frattaroli

could be inclusion of the unpublished studies (48%) in the meta-analysis (Frattaroli,

2006). Although many of the studies included in this meta-analysis primarily focused

on the positive effects of writing about traumatic events, the valence of written

disclosure did not have a significant effect (Frattaroli, 2006). This suggests that

"experiencing and expressing negative emotion are less important to the benefits of

writing than is constructing a sensible story of the experience" (King, 2002, p.124).

3.4   *Expressive Writing about Positive Experiences*

Many researchers (e.g., Diener & Larsen, 1993; Myers & Diener, 1995) have

posited that positive emotions and feelings contribute richly to the quality of people's

lives. Focusing on this largely untapped human strength, Fredrickson (1998, 2001)

proposed a broaden-and-build theory of positive emotions to explain the mechanisms

of how positive emotions served the ancestral function of survival just like negative

emotions. She argued that negative emotions such as anger, fear, and disgust narrow

one's momentary thought-action repertoires. For example, anger and fear stimulate

distinct parts of autonomic nervous system, thus inducing urges to either fight or flee.

The body mobilizes optimal physiological support for these actions leading to

increased cardiovascular reactivity (Levenson, 1994). If prolonged, such increased

cardiovascular reactivity can be a risk factor for developing or exacerbating coronary

heart disease (Blascovich & Katkin, 1993; Williams, Barefoot, & Shekelle, 1985).

On the other hand, Fredrickson (1998, 2001) pointed out that positive emotions and feelings such as joy, gratitude, and contentment broaden one's momentary thought-action repertoires and the scope of attention, which in turn can build that individual's enduring personal resources, such as physical resources (e.g., sleep quality, cardiovascular health), psychological resources (e.g., resilience, goal orientation), intellectual resources (e.g., creativity, problem-solving skills), and social resources (e.g., strong social bonds, seeking new connections).

Lending support to Fredrickson's (1998) model, Isen (1990) maintained that positive feelings produce a "broad, flexible cognitive organization and ability to integrate diverse material" (p .89). For example, Isen and colleagues (Isen & Daubman, 1984; Isen, Daubman, & Nowicki, 1987; Isen, Johnson, Mertz, & Robinson, 1985; & Isen, Rosenzweig, & Young, 1991) reported that people experiencing positive emotions exhibit thought patterns that are broadened and diverse, creative, open to information, flexible, and efficient.

An interesting implication of the broaden-and-build model is that positive emotions can undo the after-effects of negative emotions (Fredrickson & Levenson, 1998; Fredrickson et al., 2000; Levenson, 1988). Research suggests that positive emotions have a unique ability to regulate the physiological and psychological ill-effects of negative emotions. For example, Fredrickson et al. (2000, Study 1) first induced anxiety (heightened cardiovascular reactivity) in research participants using a speech preparation task, which was followed by randomly assigned video clips designed to evoke contentment, amusement, neutrality, or sadness. Results indicated that contentment and amusement clips produced the fastest cardiovascular recovery relative to neutral and sadness clips.

Therefore, there is an ample body of research suggesting that positive emotions, when tapped effectively, enhance emotional well-being (Frederickson & Joiner, 2002), build psychological resilience (Tugade & Fredrickson, 2004), and inspire gratitude and elevation[19] (Haidt, 2000; McCullough, Kilpatrick, Emmons, & Larson, 2001). This outlook concurs with the emerging view that psychology should examine, both theoretically and empirically, the positive aspects of human experience as rigorously as it does the negative aspects (e.g., Keyes, 2007; Ryff & Singer, 1998; Seligman & Csikszentmihalyi, 2000).

Fredrickson (2000) suggested that a wide range of interventions and coping strategies (e.g., relaxation therapies, cognitive-behavioural therapies, coaching) are based on the *undoing hypothesis* of positive emotions. These strategies cultivate positive emotions, which in turn broaden thinking patterns and build personal resources to cope better and help in increasing well-being. Therefore, it might be useful to apply such positive interventions for treating and preventing treatment and problems associated with negative emotions, such as anxiety, depression, and other stress-related health problems (e.g., Fredrickson, 2000; Seligman et al., 2005).

However, it should be noted that the interventions that cultivate positive emotions are not simply the methods for treating and preventing disease and distress, rather they also focus on building strengths and positive qualities. This rationale builds on the line of research that showed that well-being is more than the absence of illness (e.g., Keyes, 2005b); just as positive emotions are more than the absence of negative emotions (Fredrickson, 2000).

Building on this literature, it might be useful to focus on the benefits of positive experiences. Pennebaker (1997a, 1997b, 2002) posited that positive

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[19] Elevation is a moral positive emotion comparable to the feeling of awe (Haidt, 2000).

emotions are most healthy when they are openly expressed. Wing, Schutte, and Byrne (2006) suggested that expressive writing about non-traumatic events is similar to expressive writing about traumatic events in some ways. They suggested some reasons for the similar benefits of expressive writing about meaningful topics to that of writing about traumatic experiences. These include: (1) writing about meaningful aspect of life may promote cognitive processing, encouraging the examination, understanding, and assimilation of emotions that might otherwise be left unscrutinised (e.g., Pennebaker, 2002; Pennebaker, Mayne, & Francis, 1997), and (2) writing about a meaningful topic may result in enhanced emotional regulation, related to perceptions of self-efficacy and control over emotional experiences (e.g., Greenberg et al., 1996; Lepore, Greenberg, Bruno, & Smyth, 2002).

Wing et al. (2006) found that writing about positive experiences with a cue for emotion regulation reflection led to a significant increase in emotional intelligence and life satisfaction, compared to the control writing group. They speculated that writing about positive experiences encourages participants to engage in a type of self-construction, which helps in gaining a sense of mastery over emotional processes. This may help in identifying priorities, preferred outcomes, and goals (King, 2001, 2002).

Burton and King (2004) compared the effects of writing about intensely positive experiences to a writing control condition. They found that writing about positive experiences was associated with enhanced positive mood and reduced health centre visits for illness relative to the control condition. This suggests that positive affect can act as a buffer against the deleterious physiological and psychological effects of stress (Folkman & Moskowitz, 2000).

Writing may also help individuals re-evaluate and gain insight into past experiences and thereby help them better manage their emotions in the future. For example, Cameron and Nicholls (1998) found that a writing task designed to prompt coping strategies for the potentially stressful transition to college life prevented development of negative mood states and promoted college adjustment relative to a writing disclosure task and a writing control task. King (2001) reported that a writing task about future life goals significantly predicted greater subjective well-being 3 weeks later, in comparison to a writing control condition.

Lyubomirsky, Sousa and Dickerhoof (2006) suggested that writing and talking both proved to be beneficial for dealing with negative life experiences but that the same may not hold true for positive experiences. Lyubomirsky et al. (2006) argued that the organised and systematic nature of writing and talking may be incompatible with the favourable outcomes such as positive affect, well-being, and health. However, repetitive and cyclical thoughts about happy experiences maintain positive feelings (Lyubomirsky et al, 2006). This finding opposes the long-held logical belief that the disclosure of both positive and negative events brings about comparable benefits that, in turn, reflect the letting-go process (Pennebaker, 1997a, 1997b, 2002, 2004). Research has suggested that there are positive outcomes as a result of writing about positive experiences (e.g., Frattaroli, 2006).

3.5 *Expressive Writing and Other Prevalent Interventions*

Journal writing has long been used for a variety of goals, from personal exploration to facilitating communication between client and therapist. Progoff's (1977) method of intensive process journaling, for example, has been widely taught and used as a creative process to bring the conscious and unconscious self into alignment. This method of journaling can be thought of as similar to a writing task

that brings about coherence and understanding of the cause of our actions. In a similar vein, comparisons can be drawn between various psychotherapies and a writing task. For example, cognitive behaviour therapy uses homework as a part of the therapy. This homework is often a form of structured writing with a set of instructions which can be equated with the structured writing paradigm.

Smyth (1999) suggested comparing the effects of expressive writing with that of other psychological, behavioural, or educational treatments for clinical relevance. For example, in a meta-analysis of 45 studies, Meyer and Mark (1995) reported a positive and significant effect of psychosocial interventions with adult cancer patients on emotional adjustment ($r = .12$, 95% $CI = .17, .32$), functional adjustment ($r = .09$, 95% $CI = .06, .32$), treatment-and disease-related symptoms ($r = .13$, 95% $CI = .16, .37$), and global measures ($r = .14$, 95% $CI = .08, .49$); however, there was no significant effect for medical outcomes ($r = .08$, 95% $CI = -.10, .44$). In other words, these patients reported improvements ranging from 9 to 14 percent across a variety of outcomes.

In a comprehensive review of 302 meta-analyses of psychological, behavioural and educational interventions mainly including psychotherapy, parent effectiveness, medical patient education, smoking-cessation programs, job enrichment, computer-aided instruction, science curricula, and open classrooms, Lipsey and Wilson (1993) reported an overall effect size of $r = .50$ in that participants in treatment conditions showed improvements of about 25 percent. In addition, for educational interventions, Lanahan, McGrath, McLaughlin, Burian-Fitzgerald, and Salganik (2005) reported an effect size of $r = .050$. Even though small, this effect size is considered to be reasonable in educational research in terms of increments in learning and academic achievement (Frattaroli, 2006).

Wells-Parker, Bangert-Drowns, McMillen, and Williams (1995) examined the effects of drug/alcohol counselling with drinking/driving offenders and reported an effect size of r = .30, meaning that individuals receiving remediation had about 9 percent lower recidivism rates. In the medical domain, Rosenthal (1994) examined the effect of daily aspirin after a heart attack to prevent death from the subsequent attack and reported positive and significant effect size of r = .034. Even though small, this treatment effect is considered as extremely valuable in medical community. Notwithstanding different outcome measures, Smyth (1999) opined that such comparisons highlight the health benefits of expressive writing (for which effect sizes of r ranged from .075 to .257, see Frattaroli, 2006; Smyth, 1998) as clinically significant.

3.6 *Self-Expression In Terms of Expressive Writing and Culture*

Expression of thoughts, feelings, and intentions may affect many different aspects of human behaviour. Self-expression can influence and alter psychological as well as physiological processes (e.g., Pennebaker, 1997a; Smyth, 1999). Research has shown the importance of culturally represented meanings of the act of expression and how these cultural meanings are reflected in the way people from different cultures are affected by expression. For example, Kang et al. (2003) reported that emotional expression plays a more important role for people in individualistic cultures rather than for those in collectivistic cultures. Furthermore, Kim and Sherman (2007) proposed that the positive effects of expression and also negative effects of suppression on psycho-physiological functioning may depend on the value of expression shared in the cultural context.

Kim and Sherman (2007) provided a socio-cultural explanation for cultural differential on self-expression. It is speculated that expression, in any sense,

implicates the self for people from the individualistic cultures because they are a part of a cultural context in which internal attributes define who they are. Thus, once thoughts are expressed, people become more invested and committed to those thoughts probably as a way of defending themselves. They maintained that the effects of expression are bounded by cultural meanings of both expression and self, and in another culture in which these meanings differ, the effects would probably differ as well (Kim & Sherman, 2007).

Previous research has also examined the effect of expression on attitudes in the U.S. cultural context. For instance, Kiesler and his colleagues (Kiesler, Roth, & Pallak, 1974; Kiesler & Sakumura, 1966) have shown that when people's attitudes are made public, they become more committed to their attitudes. Similarly, Higgins and Rholes (1978) found verbal expression of attitudes more in number, even when the expressed attitudes are not consistent with their own. Recent studies on culture and social support show that European Americans more frequently use and benefit from talking about their thoughts and feelings with close others in seeking social support compared with Asian Americans (Kim, Sherman, Ko, & Taylor, in press; Taylor, Sherman, Kim, Jarcho, Takagi, & Dunagan, 2004).

Taking this cultural perspective allows an alternative view that suggests that self-expression may be beneficial only in a culture (more specifically individualistic) that grants it social significance (Kim & Sherman, 2007). It may be speculated that such results are obtained in case of verbal expression; however, self-expression in terms of written disclosure may not entail any cultural differences as it is a private activity and the individuals have control over what they want to write and they do not necessarily have to consider how others are going to think of them after disclosure.

There are potential benefits of incorporating cultural orientation in terms of individualism and collectivism to measure any cultural differentials rather than culture (see Study 1 for detail). In the present study, the effectiveness of expressive writing was examined for individualism and collectivism.

3.7 Expressive Writing and the Positivity Ratio

Fredrickson and Losada (2005) proposed a set of general mathematical principles that may describe the dynamic relation between positive affect and human flourishing. The authors extended the broaden-and-build theory of positive emotions (Fredrickson, 1998), and non-linear dynamics model of team performance (Losada, 1999) – and suggested a positivity ratio (a quantitative ratio of positive to negative affect) at or above 2.9. They found that individuals diagnosed as flourishing using Keyes' (2005b) criteria of eudaimonic well-being had a positivity ratio of above 2.9; supporting Keyes' (2005b) argument that flourishing consists of both hedonic and eudaimonic well-being.

Prior research has suggested that high ratios of positive to negative affect would distinguish between individuals who flourish and those who do not. For example, Diener and Diener (1996) and Cacioppo, Gardner, and Berntson (1999) pointed out that positivity offset provides an individual with the adaptive bias to approach and explore objects, people, or situation. Other line of evidence have posited that "bad is stronger than good" (e.g., Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Rozin & Royzman, 2001). Fredrickson and Losada (2005) proposed that experiences of positivity need to outnumber experiences of negativity to overcome the toxicity of negative affect.

Fredrickson's (1998) broaden-and-build model suggests that positive emotions broaden the scope of attention, cognition, and action which, in turn, help in

building physical, psychological, intellectual, and social resources. Furthermore,

Losada's (1999) nonlinear dynamic model captures the tenets of the broaden-and-

build theory in mathematics. He empirically validated this model by analysing

interpersonal dynamics of business teams and found that higher levels of positivity

are linked with (a) broader behavioural repertoires, (b) greater flexibility and

resilience to adversity, (c) more social resources, and (d) optimal functioning (Losada,

1999; Losada & Heaphy, 2004).

However, Fredrickson and Losada (2005) also put forward an upper limit for

the positivity ratio and found that human flourishing shows signs of disintegration at a

positivity ratio of 11.6. The implication is that too much positivity is problematic

(Schwartz, Reynolds, Thase, Frank, Fasiczka, & Haaga, 2002) as is the absence of

appropriate negativity (e.g., conflict engagement within marriages rather than feelings

of disgust and guilt; Gottman, 1994), which may calcify the behaviour patterns

(Fredrickson and Losada, 2005).

3.8   *Rationale for Study 2*

The present experimental study is based on the writing paradigm with

emphasis on writing about positive life experiences to enhance satisfaction processes.

The specific hypothesis was that a writing intervention encouraging reflection on

deriving satisfaction from meaningful activities would increase the overall well-being

of an individual. The findings of Study 1 suggested a path from satisfaction processes

to emotional intelligence and in turn from emotional intelligence to well-being. The

present study tested the causal impact of satisfaction processes on well-being

outcomes, with an associated goal of examining the efficacy of the expressive writing

paradigm as applied to satisfaction processes in increasing well-being.

Method

3.9.1 *Participants*

One hundred and fifteen individuals (96 females and 19 males), out of 142

initially contacted, commenced the study. They ranged in age from 18 to 64 years

($M = 31.98$, $SD = 9.94$). Participants were recruited from a regional university in

New South Wales. The majority of the respondents (80%) were first year university

undergraduates recruited through the psychology subject pool of the University of

New England. Some of these were traditional age students and others were distance

students of a range of ages and living in various regions of Australia. The remaining

participants were recruited through information posted on the bulletin boards of

various units offered at the same university.

Ninety participants (46 in the treatment condition and 44 in the control

condition) completed the study. Sixteen individuals who had been assigned to the

control condition and nine individuals who had been assigned to the experimental

condition did not complete the study. There were no significant differences in pre-

measurement variables between completers and non-completers in the treatment and

control groups (see Tables 3.10.5 and 3.10.6).

3.9.2 *Measures*

Pre-test measures were taken of satisfaction processes (the Activities

Questionnaire, PEAQ –S; Waterman, 1993), life satisfaction (The Satisfaction with

Life Scale, Diener et al., 1985), positive affect (PANAS – present moment; Watson et

al., 1988), psychological well-being (PWB; Ryff, 1989), social well-being (SWB;

Keyes, 1998), general mental health (DASS; Lovinbond & Lovinbond, 2002), general

physical health (SF – 36; Ware & Sherbourne, 1992), emotional intelligence (The

Assessing Emotions Scale; Schutte et al., 1998), and cultural orientation

(Individualism-Collectivism Scale; Triandis & Gelfand, 1998). The psychometric

properties of these instruments are described in the methods section of Study 1.

Internal consistency of the measures for the present study is given in Table 3.10.3.

Two measures, the PEAQ-S and PWB were slightly modified for Study 2.

The details are provided below:

Personal Expressive Activities Questionnaire – Standard (PEAQ-S)

The original PEAQ – S (used in Study 1) asked participants to list and rate 5

activities. In the present study, the number of activities was reduced to only 2 to

decrease the time burden for participants posed by two completions of numerous

scales. The PEAQ-S internal reliability for any two activities was checked for Study

1 and for each pair internal consistency, as assessed by Cronbach's alpha, came out to

be more than .90. This provided an empirical basis for using only two activities rather

than five. In the present study, the internal consistency of the ratings of the two

activities was .91.

Psychological Well-Being Scale (PWB)

A short-version of PWB (18 items) was used in the present study because of

time restrictions posed by two completions of various measures. Each of the

subscales has 3 items. Prior research exhibited good internal reliability of .81 for the

composite short scale (Keyes, 2005b).

The Positive and Negative Affect Schedule (PANAS)[20]

In the present study the 10-item negative affect subscale of PANAS (Watson

et al., 1988) was used to measure negative affect, in addition to positive affect. High

scores mean higher negative mood. Sample descriptors include "distressed",

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[20] This negative affect scale was included for the supplementary analysis of the positivity ratio (computed by dividing positive affect scores by negative affect scores) described later in Results section.

"hostile", and "jittery". Internal reliability ranged from .84 to .87 for the present

moment time instructions in prior research (Schutte et al., 2002; Watson et al., 1988)

and .85 for during the past week time instructions (Crawford & Henry, 2004).

Negative affect scores correlated positively with measures of psychopathology in

prior research (Clark and Watson, 1991; Schutte et al., 2002).

3.9.3   *Procedure*

Potential respondents were asked to forward an email or call to let know their

interest in participating. They were then requested to read a participation information

sheet describing the study. A consent form and pre-test measures were sent via either

post or email if they wished to continue their participation (see Appendices D and E).

After returning the completed pre-test measures and consent form,

participants were randomly assigned to either a treatment or control condition based

on the flip of a coin; head to the experimental group and tail to the control group.

Participants in the experimental condition received instructions to write about

the satisfaction derived from the meaningful activities that drew on Waterman's

(1993) hedonia and eudaimonia (personal expressiveness) conceptualization. The

description in part read "The activity that you choose to write about might (1) provide

you with an intense sense of pleasure and enjoyment, (2) give you a sense of total

involvement, (3) help to develop your potential, (4) allow you to lose track of time

while engaging in such activity, and (5) provide you with pleasure regardless of later

outcomes". The writing intervention was designed to increase satisfaction processes

with a focus on adaptive emotional functioning. Participants were asked to take a

somewhat different focus on each of the three days of writing. Day 1 of journal

writing required them to write about an activity or several activities that provided

great satisfaction. Day 2 asked to identify emotions connected with satisfaction and

day 3 required them to use insight gained about possible connections between emotions and satisfying activities by making plans for the future (see Appendix F).

These instructions were based on the findings of Study 1 that showed a link between satisfaction processes and emotional functioning, as operationalised through emotional intelligence, and in turn between emotional intelligence and well-being. The writing instructions were quite detailed and explicit, in line with the meta-analytic finding of Frattaroli (2006) that more detailed instructions led to larger expressive writing effect sizes.

Participants in the control condition wrote about their daily activities and were provided with three examples, e.g., "I completed an assignment at work (please describe the nature of the assignment and the steps you took to complete it), I helped the kids with their homework (please elaborate on how you did this), I started a new exercise routine to keep fit, for example, I started a morning walk or joined some sports club (please describe the nature of the exercise and the aspects of your involvement)" (see Appendix G).

All participants were asked to write for 20 minutes on three consecutive days. Pennebaker (2004) suggested four 20 minutes writing sessions, however, recent research (e.g., Wing et al., 2006) used three 20 minutes writing sessions, which is considered to be optimum (Fratttaroli, 2006). Participants selected the setting and time of their writing and were not monitored during their writing. However, participants were asked to return their journals.

Participants completed post-writing assessment questions about their compliance with the writing instructions (see Appendix H). The last stage of the study was conducted two weeks following the writing exercise, and involved participants completing the post-test measures of satisfaction activities, life

satisfaction, positive affect, psychological well-being, social well-being, general

mental health, general physical health, and emotional intelligence, previously

completed at pre-test. At both pre-test and post-test the time frame of *past two weeks*

was used. The time frame of *past two weeks* was used because it corresponded with

the intervention time (see Appendix I).

Participants returned the journal and post-test measures via either post or

email. Identification numbers allowed the matching of questionnaires from different

phases of the study. Participants provided their e-mail addresses, and reminders

regarding completing and sending back the questionnaires were sent by e-mail.

Responding was anonymous in that names were not matched with returned data sets.

Data were collected over the course of 5 months.

Results

3.10.1 *Participation Rates and Compliance*

Of the 90 participants returning questionnaires at pre-test and post-test, 46 were in the positive writing about satisfaction processes condition and 44 were in the control condition. Participants self-reported their level of compliance immediately after the journal writing. Eight participants reported that they did not write either for the full length of time or duration specified. Of these, five were in the positive writing group and three were in the control group. Between-groups comparisons of those who fully complied and those who partially complied showed that there were no significant differences between groups in satisfaction processes, emotional intelligence, and dejection at both pre-and post-intervention. Non-compliers reported significantly greater fulfilment than compliers (see Table 3.10.1). Furthermore, there were no significant differences between compliers and non-compliers in gender distribution, χ^2 (1) = 0.60, p = .44 or in age, $t(88)$ = -.84, p = .40. Following a conservative intention to treat analysis model, the eight participants who partially complied with the writing instructions were included in all subsequent analyses.

Table 3.10.1

Means, Standard Deviations, and Independent t-values for Pre-and and Post-

Test Scores of Major Outcomes

Variables		Compliers	(n=82)	Non-compliers	(n = 8)	
		Mean	*SD*	Mean	*SD*	t (88)
EI	*Pre*	127.04	15.26	125.75	19.58	-0.22
	Post	**139.01**	**14.53**	**135.25**	**20.87**	**-0.67**
Satisfaction	*Pre*	30.28	5.76	28.47	3.90	-0.87
	Post	**29.27**	**7.73**	**30.78**	**5.68**	**0.54**
Fulfilment	*Pre*	-0.03	0.71	-0.61	0.60	-2.23*
	Post	**0.04**	**0.69**	**-0.41**	**0.72**	**-1.65**
Dejection	*Pre*	0.00	0.73	0.75	1.79	1.69
	Post	**-0.01**	**0.85**	**0.08**	**0.89**	**0.19**

Note: *p < .05; all other *p*s are > .05. Non bold values are the pre-intervention scores

and bold values are the post-intervention scores. Fulfilment and Dejection are the

latent factors of the standardized well-being indices (for explanation see text in Study

1). Skewed well-being indices such as pre-and post- test scores for Depression and

Anxiety and post-test scores for GPH were transformed accordingly prior to

computing composite measures of Fulfilment and Dejection (for explanation

regarding transforming negatively skewed variables see footnote for Table 2.9.1).

3.10.2   *Pre-intervention and Post-intervention Descriptive Analyses*

The gender distribution and age information for the completers, non-completers and the total are given in Table 3.10.2. There were no significant differences between completers (n = 90) and non-completers (n = 25) in gender distribution, $\chi^2(1) = .28$, $p = .60$ or in age, $t(113) = 1.83$, $p = .07$.

Table 3.10.2

Gender Distribution and Average Age (SDs).

	Completers	Non-completers	Total
Number	90	25	115
%Female; %Male	84%; 16%	80%; 20%	83%; 17%
Age (in years)	35.16 (9.14)	31.10 (10.12)	31.98 (9.94)

Means, standard deviations for the measures at each measurement time and Cronbach's alphas for the pre-test measurement time are shown in Table 3.10.3.

Table 3.10.3

Means, Standard Deviations of Major Study Variables at Each Measurement Time,

and Cronbach's Alphas (α) for the Pre-Test Measurement Time only.

Variables	Pre-test	(n=115)	Post-test	(n = 90)	
	Mean	*SD*	Mean	*SD*	Cronbach's α
LS	24.06	6.08	25.79	6.15	.82
PWB	28.72	3.05	29.85	3.02	.74
SWB	24.03	4.03	26.11	4.23	.80
Depression	0.49	0.35	0.34	0.33	.88
Anxiety	0.40	0.32	0.25	0.27	.76
Stress	6.71	4.53	5.10	3.51	.88
PA	3.46	0.76	3.80	0.76	.89
GPH	3.72	0.90	1.88	0.29	.84
EI	127.60	15.00	138.68	15.08	.90
Satisfaction	30.19	5.40	29.40	7.55	.91
Individualism	5.31	0.91	5.32	0.75	.70
Collectivism	6.61	0.87	6.80	0.80	.74

Note. LS = Life satisfaction; PWB = Psychological well-being; SWB = Social

well-being; PA = Positive affect; GPH = General physical health; EI = Emotional

intelligence. Pre-and post- test scores for Depression and Anxiety are the logarithm

of the original positively skewed variables; whereas post-test scores for GPH are the

square root of original negatively skewed variable.

3.10.3   *Comparison of Completers and Non-Completers*

Table 3.10.4 shows the comparison of completers and non-completers on five

major outcomes at pre-intervention. Results showed that the groups did not

significantly differ from each other at pre-intervention except on fulfilment. Non-

completers reported significantly greater fulfilment then completers. This comparison

was done for both treatment and control groups which showed no significant

differences for any of the study variables (see Tables 3.10.5 and 3.10.6 respectively).

There was no significant difference between completers and non-completers in gender

distribution in the treatment condition, χ^2 (1) = 1.20, p = .27 and in the control

condition, χ^2 (1) = .01, p = .91.

Table 3.10.4

Means, Standard Deviations, and Independent t-values of Five Major Pre-test

Measures

Variables	Completers	(n = 90)	Non-completers	(n = 25)	
	Mean	*SD*	Mean	*SD*	t (113)
EI	126.92	15.56	130.04	12.79	0.92
Satisfaction	30.12	5.62	30.44	4.60	0.26
Fulfilment	- 0.08	0.72	0.29	0.56	2.34*
Dejection	0.07	0.89	- 0.24	0.64	- 1.62
Age	31.10	10.02	35.16	9.14	1.83

Note: *p < .05; all other ps are > .05

Table 3.10.5

Means, Standard Deviations, and Independent t-values of Five Major Pre-test

Measures for the Treatment Condition

Variables	Completers	(n = 46)	Non-completers	(n = 9)	
	Mean	SD	Mean	SD	t (53)
EI	128.80	15.85	129.11	12.07	0.06
Satisfaction	30.04	6.06	30.94	3.93	0.43
Fulfilment	- 0.04	0.77	0.37	0.50	1.51
Dejection	0.14	0.92	- 0.30	0.39	-1.37
Age	30.57	9.08	35.33	11.95	1.37

Note: all ps are > .05

Table 3.10.6

Means, Standard Deviations, and Independent t-values of Five Major Pre-test

Measures for the Control Condition

Variables	Completers	(n = 44)	Non-completers	(n = 16)	
	Mean	SD	Mean	SD	t (58)
EI	124.95	15.18	130.56	13.54	1.30
Satisfaction	30.20	5.20	30.16	5.04	- 0.03
Fulfilment	- 0.12	0.66	0.24	0.61	1.90
Dejection	- 0.01	0.85	- 0.21	0.76	- 0.85
Age	31.66	10.99	35.06	7.58	1.14

Note: all ps are > .05

3.10.4 *The Effect of the Writing Intervention on Satisfaction Processes and Emotional Intelligence*

One way analysis of covariance (ANCOVA) was conducted to determine if the writing intervention was effective in increasing satisfaction. For this analysis, pre-test score on satisfaction processes served as the covariate and experimental condition (treatment versus control) served as the independent variable. Tabachnick and Fidell (2001) recommended this type of ANCOVA as the preferred method of analysing results from between group designs with pre-and post-scores for the same variable. Various statistical assumptions were checked before running ANCOVA and the preliminary analyses revealed that all the assumptions were met including the homogeneity of regression slopes. The results of ANCOVA are summarized in Table 3.10.7, and the adjusted group means and standard errors associated with the significance tests are presented in Table 3.10.8.

The results indicate that after controlling for pre-test scores, participants in the treatment condition, relative to the control group, scored significantly higher on satisfaction. This information serves as a manipulation check for whether the writing intervention increased satisfaction processes as intended.

An additional ANCOVA was conducted for emotional intelligence to determine if the writing intervention was effective in increasing emotional intelligence as well. For this analysis, pre-test scores on emotional intelligence served as the covariate and experimental condition (treatment versus control) served as the independent variable. The results of ANCOVA are summarized in Table 3.10.7, and the adjusted group means and standard errors are presented in Table 3.10.8. There was no significant group effect for emotional intelligence, $F(1,87) = 2.68$, $p = .11$.

This non-significant outcome for emotional intelligence was further explored by examining the mean pre-and post-test scores in both the conditions. In the treatment condition, pre-test emotional intelligence scores were $M = 128.85$ ($SD = 15.19$) and the post-test scores were $M = 141.78$ ($SD = 15.18$). In the control condition, pre-test scores were $M = 126.45$ ($SD = 14.86$) and the post-test scores were $M = 135.43$ ($SD = 14.45$). Thus there was a substantial increase in post-test scores in the experimental condition as well as in the control condition.

Table 3.10.7

Summary of ANCOVAs Investigating the Effects of the Writing Intervention on Post-

Test Satisfaction and Emotional Intelligence Variables after Controlling for Pre-Test

Scores

	df	*F*	partial η^2
DV = Satisfaction			
Pre-test	1	1.58	.02
Treatment	1	22.61***	.21
Error	87		
DV = Emotional Intelligence			
Pre-test	1	34.31***	.28
Treatment	1	2.68	.03
Error	87		

*$p < .05$; ***$p < .001$.

Table 3.10.8

Adjusted Means and Standard Errors for Control and Treatment Groups on the Post-

Test Satisfaction and Emotional Intelligence Measures

	Control Group	(n = 44)	Treatment Group	(n = 46)
Variables	Mean	*SE*	Mean	*SE*
Satisfaction	25.94	1.02	32.72	1.00
EI	136.43	1.91	140.83	1.87

3.10.5   The Effect of the Writing Intervention on Well-Being Outcomes

A multivariate analysis of variance (MANCOVA), with fulfilment and

dejection entered as dependent variables and group (treatment versus control) entered

as an independent variable, and pre-test scores on fulfilment and dejection serving as

covariates was conducted. All the relevant statistical assumptions were tested and

met including the homogeneity of regression slopes (no significant interaction

between the group and covariates) and the homogeneity of variances and covariances

[Box's M, $F(3, 1490495) = 2.27, p = .08$]; which is more than the critical value of $p =$

.001, thus confirming homogeneity of variance prior to running the analysis. The

results showed an overall impact of the writing intervention on the outcome variables.

Wilks' lambda ($\lambda = .81$) showed a significant group effect, $F(2, 85) = 10.28, p < .001$,

partial $\eta^2 = .20$. The effect sizes (r)[21] for fulfilment and dejection were .21 (p < .001)

and .05 (p < .01) respectively. Thus, the writing intervention resulted in a little over

30 percent improvement in well-being. The results of the MANCOVA are

summarized in Table 3.10.9, and the adjusted group means and standard errors

associated with the significance tests are presented in Table 3.10.10.

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[21] Effect sizes (partial η^2) were converted to r for comparison with effect sizes of other studies.

Table 3.10.9

Summary of MANCOVA Investigating the Effects of the Writing Intervention on Post-Test Fulfilment and Dejection Variables after Controlling for Pre-Test Scores

	df	F	partial η^2
DV = Fulfilment			
Pre-test	1	12.37**	.13
Treatment	1	20.63***	.19
Error	86		
DV = Dejection			
Pre-test	1	22.86***	.21
Treatment	1	8.39**	.09
Error	86		

*p < .05; ***p < .001.

Table 3.10.10

Adjusted Means and Standard Errors for Control and Treatment Groups on the Post-Test Fulfilment and Dejection Measures

	Control Group	(n = 44)	Treatment Group	(n = 46)
Variables	Mean	*SE*	Mean	*SE*
Fulfilment	- 0.28	0.09	0.27	0.09
Dejection	0.23	0.11	- 0.22	0.11

3.10.6 *Supplementary Analysis for the Treatment Group to Examine Aspects*

of the Well-Being Model Suggested by Study 1

Further analyses explored aspects of the well-being model suggested by Study

1 through examining the relationship between changes in key variables. Change

scores were computed by subtracting the pre-test scores from the post-test scores for

the satisfaction, emotional intelligence, and fulfilment and dejection variables.

Bivariate correlations were run to compare correspondences in change scores. The

purpose was to explore whether the magnitude of change in satisfaction was

associated with change in emotional intelligence, and whether the magnitude of

change in emotional intelligence in turn corresponded to the magnitude of change in

well-being. Table 3.10.11 shows the results of the analyses with change scores.

Table 3.10.11

Bivariate Correlations among Satisfaction, Emotional Intelligence (EI), Fulfilment,

and Dejection Change Scores for the Treatment Condition only (n = 46)

Variables	Satisfaction	EI	Fulfilment	Dejection
Satisfaction	-	.29*	.27[a]	-.43**
EI		-	.73***	-.52***
Fulfilment			-	-.70***
Dejection				-

Note. *p* < .05; **p* < .01; ***p* < .001; [a]*p* = .07

3.10.7   *Supplementary Analysis to Examine Differential Effects of Cultural*

Orientation on Expressive Writing

Additional analyses explored whether cultural orientation impacted the

written disclosure by examining the relationship between individualism and

collectivism pre-test scores and change scores for the satisfaction, emotional

intelligence, and fulfilment and dejection variables. Only pre-test scores for

individualism and collectivism were correlated as the experimental manipulation did

not aim to change the cultural orientation of the individual.

Bivariate correlations were run to compare correspondences in change scores

and individualism and collectivism. The purpose was to explore whether the

magnitude of change in well-being is the same for individualism and collectivism

based on the results of Study 1 which suggested that cultural orientation did not

moderate the well-being model. Table 3.10.12 shows the results of the

correspondence between individualism and collectivism and change scores of the

variables of the well-being model.

Table 3.10.12

Bivariate Correlations among Pre-test Scores of Individualism and Collectivism, and

Satisfaction, Emotional Intelligence, Fulfilment, and Dejection Change Scores for the

Treatment Group only (n = 46)

Variables	Individualism	Collectivism
Satisfaction	-.27	.11
Emotional Intelligence	-.04	.09
Fulfilment	-.13	.12
Dejection	.13	-.25

Note. None of the correlations were statistically significant.

3.10.8   *Supplementary Analysis to Examine the Positivity Ratio as proposed by Fredrickson and Losada (2005)*

Positivity ratios were computed by dividing PANAS positive affect mean scale-scores by negative affect mean scale-scores for the treatment and control groups separately. A supplementary ANCOVA was conducted for the positivity ratio to determine if the writing intervention was effective in helping people reaching a threshold positivity ratio of 2.9. For this analysis, pre-test scores on the positivity ratio served as the covariate and experimental condition (treatment versus control) served as the independent variable. All the relevant statistical assumptions were met before running the ANCOVA, including the homogeneity of regression slopes. The results of the ANCOVA showed a significant group effect, $F(1, 89) = 23.57$, $p < .001$, partial $\eta^2 = .21$. The adjusted means for the treatment and control groups on the post-test positivity ratios were 3.19 ($SE^{22} = .14$) and 2.20 $(SE = .15)$ respectively.

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[22] SE = Standard error.

3.11 *Preliminary Discussion*

A number of previous studies have demonstrated the power of translating emotional experiences into language (Frattaroli, 2006). The relatively simple writing paradigm has been applied to a wide range of problems among diverse populations. Although the underlying mechanisms are still disputed, there are important implications for theoretical development and clinical practice.

An experimental study based on the writing intervention was designed to investigate causal elements of the well-being model proposed in Study 1. The study examined the effect of positive writing focusing on satisfaction processes on well-being outcomes. Differences between compliers and non-compliers of the writing intervention, and also between completers and non-completers were examined. No significant differences in demographics and outcome variables were found.

The conceptually based experimental manipulation was designed to examine whether satisfaction processes, the target of the intervention, increased after the experimental manipulation. The significant group effect showed that the writing intervention helped in increasing satisfaction.

Multivariate between-group comparison showed that the participants who were in the intervention condition reflecting on satisfaction processes reported significantly greater fulfilment and lower dejection than the control group at post-test. The treatment writing intervention showed a little over 30 percent improvement in well-being, i.e., greater fulfilment and less dejection. This is comparable to 25 percent improvements in various outcomes reported by psychological, behavioural, and educational interventions taken together (Lipsey & Wilson, 1993). The result shows the promise of using expressive writing focusing on satisfaction processes in increasing well-being.

Although there was a trend for emotional intelligence to increase more in the treatment than the control group, conservative interpretation of results suggested that there was no significant group effect for emotional intelligence. This lack of significance runs counter to what was predicted by the model of the relationship between satisfaction processes being mediated by emotional intelligence suggested by the findings of Study 1. There was a substantial increase from pre-test to post-test in emotional intelligence scores in the control condition as well as in the treatment condition. The increase in emotional intelligence from pre-to post-test for the control group might be explained by either a placebo effect, or, although the participants in the control condition wrote about general daily activities, they might have become more aware of their emotions and emotional processing, leading to an increase in emotional intelligence in the control group participants.

Supplementary analyses involving change scores for just treatment condition participants showed that greater change in satisfaction was likely to lead to be associated with more change in emotional intelligence. More change in emotional intelligence was associated with greater increases in Fulfilment and greater decreases in Dejection. These findings regarding the relationships between magnitude of change are congruent with the well-being model suggested by Study 1.

Additional analyses involving individualism and collectivism and the well-being model change scores showed practically no significant correlations in both the treatment and control groups suggesting that there were no cultural differentials in the effects of self-expression in terms of written disclosure. This further substantiated the generalisability of the well-being model in Study 1 across different cultural orientations at the individual level. This finding is somewhat inconsistent with the suggestion of Kim and Sherman (2007) that self-expression may have completely

different implications in an individualistic cultural context. On the other hand, self-expression is not considered to be of particular importance in a collectivistic culture. The finding that cultural orientation has little effect on written disclosure could have implications for the writing intervention to be useful for people across different cultural orientations.

Kim and Sherman (2007) claimed that self-expression would not have any beneficial effect in the collectivistic setting. Although in the present study, cultural orientation was taken into consideration instead of culture, Kim and Sherman's (2007) finding that self-expression works differently in different cultural settings could still be comparable in this context. The finding of no significant associations between individualism and collectivism and the change scores for the well-being model variables runs counter to Kim and Sherman's (2007) claim that written disclosure would only benefit people with individualistic orientations, and not those with collectivistic orientations. The lack of significant associations between cultural orientation and change scores suggests that the expressive writing may be a therapeutic tool that cuts across different cultural orientations.

Emotional expression, either written or verbal, is a common strategy to deal and cope with stressful life experiences (Langens & Schüler, 2005). When faced with stressful life events and negative emotional states, people tend to turn either to friends, priests, psychotherapists to talk, or keep a diary to write about their experiences in an effort to reduce their negative emotions (e.g., Georges, 1995; Parkinson & Totterdell, 1999; Rosenblatt, Meyer, & Karis, 1991-1992; Wellenkamp, 1995). Emotional expression may be successfully used by individuals high in fear of rejection to compensate for their higher susceptibility to stressful events because of low levels of perceived social support (Langens & Schüler, 2005).

This use of expressive writing as a therapeutic tool may also have some practical implications for people with emotional dysregulation such as people with alexthymia who have difficulty in processing emotions and expressing them verbally. Written disclosure may benefit them in facilitating better perception, understanding, and management of emotions in themselves and perhaps in the management of emotions in others as well. This adaptive emotional functioning may help them in expressing their emotions which, in turn may result in better mental, physical and psychosomatic health (Schutte, et al., 2007).

The results of Study 2 add to the evidence that writing about important personal experiences in an emotional way can improve physical health and subjective emotional well-being (Frattaroli, 2006). In a recent comprehensive meta-analysis of 146 randomized studies, Frattaroli (2006) found a positive and significant effect size of $r = .075$ ($p < .001$), suggesting the effectiveness of written disclosure. Within the psychological health domain, a significant predictive validity of written disclosure for distress ($r = .10$, $p = .002$), depression ($r = .07$, $p = .04$), and positive functioning ($r = .05$, $p = .008$) was found. There was no significant effect for anxiety ($r = .05$, $p = .22$), and stress ($r = .03$, $p = .12$). For the physical health domain, there were significant effect for specific disease outcomes ($r = .13$, $p = .002$), and illness behaviours ($r = .07$, $p = .008$), and a non significant effect for general physical symptoms ($r = .02$, $p = .16$).

These small effect sizes are comparable to the medium to large effect sizes found in the present study. Expressive writing found large to medium effect sizes of $r = .21$ ($p < .001$) and $r = .04$ ($p < .01$) for Fulfilment (life satisfaction, positive mood, psychological well-being, social well-being, and general physical health) and Dejection (depression, anxiety, and stress) respectively.

In her meta-analysis, Frattaroli (2006) also identified a number of potential moderators, such as student status, location of disclosure sessions, privacy of disclosure sessions, number of participants, and timing of follow up/post-test (less than versus at least one month), number of disclosure sessions, length of disclosure sessions (less than versus at least 15 minutes), months since topic/event, directed questions or specific examples given, topic switching: no switch and OK to switch are better than no instructions, audience of disclosure (experimenter versus no one), total quality rating, and participant expectation of study benefit.

College student status did not significantly moderate the effects of written disclosure for overall effect size, reported health effect size, or subjective impact effect size. However, college student status marginally moderated the effect of expressive writing for psychological health ($r = -.17$, $p = .067$), in that studies having community sample as participants had marginally higher psychological health effect sizes than studies that included only college students (non-students, $r = .09$; students, $r = .04$). The location of the disclosure sessions did not significantly moderate the effect of written disclosure on the overall effect size, reported health effect size, or subjective impact effect size. However, location did significantly moderated the effect of written disclosure on psychological health ($r = -.25$, $p = .01$), in that studies in which participants disclosed at home had significantly higher psychological health effect sizes than studies in which participants disclosed in a controlled setting, such as a psychological laboratory (home, $r = .12$; controlled setting, $r = .03$).

In the present study, the majority of the participants were university students and the location of the disclosure was at home in private. As the meta-analysis found no significant advantage of having college students and home location of the

disclosure, the present findings can be seen as having been biased in a favourable direction by these factors.

According to Frattaroli's (2006) analysis, the number of participants in a study was not significantly related to the overall reported health, or subjective impact effect size. However, the number of participants was marginally related to the psychological health effect size, such that studies with more participants had smaller effect sizes ($r = - .18$, $p = .058$). In the present study, the number of participants might be considered moderate (N = 90), and in the context the overall effect size (r) of .215 ($p < .001$) is again worth noting.

Frattaroli (2006) reported that the timing of the follow-up or post-test measures (number of months between disclosure and post-test) marginally moderated the effect of expressive writing for the overall effect size ($r = .14$, $p = .095$), in that studies that followed participants for less than a month after disclosure had larger effect sizes than studies that followed participants for at least a month (at least 1 month, $r = .06$; less than 1 month, $r = 0.11$) and significantly moderated psychological health effect sizes ($r = .21$, $p = .02$), in that studies with longer follow-up time reported smaller effect sizes (at least 1 month, $r = .04$; less than 1 month, $r = .11$). The timing of follow-up did not significantly moderate the effect of treatment on reported health or subjective impact effect sizes. For the present study, the timing of follow-up was less than 1 month, so the relatively short follow-up time could be have contributed to the comparatively large overall effect size ($r = .215$, $p < .001$).

The present study used three disclosure sessions which was found to be optimal by Frattaroli (2006). Frattaroli found that the number of disclosure sessions marginally moderated the effect of expressive writing for overall effect size ($r = .11$,

p = .098; fewer then three sessions, r = .04; at least three sessions, r = .08),

psychological health effect size (r = .14, p = .078; fewer than three sessions,

r = .01; at last three sessions, r = .06), and subjective impact effect size (r = .24,

p = .09; fewer than three sessions, r = .02; at last three sessions, r = .17); such that

studies with three or more sessions had marginally larger effect sizes than studies with

fewer than three sessions.

Frattaroli (2006) also found that the length of written disclosure sessions

significantly moderated overall effect size (r = .15, p = .03; less than 15 min, r =

-.01; at least 15 min, r = .08), such that studies with sessions that lasted at least 15

minutes had significantly larger effect sizes than studies with sessions that lasted less

than 15 minutes. Length of session did not significantly moderate the effect of

psychological health. The present study used the optimal length of disclosure

sessions i.e., more than 15 minutes.

The present study employed writing about positive experiences which seems

to have comparable beneficial effects to writing about traumatic events. Frattaroli

(2006) found that valence of the writing topic i.e., writing about positive or negative

events, did not significantly moderate overall, psychological health, or reported heath

effect sizes.

Frattaroli (2006) reported that audience of disclosure (no one will hear or read

versus experimenter will hear or read) did not significantly moderate the overall effect

of written disclosure. However, studies in which participants did not turn in their

disclosure had marginally higher psychological health effect sizes than studies in

which participants turned in their disclosure (r = .18, p = .075; did not turn in,

$r = .18$; turned in, $r = .05$). In the present study, participants were asked to return their journals. In this context, the effect size of $r = .21$ ($p < .001$) for expressive writing for Fulfilment found in the present study is again worth noting.

The present study employed both hand writing and typing modes of disclosure. These two alternative modes of written disclosure do not seem to influence the effect size (Frattaroli, 2006).

In the present study, the mean positivity ratio (adjusted) of 3.19 for the writing intervention group was above the threshold of 2.9 suggested by Fredrickson and Losada (2005). This is a very interesting finding in that it suggests that individuals in the writing intervention reporting greater well-being as conceptualized in the present study also tend to have a hedonic balance of 3 positive emotions for every 1 negative emotion in comparison to the control condition. This finding is comparable to what Fredrickson and Losada (2005) found using Keyes' (2005b) criteria of eudaimonic well-being. However, the present result is preliminary and should be interpreted with caution.

In the present study, the participants were asked to write about positive experiences such as satisfaction obtained from engaging in meaningful activities. The writing process may help people gain better understanding of their inner experiences and what gives them optimal satisfaction. A finding to note is that this intervention focusing on meaningful activities resulted in greater fulfilment and not that much magnitude in decrease in dejection. This difference could be explained by the very hallmark of positive psychology, which focuses on positive human strengths and virtues rather than weaknesses.

CHAPTER 4

DISCUSSION

4.1 *Overview*

Theory and research have not adequately distinguished between well-being

processes and outcomes. Further, there has been some discord between the

conceptualizations of hedonic and eudaimonic traditions of well-being. For example,

Ryff and Singer (1998) described the hedonic/subjective well-being model as of

limited scope in explaining positive functioning, and pointed out that subjective well-

being is often a fallible indicator of the good life. On the other hand, Diener et al.

(1998) maintained that Ryff and Singer's eudaimonic criteria are too prescriptive and

elicit responses biased towards the paradigm.

Keyes (2005b) and Keyes and his colleagues (Keyes & Lopez, 2002; Keyes

& Magyar-Moe, 2003; & Ryff & Keyes, 1995) pointed out the importance of the state

of flourishing, consisting of high levels of emotional well-being (positive mood and

life satisfaction), psychological well-being, and social well-being, and the absence of

depression, anxiety and stress. This model suggested an overlap between the hedonic

and eudaimonic traditions of well-being.

In a further differentiation between aspects of well-being, Peterson et al.

(2005) proposed a distinction between well-being processes and outcomes. They

proposed different orientations (which can be called processes) leading to happiness

(the outcome). These three orientations pertain to pleasant life, meaningful life and,

engaged life. The pleasant life equates with hedonic processes and both meaningful

life and engaged life embody eudaimonic processes. This was the first of a kind of a

study suggesting a role for processes. Seligman (2002a) and Seligman and

Ciskszentmihalyi (2000) equated enjoyments derived from engaging in meaningful

activities with satisfactions, and pleasures with the satisfactions of biological needs. In this sense, enjoyments can be seen as satisfaction processes and pleasures as well-being outcomes.

This juxtaposition of hedonic and eudaimonic paradigms and processes and outcome paradigms in the context of current formulations of optimal functioning suggested a need for a different type of inquiry concerning the dynamics of well-being. The major aim of this project was to investigate a conceptualization of well-being that distinguishes between processes and outcomes and that assesses both processes and outcomes as a composite of intertwined hedonic and eudaimonic components.

The findings of Study 1 and 2 together suggest the usefulness of conceptualizing well-being as the state of complete health or well-being marked by the presence of life satisfaction, positive mood, psychological well-being, social well-being, and general physical health as well as the absence of depression, anxiety, and stress. Study 1 found that all of these indices of well-being loaded on two distinct yet correlated latent factors. Life satisfaction, positive mood, psychological well-being, social well-being and general physical health loaded on one factor, Fulfilment, and depression[23], anxiety, and stress loaded on a separate but correlated factor, Dejection. Study 2 supported this conceptualization in that the intervention aimed at writing about satisfaction processes resulted in increasing well-being outcomes i.e., greater Fulfilment and less Dejection.

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[23] Depression also loaded negatively on fulfilment factor. For details see preliminary discussion for Study 1.

4.2 *Study 1*

The findings of Study 1 support a holistic approach to well-being, or a state of complete health. Keyes (2005a), Keyes and Lopez, 2002, Keyes & Magyar-Moe, 2003), and Ryff and Keyes (1995) view optimal positive functioning or a state of flourishing as the combination of emotional well-being (presence of positive affect and life satisfaction and absence of negative affect), psychological well-being, and social well-being.

Previous lines of research that supported the absence of mental illness as an indication of presence of mental health have the shortcoming that the mere absence of illness does not mean the presence of health (Keyes, 2005b; World Health Organisation, 1948). Also, well-being as defined only by either subjective well-being or psychological well-being is also a somewhat incomplete conceptualization. As discussed above, the complete state of heath is the summum bonum of the whole spectrum of well-being indices (Keyes, 2005b).

In Study 1, the distinction between satisfaction processes and well-being outcomes was made. This distinction was illustrated by the best-fit well-being model in which the relationship between satisfaction processes and well-being outcomes is fully mediated by emotional intelligence. This mediation model may be explained by the interpretation that satisfaction derived from engaging in meaningful activities is magnified by adaptive emotional functioning, resulting in enhanced experience of well-being i.e., greater fulfilment and less dejection.

This mediation model can best be explained by an analogy of a PhD student working towards earning her degree. Doing research can sometimes become an arduous job and can lead to feelings of discouragement. However, if doing research is a meaningful activity for that researcher, then adaptive emotional functioning can

assist during that particular difficult time to help the person move ahead with courage and determination toward the long-term cherished goal of obtaining a doctorate degree. Thus, this adaptive functioning would strengthen and channel the satisfaction derived from engaging in doing research and lead to well-being.

The role of emotional intelligence as a mediator between the satisfaction processes and well-being outcomes speaks to the adaptive and regulatory role of emotional functioning. Findings from Study 1 showed that emotional intelligence is significantly associated with greater hedonic satisfaction processes and greater eudaimonic satisfaction processes. Consistent with the recent meta-analysis by Schutte et al. (2007), emotional intelligence was found to be associated with greater life satisfaction, psychological well-being, social well-being, general physical health, and more positive mood, and lower depression, anxiety and stress.

This well-being model remained stable across the different cultural orientations of individualism and collectivism, suggesting generalisabilty of the model. Myers (1993) and Synder and Lopez (2007) pointed out the universality of the pursuit of a better life. Synder and Lopez (2007) argued that culture may just be a reflection of and also a determinant of life goals that are valued and pursued. The good and life well-lived is in the mind of the beholder, and the vision of what is meaningful drives life pursuits (Synder & Lopez, 2007).

The findings of Study 1 suggested that satisfaction processes are associated with well-being outcomes with emotional intelligence mediating this relationship. However, Study 1 used a correlational design, so no causal conclusions could be drawn from the results. Study 2 used an experimental design based on the writing paradigm popularized by James Pennebaker (1997a, 2002, 2004) and empirically

tested and verified by others (e.g., Greenberg & Stone, 1992; Greenberg et al., 1996; King, 2001, 2002).

4.3   *Study 2*

The results of Study 2 show the promise of the writing paradigm as applied to well-being research and population-based interventions aimed at increasing well-being. The intervention used in Study 2 showed that writing about satisfaction processes increased the well-being of individuals. Increasing well-being is one of the cornerstone aims of positive psychology. Seligman et al. (2005) maintained that interventions should be aimed directly at increasingly happiness levels; consistent with the position that well-being is simply not the absence of illness or negativity (e. g., Keyes, 2005b). The positive approach to increasing well-being in Study 2 is one step in this direction.

Moreover, the non-significant associations between individualism and collectivism and the change scores for the well-being model variables suggested that self-expression in the form of written disclosure benefited individuals with different cultural orientations equally. This finding supports the generalisability of the well-being model across different cultural orientations as suggested by Study 1. Also, this finding has practical implications for the future research on written disclosure across different cultural settings and also across different cultural orientations within the same culture.

4.4   *Limitations*

A major limitation of the present study is the generalisability of the well-being model to all the realms of life. Fulfilment and Dejection were the measures of application to very general life realm, i.e., individual well-being. It would be worthwhile to include specific measures of Fulfilment and Dejection that pertain to

different situations of life such as work and education. This may lead to a greater understanding of specific conditions that might influence well-being in particular life domains (e.g., Diener et al., 1997). Another limitation is related to use of only one instrument, the DASS, to assess the elements of Dejection. It would be beneficial to include other measures of Dejection. Also, since convenience samples of university students were used for the studies, it would be beneficial to test the applicability of this well-being model in a broader community sample as well as in clinical populations.

Substantial differences between self-report and performance measures of emotional intelligence have been reported (e.g., Matthews et al., 2002), especially regarding the perception of emotion (Wilhelm, 2005). Therefore, it would be useful to use a performance test of emotional intelligence to examine whether it has the same mediating effect.

The well-being model proposed in the present research can be tested in different cultures in a more rigorous way. Heine et al. (2002) argued that people from different cultures adopt different standards when evaluating themselves on subjective Likert scales and that may conceal real cultural differences. It would be worth the effort to employ objective measures along with subjective Likert scales to counteract these methodological concerns regarding cultural comparisons.

4.5   Future Research

Future research can use methods other than writing paradigm, such as positive interventions developed by Seligman et al. (2005) using signature strengths, doing three good things, paying a gratitude visit and "you at your best" to test the efficacy of the well-being model. Through other intervention studies and longitudinal designs, future prevention and intervention research might shed light on the direct and indirect

relationships between satisfaction processes and well-being outcomes and their relationship with emotional intelligence.

Connected to such efforts is the potential of discovering additional avenues for helping individuals to increase their well-being. Future research might explore these issues further and might examine possible mediating effects of personality and other variables of interest. For example, mediating or moderating effects of the Big Five personality dimensions (McCrae & Costa, 1987) or cognitive processing styles (Pacini & Epstein, 1999) could be examined.

Further, the well-being model could be examined in diverse population and age groups. Even though collectivism and individualism were not significant moderators of the model in the present study, future research might examine other culture-based characteristics such as vertical (emphasizing hierarchy) and horizontal (emphasizing equality) dimensions of individualism and collectivism (Singelis et al., 1995), values (e.g., Schwartz, 1992, 1994a), judgments of perceived homogeneity and/or heterogeneity of in-groups and out-groups, and the perception of social behaviour as a function of social distance (Triandis & Gelfand, 1998). Such research and the collection of existing substantial research on well-being might result in the creation of a "happiness genome" in addition to the human genome.

4.6   Conclusions

Many human actions are directed by the quest for a good and happy life. Different means or paths are employed to achieve this end-goal. This project highlights one of the paths to achieve the desired state of happiness. The results show that engaging in meaningful activities can result in satisfaction that is strengthened by adaptive emotional functioning. This well-being model does not seem to vary across different cultural orientations.

To verify aspects of the causal path of the well-being model, an experimental manipulation based on writing paradigm was employed. The writing intervention resulted in greater fulfilment and less dejection over time. Keyes (2007) called for developing approaches to increase a complete state of health or flourishing. The writing paradigm holds promise in assisting individuals to attain such a state of flourishing.

These findings add to the present understanding of well-being in the context of the positive psychology movement. May all of us *flourish* in life!

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APPENDICES

Appendix A: Participant Information Sheet for Study 1

UNE

THE UNIVERSITY
OF NEW ENGLAND

Project Title: Emotions, Cultural Orientation, and Well-Being

Persons Responsible: Dr Nicola Schutte and Ms Navjot Bhullar

Project Expiry Date: September, 2006

Thank you for considering participating in this study. Navjot Bhullar is undertaking this study as a requirement of the Research Doctoral Degree at the University of New England, Armidale, NSW. The purpose of the study is to investigate the relationship between emotions, culture and well-being. We hope that this research will help clarify some of pathways through which emotional states and the cultural orientation may influence the overall well-being.

The survey takes approximately 50-60 minutes to complete. The survey is divided into separate parts. Part A covers background details. Part B is an activities questionnaire. Part C focuses on general well-being and daily mental and physical functioning. Part D asks about emotions and Part E asks about attitudes. Part F a brief measure of daily functioning that should be filled in by other person e.g., a member of your family, a friend, etc., and should be given back in a sealed envelope (the envelope is provided) along with the questionnaires packet. Your responses will be anonymous; we will ask you not to put your name on the study material.

The information you provide will be combined with the information others provide so that a summary of results across participants can be presented in the PhD thesis describing the outcome of the study. The survey questionnaires will be securely stored for five years, and then destroyed.

It is completely up to you whether you participate in the study. If you wish to discontinue participation after you have begun, you are free to do so. To participate in this study, you must be 18 years or older. Your filling in the attached questionnaires will be taken as consent to participate.

We do not foresee any risks associated with completing the questionnaire; participating in the study should be an interesting reflective experience.   However, in the event that completing the questionnaire reminds you of personal issues you would like to discuss with a mental health professional, ongoing counselling support is at local Community Health Centres (consult the white pages of your regional telephone directory).

Any questions regarding the study may be addressed to Navjot Bhullar (nbhullar@une.edu.au) or Dr Nicola Schutte (nschutte@une.edu.au).

This project has been approved by the University's Human Research Ethics Committee of the University of New England (xx). Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at the following address:

Research Services,
University of New England
Armidale NSW 2351
Telephone: (02) 6773-3449, Fax: (02) 6773-3543
Email: Ethics@metz.une.edu.au

Appendix B: Questionnaire Packet for Study 1

Part A   **Demographic Details**

Code No.

Please tick a box to indicate your answer to each question. Choose the box next to the response that best matches your answer.

(1) How old are you?_____ years

(2) What is your gender?

❑   Male
❑   Female

(3) What is your marital status?

❑   Never married
❑   Married/defacto
❑   Widowed
❑   Divorced/separated
❑   Other

(4) What is the *highest* level of education you have completed?

❑   Year 10 or below (intermediate or school certificate)
❑   Year 12 / HSC (leaving certificate)
❑   TAFE certificate/diploma
❑   University or college degree
❑   Higher degree (postgraduate)

(5) How would you best describe your *main employment situation* at the moment?

❑   Employed (full-time)
❑   Employed (part-time/casual)
❑   Unemployed (not retired or on a pension)
❑   Retired
❑   Student (full- or part-time)
❑   Regular volunteer work
❑   Permanently unable to work/ill
❑   Home duties

(6)   In what country were you born?   ❑   Australia
                                             ❑   Other _____
                                                        (Please specify)

(8)   What is your mother's country of birth?   ❑   Australia
                                                ❑   Other _____
                                                          (Please specify)

(9)   What is your father's country of birth?   ❑   Australia
                                                ❑   Other _____
                                                          (Please specify)

(10)   Do you speak a language other than English at home?

❑   yes
❑   no

If yes, which language do you speak at home?   _____

Part B   **Activities Questionnaire**

If you wanted another person to know about who you are and what you are like as a person, what five (5) activities of importance to you would you describe. In the space below, list the five activities, describing each in no more than 1 to 5 words. Choose five distinctly different activities.

1. _____

2. _____

3. _____

4. _____

5. _____

The first answer sheet should be used to answering the questions about the first of the activities you have listed above.

The second answer sheet should be used when answering the questions about the second of the activities you have listed above.

And so on, until you have answered the questions for each of the five activities.

Now take the activities that you listed and enter them on the designated spaces at the top of each of the following pages.

Now please begin to answer the questions regarding each of the activities. Evaluate the activities in the order in which they appear in the questionnaire. Be sure to enter your responses in the lines for items corresponding to the question numbers.

Activity 1. _____

For item 1, please use the following scale:

      Very Seldom   1   2   3   4   5   6   7   Very Frequently

  1. How often have you engaged in this activity in the past year?

For item 2, please use the following scale:

      Very Low   1   2   3   4   5   6   7   Very High

  2. What is the usual level of effort you invest when you engage in this activity?

For item 3, please use the following scale:

      Not at All Important   1   2   3   4   5   6   7   Extremely Important

  3. Overall, how important is this activity to you in your life?

Activity 1. _____

Please use the following scale:

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

1. This activity gives me my greatest feeling
   of really being alive.   1   2   3   4   5   6   7

2. When I engage in this activity I feel more
   satisfied than I do when engaged in most
   other activities.   1   2   3   4   5   6   7

3. This activity gives me my strongest sense
   of enjoyment.   1   2   3   4   5   6   7

4. When I engage in this activity I feel more
   intensely involved than I do when engaged
   in most other activities.   1   2   3   4   5   6   7

5. When I engage in this activity I feel good.   1   2   3   4   5   6   7

6. This activity gives me my strongest feeling
   that this is who I really am.   1   2   3   4   5   6   7

7. When I engage in this activity I feel that this
   is what I was meant to do.   1   2   3   4   5   6   7

8. This activity gives me my greatest pleasure.   1   2   3   4   5   6   7

9. When I engage in this activity I feel a warm
   glow.   1   2   3   4   5   6   7

10. I feel more complete or fulfilled when
    engaging in this activity than I do when
    engaged in most other activities.   1   2   3   4   5   6   7

11. When I engage in this activity I feel
    happier than I do when engaged in most
    other activities.   1   2   3   4   5   6   7

12. I feel a special fit or meshing when engaging
    in this activity.   1   2   3   4   5   6   7

Activity 2. _____

For item 1, please use the following scale:

Very Seldom   1   2   3   4   5   6   7   Very Frequently

1. How often have you engaged in this activity in the past year?

For item 2, please use the following scale:

Very Low   1   2   3   4   5   6   7   Very High

2. What is the usual level of effort you invest when you engage in this activity?

For item 3, please use the following scale:

Not at All Important   1   2   3   4   5   6   7   Extremely Important

3. Overall, how important is this activity to you in your life?

Activity 2. _____

Please use the following scale:

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

1. This activity gives me my greatest feeling
   of really being alive.   1   2   3   4   5   6   7

2. When I engage in this activity I feel more
   satisfied than I do when engaged in most
   other activities.   1   2   3   4   5   6   7

3. This activity gives me my strongest sense
   of enjoyment.   1   2   3   4   5   6   7

4. When I engage in this activity I feel more
   intensely involved than I do when engaged
   in most other activities.   1   2   3   4   5   6   7

5. When I engage in this activity I feel good.   1   2   3   4   5   6   7

6. This activity gives me my strongest feeling
   that this is who I really am.   1   2   3   4   5   6   7

7. When I engage in this activity I feel that this
   is what I was meant to do.   1   2   3   4   5   6   7

8. This activity gives me my greatest pleasure.   1   2   3   4   5   6   7

9. When I engage in this activity I feel a warm
   glow.   1   2   3   4   5   6   7

10. I feel more complete or fulfilled when
    engaging in this activity than I do when
    engaged in most other activities.   1   2   3   4   5   6   7

11. When I engage in this activity I feel
    happier than I do when engaged in most
    other activities.   1   2   3   4   5   6   7

12. I feel a special fit or meshing when engaging
    in this activity.   1   2   3   4   5   6   7

Activity 3. _____

For item 1, please use the following scale:

        Very Seldom   1   2   3   4   5   6   7   Very Frequently

1. How often have you engaged in this activity in the past year?

For item 2, please use the following scale:

        Very Low   1   2   3   4   5   6   7   Very High

2. What is the usual level of effort you invest when you engage in this activity?

For item 3, please use the following scale:

        Not at All Important   1   2   3   4   5   6   7   Extremely Important

3. Overall, how important is this activity to you in your life?

Activity 3. _____

Please use the following scale:

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

1. This activity gives me my greatest feeling
   of really being alive.   1   2   3   4   5   6   7

2. When I engage in this activity I feel more
   satisfied than I do when engaged in most
   other activities.   1   2   3   4   5   6   7

3. This activity gives me my strongest sense
   of enjoyment.   1   2   3   4   5   6   7

4. When I engage in this activity I feel more
   intensely involved than I do when engaged
   in most other activities.   1   2   3   4   5   6   7

5. When I engage in this activity I feel good.   1   2   3   4   5   6   7

6. This activity gives me my strongest feeling
   that this is who I really am.   1   2   3   4   5   6   7

7. When I engage in this activity I feel that this
   is what I was meant to do.   1   2   3   4   5   6   7

8. This activity gives me my greatest pleasure. 1   2   3   4   5   6   7

9. When I engage in this activity I feel a warm
   glow.   1   2   3   4   5   6   7

10. I feel more complete or fulfilled when
    engaging in this activity than I do when
    engaged in most other activities.   1   2   3   4   5   6   7

11. When I engage in this activity I feel
    happier than I do when engaged in most
    other activities.   1   2   3   4   5   6   7

12. I feel a special fit or meshing when engaging
    in this activity.   1   2   3   4   5   6   7

Activity 4. _____

For item 1, please use the following scale:

        Very Seldom   1   2   3   4   5   6   7   Very Frequently

  1. How often have you engaged in this activity in the past year?

For item 2, please use the following scale:

        Very Low   1   2   3   4   5   6   7   Very High

  2. What is the usual level of effort you invest when you engage in this activity?

For item 3, please use the following scale:

        Not at All Important   1   2   3   4   5   6   7   Extremely Important

  3. Overall, how important is this activity to you in your life?

Activity 4. _____

Please use the following scale:

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

1. This activity gives me my greatest feeling
   of really being alive.   1   2   3   4   5   6   7

2. When I engage in this activity I feel more
   satisfied than I do when engaged in most
   other activities.   1   2   3   4   5   6   7

3. This activity gives me my strongest sense
   of enjoyment.   1   2   3   4   5   6   7

4. When I engage in this activity I feel more
   intensely involved than I do when engaged
   in most other activities.   1   2   3   4   5   6   7

5. When I engage in this activity I feel good.   1   2   3   4   5   6   7

6. This activity gives me my strongest feeling
   that this is who I really am.   1   2   3   4   5   6   7

7. When I engage in this activity I feel that this
   is what I was meant to do.   1   2   3   4   5   6   7

8. This activity gives me my greatest pleasure.   1   2   3   4   5   6   7

9. When I engage in this activity I feel a warm
   glow.   1   2   3   4   5   6   7

10. I feel more complete or fulfilled when
    engaging in this activity than I do when
    engaged in most other activities.   1   2   3   4   5   6   7

11. When I engage in this activity I feel
    happier than I do when engaged in most
    other activities.   1   2   3   4   5   6   7

12. I feel a special fit or meshing when engaging
    in this activity.   1   2   3   4   5   6   7

Activity 5. _____

For item 1, please use the following scale:

    Very Seldom   1   2   3   4   5   6   7   Very Frequently

1. How often have you engaged in this activity in the past year?

For item 2, please use the following scale:

    Very Low   1   2   3   4   5   6   7   Very High

2. What is the usual level of effort you invest when you engage in this activity?

For item 3, please use the following scale:

    Not at All Important   1   2   3   4   5   6   7   Extremely Important

3. Overall, how important is this activity to you in your life?

Activity 5. _____

Please use the following scale:

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

1. This activity gives me my greatest feeling
   of really being alive.   1   2   3   4   5   6   7

2. When I engage in this activity I feel more
   satisfied than I do when engaged in most
   other activities.   1   2   3   4   5   6   7

3. This activity gives me my strongest sense
   of enjoyment.   1   2   3   4   5   6   7

4. When I engage in this activity I feel more
   intensely involved than I do when engaged
   in most other activities.   1   2   3   4   5   6   7

5. When I engage in this activity I feel good.   1   2   3   4   5   6   7

6. This activity gives me my strongest feeling
   that this is who I really am.   1   2   3   4   5   6   7

7. When I engage in this activity I feel that this
   is what I was meant to do.   1   2   3   4   5   6   7

8. This activity gives me my greatest pleasure.   1   2   3   4   5   6   7

9. When I engage in this activity I feel a warm
   glow.   1   2   3   4   5   6   7

10. I feel more complete or fulfilled when
    engaging in this activity than I do when
    engaged in most other activities.   1   2   3   4   5   6   7

11. When I engage in this activity I feel
    happier than I do when engaged in most
    other activities.   1   2   3   4   5   6   7

12. I feel a special fit or meshing when engaging
    in this activity.   1   2   3   4   5   6   7

Part C

Satisfaction With Life Scale

Below are five statements that you may agree or disagree with. Using the **1 – 7** scale below indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

7 = Strongly agree
6 = Agree
5 = Slightly agree
4 = Neither agree nor disagree
3 = Slightly disagree
2 = Disagree
1 = Strongly disagree

_____ In most ways my life is close to my ideal.

_____ The conditions of my life are excellent.

_____ I am satisfied with my life.

_____ So far I have gotten the important things I want in life.

_____ If I could live my life over, I would change almost nothing.

Affect Scale

The words below describe different feelings. Please put a number from 1 to 5 to the left of each word to describe how you feel **in general** (that is, how you feel on the average). Use the following five-point scale:

1 = very slightly or not at all
2 = a little
3 = moderately
4 = quite a bit
5 = extremely

___ 1. interested

___ 2. excited

___ 3. strong

___ 4. enthusiastic

___ 5. proud

___ 6. alert

___ 7. inspired

___ 8. determined

___ 9. attentive

___ 10. active

General Well-Being

The following set questions deals with how you feel about yourself and your life. Please remember that there are no right or wrong answers. Circle the number that best describes your present agreement or disagreement with each statement.

1 = strongly disagree
2 = moderately disagree
3 = slightly disagree
4 = slightly agree
5 = moderately agree
6 = strongly agree

1. Sometimes I change the way I act or think
   to be more like those around me.   1   2   3   4   5   6

2. In general, I feel I am in charge of the situation
   in which I live.   1   2   3   4   5   6

3. I am not interested in activities that will expand
   my horizons.   1   2   3   4   5   6

4. Most people see me as loving and affectionate.   1   2   3   4   5   6

5. I feel good when I think of what I've done in the
   past and what I hope to do in the future.   1   2   3   4   5   6

6. When I look at the story of my life, I am pleased
   with how things have turned out.   1   2   3   4   5   6

7. I am not afraid to voice my opinions, even
   when they are in opposition to the opinions
   of most people.   1   2   3   4   5   6

8. The demands of everyday life often get me down.   1   2   3   4   5   6

9. In general, I feel that I continue to learn more about
   myself as time goes by.   1   2   3   4   5   6

10. Maintaining close relationships has been difficult
    and frustrating for me.   1   2   3   4   5   6

1 = strongly disagree
2 = moderately disagree
3 = slightly disagree
4 = slightly agree
5 = moderately agree
6 = strongly agree

11. I live life one day at a time and don't really think about the future.

1   2   3   4   5   6

12. In general, I feel confident and positive about myself.

1   2   3   4   5   6

13. My decisions are not usually influenced by what everyone else is doing.

1   2   3   4   5   6

14. I do not fit very well with the people and the community around me.

1   2   3   4   5   6

15. I am the kind of person who likes to give new things a try.

1   2   3   4   5   6

16. I often feel lonely because I have few close friends with whom to share my concerns.

1   2   3   4   5   6

17. I tend to focus on the present, because the future nearly always brings me problems.

1   2   3   4   5   6

18. I feel like many of the people I know have gotten more out of life than I have.

1   2   3   4   5   6

19. I tend to worry about what other people think of me.

1   2   3   4   5   6

20. I am quite good at managing the many responsibilities of my daily life.

1   2   3   4   5   6

21. I don't want to try new ways of doing things – my life is fine the way it is.

1   2   3   4   5   6

22. I enjoy personal and mutual conversations with family members or friends.

1   2   3   4   5   6

23. I have a sense of direction and purpose in life.

1   2   3   4   5   6

24. Given the opportunity, there are many things about myself that I would change.

1   2   3   4   5   6

1 = strongly disagree
2 = moderately disagree
3 = slightly disagree
4 = slightly agree
5 = moderately agree
6 = strongly agree

25. Being happy with myself is more important to me
than having others approve of me.   1   2   3   4   5   6

26. I often feel overwhelmed by my responsibilities.   1   2   3   4   5   6

27. I think it is important to have new experiences that
challenge how you think about yourself and the world. 1   2   3   4   5   6

28. It is important to me to be a good listener when
close friends talk to me about their problems.   1   2   3   4   5   6

29. My daily activities often seem trivial and
unimportant to me.   1   2   3   4   5   6

30. I like most aspects of my personality.   1   2   3   4   5   6

31. I tend to be influenced by people with strong
opinions.   1   2   3   4   5   6

32. If I were unhappy with my living situation, I
would take effective steps to change it.   1   2   3   4   5   6

33. When I think about it, I haven't really improved
much as a person over the years.   1   2   3   4   5   6

34. I don't have many people who want to listen
when I need to talk.   1   2   3   4   5   6

35. I don't have a good sense of what it is I'm trying
to accomplish in life.   1   2   3   4   5   6

36. I made some mistakes in the past, but I feel that all
in all everything has worked out for the best.   1   2   3   4   5   6

37. People rarely talk me into doing things I don't want
to do.   1   2   3   4   5   6

38. I generally do a good job of taking care of my
personal finances and affairs.   1   2   3   4   5   6

1 = strongly disagree
2 = moderately disagree
3 = slightly disagree
4 = slightly agree
5 = moderately agree
6 = strongly agree

39. In my view, people of every age are able to
continue growing and developing.   1   2   3   4   5   6

40. I feel like I get a lot out of my friendships.   1   2   3   4   5   6

41. I used to set goals for myself, but that now
seems like a waste of time.   1   2   3   4   5   6

42. In many ways, I feel disappointed about my
achievements in life.   1   2   3   4   5   6

43. It is more important to me to "fit in" with others than
to stand alone on my principles.   1   2   3   4   5   6

44. I find it stressful that I can't keep up with all of the
things I have to do each day.   1   2   3   4   5   6

45. With time, I have gained a lot of insight about life
that has made me a stronger, more capable person.   1   2   3   4   5   6

46. It seems to me that most other people have more
friends than I do.   1   2   3   4   5   6

47. I enjoy making plans for the future and working
to make them a reality.   1   2   3   4   5   6

48. For the most part, I am proud of who I am and the
life I lead.   1   2   3   4   5   6

49. I have confidence in my opinions, even if they are
contrary to the general consensus.   1   2   3   4   5   6

50. I am good at juggling my time so that I can fit
everything in that needs to get done.   1   2   3   4   5   6

51. I have the sense that I have developed a lot as a
person over time.   1   2   3   4   5   6

1 = strongly disagree
2 = moderately disagree
3 = slightly disagree
4 = slightly agree
5 = moderately agree
6 = strongly agree

52. People would describe me as a giving person,
willing to share my time with others.   1   2   3   4   5   6

53. I am an active person in carrying out the plans
I set for myself.   1   2   3   4   5   6

54. I envy many people for the lives they lead.   1   2   3   4   5   6

55. It's difficult for me to voice my own opinions on
controversial matters.   1   2   3   4   5   6

56. My daily life is busy, but I derive a sense of
satisfaction from keeping up with everything.   1   2   3   4   5   6

57. I do not enjoy being in new situations that require
me to change my old familiar ways of doing things.   1   2   3   4   5   6

58. I have not experienced many warm and trusting
relationships with others.   1   2   3   4   5   6

59. Some people wander aimlessly through life,
but I am not one of them.   1   2   3   4   5   6

60. My attitude about myself is probably not as positive
as most people feel about themselves.   1   2   3   4   5   6

61. I often change my mind about decisions if my
friends or family disagree.   1   2   3   4   5   6

62. I get frustrated when trying to plan my daily activities
because I never accomplish the things I set out to do.   1   2   3   4   5   6

63. For me, life has been a continuous process of
learning, changing, and growth.   1   2   3   4   5   6

64. I often feel like I'm on the outside looking in
when it comes to friendships.   1   2   3   4   5   6

65. I sometimes feel as if I've done all there is to do in life.   1   2   3   4   5   6

1 = strongly disagree
2 = moderately disagree
3 = slightly disagree
4 = slightly agree
5 = moderately agree
6 = strongly agree

66. Many days I wake up feeling discouraged about
how I have lived my life.   1   2   3   4   5   6

67. I am not the kind of person who gives in to social
pressures to think or act in certain ways.   1   2   3   4   5   6

68. My efforts to find the kinds of activities and
relationships that I need have been quite successful.   1   2   3   4   5   6

69. I enjoy seeing how my views have changed and
matured over the years.   1   2   3   4   5   6

70. I know that I can trust my friends, and they know
they can trust me.   1   2   3   4   5   6

71. My aims in life have been more a source of
satisfaction than frustration to me.   1   2   3   4   5   6

72. The past had its ups and downs, but in general,
I wouldn't want to change it.   1   2   3   4   5   6

73. I am concerned about how other people evaluate
the choices I have made in my life.   1   2   3   4   5   6

74. I have difficulty arranging my life in a way that
is satisfying to me.   1   2   3   4   5   6

75. I gave up trying to make big improvements or
changes in my life a long time ago.   1   2   3   4   5   6

76. I find it difficult to really open up when I talk
with others.   1   2   3   4   5   6

77. I find it satisfying to think about what I have
accomplished in life.   1   2   3   4   5   6

78. When I compare myself to friends and acquaintances,
it makes me feel good about who I am.   1   2   3   4   5   6

1 = strongly disagree
2 = moderately disagree
3 = slightly disagree
4 = slightly agree
5 = moderately agree
6 = strongly agree

79. I judge myself by what I think is important, not
by the values of what others think is important.   1   2   3   4   5   6

80. I have been able to build a home and a lifestyle
for myself that is much to my liking.   1   2   3   4   5   6

81. There is truth to the saying you can't teach an old
dog new tricks.   1   2   3   4   5   6

82. My friends and I sympathize with each other's
problems.   1   2   3   4   5   6

83. In the final analysis, I'm not so sure that my life
adds up to much.   1   2   3   4   5   6

84. Everyone has their weaknesses, but I seem to have
more than my share.   1   2   3   4   5   6

Social Relationships

Please indicate how strongly you agree or disagree with each of the following statements. There are no right or wrong answers.

1 = strongly disagree
2 = somewhat disagree
3 = a little disagree
4 = do not know
5 = a little agree
6 = somewhat agree
7 = strongly agree

1. The world is too complex for me.   1   2   3   4   5   6   7

2. I don't feel I belong to anything I'd
call a community.   1   2   3   4   5   6   7

3. People who do a favor expect
nothing in return.   1   2   3   4   5   6   7

4. I have something valuable to give
the world.   1   2   3   4   5   6   7

5. The world is becoming a better place
for everyone.   1   2   3   4   5   6   7

6. I feel close to other people in my
community.   1   2   3   4   5   6   7

7. My daily activities do not produce
anything worthwhile for my community.   1   2   3   4   5   6   7

8. I cannot make sense of what's going
on in the world.   1   2   3   4   5   6   7

9. Society has stopped making progress.   1   2   3   4   5   6   7

10. People do not care about other
people's problems.   1   2   3   4   5   6   7

11. My community is a source of comfort.   1   2   3   4   5   6   7

1 = strongly disagree
2 = somewhat disagree
3 = a little disagree
4 = do not know
5 = a little agree
6 = somewhat agree
7 = strongly agree

12. I find it easy to predict what will
happen next in society.   1   2   3   4   5   6   7

13. Society isn't improving for people
like me.   1   2   3   4   5   6   7

14. I believe that people are kind.   1   2   3   4   5   6   7

15. I have nothing important to
contribute to society.   1   2   3   4   5   6   7

General Mental Health

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over *the past one week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:
0 = Did not apply to me at all
1 = Applied to me to some degree, or some of the time
2 = Applied to me to a considerable degree, or a good part of time
3 = Applied to me very much, or most of the time

1.	I found it hard to wind down.	0	1	2	3
2.	I was aware of dryness of my mouth.	0	1	2	3
3.	I couldn't seem to experience any positive feeling at all.	0	1	2	3
4.	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion).	0	1	2	3
5.	I found it difficult to work up the initiative to do things.	0	1	2	3
6.	I tended to over-react to situations.	0	1	2	3
7.	I experienced trembling (eg, in the hands).	0	1	2	3
8.	I felt that I was using a lot of nervous energy.	0	1	2	3
9.	I was worried about situations in which I might panic make a fool of myself.	0	1	2	3
10.	I felt that I had nothing to look forward to.	0	1	2	3
11.	I found myself getting agitated.	0	1	2	3
12.	I found it difficult to relax.	0	1	2	3
13.	I felt down-hearted and blue.	0	1	2	3
14.	I was intolerant of anything that kept me from getting on with what I was doing.	0	1	2	3
15.	I felt I was close to panic.	0	1	2	3
16.	I was unable to become enthusiastic about anything.	0	1	2	3

17.	I felt I wasn't worth much as a person.	0	1	2	3
18.	I felt that I was rather touchy.	0	1	2	3
19.	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat).	0	1	2	3
20.	I felt scared without any good reason.	0	1	2	3
21.	I felt that life was meaningless.	0	1	2	3

General Physical Health

This survey asks you for your views about your health. Answer every question by putting a cross in the box that applies to you. If you are unsure about how to answer a question, please give the best answer you can.

1. In general, would you say your health is:

Excellent	**Very Good**	**Good**	**Fair**	**Poor**
1	**2**	**3**	**4**	**5**

2. How **TRUE or FALSE** is each of the following statements for you?

	Definitely True	Mostly True	Don't Know	Mostly False	Definitely False
A I seem to get sick a little easier than other people.	1	2	3	4	5
B I am as healthy as anybody I know.	1	2	3	4	5
C I expect my health to get worse.	1	2	3	4	5
D My health is excellent.	1	2	3	4	5

Illness Burden

Please tick whichever is applicable to you.

1. Normal, no complaints, no evidence of disease.

2. Able to carry on normal activity: minor symptoms of disease.

3. Normal activity with effort: some symptoms of disease.

4. Care for myself: unable to carry on normal activity or active work.

5. Require occasional assistance but am able to care for needs.

6. Require considerable assistance and frequent medical care.

7. Disabled: require special care and assistance.

Part D   **Assessing Emotions**

Directions: Each of the following items asks you about your emotions or reactions associated with emotions. After deciding whether a statement is **generally** true for you, use the 5-point scale to respond to the statement. Please circle the "1" if you strongly disagree that this is like you, the "2" if you somewhat disagree that this is like you, "3" if you neither agree nor disagree that this is like you, the "4" if you somewhat agree that this is like you, and the "5" if you strongly agree that this is like you.
There are no right or wrong answers. Please give the response that best describes you.

    1 = strongly disagree
    2 = somewhat disagree
    3 = neither agree nor disagree
    4 = somewhat agree
    5 = strongly agree

1. I know when to speak about my personal problems
   to others.   1   2   3   4   5

2. When I am faced with obstacles, I remember times I faced
   similar obstacles and overcame them.   1   2   3   4   5

3. I expect that I will do well on most things I try. 1   2   3   4   5

4. Other people find it easy to confide in me.   1   2   3   4   5

5. I find it hard to understand the non-verbal messages of other
   people.   1   2   3   4   5

6. Some of the major events of my life have led me to re-evaluate
   what is important and not important.   1   2   3   4   5

7. When my mood changes, I see new possibilities.   1   2   3   4   5

8. Emotions are one of the things that make my life worth living. 1   2   3   4   5

9. I am aware of my emotions as I experience them.   1   2   3   4   5

1 = strongly disagree
2 = somewhat disagree
3 = neither agree nor disagree
4 = somewhat agree
5 = strongly agree

10. I expect good things to happen.   1   2   3   4   5

11. I like to share my emotions with others.   1   2   3   4   5

12. When I experience a positive emotion, I know how to
    make it last.   1   2   3   4   5

13. I arrange events others enjoy.   1   2   3   4   5

14. I seek out activities that make me happy.   1   2   3   4   5

15. I am aware of the non-verbal messages I send to others.   1   2   3   4   5

16. I present myself in a way that makes a good impression
    on others.   1   2   3   4   5

17. When I am in a positive mood, solving problems is
    easy for me.   1   2   3   4   5

18. By looking at their facial expressions, I recognize the
    emotions people are experiencing.   1   2   3   4   5

19. I know why my emotions change.   1   2   3   4   5

20. When I am in a positive mood, I am able to come up with
    new ideas.   1   2   3   4   5

21. I have control over my emotions.   1   2   3   4   5

22. I easily recognize my emotions as I experience them.   1   2   3   4   5

23. I motivate myself by imagining a good outcome to
    tasks I take on.   1   2   3   4   5

1 = strongly disagree
2 = somewhat disagree
3 = neither agree nor disagree
4 = somewhat agree
5 = strongly agree

24. I compliment others when they have done something well. 1   2   3   4   5

25. I am aware of the non-verbal messages other people send. 1   2   3   4   5

26. When another person tells me about an important event in his or her life, I almost feel as though I experienced this event myself. 1   2   3   4   5

27. When I feel a change in emotions, I tend to come up with new ideas. 1   2   3   4   5

28. When I am faced with a challenge, I give up because I believe I will fail. 1   2   3   4   5

29. I know what other people are feeling just by looking at them. 1   2   3   4   5

30. I help other people feel better when they are down. 1   2   3   4   5

31. I use good moods to help myself keep trying in the face of obstacles. 1   2   3   4   5

32. I can tell how people are feeling by listening to the tone of their voice. 1   2   3   4   5

33. It is difficult for me to understand why people feel the way they do. 1   2   3   4   5

Part E   **Attitudes Pertaining to Culture**

We want to know if you strongly agree or disagree with some statements. If you strongly agree circle "9"; if you strongly disagree, circle "1"; if you are unsure or think that the question does not apply to you, circle "5" for the statement.

In short, use this key:

Strongly	1	2	3	4	5	6	7	8	9	Strongly
Disagree										Agree

1. Being a unique individual is important to me.   1   2   3   4   5   6   7   8   9

2. I would rather depend on myself than others.   1   2   3   4   5   6   7   8   9

3. Some people emphasize winning; I am not one of them.   1   2   3   4   5   6   7   8   9

4. Children should be taught to place duty before pleasure.   1   2   3   4   5   6   7   8   9

5. My personal identity, independent of others, is very important to me.   1   2   3   4   5   6   7   8   9

6. I usually sacrifice my self-interest for the benefit of my group.   1   2   3   4   5   6   7   8   9

7. Without competition, it is not possible to have a good society.   1   2   3   4   5   6   7   8   9

8. It is my duty to take care of my family, even when I have to sacrifice what I want.   1   2   3   4   5   6   7   8   9

9. It is important that I do my job better than others.   1   2   3   4   5   6   7   8   9

10. Family members should stick together, no matter what sacrifices are required.   1   2   3   4   5   6   7   8   9

11. The well-being of my coworkers is important to me.   1   2   3   4   5   6   7   8   9

12. Competition is the law of nature.   1   2   3   4   5   6   7   8   9

| | Strongly Disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Strongly Agree |

13. When another person does better than I do, I get tense and aroused. 1 2 3 4 5 6 7 8 9

14. If a relative were in financial difficulty, I would help within my means. 1 2 3 4 5 6 7 8 9

15. I often do my own thing. 1 2 3 4 5 6 7 8 9

16. I enjoy working in situations involving competition. 1 2 3 4 5 6 7 8 9

17. It is important to me to maintain harmony in my group. 1 2 3 4 5 6 7 8 9

18. If a coworker gets a prize, I would feel proud. 1 2 3 4 5 6 7 8 9

19. To me, pleasure is spending time with others. 1 2 3 4 5 6 7 8 9

20. I rely on myself most of the time; I rarely rely on others. 1 2 3 4 5 6 7 8 9

21. I feel good when I cooperate with others. 1 2 3 4 5 6 7 8 9

22. Winning is everything. 1 2 3 4 5 6 7 8 9

23. I like sharing little things with my neighbors. 1 2 3 4 5 6 7 8 9

24. My happiness depends very much on the happiness of those around me. 1 2 3 4 5 6 7 8 9

25. Parents and children must stay together as much as possible. 1 2 3 4 5 6 7 8 9

26. It annoys me when other people perform better than I do. 1 2 3 4 5 6 7 8 9

27. It is important to me that I respect the decisions made by my groups. 1 2 3 4 5 6 7 8 9

Thank you for your time

Appendix C: Observer Measure of Well-Being for Study 1

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Part F   **General Well-Being**

Please describe the person who gave you this form on a scale of **1-5** on the following items. There are no right or wrong answers. When you have completed your rating, please put this rating sheet in the attached envelope, seal the envelope, and return it to the person you rated so that he or she can return the envelope.

> 1 = Very Poor
> 2 = Poor
> 3 = Neither Poor nor Good
> 4 = Good
> 5 = Very Good

1. How is his/her mood in general?	1	2	3	4	5
2. How is his/her physical health?	1	2	3	4	5
3. How is his/her satisfaction with life in general?	1	2	3	4	5
4. What is the quality of his/her relationships with others?	1	2	3	4	5
5. How well is he/she fulfilling his/her potential as an individual?	1	2	3	4	5
6. How is his/her mental health?	1	2	3	4	5

Thank you for your time

Appendix D: Participant Information Sheet, Consent Form, and Instructions

for Study 2

UNE

THE UNIVERSITY OF NEW ENGLAND

Project Title: Emotions, Well-Being, and Cultural Orientation

Persons Responsible: Navjot Bhullar and Drs. Nicola Schutte and John Malouff

Project Expiry Date: 1 August, 2007

Thank you for considering participating in this study. Navjot Bhullar is undertaking this study as a requirement of the Research Doctoral Degree at the University of New England, Armidale, NSW. The purpose of the study is to experimentally investigate the relationship between emotional processes and well-being. The experimental intervention is based on writing about positive emotional experiences. We hope that this research will help clarify some of pathways through which emotional states and cultural orientation may influence overall well-being.

This study includes a number of self-report measures that you will be asked to complete prior to and after the writing intervention. The questionnaire is divided into separate parts. Part A covers background details. Part B is an activities questionnaire. Part C is about the general well-being and daily psychological and physical functioning. Part D focuses on emotions and Part E focuses on attitudes. The writing intervention requests that you write about some of the positive activities that you engage in for about 20 minutes daily over a period of 3 days. We will ask you to return the journal along with the completed questionnaire packet. Your responses will be confidential and we will ask you not to put your name on the study material; information about any one respondent will be matched up through a code number.

The information you provide will be combined with the information others provide so that a summary of results across participants can be presented in the PhD Thesis describing the outcome of the study. The survey questionnaires will be securely stored for five years, and then destroyed.

It is completely up to you whether you participate in the study. If you wish to discontinue participation after you have begun, you are free to do so. To participate in this study, you must be 18 years or older. If you would like to participate, please complete the attached consent form.

We do not foresee any risks associated with completing the questionnaire; participating in the study should be an interesting reflective experience. However, in the event that completing the questionnaire reminds you of personal issues you would like to discuss with a mental health professional, ongoing counselling support is at local Community Health Centres (consult the white pages of your regional telephone directory) and for university students at the UNE counselling services.

Any questions regarding the study may be addressed to Navjot Bhullar (nbhullar@une.edu.au) or Dr Nicola Schutte (nschutte@une.edu.au).

This project has been approved by the University's Human Research Ethics Committee of the University of New England (Approval No. HE06/137, valid to 24 August 2007). Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at the following address:

Research Services,
University of New England
Armidale NSW 2351
Telephone: (02) 6773-3449, Fax: (02) 6773-3543
Email: Ethics@metz.une.edu.au

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THE UNIVERSITY
OF NEW ENGLAND

Consent Form

Code No

Emotions, Well-Being, and Cultural Orientation

I,_____, have read and understand the information on the above study and I am aware of the procedures involved and would like to participate in the study. I understand that participation is voluntary and I can withdraw from the study at any time. I understand that the information I provide will remain confidential.

_____
    (Signature)

_____/_____/2007.

Your Email address:

_____

Your Postal address:

_____

_____

_____

Instructions

This study is intended to explore the effects of writing on well-being. To complete this study, please do the following:

1. Complete the Questionnaire Booklet I (Pre-test measures). It will take approximately 20 minutes.

2. Send back Booklet I along with your consent form via email (type your name on it) or ordinary post (sign it). If you email, please send back your materials to nbhullar@une.edu.au (who will have to send you the materials via email after your expression of interest in participating). If you use post, please send the material back to Navjot Bhullar, School of Psychology, University of New England, Armidale, NSW – 2351.

3. Writing instructions (Booklet II) and Post-test measures (Booklet III) will be mailed to you after Booklet I and the consent form are returned.

4. Keep a journal for 3 consecutive days and write for 20 minutes (minimum) during each of these days. You can either hand-write or type on the computer, whichever you prefer. We will ask you to return the journal.

5. Keep a log of how much time you spend writing each day and at the end of the three days answer a few post-writing questions.

6. Complete the Questionnaire Booklet III (post-test measures) **two weeks** after completing the journaling. This will take approximately 20 minutes.

7. Send back the journal and Booklet III in the pre-paid self-addressed envelope.

(Please keep this Instructions Sheet with you for reference)

Appendix E: Pre-Test Questionnaire for Study 2

Pre-Questionnaire

Part A   **Demographic Details**

┌─────────────────────┐
│ Code No.   │
│   │
└─────────────────────┘

Please tick a box to indicate your answer to each question. Choose the box next to the response that best matches your answer.

(3) How old are you?_____ years

(4) What is your gender?

❑   Male
❑   Female

(6) What is your marital status?

❑   Never married
❑   Married/defacto
❑   Widowed
❑   Divorced/separated
❑   Other

(7) What is the *highest* level of education you have completed?

❑   Year 10 or below (intermediate or school certificate)
❑   Year 12 / HSC (leaving certificate)
❑   TAFE certificate/diploma
❑   University or college degree
❑   Higher degree (postgraduate)

Part B   **Activities Questionnaire**

If you wanted another person to know about who you are and what you were like as a person during the *last two weeks*, what two (2) activities of importance to you would you describe? In the space below, list the two activities, describing each in no more than 1 to 5 words. Choose two distinctly different activities.

1. _____

2. _____

The first answer sheet should be used to answering the questions about the first of the activities you have listed above.
The second answer sheet should be used when answering the questions about the second of the activities you have listed above.

Now take the activities that you listed and enter them on the designated spaces at the top of each of the following pages.

Now please begin to answer the questions regarding each of the activities. Evaluate the activities in the order in which they appear in the questionnaire. Be sure to enter your responses in the lines for items corresponding to the question numbers.

Activity 1. _____

For item 1, please use the following scale:

        Very Seldom   1   2   3   4   5   6   7   Very Frequently

4. How often have you engaged in this activity in the past two weeks?

For item 2, please use the following scale:

        Very Low   1   2   3   4   5   6   7   Very High

5. What was the usual level of effort you invest when you engaged in this activity during the

past two weeks?

For item 3, please use the following scale:

        Not at All Important   1   2   3   4   5   6   7   Extremely Important

6. Overall, how important was this activity to you in your life during the past two weeks?

Activity 1. _____

Please use the following scale to rate the activity for the *past two weeks*:

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

1. This activity gives me my greatest feeling
of really being alive.   1   2   3   4   5   6   7

2. When I engage in this activity I feel more
satisfied than I do when engaged in most
other activities.   1   2   3   4   5   6   7

3. This activity gives me my strongest sense
of enjoyment.   1   2   3   4   5   6   7

4. When I engage in this activity I feel more
intensely involved than I do when engaged
in most other activities.   1   2   3   4   5   6   7

5. When I engage in this activity I feel good.   1   2   3   4   5   6   7

6. This activity gives me my strongest feeling
that this is who I really am.   1   2   3   4   5   6   7

7. When I engage in this activity I feel that this
is what I was meant to do.   1   2   3   4   5   6   7

8. This activity gives me my greatest pleasure.   1   2   3   4   5   6   7

9. When I engage in this activity I feel a warm
glow.   1   2   3   4   5   6   7

10. I feel more complete or fulfilled when
engaging in this activity than I do when
engaged in most other activities.   1   2   3   4   5   6   7

11. When I engage in this activity I feel
happier than I do when engaged in most
other activities.   1   2   3   4   5   6   7

12. I feel a special fit or meshing when engaging
in this activity.   1   2   3   4   5   6   7

Activity 2. _____

For item 1, please use the following scale:

        Very Seldom   1   2   3   4   5   6   7   Very Frequently

4. How often have you engaged in this activity in the past two weeks?

For item 2, please use the following scale:

        Very Low   1   2   3   4   5   6   7   Very High

5. What was the usual level of effort you invest when you engaged in this activity during the

past two weeks?

For item 3, please use the following scale:

        Not at All Important   1   2   3   4   5   6   7   Extremely Important

6. Overall, how important was this activity to you in your life during the past two weeks?

Activity 2. _____

Please use the following scale to rate the activity for the *past two weeks*:

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

1. This activity gives me my greatest feeling
   of really being alive.   1   2   3   4   5   6   7

2. When I engage in this activity I feel more
   satisfied than I do when engaged in most
   other activities.   1   2   3   4   5   6   7

3. This activity gives me my strongest sense
   of enjoyment.   1   2   3   4   5   6   7

4. When I engage in this activity I feel more
   intensely involved than I do when engaged
   in most other activities.   1   2   3   4   5   6   7

5. When I engage in this activity I feel good.   1   2   3   4   5   6   7

6. This activity gives me my strongest feeling
   that this is who I really am.   1   2   3   4   5   6   7

7. When I engage in this activity I feel that this
   is what I was meant to do.   1   2   3   4   5   6   7

8. This activity gives me my greatest pleasure.   1   2   3   4   5   6   7

9. When I engage in this activity I feel a warm
   glow.   1   2   3   4   5   6   7

10. I feel more complete or fulfilled when
    engaging in this activity than I do when
    engaged in most other activities.   1   2   3   4   5   6   7

11. When I engage in this activity I feel
    happier than I do when engaged in most
    other activities.   1   2   3   4   5   6   7

12. I feel a special fit or meshing when engaging
    in this activity.   1   2   3   4   5   6   7

Part C

Life Satisfaction

Below are five statements that you may agree or disagree with. Using the **1 – 7** scale below indicate your agreement with each item by placing the appropriate number on the line preceding that item. Consider how you felt during the *last two weeks*. Please be open and honest in your responding.

7 = Strongly agree
6 = Agree
5 = Slightly agree
4 = Neither agree nor disagree
3 = Slightly disagree
2 = Disagree
1 = Strongly disagree

_____ In most ways my life is close to my ideal.

_____ The conditions of my life are excellent.

_____ I am satisfied with my life.

_____ So far I have gotten the important things I want in life.

_____ If I could live my life over, I would change almost nothing.

Your Mood in general

The words below describe different feelings and emotions. Please put a number from 1 to 5 to the left of each word to describe how you feel in the *past two weeks*. Use the following five-point scale:

1 = very slightly or not at all
2 = a little
3 = moderately
4 = quite a bit
5 = extremely

___ 1. interested	___ 11. alert
___ 2. distressed	___ 12. irritable
___ 3. excited	___ 13. inspired
___ 4. upset	___ 14. ashamed
___ 5. strong	___ 15. determined
___ 6. guilty	___ 16. nervous
___ 7. scared	___ 17. jittery
___ 8. hostile	___ 18. afraid
___ 9. enthusiastic	___ 19. attentive
___ 10. proud	___ 20. active

General Well-Being

The following set questions deals with how you felt about yourself and your life in the *past two weeks*. Please remember that there are no right or wrong answers. Circle the number that best describes your present agreement or disagreement with each statement.

1 = strongly disagree
2 = moderately disagree
3 = slightly disagree
4 = slightly agree
5 = moderately agree
6 = strongly agree

1. In general, I feel I am in charge of the situation
   in which I live.   1   2   3   4   5   6

2. When I look at the story of my life, I am pleased
   with how things have turned out.   1   2   3   4   5   6

3. The demands of everyday life often get me down.   1   2   3   4   5   6

4. Maintaining close relationships has been difficult
   and frustrating for me.   1   2   3   4   5   6

5. I live life one day at a time and don't really think
   about the future.   1   2   3   4   5   6

6. I am quite good at managing the many responsibilities
   of my daily life.   1   2   3   4   5   6

7. I think it is important to have new experiences that
   challenge how you think about yourself and the world.   1   2   3   4   5   6

8. I like most aspects of my personality.   1   2   3   4   5   6

9. I tend to be influenced by people with strong
   opinions.   1   2   3   4   5   6

10. I used to set goals for myself, but that now
    seems like a waste of time.   1   2   3   4   5   6

11. In many ways, I feel disappointed about my
    achievements in life.   1   2   3   4   5   6

12. I have confidence in my opinions, even if they are
    contrary to the general consensus.   1   2   3   4   5   6

1 = strongly disagree
2 = moderately disagree
3 = slightly disagree
4 = slightly agree
5 = moderately agree
6 = strongly agree

13. People would describe me as a giving person,
    willing to share my time with others.   1   2   3   4   5   6

14. Some people wander aimlessly through life,
    but I am not one of them.   1   2   3   4   5   6

15. For me, life has been a continuous process of
    learning, changing, and growth.   1   2   3   4   5   6

16. I sometimes feel as if I've done all there is to do in life. 1   2   3   4   5   6

17. I gave up trying to make big improvements or
    changes in my life a long time ago.   1   2   3   4   5   6

18. I judge myself by what I think is important, not
    by the values of what others think is important.   1   2   3   4   5   6

Social Relationships

The following questions are about how you felt about your social relationships over the *past two weeks*. Please indicate how strongly you agree or disagree with each of the following statements. There are no right or wrong answers.

1 = strongly disagree
2 = somewhat disagree
3 = a little disagree
4 = do not know
5 = a little agree
6 = somewhat agree
7 = strongly agree

1. The world is too complex for me.   1   2   3   4   5   6   7

2. I don't feel I belong to anything I'd
   call a community.   1   2   3   4   5   6   7

3. People who do a favor expect
   nothing in return.   1   2   3   4   5   6   7

4. I have something valuable to give
   the world.   1   2   3   4   5   6   7

5. The world is becoming a better place
   for everyone.   1   2   3   4   5   6   7

6. I feel close to other people in my
   community.   1   2   3   4   5   6   7

7. My daily activities do not produce
   anything worthwhile for my community. 1   2   3   4   5   6   7

8. I cannot make sense of what's going
   on in the world.   1   2   3   4   5   6   7

9. Society has stopped making progress.   1   2   3   4   5   6   7

10. People do not care about other
    people's problems.   1   2   3   4   5   6   7

11. My community is a source of comfort. 1   2   3   4   5   6   7

1 = strongly disagree
2 = somewhat disagree
3 = a little disagree
4 = do not know
5 = a little agree
6 = somewhat agree
7 = strongly agree

12. I find it easy to predict what will
happen next in society.   1   2   3   4   5   6   7

13. Society isn't improving for people
like me.   1   2   3   4   5   6   7

14. I believe that people are kind.   1   2   3   4   5   6   7

15. I have nothing important to
contribute to society.   1   2   3   4   5   6   7

General Feelings

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the *past two weeks*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:
0 = Did not apply to me at all
1 = Applied to me to some degree, or some of the time
2 = Applied to me to a considerable degree, or a good part of time
3 = Applied to me very much, or most of the time

1.	I found it hard to wind down.	0	1	2	3
2.	I was aware of dryness of my mouth.	0	1	2	3
3.	I couldn't seem to experience any positive feeling at all.	0	1	2	3
4.	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion).	0	1	2	3
5.	I found it difficult to work up the initiative to do things.	0	1	2	3
6.	I tended to over-react to situations.	0	1	2	3
7.	I experienced trembling (eg, in the hands).	0	1	2	3
8.	I felt that I was using a lot of nervous energy.	0	1	2	3
9.	I was worried about situations in which I might panic make a fool of myself.	0	1	2	3
10.	I felt that I had nothing to look forward to.	0	1	2	3
11.	I found myself getting agitated.	0	1	2	3
12.	I found it difficult to relax.	0	1	2	3
13.	I felt down-hearted and blue.	0	1	2	3
14.	I was intolerant of anything that kept me from getting on with what I was doing.	0	1	2	3
15.	I felt I was close to panic.	0	1	2	3

16. I was unable to become enthusiastic about anything.	0	1	2	3
17. I felt I wasn't worth much as a person.	0	1	2	3
18. I felt that I was rather touchy.	0	1	2	3
19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat).	0	1	2	3
20. I felt scared without any good reason.	0	1	2	3
21. I felt that life was meaningless.	0	1	2	3

General Physical Health

This survey asks you for your views about your health over the *past two weeks*. Answer every question by putting a cross in the box that applies to you. If you are unsure about how to answer a question, please give the best answer you can.

3. In general, would you say your health is:

Excellent	Very Good	Good	Fair	Poor
1	2	3	4	5

4. How **TRUE or FALSE** is each of the following statements for you?

		Definitely True	Mostly True	Don't Know	Mostly False	Definitely False
A	I seem to get sick a little easier than other people.	1	2	3	4	5
B	I am as healthy as anybody I know.	1	2	3	4	5
C	I expect my health to get worse.	1	2	3	4	5
D	My health is excellent.	1	2	3	4	5

Part D   **Assessing Emotions**

Directions: Each of the following items asks you about your emotions or reactions associated with emotions. After deciding whether a statement was **generally** true for you over the *past two weeks*, use the 5-point scale to respond to the statement. Please circle the "1" if you strongly disagree that this is like you, the "2" if you somewhat disagree that this is like you, "3" if you neither agree nor disagree that this is like you, the "4" if you somewhat agree that this is like you, and the "5" if you strongly agree that this is like you.

There are no right or wrong answers. Please give the response that best describes you.

1 = strongly disagree
2 = somewhat disagree
3 = neither agree nor disagree
4 = somewhat agree
5 = strongly agree

2. I know when to speak about my personal problems to others.   1   2   3   4   5

2. When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.   1   2   3   4   5

3. I expect that I will do well on most things I try.   1   2   3   4   5

4. Other people find it easy to confide in me.   1   2   3   4   5

5. I find it hard to understand the non-verbal messages of other people.   1   2   3   4   5

6. Some of the major events of my life have led me to re-evaluate what is important and not important.   1   2   3   4   5

7. When my mood changes, I see new possibilities.   1   2   3   4   5

8. Emotions are one of the things that make my life worth living. 1   2   3   4   5

9. I am aware of my emotions as I experience them.   1   2   3   4   5

1 = strongly disagree
2 = somewhat disagree
3 = neither agree nor disagree
4 = somewhat agree
5 = strongly agree

10. I expect good things to happen.	1	2	3	4	5
11. I like to share my emotions with others.	1	2	3	4	5
12. When I experience a positive emotion, I know how to make it last.	1	2	3	4	5
13. I arrange events others enjoy.	1	2	3	4	5
14. I seek out activities that make me happy.	1	2	3	4	5
15. I am aware of the non-verbal messages I send to others.	1	2	3	4	5
16. I present myself in a way that makes a good impression on others.	1	2	3	4	5
17. When I am in a positive mood, solving problems is easy for me.	1	2	3	4	5
18. By looking at their facial expressions, I recognize the emotions people are experiencing.	1	2	3	4	5
19. I know why my emotions change.	1	2	3	4	5
20. When I am in a positive mood, I am able to come up with new ideas.	1	2	3	4	5
21. I have control over my emotions.	1	2	3	4	5
22. I easily recognize my emotions as I experience them.	1	2	3	4	5
23. I motivate myself by imagining a good outcome to tasks I take on.	1	2	3	4	5

1 = strongly disagree
2 = somewhat disagree
3 = neither agree nor disagree
4 = somewhat agree
5 = strongly agree

24. I compliment others when they have done something well.   1   2   3   4   5

25. I am aware of the non-verbal messages other people send.   1   2   3   4   5

26. When another person tells me about an important event in his or her life, I almost feel as though I experienced this event myself.   1   2   3   4   5

27. When I feel a change in emotions, I tend to come up with new ideas.   1   2   3   4   5

28. When I am faced with a challenge, I give up because I believe I will fail.   1   2   3   4   5

29. I know what other people are feeling just by looking at them.   1   2   3   4   5

30. I help other people feel better when they are down.   1   2   3   4   5

31. I use good moods to help myself keep trying in the face of obstacles.   1   2   3   4   5

32. I can tell how people are feeling by listening to the tone of their voice.   1   2   3   4   5

33. It is difficult for me to understand why people feel the way they do.   1   2   3   4   5

Part E   **Attitudes Pertaining to Culture**

We want to know if you strongly agree or disagree with some statements. Please rate yourself for the *past two weeks*. If you strongly agree circle "9"; if you strongly disagree, circle "1"; if you are unsure or think that the question does not apply to you, circle "5" for the statement.

In short, use this key:

Strongly Disagree	1	2	3	4	5	6	7	8	9	Strongly Agree

1. Being a unique individual is important to me.   1   2   3   4   5   6   7   8   9

2. I would rather depend on myself than others.   1   2   3   4   5   6   7   8   9

3. Some people emphasize winning; I am not one of them.   1   2   3   4   5   6   7   8   9

4. Children should be taught to place duty before pleasure.   1   2   3   4   5   6   7   8   9

5. My personal identity, independent of others, is very important to me.   1   2   3   4   5   6   7   8   9

6. I usually sacrifice my self-interest for the benefit of my group.   1   2   3   4   5   6   7   8   9

7. Without competition, it is not possible to have a good society.   1   2   3   4   5   6   7   8   9

8. It is my duty to take care of my family, even when I have to sacrifice what I want.   1   2   3   4   5   6   7   8   9

9. It is important that I do my job better than others.   1   2   3   4   5   6   7   8   9

10. Family members should stick together, no matter what sacrifices are required.   1   2   3   4   5   6   7   8   9

11. The well-being of my coworkers is important to me.   1   2   3   4   5   6   7   8   9

12. Competition is the law of nature.   1   2   3   4   5   6   7   8   9

13. When another person does better than I do, I get tense and aroused.   1   2   3   4   5   6   7   8   9

Strongly Disagree	1	2	3	4	5	6	7	8	9	Strongly Agree

14. If a relative were in financial difficulty, I would help within my means.

   1   2   3   4   5   6   7   8   9

15. I often do my own thing.

   1   2   3   4   5   6   7   8   9

16. I enjoy working in situations involving competition.

   1   2   3   4   5   6   7   8   9

17. It is important to me to maintain harmony in my group.

   1   2   3   4   5   6   7   8   9

18. If a coworker gets a prize, I would feel proud.

   1   2   3   4   5   6   7   8   9

19. To me, pleasure is spending time with others.

   1   2   3   4   5   6   7   8   9

20. I rely on myself most of the time; I rarely rely on others.

   1   2   3   4   5   6   7   8   9

21. I feel good when I cooperate with others.

   1   2   3   4   5   6   7   8   9

22. Winning is everything.

   1   2   3   4   5   6   7   8   9

23. I like sharing little things with my neighbors.

   1   2   3   4   5   6   7   8   9

24. My happiness depends very much on the happiness of those around me.

   1   2   3   4   5   6   7   8   9

25. Parents and children must stay together as much as possible.

   1   2   3   4   5   6   7   8   9

26. It annoys me when other people perform better than I do.

   1   2   3   4   5   6   7   8   9

27. It is important to me that I respect the decisions made by my groups.

   1   2   3   4   5   6   7   8   9

Thank you for your participation! (Please return this questionnaire and the consent form to Navjot Bhullar as explained in the instruction sheet. She will then send you material for the next part of the study).

Appendix F: Set of Instructions for Journal Writing for Treatment Group

Code No

Journal Writing About Positive Satisfaction Experiences

The writing exercise is designed to provide you with an opportunity to explore your deepest feelings connected with activities that provide you with great satisfaction.

The activity that you choose to write about might 1) provide you with an intense sense of pleasure and enjoyment, 2) give you a sense of total involvement, 3) help you to develop your potential, 4) allow you to lose track of time while engaging in such activity, and 5) provide you with pleasure regardless of later outcomes.

A variety of positive emotions, such as happiness, intense joy and delight, excitement, and fulfilment, underlie the experience of satisfaction derived from the involvement in such activities. The purpose of the writing exercise is to see whether the satisfaction you derive from such activities can be increased by strengthening emotions associated with such activities.

Getting Ready to Write

Find a time and place where you won't be disturbed. Ideally, pick a time at the end of the day. Once you begin writing, write continuously. Don't worry about spelling or grammar. If you run out of things to write about, just repeat what you have already written. You can write about the same activities on all 3 days of writing or you can write about different activities each day.

What to Write

1. *Activities that provide you with great Satisfaction*

On the first day of journal writing, write about an activity or several activities that provide you with great satisfaction. Write about your deepest thoughts and feelings associated with these activities.

2. *Identifying Emotions Connected with Satisfaction*

On the second day of writing, write about an activity or several activities that provide you with great satisfaction. These can be the same activities you wrote about the day before or they can be different activities. Try to gain insight into possible relationships between engaging in these activities, how you handle your emotions, and your overall feelings of satisfaction.

Following is an example that shows how handling emotions may be related to satisfaction.

Example: Deriving satisfaction from *working towards my university degree*. I feel happy, enthused, and excited (*perception of emotions in self*). My family (parents/ siblings/ spouse/ children) acknowledge my hard work and sincere efforts and feel proud (*perception of emotions in others*). I feel good as I think about getting a good job after completing this degree (**understanding the causes of emotions in self**). My family would be very happy to see me successful (**understanding the causes of emotions in others**). I remember that I used positive emotions to help me think more clearly about a difficult assignment (**using emotions to help thinking**). I keep my studies emotionally satisfying and relatively low stress by

organizing my priorities and following a schedule (*management of emotions in self*). By sharing my achievements with my family, I keep them involved and happy about my studies (*management of emotions in others*).

In this example, 7 aspects of emotional functioning are related to satisfaction. These are 1) perception of emotion in the self, 2) perception of emotion in others, 3) understanding the causes of emotions in the self, 4) understanding the causes of emotions in others, 5) using emotions to help thinking, 6) managing emotions in the self, and 7) managing emotions in others.

3.   *Making Plans for the Future*

On the third day use insights you have gained about possible connections between handling emotions and satisfying activities by making plans for the future. Again think of activities that give you great satisfaction. Write down some specific plans and strategies focusing on how you might handle emotions to create even greater future satisfaction.

Appendix G: Set of Instructions for Journal Writing for Control Group

<div style="border:1px solid black; float:right; padding:4px;">
Code No
</div>

Journal Writing

The writing exercise is designed to provide you with an opportunity to reflect on your daily activities. Please write in detail about one or more of your activities during a typical day. Be matter of fact and objective in writing about these activities.

Getting Ready to Write

Find a time and place where you won't be disturbed. Ideally, pick a time at the end of the day. Once you begin writing, write continuously. Don't worry about spelling or grammar. If you run out of things to write about, just repeat what you have already written. You can write about the same activities on all 3 days of writing or you can write about different activities each day.

The following are examples of the types of activities you might write about:

Example 1: I completed an assignment at work (please describe the nature of the assignment and the steps you took to complete it).

Example 2: I helped the kids with their homework (please elaborate on how you did this).

Example 3: I started a new exercise routine to keep fit, for example, I started a morning walk or joined some sports club (please describe the nature of the exercise and the aspects of your involvement).

Appendix H: Queries about Journal Writing

Post-Writing Questions

1. Place an **X** to the left of the statement that most closely applies to you. Please mark one statement only.

___   I did not attempt the writing task.

___   I attempted the task, but was unable to execute any of it.

___   I did not attempt the task, but I did something relating to it (e.g., talking to someone about satisfaction derived from engaging in an activity and the emotions associated with that).

___   I completed part of the writing task (less than 20 minutes per day over three consecutive days).

___   I completed the writing task (20 minutes per day over three consecutive days).

___   I did more of the writing task than was asked of me.

2. Please indicate the number of minutes for which you wrote on each day you wrote:

Day 1: _____

Day 2: _____

Day 3: _____

Subsequent days, if any: _____

Appendix I: Post-Test Questionnaire

Post-Questionnaire (please fill out this questionnaire two weeks after completing the first three days of journal writing)

Code No.

Part A   **Activities Questionnaire**

If you wanted another person to know about who you are and what you were like as a person during the *last two weeks*, what two (2) activities of importance to you would you describe? In the space below, list the two activities, describing each in no more than 1 to 5 words. Choose two distinctly different activities.

1. _____

2. _____

The first answer sheet should be used to answering the questions about the first of the activities you have listed above.
The second answer sheet should be used when answering the questions about the second of the activities you have listed above.

Now take the activities that you listed and enter them on the designated spaces at the top of each of the following pages.

Now please begin to answer the questions regarding each of the activities. Evaluate the activities in the order in which they appear in the questionnaire. Be sure to enter your responses in the lines for items corresponding to the question numbers.

Activity 1. _____

For item 1, please use the following scale:

Very Seldom   1   2   3   4   5   6   7   Very Frequently

7. How often have you engaged in this activity in the past two weeks?

For item 2, please use the following scale:

Very Low   1   2   3   4   5   6   7   Very High

8. What was the usual level of effort you invest when you engaged in this activity during the

past two weeks?

For item 3, please use the following scale:

Not at All Important   1   2   3   4   5   6   7   Extremely Important

9. Overall, how important was this activity to you in your life during the past two weeks?

Activity 1. _____

Please use the following scale to rate the activity for the *past two weeks*:

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

1. This activity gives me my greatest feeling
   of really being alive.   1   2   3   4   5   6   7

2. When I engage in this activity I feel more
   satisfied than I do when engaged in most
   other activities.   1   2   3   4   5   6   7

3. This activity gives me my strongest sense
   of enjoyment.   1   2   3   4   5   6   7

4. When I engage in this activity I feel more
   intensely involved than I do when engaged
   in most other activities.   1   2   3   4   5   6   7

5. When I engage in this activity I feel good.   1   2   3   4   5   6   7

6. This activity gives me my strongest feeling
   that this is who I really am.   1   2   3   4   5   6   7

7. When I engage in this activity I feel that this
   is what I was meant to do.   1   2   3   4   5   6   7

8. This activity gives me my greatest pleasure.   1   2   3   4   5   6   7

9. When I engage in this activity I feel a warm
   glow.   1   2   3   4   5   6   7

10. I feel more complete or fulfilled when
    engaging in this activity than I do when
    engaged in most other activities.   1   2   3   4   5   6   7

11. When I engage in this activity I feel
    happier than I do when engaged in most
    other activities.   1   2   3   4   5   6   7

12. I feel a special fit or meshing when engaging
    in this activity.   1   2   3   4   5   6   7

Activity 2. _____

For item 1, please use the following scale:

        Very Seldom   1   2   3   4   5   6   7   Very Frequently

7. How often have you engaged in this activity in the past two weeks?

For item 2, please use the following scale:

        Very Low   1   2   3   4   5   6   7   Very High

8. What was the usual level of effort you invest when you engaged in this activity during the past two weeks?

For item 3, please use the following scale:

        Not at All Important   1   2   3   4   5   6   7   Extremely Important

9. Overall, how important was this activity to you in your life during the past two weeks?

Activity 2. _____

Please use the following scale to rate the activity for the *past two weeks*:

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

1. This activity gives me my greatest feeling
   of really being alive.   1   2   3   4   5   6   7

2. When I engage in this activity I feel more
   satisfied than I do when engaged in most
   other activities.   1   2   3   4   5   6   7

3. This activity gives me my strongest sense
   of enjoyment.   1   2   3   4   5   6   7

4. When I engage in this activity I feel more
   intensely involved than I do when engaged
   in most other activities.   1   2   3   4   5   6   7

5. When I engage in this activity I feel good.   1   2   3   4   5   6   7

6. This activity gives me my strongest feeling
   that this is who I really am.   1   2   3   4   5   6   7

7. When I engage in this activity I feel that this
   is what I was meant to do.   1   2   3   4   5   6   7

8. This activity gives me my greatest pleasure.   1   2   3   4   5   6   7

9. When I engage in this activity I feel a warm
   glow.   1   2   3   4   5   6   7

10. I feel more complete or fulfilled when
    engaging in this activity than I do when
    engaged in most other activities.   1   2   3   4   5   6   7

11. When I engage in this activity I feel
    happier than I do when engaged in most
    other activities.   1   2   3   4   5   6   7

12. I feel a special fit or meshing when engaging
    in this activity.   1   2   3   4   5   6   7

Please list again the activities you listed above as describing you. Then rate on a scale of **1-7**, to what extent each of the activities is important to you because it contributes to others' satisfaction during the *past two weeks*. That is, to what extent are the activities important to you because they lead other people to feel satisfied or happy.

Others' satisfaction **1**   **2**   **3**   **4**   **5**   **6**   **7** **Others' satisfaction**
does not make the   **makes the activity**
activity important   **important**

Activities

1_____ 1   2   3   4   5   6   7

2_____ 1   2   3   4   5   6   7

Part B

Life Satisfaction

Below are five statements that you may agree or disagree with. Using the **1 – 7** scale below indicate your agreement with each item by placing the appropriate number on the line preceding that item. Consider how you felt during the *last two weeks*. Please be open and honest in your responding.

7 = Strongly agree
6 = Agree
5 = Slightly agree
4 = Neither agree nor disagree
3 = Slightly disagree
2 = Disagree
1 = Strongly disagree

_____ In most ways my life is close to my ideal.

_____ The conditions of my life are excellent.

_____ I am satisfied with my life.

_____ So far I have gotten the important things I want in life.

_____ If I could live my life over, I would change almost nothing.

Your Mood in general

The words below describe different feelings and emotions. Please put a number from 1 to 5 to the left of each word to describe how you feel in the *past two weeks*. Use the following five-point scale:

1 = very slightly or not at all
2 = a little
3 = moderately
4 = quite a bit
5 = extremely

___ 1. interested

___ 2. distressed

___ 3. excited

___ 4. upset

___ 5. strong

___ 6. guilty

___ 7. scared

___ 8. hostile

___ 9. enthusiastic

___ 10. proud

___ 11. alert

___ 12. irritable

___ 13. inspired

___ 14. ashamed

___ 15. determined

___ 16. nervous

___ 17. jittery

___ 18. afraid

___ 19. attentive

___ 20. active

General Well-Being

The following set questions deals with how you felt about yourself and your life in the *past two weeks*. Please remember that there are no right or wrong answers. Circle the number that best describes your present agreement or disagreement with each statement.

1 = strongly disagree
2 = moderately disagree
3 = slightly disagree
4 = slightly agree
5 = moderately agree
6 = strongly agree

1. In general, I feel I am in charge of the situation
   in which I live.   1 2 3 4 5 6

2. When I look at the story of my life, I am pleased
   with how things have turned out.   1 2 3 4 5 6

3. The demands of everyday life often get me down.   1 2 3 4 5 6

4. Maintaining close relationships has been difficult
   and frustrating for me.   1 2 3 4 5 6

5. I live life one day at a time and don't really think
   about the future.   1 2 3 4 5 6

6. I am quite good at managing the many responsibilities
   of my daily life.   1 2 3 4 5 6

7. I think it is important to have new experiences that
   challenge how you think about yourself and the world.   1 2 3 4 5 6

8. I like most aspects of my personality.   1 2 3 4 5 6

9. I tend to be influenced by people with strong
   opinions.   1 2 3 4 5 6

10. I used to set goals for myself, but that now
    seems like a waste of time.   1 2 3 4 5 6

11. In many ways, I feel disappointed about my
    achievements in life.   1 2 3 4 5 6

12. I have confidence in my opinions, even if they are
    contrary to the general consensus.   1 2 3 4 5 6

1 = strongly disagree
2 = moderately disagree
3 = slightly disagree
4 = slightly agree
5 = moderately agree
6 = strongly agree

13. People would describe me as a giving person,
    willing to share my time with others.   1   2   3   4   5   6

14. Some people wander aimlessly through life,
    but I am not one of them.   1   2   3   4   5   6

15. For me, life has been a continuous process of
    learning, changing, and growth.   1   2   3   4   5   6

16. I sometimes feel as if I've done all there is to do in life.   1   2   3   4   5   6

17. I gave up trying to make big improvements or
    changes in my life a long time ago.   1   2   3   4   5   6

18. I judge myself by what I think is important, not
    by the values of what others think is important.   1   2   3   4   5   6

Social Relationships

The following questions are about how you felt about your social relationships over the *past two weeks*. Please indicate how strongly you agree or disagree with each of the following statements. There are no right or wrong answers.

1 = strongly disagree
2 = somewhat disagree
3 = a little disagree
4 = do not know
5 = a little agree
6 = somewhat agree
7 = strongly agree

1. The world is too complex for me.	1	2	3	4	5	6	7
2. I don't feel I belong to anything I'd call a community.	1	2	3	4	5	6	7
3. People who do a favor expect nothing in return.	1	2	3	4	5	6	7
4. I have something valuable to give the world.	1	2	3	4	5	6	7
5. The world is becoming a better place for everyone.	1	2	3	4	5	6	7
6. I feel close to other people in my community.	1	2	3	4	5	6	7
7. My daily activities do not produce anything worthwhile for my community.	1	2	3	4	5	6	7
8. I cannot make sense of what's going on in the world.	1	2	3	4	5	6	7
9. Society has stopped making progress.	1	2	3	4	5	6	7
10. People do not care about other people's problems.	1	2	3	4	5	6	7
11. My community is a source of comfort.	1	2	3	4	5	6	7

1 = strongly disagree
2 = somewhat disagree
3 = a little disagree
4 = do not know
5 = a little agree
6 = somewhat agree
7 = strongly agree

12. I find it easy to predict what will
    happen next in society.   1   2   3   4   5   6   7

13. Society isn't improving for people
    like me.   1   2   3   4   5   6   7

14. I believe that people are kind.   1   2   3   4   5   6   7

15. I have nothing important to
    contribute to society.   1   2   3   4   5   6   7

General Feelings

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the *past two weeks*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:
0 = Did not apply to me at all
1 = Applied to me to some degree, or some of the time
2 = Applied to me to a considerable degree, or a good part of time
3 = Applied to me very much, or most of the time

1.	I found it hard to wind down.	0	1	2	3
2.	I was aware of dryness of my mouth.	0	1	2	3
3.	I couldn't seem to experience any positive feeling at all.	0	1	2	3
4.	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion).	0	1	2	3
5.	I found it difficult to work up the initiative to do things.	0	1	2	3
6.	I tended to over-react to situations.	0	1	2	3
7.	I experienced trembling (eg, in the hands).	0	1	2	3
8.	I felt that I was using a lot of nervous energy.	0	1	2	3
9.	I was worried about situations in which I might panic make a fool of myself.	0	1	2	3
10.	I felt that I had nothing to look forward to.	0	1	2	3
11.	I found myself getting agitated.	0	1	2	3
12.	I found it difficult to relax.	0	1	2	3
13.	I felt down-hearted and blue.	0	1	2	3
14.	I was intolerant of anything that kept me from getting on with what I was doing.	0	1	2	3
15.	I felt I was close to panic.	0	1	2	3

16. I was unable to become enthusiastic about anything.	0	1	2	3
17. I felt I wasn't worth much as a person.	0	1	2	3
18. I felt that I was rather touchy.	0	1	2	3
19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat).	0	1	2	3
20. I felt scared without any good reason.	0	1	2	3
21. I felt that life was meaningless.	0	1	2	3

General Physical Health

This survey asks you for your views about your health over the *past two weeks*. Answer every question by putting a cross in the box that applies to you. If you are unsure about how to answer a question, please give the best answer you can.

5. In general, would you say your health is:

Excellent	**Very Good**	**Good**	**Fair**	**Poor**
1	**2**	**3**	**4**	**5**

6. How **TRUE or FALSE** is each of the following statements for you?

		Definitely True	Mostly True	Don't Know	Mostly False	Definitely False
A	I seem to get sick a little easier than other people.	1	2	3	4	5
B	I am as healthy as anybody I know.	1	2	3	4	5
C	I expect my health to get worse.	1	2	3	4	5
D	My health is excellent.	1	2	3	4	5

Part C   **Assessing Emotions**

Directions: Each of the following items asks you about your emotions or reactions associated with emotions. After deciding whether a statement was **generally** true for you over the *past two weeks*, use the 5-point scale to respond to the statement. Please circle the "1" if you strongly disagree that this is like you, the "2" if you somewhat disagree that this is like you, "3" if you neither agree nor disagree that this is like you, the "4" if you somewhat agree that this is like you, and the "5" if you strongly agree that this is like you.

There are no right or wrong answers. Please give the response that best describes you.

1 = strongly disagree
2 = somewhat disagree
3 = neither agree nor disagree
4 = somewhat agree
5 = strongly agree

3. I know when to speak about my personal problems
    to others.   1   2   3   4   5

2. When I am faced with obstacles, I remember times I faced
    similar obstacles and overcame them.   1   2   3   4   5

3. I expect that I will do well on most things I try.   1   2   3   4   5

4. Other people find it easy to confide in me.   1   2   3   4   5

5. I find it hard to understand the non-verbal messages of other
    people.   1   2   3   4   5

6. Some of the major events of my life have led me to re-evaluate
    what is important and not important.   1   2   3   4   5

7. When my mood changes, I see new possibilities.   1   2   3   4   5

8. Emotions are one of the things that make my life worth living. 1   2   3   4   5

9. I am aware of my emotions as I experience them.   1   2   3   4   5

1 = strongly disagree
2 = somewhat disagree
3 = neither agree nor disagree
4 = somewhat agree
5 = strongly agree

10. I expect good things to happen.   1   2   3   4   5

11. I like to share my emotions with others.   1   2   3   4   5

12. When I experience a positive emotion, I know how to
make it last.   1   2   3   4   5

13. I arrange events others enjoy.   1   2   3   4   5

14. I seek out activities that make me happy.   1   2   3   4   5

15. I am aware of the non-verbal messages I send to others.   1   2   3   4   5

16. I present myself in a way that makes a good impression
on others.   1   2   3   4   5

17. When I am in a positive mood, solving problems is
easy for me.   1   2   3   4   5

18. By looking at their facial expressions, I recognize the
emotions people are experiencing.   1   2   3   4   5

19. I know why my emotions change.   1   2   3   4   5

20. When I am in a positive mood, I am able to come up with
new ideas.   1   2   3   4   5

21. I have control over my emotions.   1   2   3   4   5

22. I easily recognize my emotions as I experience them.   1   2   3   4   5

23. I motivate myself by imagining a good outcome to
tasks I take on.   1   2   3   4   5

1 = strongly disagree
2 = somewhat disagree
3 = neither agree nor disagree
4 = somewhat agree
5 = strongly agree

24. I compliment others when they have done something well.   1   2   3   4   5

25. I am aware of the non-verbal messages other people send.   1   2   3   4   5

26. When another person tells me about an important event in
his or her life, I almost feel as though I experienced this
event myself.   1   2   3   4   5

27. When I feel a change in emotions, I tend to come up
with new ideas.   1   2   3   4   5

28. When I am faced with a challenge, I give up because
I believe I will fail.   1   2   3   4   5

29. I know what other people are feeling
just by looking at them.   1   2   3   4   5

30. I help other people feel better when they are down.   1   2   3   4   5

31. I use good moods to help myself keep trying in the face of
obstacles.   1   2   3   4   5

32. I can tell how people are feeling by listening to the tone
of their voice.   1   2   3   4   5

33. It is difficult for me to understand why people feel the way
they do.   1   2   3   4   5

Part D   **Attitudes Pertaining to Culture**

We want to know if you strongly agree or disagree with some statements. Please rate yourself for the *past two weeks*. If you strongly agree circle "9"; if you strongly disagree, circle "1"; if you are unsure or think that the question does not apply to you, circle "5" for the statement.

In short, use this key:

Strongly Disagree	1	2	3	4	5	6	7	8	9	Strongly Agree

1. Being a unique individual is important to me.   1   2   3   4   5   6   7   8   9

2. I would rather depend on myself than others.   1   2   3   4   5   6   7   8   9

3. Some people emphasize winning; I am not one of them.   1   2   3   4   5   6   7   8   9

4. Children should be taught to place duty before pleasure.   1   2   3   4   5   6   7   8   9

5. My personal identity, independent of others, is very important to me.   1   2   3   4   5   6   7   8   9

6. I usually sacrifice my self-interest for the benefit of my group.   1   2   3   4   5   6   7   8   9

7. Without competition, it is not possible to have a good society.   1   2   3   4   5   6   7   8   9

8. It is my duty to take care of my family, even when I have to sacrifice what I want.   1   2   3   4   5   6   7   8   9

9. It is important that I do my job better than others.   1   2   3   4   5   6   7   8   9

10. Family members should stick together, no matter what sacrifices are required.   1   2   3   4   5   6   7   8   9

11. The well-being of my coworkers is important to me.   1   2   3   4   5   6   7   8   9

12. Competition is the law of nature.   1   2   3   4   5   6   7   8   9

13. When another person does better than I do, I get tense and aroused.   1   2   3   4   5   6   7   8   9

Strongly Disagree	1	2	3	4	5	6	7	8	9	Strongly Agree

14. If a relative were in financial difficulty, I would help within my means. 1 2 3 4 5 6 7 8 9

15. I often do my own thing. 1 2 3 4 5 6 7 8 9

16. I enjoy working in situations involving competition. 1 2 3 4 5 6 7 8 9

17. It is important to me to maintain harmony in my group. 1 2 3 4 5 6 7 8 9

18. If a coworker gets a prize, I would feel proud. 1 2 3 4 5 6 7 8 9

19. To me, pleasure is spending time with others. 1 2 3 4 5 6 7 8 9

20. I rely on myself most of the time; I rarely rely on others. 1 2 3 4 5 6 7 8 9

21. I feel good when I cooperate with others. 1 2 3 4 5 6 7 8 9

22. Winning is everything. 1 2 3 4 5 6 7 8 9

23. I like sharing little things with my neighbors. 1 2 3 4 5 6 7 8 9

24. My happiness depends very much on the happiness of those around me. 1 2 3 4 5 6 7 8 9

25. Parents and children must stay together as much as possible. 1 2 3 4 5 6 7 8 9

26. It annoys me when other people perform better than I do. 1 2 3 4 5 6 7 8 9

27. It is important to me that I respect the decisions made by my groups. 1 2 3 4 5 6 7 8 9

Thank you for your participation! (Please return this questionnaire, your journal, and the initial post-writing questions to Navjot Bhullar in the addressed, stamped envelope).

Appendix J: Comments about Journaling Positive Experiences[24]

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[24] Prior permission was taken from respective participants to report their comments.

Participant 1

"…it reminded me to take time to reflect upon my work and life, to identify the things that bring me pleasure and try to eliminate the things that cause me stress. The latter insight is being utilized to change my life for the better and was very instrumental in my decision to finally leave my current workplace. I am working on networking other avenues for my talents and personal growth – thank you for this extra motivation. I currently have two positions in the pipeline and I have just been appointed to a reference group for an event management business…"

Participant 2

"This was a little strange for me to complete this (writing about positive experiences). I usually do this kind of task (journal writing) if I am feeling overwhelmed and confused about my feelings (it helps me gain perspective). When it comes to activities I enjoy, I am content with the feelings that I gain through these activities. When I was journal writing for this activity – the feelings associated with those specific thoughts and/or space in time was revisited at the time of writing. I wondered if I made a point of doing this positive journal writing over a long period of time, could I change my levels of general well-being permanently. So, I have purchased a notebook just for this. I may revisit happy moments just before sleeping once a day. If I haven't had a particularly joyous moment in that day, I'll read over a past entry. Thanks for this …"

Participant 3

"I have not been able to complete my journaling initially. There has been a combination of problems that have contributed to my incompletion. First, I got a bit depressed after initial writing and had to stop writing... However, I wanted to do this exercise. So, I started again. I'm sitting at my desk trying to get started on my journaling and all that I can think of is sailing (what I'm writing about). Your research is working well for me. I need an antidote; it's a beautiful sunny morning with a fair wind!!! I must go down to the sea again, the lovely sea and the sky, and all I need is a tall ship and a star to steer...Yes, I'm doing my journal writing.

I am continuing my morning writing. I still have pleasant memories (and uplifting physical sensations) from the writing. I know that I benefited from writing about my thoughts...".