The Association Between Body Image and Psychological Well-Being in Adult Women

by

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Abstract

The association between body image and women’s mental health has been a major focus of attention in the body image literature. However, this work has focused on young women’s appearance concerns and its adverse correlates, such as depression, anxiety, and low self-esteem. During adulthood, women experience a number of changes in both physical and psychological functioning, such that the relative importance of different aspects of the body may be more/ less salient to effective psychological functioning. This thesis examined the associations between multiple aspects of body image and psychological well-being, and the potential moderating role of age and social roles, among a community sample of adult women.

Study 1 involved an anonymous online survey that evaluated appearance and functional dimensions of body image attitudes and six dimensions of psychological well-being. This study was completed by a random sample of 717 women, aged 18 – 59. Women’s body image attitudes were assessed using multiple measures, including: the Multidimensional Body-Self Relations Questionnaire; Body Image Ideals Questionnaire; Body Image Behaviour Scale; Body Image Quality of Life Inventory; Physical Appearance Comparison Scale; and, the Situational Inventory of Body Image Dysphoria. Psychological well-being was assessed in six dimension (autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance), using Ryff’s Scales of Psychological Well-being. Age and social role involvement were self-reported and assessed using a check-list designed for this study. Study 2 involved semi-structured interviews with a sample of 24 women (from the initial
sample) that probed their conceptions of body image, well-being, the potential relationship between the two constructs, and its manifestation in daily living.

Among the sample of young to middle aged women, regression analyses revealed that a functional aspect of body image, namely health and fitness evaluation, predicted psychological well-being more broadly than did appearance-related attitudes. Of the well-being dimensions, self-acceptance and environmental mastery were most strongly predicted by both appearance- and function-related body image attitudes. Women’s personal experiences and reflections indicated that an appreciation for the body’s instrumental qualities and minimising the relative importance of appearance promoted positive psychological functioning. Structural equation modelling demonstrated support for the bidirectional associations between appearance- and function-related body attitudes and well-being. Although age and social role involvement did not statistically moderate the association between body image attitudes and well-being, women’s qualitative experiences and conceptualisations of body image and well-being suggest these variables impact the association indirectly, and over time.

Understanding the meaning and relevance of self-rated health and fitness in the day-to-day functioning of young to middle aged women may benefit therapeutic and research efforts aimed at promoting their mental health. The bidirectional nature of the association between body image and well-being in this study warrants further research. In particular, it would be useful to determine how psychological resources contribute to promoting resilience against body image concerns in women across adulthood.
Chapter One

Thesis Overview

Body Image

Body image has been conceptualised in many different ways. The range of dimensions has been primarily influenced by clinical aspects of body image distortion that may lead to body-related disorders (e.g., eating disorders, body dysmorphic disorder, and appearance-altering trauma; Cash, 2012). For example, Gleaves, Williamson, Eberenz, Sebastian, and Barker (1995) proposed a model of body image disturbance that comprised four dimensions: fear of fatness, preference for thinness, body dissatisfaction and body distortion. Thompson, Heinberg, Altabe, and Tantleff-Dunn (1999a) also examined body image from a clinical viewpoint, using the phrase “body image disturbance” to refer to an individual’s subjective view of their physical appearance.

Other authors have posed more general models of body image that are not disorder-specific, and so have applications to nonclinical populations. For example, Slade (1994) argued body image is best viewed as a “loose mental representation of the body’s shape, form and size, which is influenced by a variety of historical, cultural and social, individual and biological factors that operate over varying time spans” (p. 502). In a nonclinical sample of adult women, Banfield and McCabe (2002) identified three factors underling the body image construct: a perceptual dimension; body importance and dieting dimension; and a cognitive-affective dimension. Additionally, Cash and his colleagues (Brown, Cash, & Mikulka, 1990; Cash, 1994, 2004; Cash & Henry, 1995) defined body image as a multifaceted psychological experience of embodiment that is
composed of perceptual and attitudinal dimensions. A synthesis of these diverse past conceptualisations and measures of body image indicate that the construct is generally considered to be multi-dimensional, encompassing perceptual, cognitive, affective, or behavioural dimensions.

Whether researchers focus on the perceptual, cognitive, affective, or behavioural processes involved in an individual’s experience of their body, findings from studies on gender differences in body image indicate that appearance commonly features in women’s body image experiences across much of the lifespan (Knight, 2012). Whereas men are socialised to focus more on physical and social achievements than on the body’s aesthetics, women learn from a young age to be concerned with their appearance and the achievement of idealised standards of beauty (Hurd Clarke, 2012; Murnen, 2011). Appearance ideals promoted for women in Westernised cultures emphasise thin/ slender bodies, with wrinkle-free smooth-skin, increasingly large breasts, round buttocks, and a thin waist; in contrast, male ideals are strongly associated with muscularity and somewhat associated with leanness (Grogan, 2012; Murnen, 2011). There is a cultural emphasis on how a woman’s body looks, versus how a man’s body acts (Murnen, 2011), which promotes the message that appearance is more important for women than men. Furthermore, researchers have argued that women’s social value is often judged in terms of their physical appearance rather than in terms of their abilities or experience (Grogan, 2012; Hurd Clarke, 2012). Although not all women equally adopt cultural ideals of feminine beauty, study findings indicate that a woman’s appearance and embodying cultural ideals of beauty are associated with success in obtaining employment, and platonic and romantic relationships (Hurd Clarke, 2012; Murnen, 2011). Given that within the Western
culture there is an emphasis and promotion of appearance as particularly salient to women, it is not surprising that studies across Western cultures show that women tend to be less satisfied with their bodies relative to men of a similar age (Grogan, 2012), with weight and shape reported as principle sources of discontent for women across adulthood (Tiggemann, 2004).

Throughout adulthood, women experience a variety of changes to their physical health and physical appearance that are likely to impact how they feel about their bodies. For example, researchers have found that changes to the body’s physical appearance or overall size (e.g., weight gain) throughout the course of pregnancy (Grogan, 2008; Skouteris, Carr, Wertheim, Paxton, & Duncombe, 2005) or following menopause (Chrisler, 2007), can impact women’s satisfaction with their appearance. In addition to weight gain, women experience numerous changes to physical features of the body as they get older, such as loss of skin elasticity and changes to skin pigmentation, wrinkles, and the onset of grey and/or thinning hair (Knight, 2012). Considering that social comparison studies have shown younger women make unfavourable comparisons between ideal images (e.g., the slender, wrinkle-free Western societal ideal) and their own appearance (Grogan, 2012), aging women are proposed to experience the changes to their physical appearances as a source of discontent and dissatisfaction (Hurd Clarke, 2012), as their actual appearance becomes more discrepant from the slender, wrinkle-free cultural ideal.

Despite the general findings that slimness, body tone, and youthful appearance decline with age, some researchers who have reviewed patterns of body (dis)satisfaction and body concern in women across adulthood have reported that women do not appear to become less satisfied with their bodies as they get
older (Grogan, 2012; Peat, Peyerl, & Muehlenkamp, 2008; Tiggemann, 2004). Research studies sampling women over the age of 40 have shown that middle-aged women (commonly operationalised as 40 – 60 years), are less likely to compare their bodies with others (e.g., Davison & McCabe, 2005), or tend to choose age-appropriate women (e.g., friends and relatives), against whom they assess their own bodies (e.g., Grogan, 1999). As women age they may become less concerned with idealised body standards, and appearance may become less important to self-evaluations of their body and global evaluations of self-worth (Tiggemann, 2004; Whitbourne & Skultety, 2002).

Although there are mixed findings regarding just how important appearance is to women across adulthood (Knight, 2012), one line of research on older adults (i.e., 60 years and older) indicates that functional ability/ body competence (e.g., strength, mobility, agility, fitness and health) becomes more salient to women’s evaluations of their bodies as they age (Baker & Gringart, 2009). That is, women become increasingly health conscious and more alert to personal symptoms of physical illness as they get older. The notion that functional ability or body competence contributes to women’s body image is further supported by research findings that show body satisfaction is largely mediated by health and physical abilities in older adults (Franzoi & Koehler, 1998). On the basis of these findings, researchers have argued that as women age, they place less importance on the physical/ aesthetic appearance of the body and more importance on the body’s perceived competence and function (Hurd Clarke, 2012; Roy & Payette, 2012).

In sum, body image is a multi-dimensional construct that may involve perceptual, cognitive, behavioural and affective processes related to any aspect of
the body. Studies that have examined a variety of these processes in adult women indicate that body image encompasses more than weight or size, and involves not only women’s attitudes about their appearance, but also attitudes about their body’s function and competence. Given the numerous changes that occur to a woman’s appearance and body function across adulthood, one of the objectives of this thesis was to determine the extent to which a variety of existing measures that assess these aspects of body image (i.e., appearance and body functionality) apply to young and middle-aged women.

**Psychological Well-Being**

The broad category of psychological well-being (hereafter referred to as ‘well-being’) encompasses multiple constructs describing a variety of aspects of mental health. According to the World Health Organisation (WHO, 2011), mental health is defined as “a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (para. 1). This definition emphasises qualities of positive functioning as key to describing well-being, which over time, has shifted from conceptualisations of well-being that traditionally emphasised the absence or lack of symptom distress (e.g., lack of depression and anxiety symptoms), as the primary indication of mental health (Keyes & Magyar-Moe, 2003). An extant literature on models of well-being has resulted from researchers aiming to explain key aspects of positive functioning, and criteria regarding what constitutes well-being are diverse. Some researchers refer to well-being as a balance of positive and negative emotions (Bradburn, 1969), satisfaction with life or life domains
Research that has examined differences in the mental health of men and women has demonstrated that although women more often suffer from mental illnesses such as anxiety, depressive, and eating disorders relative to men (Kessler, Chiu, Demler, & Walters, 2005), they also report a better (higher) overall quality of life (Fu, Anderson, Courtney, & McAvan, 2006). Gender differences in these patterns of mental health appear to be linked, in part, to the centrality of relationships in women’s lives. Although both men and women seek out and need close relationships, differential gender socialisation processes that promote greater interest in, and concern for, relationships among women relative to men are thought to contribute to the development of a woman’s (feminine) identity (Castañeda & Burns-Glover, 2008). On the one hand, it has been postulated that socialisation for women to adopt feminine-related attributes (e.g., women’s inclination to nurture and care for others), and women’s responses to socially- or self-ascribed expectations of social roles (e.g., wife, mother, daughter and so on), can lead to maladaptive styles of coping that contribute to risk for psychopathology among women (Russo & Tartaro, 2008). On the other hand, research findings indicating that women provide the bulk of care to family members in comparison to men (Betz, 2005; Gjerdingen, McGovern, Bekker, Lundberg, & Willemsen, 2000), and perceive the quality of their relationships more positively than do men (Lindfors, Berntsson, & Lundberg, 2006), suggest that women’s orientation toward others may contribute to higher quality of life ratings. Thus, although it appears contradictory, it is possible that the centrality of
relationships in women’s lives contributes simultaneously to both poorer mental health and enhanced levels of well-being among women.

The majority of women living in contemporary Western cultures combine being a mother and a wife with having a job (Dijkstra & Barelds, 2009; Frone, 2003; Gamble, Lewis, & Rapoport, 2006), and research on well-being among women has been partly guided by the question of whether occupying multiple roles across work and personal life domains is beneficial or detrimental to a woman’s well-being (Gjerdingen et al., 2000). Study findings indicate that managing multiple roles can be both stressful and satisfying (Reid & Hardy, 1999; Stephens, Franks, Martire, Norton, & Atienza, 2009). Researchers have proposed that adapting to multiple roles may adversely affect well-being due to competing demands on one’s time, energy and involvement, which in turn, may compromise relationships and other emotional resources (Goode, 1960; Stephens & Franks, 1999). In contrast, occupying multiple roles may enhance well-being by increasing an individual’s control, resources, emotional gratification, and social connections through participation in valued activities, such as marriage, parenthood and employment (Marks, 1977; Sieber, 1974; Thoits, 1983).

A focal point of research on well-being in middle-aged women has been their ability to cope with the many family, health, and employment issues that adjust in midlife (Russo & Tartaro, 2008), and the mental health impact of daily struggles and stress faced by women during this stage of life (Taylor & Stanton, 2007). Some of the changes and challenges faced by middle-aged women that have received considerable empirical attention include creating and sustaining a family, caring for younger and older family members, psychological adjustment to the movement of children outside of the home, onset of physical illness, and
menopause (McFadden & Swan, 2012). For many women, the midlife transition does not come easily, and has in the past been labelled a time of crisis (also referred to as the midlife crisis phase; Boston, 2006; Kurpius & Nicpon, 2001; McFadden & Swan, 2012). A midlife crisis has been explained as a period of reflection when old values are questioned and a new direction is sought (Boston, 2006). The crises middle-aged adults are thought to face are between integrity (i.e., reflecting on one’s past life without regret) versus despair, and between generativity (i.e., caring for others and finding meaning in life) versus self-absorption, respectively (Knight, 2012). The primary strengths associated with integrity and generativity are wisdom, creativity and care; thus, middle adulthood is a stage of life that is marked by, particularly for women, a concern for others, the inner self, and the meaning of life (Knight, 2012). Although this line of research (i.e., the ability of women to cope and adjust to daily changes and challenges), does not explicitly target well-being, it does draw attention to developmental aspects of psychological well-being, such as how specific periods in life may involve distinct psychological challenges and gains/losses (Keyes & Ryff, 1999), and emphasises human growth and development as core components in descriptions of what it means to be psychologically healthy.

Drawing from an extensive literature on theories of what constitutes the optimal resolution of basic life challenges (Ryff, 1985), Ryff (1989a) derived a formulation of well-being that recapitulated a breadth of positive functioning indices into six dimensions. The six dimensions articulate different challenges individuals encounter as they strive to function positively, and include positive appraisals of oneself and one’s past life (Self-Acceptance), a sense of self-determination (Autonomy), the belief that one’s life is purposeful and meaningful
(Purpose in Life), the presence of high quality interpersonal ties (Positive Relations with Others), the capacity to manage effectively one’s life and environment (Environmental Mastery), and a sense of continued growth and development as an individual (Personal Growth; Ryff, 1989a; Ryff & Keyes, 1995). Studies have documented variability in the dimensions of well-being according to age (as one of several sociodemographic factors of interest); with findings indicating midlife as a time when people function particularly well relative to younger or older cohorts (Keyes & Ryff, 1999). Furthermore, Ryff’s model and measure of well-being has received empirical support for its six-factor structure, among representative samples of women and men from a number of different countries (Cheng & Chan, 2005; Clarke, Marshall, Ryff, & Wheaton, 2001; Ryff & Keyes, 1995; van Dierendonck, 2004). Thus, Ryff’s (1989a) theoretically derived six-factor model of well-being provides a comprehensive, relevant and well-validated framework and measure for assessing well-being in adult women.

In sum, psychological well-being is a broad category that covers a multitude of constructs describing positive psychological functioning. Research on mental health among women highlights the need to consider the ability to adjust to demands/ challenges presented to them, the psychological resources/ attributes gained from such experiences, and the importance or meaning attributed to such experiences in conceptualisations of well-being for women. As such, one of the objectives of this thesis was to explore the different factors important to adult women from different stages of the lifespan using a well-validated model of well-being grounded in theoretical and empirical accounts of positive psychological functioning.
Social Roles

The impact of multiple role-occupancy on women’s physical and mental health has been the subject of extensive research as it has become increasingly common for women to balance multiple social roles (Barnett, 2004; Barnett & Hyde, 2001). In addition to women’s primary identifications as mother/wife, studies have expanded the repertoire of women’s roles to include paid-worker, caregiver, friend, and volunteer, among other roles. Although previous research suggested that women’s engagement in multiple roles was a source of stress and conflict by absorbing their time and energy, and had a negative effect on their well-being (e.g., Goode, 1960), a growing body of literature indicates that occupying multiple roles is beneficial for women’s mental health (Adelmann, 1994; Barnett, 2004; Dautzenberg, Diederiks, Philipsen, & Tan, 1999; Lahelma, Arber, Kivela, & Roos, 2002; Nordenmark, 2004). Some of the benefits of occupying multiple roles include increased feelings of belonging, purpose, and self-efficacy, increased opportunities for success and social support, and greater emotional and economic resources (Barnett & Hyde, 2001; Marks, 1977; Ryff, 2014; Sieber, 1974; Thoits, 1983).

In addition to the number of roles occupied, the type of social roles occupied may also contribute to the augmentation or reduction in mental health outcomes among women. For example, long-term homemakers (i.e., non-working married women with children) have been found to be at increased risk for reporting poor health relative to women (also mothers) with strong ties to the labour market (McMunn, Bartley, & Kuh, 2006). Although the roles of mother and homemaker are important and generally very satisfying, working outside of the home (i.e., career pursuits or volunteer and vocational activities), is thought to
be of benefit to a woman’s well-being by providing outlets for productivity and achievement, and the opportunity to utilise her unique talents and abilities (Betz, 2005).

The quality of the experience in specific roles has been linked to the impact of roles on women’s health and well-being (Barnett & Marshall, 1992; Barnett, Marshall, Raudenbush, & Brennan, 1993). Some researchers have argued that social roles are not equally rewarding or distressing to all women and individuals may not benefit from the same combination of roles (Jackson, 1997). For example, women who experience great strain in their mother role may not experience as much benefit in their paid-worker role (Greenberger & O’Neil, 1993), and women who occupy lower-status jobs may benefit less from their worker role than women in more prestigious occupations (Jackson, 1997). Thus while occupying multiple social roles may be beneficial overall, the specific impact of social roles on an individual woman’s well-being depends, in part, on the way in which she experiences her combination of roles.

**Body Image and Psychological Well-being**

As outlined earlier in this chapter, both body image and well-being are multi-dimensional constructs. Broadly defined, the body image construct refers to an individual’s mental representation of body-related perceptions and attitudes, with the latter aspect encompassing cognitions, affect, and behaviours (Cash, 2004). Body image attitudes are proposed to consist of two sub-dimensions: body image evaluations and investment (Cash, Melnyk, & Hrabosky, 2004). Evaluative body image encompasses cognitive appraisals and associated emotions about the body, with measures including, but not limited to, body (dis)satisfaction and self-
ideal discrepancies (Cash, 2002a). In contrast, body image investment pertains to the cognitive and behavioural importance of appearance and/or body-function in an individual’s life and to an individual’s sense of self (Cash, Melnyk et al., 2004), with measures ranging from preoccupation with weight and shape to time and effort spent on one’s appearance or fitness. Psychological well-being has been proposed to reflect components of psychological health that characterise an individual who feels good about life and functions well (Keyes & Annas, 2009).

Past conceptualisations of well-being are diverse, with positive psychological functioning proposed to encompass multiple criteria. One approach focuses on an individual’s cognitive and affective appraisals toward a given life domain, and assesses constructs such as life satisfaction and the balance of positive and negative emotions (e.g., Diener, 2000). Other approaches focus on an individual’s evaluation of how they function in life, taking into account an individual’s self-reflection of how he/she responds to life challenges and daily stresses, and assesses constructs such as autonomy, purpose in life, mastery, and growth (e.g., Ryff, 1989a; Keyes & Ryff, 1999).

Previous research has established significant relationships between body image attitudes and mental health/well-being, particularly in adult women. In comparison to men, appearance and body (dis)satisfaction is more strongly associated with a woman’s sense of self and identity (Hurd Clarke, 2012; Murnen, 2011). Study findings indicate an individual woman’s evaluation of her physical self is closely related to global self-evaluations like self-concept and life satisfaction (Mercurio & Landry, 2008), and specific aspects of well-being such as self-esteem (e.g., Baker & Gringart, 2009; Paxton & Phythian, 1999; Kostanski & Gullone, 1998; Webster & Tiggemann, 2003) and self-worth (Lennon, Rudd,
Sloan, & Kim, 1999; Sondhaus, Kusrtz, & Strube, 2001). A negative body image (e.g., body dissatisfaction) has been linked with an array of unhealthy mental health outcomes, including an increased likelihood of eating and mood disorders, psychological distress (e.g., increased depression and anxiety symptoms), poor self-esteem, and poor psychological adjustment (i.e., negative affect) among young and middle-aged women (Cash & Pruzinsky, 2002; Donaghue, 2009; Grilo & Masheb, 2005; Matz, Foster, Faith, & Wadden, 2002; Stice, 2002; Woodside & Staab, 2006). The findings of a recent meta-analysis (Roy & Payette, 2012) also supported the link between negative body image (whatever the investigated dimension) and adverse psychological correlates (e.g., poor self-esteem and psychological distress) among older adults.

Although research highlights that women across the lifespan experience dissatisfaction with their bodies (e.g., Forbes et al., 2005; Montepare, 1996; Webster & Tiggemann, 2003), the adverse implications of such discontent may vary in its impact on a woman’s sense of well-being as a function of the psychological importance (i.e., investment) attributed to bodily self-evaluations. Prior studies (Cash, Phillips, Santos, & Hrabosky, 2004; Cash, Melnyk et al., 2004; Jakatdar, Cash, & Engle, 2006) have demonstrated that in addition to measures of body evaluations (e.g., body satisfaction), the inclusion of body image investment measures (e.g., investment in appearance) increases the prediction of psychosocial functioning (e.g., social anxiety and eating disturbance) and indices of psychological adjustment (e.g., depressive symptoms, positive/ negative affect). Thus, the strength of the relationship between body image and well-being may vary according to the aspect of body image or well-being assessed.
In sum, women’s body image experiences appear to be closely linked with women’s mental health, not only in relation to the development of mental disorders, but also to their daily functioning and sense of well-being. Empirical findings indicate that particular aspects of body image are associated with specific indices of mental health and well-being, such as psychological adjustment, social functioning, and risk for psychopathology. Although an extensive body of literature emphasises the negative relationships between body image and mental health/well-being, the strength and valence of the relationship (i.e., positive or negative) may vary according to the body image dimension measured. Based on empirical findings on the association between body image and well-being, one of the objectives of this thesis was to explore how body image relates to different aspects of well-being among a sample of young to middle-aged women.

Why Does the Current Research Need to be Completed?

Body Image is Central to Women’s Sense of Self

The body is the conduit within which we exist and interact with the world, and may be viewed as a reflection or manifestation of the self. Various aspects of the body’s appearance, including size, weight, shape, and adornment, are a means of self-expression and in some cultures indicate status, wealth, or even reproductive viability (Polivy & Herman, 2007). As such, a sense of self/identity is fundamentally situated and evaluated within the realm of the physical self, whereby self-appraisals about the body’s appearance and capabilities (i.e., limitations and abilities), forms part of the way a woman views herself (Knight, 2012). The relationship between body image and sense of self is particularly salient for women living in Western cultures, who relative to men, primarily feel
pressed to conform to unrealistic standards of beauty and attractiveness, who view themselves as too fat, and who are more likely to define their self-worth on the basis of weight or shape (Polivy & Herman, 2002). Although physical aspects of the self form part of how a woman views herself more globally, the importance of the body to evaluations of self-worth and identity is not equivalent among all women.

**Which Aspects of Body Image are More Important at Different Stages of the Lifespan?**

Appearance-appraisals feature prominently in body image research among females across the lifespan. In particular, (dis)satisfaction with body weight, shape, and/ or specific body sites/ parts (i.e., hips, thighs, arms, stomach and so on) during adolescence and adulthood has received attention perhaps because of its role as a risk factor in predicting a variety of adverse mental health outcomes, including eating disorders, low self-esteem, and depression (Byely, Archibald, Graber, & Brooks-Gunn, 2000; Polivy & Herman, 2002; Stice & Bearman, 2001; Wertheim, Koerner, & Paxton, 2001). However, a growing body of literature on how body satisfaction and body concern differ for women in midlife and beyond highlights appearance becomes less central to self-worth, and factors other than appearance, namely, body function and fitness, becomes more important as women age (Grogan, 2012). For adult women, a variety of developmental changes and significant life events, including child-birth, menopause, weight gain, illness/ health, loss of a partner and restrictions of social activities have been proposed to contribute to both positive and negative effects on their thoughts,
feelings, and perceptions about their physical selves and their overall self-concept (Grogan, 2012; Knight, 2012; Paxton & Phythian, 1999).

**How do Specific Aspects of Body Image Relate to Psychological Well-being?**

Research findings consistently demonstrate the associations between poor body image (e.g., body dissatisfaction, dysfunctional body image investment) and adverse psychological outcomes, including depressive and anxiety symptoms, negative affect, and low self-esteem (as previously outlined in “Body Image and Psychological Well-Being” section). Whereas body image research has primarily focused on negative psychological outcomes, minimal attention has been devoted to understanding the relationships between body image attitudes and indicators of positive well-being. As recent research has demonstrated (e.g., Keyes, 2005; 2007), the absence of mental illness or symptomatology (e.g., depression, negative affect), does not necessitate the presence of mental health (e.g., psychological well-being). A selection of studies has provided preliminary support for the link between body image (as measured by body surveillance, body monitoring and self-objectification) and components of well-being in adult women, including aspects such as purpose in life and personal growth (McKinley, 1999), and self-esteem and life satisfaction (Choma, Shove, Busseri, Sadava & Hosker, 2009; Mercurio & Landry, 2008). These research-endeavours, although few, represent a shift toward identifying intrapersonal strengths that may buffer women from developing/ maintaining body image concerns, and warrants further exploration of the relationships between the various aspects of body image and well-being.
Therefore, this thesis will focus on three main issues: the conceptualisation of the body image construct as applied to adult women; the relationships between multiple aspects of body image and numerous components of psychological well-being; and, demographic/developmental factors (i.e., age, social roles/life stage-experience) that may impact these relationships.

**Organisation of the Remainder of the Study**

The following chapter (Chapter Two) will provide a critical analysis of existing conceptualisations and measures of body image, and will present a model of body image relevant to adult women to be tested. A model of well-being relevant to adult women will be argued for in Chapter Three, through the critical analysis of existing conceptualisations. A critical review of the literature linking body image and well-being will be presented in Chapter Four, with an outline of the potential impact of age and social roles on the relationship between body image and well-being. The aims of the current research, including the research design, research questions, and hypotheses, will be presented in Chapter Four. The project comprises a quantitative and qualitative study. The methodology and results of the quantitative study are presented in Chapters Five and Six, and the methodology and results of the second, qualitative, study are presented in Chapters Seven and Eight. The discussion of findings and overall conclusions will be presented in Chapter Nine.
Chapter Two

Body Image

Women’s body image has been shown to be related to both their physical and mental health. Early research was based on, in part, clinical findings that indicated that poor body image (e.g., dissatisfaction with appearance) was highly prevalent among individuals with an eating disorder, and most commonly diagnosed among females during the life stages of adolescence and young adulthood (Smink, van Hoeken, & Hoek, 2012). However, it has become increasingly apparent that body image concerns are common in women without an eating disorder and are pervasive across the lifespan (Grogan, 2008; Tiggemann, 2004). As a result, body image research has also included nonclinical samples of women of all ages who experience only mild to moderate body concern or dissatisfaction, with a growing focus on characteristics of women who fall at the positive end of the range, marked by the absence of distress or body image concerns and the presence of body acceptance and appreciation (Tylka, 2012).

An understanding of the factors that contribute to adult women’s body image in nonclinical populations is important, not only to help clarify variations in women’s body image experiences, but in order to address the widespread concern experienced by women across the lifespan, and to determine the impact that body image has on women’s daily functioning. This research is timely given the growing population of women in mid- to older-adulthood (Australian Bureau of Statistics [ABS], 2011a), with body image being identified as an important factor experienced by aging women (Saucier, 2004).
Chapter Overview

This chapter will provide an overview of the body image literature as it relates to adult women. It begins with a brief description of historical theoretical perspectives on body image, followed by a critical review of more recent perspectives of the body image construct. Literature related to women’s body image attitudes will be considered next, with a focus on appearance and the functional aspects of body image. Finally, a conceptual model of body image relevant to adult women will be presented.

Early Conceptualisations of Body Image

Numerous descriptions of body image have been proposed by psychologists, physicians, and philosophers. In the early 20th century, the Austrian psychiatrist Paul Schilder described body image as “the picture of our own body which we form in our mind, that is to say, the way in which the body appears to ourselves” (Schilder, 1935, p. 11). Schilder’s work emphasised the need to consider neurological, sociocultural, and psychological elements of the body image construct, which represented a shift in body image research beyond the exclusive domain of neurology and research endeavours to understand the phenomena of ‘phantom limbs’. Between the 1950s and 1980s, the then dominant framework of psychodynamic theory guided research efforts. From a psychodynamic perspective, body image has been defined as “the cumulative set of images, fantasies, and meanings about the body and its parts and functions; it is an integral component of self-image and the basis of self-representation” (Krueger, 2002, p. 31). Working within a psychodynamic paradigm, Seymour Fisher’s (1986) work presented the body image construct as constituting four
dimensions: “body image boundary, assignment of meaning to specific body areas, general body awareness, and distortions in body perception” (p. i).

Franklin Shontz (1969) was critical of psychodynamic perspectives for deemphasising the role of the physical (i.e., ‘body’) and perceptions of it (i.e., ‘image’) in operationalizing the body image construct. Shontz (1990) argued for studying body image as a multifaceted experience, constituting an integration of cognitive and perceptual dimensions. Further conceptual developments occurred throughout the 1990s, with publications emphasising the multi-dimensionality of body image (e.g., Cash & Pruzinsky, 1990), the assessment and treatment of body image disorders (e.g., Phillips, 1996; Thompson, 1996a; Thompson et al., 1999a), and a cognitive-behavioural approach to the treatment of body image problems (e.g., Cash & Grant, 1996).

Current Conceptualisations of Body Image

Defining Body Image

Body image has been defined in a number of different ways and is now widely considered to be a multi-dimensional construct (Banfield & McCabe, 2002; Brown et al., 1990; Cash, 1994; Cash & Pruzinsky, 1990; Grogan, 2008). The multi-dimensionality of body image has been conceptually organised into perceptual and attitudinal constructs that are proposed to represent people’s psychological experience of the body (Cash, 2012).

The perceptual component of body image refers to the internal picture or mental representation one has about the size, shape, and characteristics of the body, which may or may not correspond with actual (objective) proportions or one’s ideal physical representation (Gardner, 1996). Body image perception is
commonly operationalised as the accuracy with which an individual judges some
physical aspect of his/her appearance (Cash, 2012). Errors in perceptions, such as
the overestimation of body parts, size, shape or weight, are generally seen as a
distortion in perception, and frequently observed, but not exclusively, in clinical
samples of women with eating disorders (Ahrberg, Trojca, Nasrawi, & Vocks,
2011; Cash & Deagle, 1997; Sepulveda, Botella, & Antonio, 2002). Although
body image estimation inaccuracies have been found in nonclinical samples
(McCabe, Ricciardelli, Sitaram, & Mikhail, 2006), it has been argued that
perceptual body distortion per se (i.e., sensory perception) is not useful in
understanding the impact of body image on an individual’s psychological
adjustment (Waldman, Loomes, Mountford, & Tchanturia, 2013).

In addition to the accuracy of body estimation, an adaptation of perceptual
body image assessment is the measure of the discrepancy between an individual’s
perception of his/her actual body, and the perception of his/her preferred or ideal
body. Cognitive evaluations and associated emotions are proposed to derive, in
part, from discrepancies between self- and ideal- perceptions of the body (Cash,
Ancis, & Strachan, 1997; Cash & Deagle, 1997). Self-discrepancy measures have
been found to be associated with other body image measures (e.g., body
satisfaction; Kowner, 2004; Williamson, Gleaves, Watkins, & Schlundt, 1993),
account for cognitive-affective experiences (Thompson, Heinberg, Altabe,
Tantleff-Dunn, 1999c; Williamson, White, York-Crowe, & Stewart, 2004), and
are considered relevant to understanding the body image construct.

The attitudinal aspect of body image is not one-dimensional, but rather
can be considered an umbrella term for the way in which an individual thinks
(cognition), feels (affect or emotions), and behaves in relation to his/her body
(Cash, 2012). For example, an individual’s attitude about his/her body may encompass: holding certain beliefs about the body’s overall appearance or attractiveness (i.e., cognitions), experiences of anxiety or discomfort when body parts are exposed (i.e., affect), and actively checking one’s reflection in a mirror or changing eating patterns to attain a certain body size (i.e., behaviour). Several researchers have used this multi-faceted approach in the study of body image attitudes (e.g., Menzel, Krawczyk, & Thompson, 2011; Roy & Payette, 2012; Stewart & Williamson, 2004; Thompson, 1996b; Thompson et al., 1999a; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004) partly because it provides a clear, simple and testable framework for operationalising subjective experiences of the body (Banfield & McCabe, 2002).

Despite the categorisation of body image attitudes into cognitive, affective, and behavioural components, several study findings indicate difficulties with distinguishing the dimensions empirically. In a factor-analytic study that evaluated the efficacy of a multi-dimensional model of body image comprising four dimensions (perception, affect, cognition, and behaviour), Banfield and McCabe (2002) found no support for the partitioning of cognitive and affective components, which overlapped significantly ($r = .97$) among a sample of adult women. In addition, several researchers have noted that the inclusion of a behavioural dimension in the conceptualisation of body image attitudes is contentious because body-related behaviours may be a consequence or manifestation of cognitive-affective dispositions (Banfield & McCabe; Gleaves et al., 1995; Stice, Nemeroff, & Shaw, 1996). For example, body dissatisfaction, which is considered to capture both cognitive (i.e., unrealistic expectations about one’s appearance) and affective (i.e., concern about one’s body) dispositions, may
lead to problematic body-related behaviours such as restricted eating patterns and
cyclical dieting, or vice versa (Abood & Chandler, 1997; Tiggemann, 1994).
Alternatively, behavioural manifestations may occur concurrently with body-
related affect and cognitions.

Cash (1994) proposed an alternative conceptualisation of body image
attitudes that provides a model for understanding the meaning an individual
ascribes to his/ her body, rather than attempting to delineate the modality with
which an attitude manifests (i.e., as a thought, feeling, or behaviour). Cash’s
(1994) conceptualisation of body image attitudes distinguishes between two core
dimensions: body image evaluations and body image investment. According to
Cash (2012), body image evaluations represent an individual’s appraisal of their
physical appearance, and may comprise cognitive or affective components. For
example, an individual woman may believe that she is attractive, or has
acceptable facial features, weight, or shape (cognitive component), and evaluate
her body positively, feeling satisfied with, or proud of her appearance (affective
component). The second dimension, body image investment, is defined as the
psychological importance or salience of one’s physical appearance, which may
manifest as thoughts, behaviours or emotions (Cash, 2012). For example, an
individual woman who views her body shape as significant to how she views
herself as a person, may become preoccupied with thinking about her appearance
(cognitive importance), engage in dieting behaviours to attain her ideal shape or
size (behavioural salience), and feel upset throughout the day after feeling
unhappy with her appearance in the mirror’s reflection in the morning (affective
salience).
Despite variation in the operationalisation of body image attitudes, common to all conceptualisations is that body image attitudes are formed/held about different physical aspects of the body. Extensive research has been conducted on people’s attitudes about their physical appearance; however, body image attitudes may also be held about the physical function and competencies of the body (Abbott & Barber, 2011; Cash, 2012). This chapter will now consider in some detail the literature on women’s body image attitudes about their bodies’ physical appearance and functioning.

**Body Image Attitudes: Aspects of Body Image Relevant to Women**

**Appearance**

**Evaluation of appearance.** The extent to which an individual (dis)approves of his/her physical body provides a measure of body (dis)satisfaction. Body dissatisfaction is considered to be quite common among women living in Western societies. Prevalence rates indicate that approximately half of all women make negative evaluations about their body’s appearance (Bearman, Presnell, & Martinez, 2006; Monteth & McCabe, 1997), and fear being or becoming fat (Cash & Henry, 1995). Results from cross-sectional studies sampling adolescents, middle aged, and older women corroborate the finding that women across the lifespan experience dissatisfaction with some aspect of their appearance (e.g., Forbes et al., 2005; Montepare, 1996; Webster & Tiggemann, 2003; Runfola et al., 2012).

A distinction has been made between global and specific evaluations of one’s appearance. Global satisfaction ratings may reflect the extent to which an individual woman likes or dislikes her general appearance (i.e., her shape, size,
and attractiveness), whereas she may like or dislike specific or discrete aspects of her body, such as her waist, hips, thighs, and face (Thompson et al., 1999a). Different aspects of the body have been shown to contribute more than others to women’s overall appearance-related attitudes (Andersen & LeGrand, 1991; Cash, 1989), with research findings consistently identifying body weight and size/shape as the predominant sources of discontent among women (Hurd, 2000; Tiggemann, 2004).

The widespread discontent experienced by many women is thought to result, in part, from women using cultural ideals of beauty as the standard against which they evaluate satisfaction with their own bodies (Grabe, Ward, & Hyde, 2008). In Western cultures the ideal female physique has become increasingly thinner over time (Owen & Laurel-Seller, 2000; Silverstein, Perdue, Peterson, & Kelly, 1986; Sypeck, Gray, & Ahrens, 2004), with certain characteristics, such as being tall, toned, curvaceous, full-breasted and very thin, portrayed (in the media) as embodying ideals of beauty and attractiveness (Barber, 1998; Levine & Smolak, 2002; Wasyliw, Emms, Meuse, & Poirier, 2009). While the ideal body shape for women has decreased in size and shape, nationally representative data indicate increases in the average weight of women (ABS, 2012). It has been suggested that the discrepancy between the thin/lean body shapes featured in the media and the actual body shapes of women found in the general population is becoming larger (Spitzer, Henderson, & Zivian, 1999; Vartanian, 2012), and contributes to women’s (negative) evaluations of their bodies (Stice, Schupak-Neuberg, Shaw, & Stein, 1994).

Numerous studies on self-ideal discrepancies have demonstrated that women choose their ideal physiques to be thinner, lighter, and more attractive
than they are currently (Lewis & Cachelin, 2001; Oberg & Tornstam, 2001; Stevens & Tiggemann, 1998). These findings are fairly consistent across assessment methods, whether an individual’s actual body is compared to images representing general body size/shape (i.e., figural drawing scales), or specific physical features presented in a listed format (i.e., nomothetic measures), including features such as skin complexion and chest size. That is, many women perceive their actual physiques to be larger, heavier, fatter and less attractive than their ideal (Vartanian, 2012), and these self-ideal discrepancy ratings have been described as providing an index of body dissatisfaction (e.g., Gardner & Brown, 2010). Conceptually, however, discrepancy ratings have been distinguished from satisfaction ratings, with the former (discrepancy ratings) proposed to involve a cognitive process generated by appraising two self-states (actual and ideal body), which may lead to the latter, namely, emotional (affective) responses, such as dissatisfaction (Cafri, van den Berg, & Brannick, 2010; Vartanian, 2012).

In addition to unfulfilled appearance-aspirations (i.e., self-ideal discrepancies) resulting in feelings of dissatisfaction, women’s body-related affect may vary as a result of the situation in which the evaluation is made (Cash, 2002b; Cash, 2011a). For some women, situations in which one’s body is exposed or a focal point of her attention (e.g., at the beach, wearing certain clothes) results in increasingly negative affect (Tiggemann, 2001). Negative body-related affect constitutes feelings such as unattractiveness, self-consciousness, anxiety, distress, and dissatisfaction, and is frequently experienced by women in social (e.g., in conversations about appearance with friends, at parties) and non-social (e.g., looking at self-reflection in the mirror) situations (Colautti et al., 2011; Muth & Cash, 1997). Interpersonal contexts and social encounters provide the potential
for one’s appearance to be appraised or scrutinised by others, which is thought to 
activate negative body-related affect (Fredrickson & Roberts, 1997; Menzel et al., 
2011), and appears to be of greater concern for females in comparison to males 
(Davison & McCabe, 2006; Frederick & Morrison, 1996).

A woman’s appearance-related attitudes can impact her perceptions of 
others’ reactions to her, and further impact how she experiences interactions with 
others (Tantleff-Dunn & Gokee, 2002; Tantleff-Dunn & Lindner, 2011). Data 
representing adolescent and university-aged females indicate those who are 
dissatisfied with their appearance experience discomfort and low-confidence in, 
and avoidance of, social interactions (Schutz & Paxton, 2007; Tantleff-Dunn & 
Lindner, 2011), whereas, females who feel more positively about their appearance 
experience greater confidence, comfort and intimacy in platonic relationships 
(Nezlek, 1999; Tantleff-Dunn & Lindner, 2011). Within the context of romantic 
relationships, adult women who feel negatively about their appearance report poor 
quality sexual experiences (Pujols, Meston, & Seal, 2010; Wiederman, 2011), a 
fear of intimacy (Cash, Theriault, & Annis, 2004), and less confidence in sexual 
functioning (Yamamiya, Cash, & Thompson, 2006). Given the adverse 
implications of negative appearance-evaluations on psychosocial functioning 
among women, assessing the impact of appearance-related attitudes on their 
functioning in specific contexts, such as platonic and romantic interactions with 
others, is warranted.

**Investment in appearance.** Although dissatisfaction with appearance is a 
common experience for women at all ages, individuals may not consider the 
appearance of their bodies as particularly important, and may not invest time and 
effort into their appearance. It has been suggested that the conceptualisation of
body image attitudes is optimised by including the aspect of investment (Banfield & McCabe, 2002), with research suggesting that the relative importance attributed to one’s physical appearance may impact the relationship between negative appearance-evaluations and distress/ body-related affect (Cash, 1994; Muth & Cash, 1997). That is, the level of importance (i.e., investment) attributed to an individual’s appearance seems to influence the psychological effect of body dissatisfaction. To illustrate, research suggests that the prediction of psychosocial functioning (e.g., social anxiety and eating disturbance) and indices of psychological adjustment (e.g., depressive symptoms, positive/ negative affect) are increased with the inclusion of body image investment measures (such as investment in appearance), in addition to the contribution of body image evaluations (Cash, Phillips et al., 2004; Cash, Melnyk et al., 2004; Jakatdar et al., 2006).

Prior research indicates that women attribute higher levels of importance to the appearance of their bodies than do men (McCabe & Ricciardelli, 2004; Oberg & Tornstam, 1999; Sullivan & Harnish, 1990). In comparison to men, women report greater concern about their weight, eating habits, figure, and general appearance (Klos, Esser, & Kessler, 2012; Phillips & de Man, 2010; Rozin & Fallon, 1988), and report a stronger desire to be thinner than they are currently (Johnson et al., 2004; Pritchard, 2008; Shea & Pritchard, 2007). It has been suggested that the relationship between exposure to thin female physiques (as portrayed in media images) and unfavourable reactions among women (e.g., body dissatisfaction, body-focused anxiety, distress) may result in part because women attribute so much importance to their appearance (Dittmar & Howard, 2004; Hargreaves & Tiggemann, 2002; Hargreaves & Tiggeamann, 2004; Ip &
Jarry, 2008). Furthermore, in comparison to males, females seem to be more concerned about their appearance relative to other areas of life, such as finances (Wadden, Brown, Foster, & Linowitz, 1991), with some research suggesting that women view appearance as more central to their feelings of well-being (Davis & Cowles, 1991).

Appearance can become a preoccupation for many women, in particular for those who consider appearance (or any aspect of it, such as weight and shape) as central to their self-worth. The importance of appearance to self-worth may manifest as excessive effort devoted to the management of one’s appearance (Cash, Melnyk et al., 2004). It is well documented that many women invest enormous time and commitment in attempts to diet and exercise in order to improve or maintain a certain standard of appearance/physical attractiveness (Davis & Cowles, 1991; Grogan, 2008; Prichard & Tiggemann, 2008). Additional appearance-management behaviours that have featured less in research studies are everyday grooming behaviours, such as hair-styling or putting on make-up (Cash, 1990), which may also be performed with the aim to alter one’s appearance. Failure to meet/attain one’s personal standard of appearance may result in a number of adverse outcomes, including negative affect and poor self-esteem (Cash, Jakatdar, & Williams, 2004; Cash, Melnyk et al., 2004).

In addition to restricting food intake, exercise, and grooming, the literature on body image investment is suggestive of a number of behavioural aspects that may indicate the extent to which a woman focuses on appearance. For example, it has been suggested that body-dissatisfied women are preoccupied with how they compare to others (Cattarin, Thompson, Thomas, & Williams, 2000; Fisher, Dunn, & Thompson, 2002; Thompson, Heinberg, & Tantleff, 1991), and have the
tendency to frequently compare their appearance/ physical features to other women as part of their day-to-day experiences (Leahey, Crowther, & Mickelson, 2007). Another appearance-management behaviour is clothing choice, which may become increasingly salient for women as they get older (Jackson & O’Neal, 1994; Tiggemann, 2004) as a means of controlling or managing age-related changes to one’s appearance (Webster & Tiggemann, 2003). Women who are dissatisfied with their body’s appearance may attempt to conceal/ camouflage a specific body-part/ area from others through wearing loose or unrevealing clothing (Tiggemann & Lacey, 2009; Trautmann, Worthy, & Lokken, 2007). In contrast, body-satisfied women are more likely to choose clothing that accentuates their bodies (Harden, Butler, & Scheetz, 1998).

Although appearance-management behaviours are often associated with women who are dissatisfied with their bodies, investment in appearance may not necessarily reflect dysfunctional body image (Cash, 2011a). Actively managing one’s appearance through grooming behaviours and clothing choice is not limited to body-dissatisfied women. Women with all levels of body satisfaction choose clothes based on their appearance, whether that be to improve one’s presentation and enhance how they feel about themselves (Tiggemann & Lacey, 2009), or to accentuate specific parts of their body that they feel good about (Chattaraman & Rudd, 2006). Similarly, it has been suggested that attending to, or maintaining a certain level of appearance or attractiveness through the use of grooming behaviours may reflect the motivation to appear or to feel attractive, which is not inherently maladaptive (Cash, Jakatdar, et al., 2004; Cash, Melnyk, et al., 2004). However, when appearance is so important that it defines or heavily contributes to an individual’s self-concept/ self-worth, it often leads to adverse psychological
outcomes (e.g., Cash, Jakatdar, et al., 2004; Cash, Melnyk, et al., 2004). Thus, the impact of appearance investment on women’s lives may be optimised by examining both cognitive (i.e., importance) and behavioural (i.e., time and effort devoted to one’s appearance) constructs.

**Function**

*Evaluation of function.* The body provides an individual with a means to interact with, and explore/ experience the world, and therefore may be evaluated for its instrumental or functional qualities, such as its biological integrity/ health, and its physical skill and potential. The physical competence or functional aspects of body image can be overlooked in research on women’s body image (Abbott & Barber, 2011), with findings suggesting that body functionality and competence are more salient than appearance in men’s rather than women’s evaluations of their bodies (Franzoi, 1995). It has been proposed that women are more attentive to the visual appearance rather than the functionality of their bodies because there is a much higher premium (psychologically and socially) placed on physical attractiveness among women (Franzoi & Klaiber, 2007; Li, Valentine, & Patel, 2011; Townsend & Wasserman, 1997). Whereas young males typically learn that power and function (e.g., reflexes, muscular strength, coordination, health, agility) are important criteria for evaluating one’s physical self, starting in childhood, the average female learns to view her body as an object of beauty to be evaluated or scrutinised, and will often factor in how others judge her overall value (e.g., Impett, Henson, Breines, Schooler, & Tolman, 2011; Swami et al., 2010). By adulthood, women may be more likely than men to habitually evaluate their bodies in terms of its appearance rather than its functionality (Halliwell & Dittmar, 2003).
Research distinguishing between appearance and functional aspects of the body suggest differences in the valence of females’ evaluations. For example, some research, although limited, suggests that adolescent females experience positive or adaptive body-related attitudes when the focus of the evaluation is the body’s capacity to function, rather than its aesthetic qualities (e.g., Abbott & Barber, 2011; Franzoi, 1995). Spending time noticing, appreciating, and praising the body’s internal ability to function, rather than being critical of its appearance, has been proposed as a protective factor for body image resilience in women (Choate, 2005), as these individuals are more likely to take care of their bodily needs in order to maintain a certain standard of functioning (Tylka, 2006). The positive association proposed between a focus on the body’s internal functioning and positive outcomes has been supported by research on young women. Specifically, in samples of women drawn from university populations, evaluations of one’s body as physically competent has been associated with several aspects of positive body image, including body appreciation, intuitive eating (Avalos & Tylka, 2006), body satisfaction (Martin Ginis, Eng, Arbour, Hartman, & Phillips, 2005; Martin Ginis, McEwan, Josse, & Phillips, 2012), and positive affect (Greenleaf, Boyer, & Petrie, 2009).

Relative to young adult women (i.e., females in their late teens to early 30s), evaluations of the body’s functionality may be less positive for middle-aged and older adult women as they begin to notice changes in the body’s physical ability. Common conditions among older women, such as osteoporosis, arthritis, and cancer, that have physical, social, and psychological consequences, can be hypothesised to impact on older women’s body image (Chrisler, 2007; Chrisler & Ghiz, 1993). Chronic conditions are highly prevalent among olderadult women.
Reduced activity levels and illness, often concomitant with aging, diverge from media portrayals of ‘successful’ aging that emphasise remaining youthful and active into old age (Saucier, 2004). Although women do not equally adopt media ideals as a point of comparison in personal evaluations, as women age, the body’s limitations and its difficulty to perform tasks with the same speed, flexibility, strength and agility it once had may factor in women’s evaluations of the physical self (Knight, 2012). Women’s evaluations of body functionality are also expected to be related to global evaluations of well-being and self-worth, with research showing that perceptions of health and fitness are the strongest predictors of self-esteem among older women (aged 40 - 85 years; Baker & Gringart, 2009; Paxton & Phythian, 1999), and are associated with health-seeking behaviours (e.g., Levy & Myers, 2004; Meisner & Baker, 2013; Sarkisian, Hays, & Mangione, 2002).

Investment in function. Although women across the lifespan may evaluate the functionality of their bodies very differently, it is not clear from the literature whether functional qualities of the body are equally important to younger and older adult women, with quantitative studies frequently sampling females from predominantly young/ student populations. Qualitative data on motivations underlying women’s participation in physical activity indicate that body function is a consideration of both young and older adults. For example, younger women report being motivated to persist with exercise regimens for health-related and weight-control reasons (O’Dougherty, Kurzer, & Schmitz,
2010), while older women express health and physical ability motives as a salient priority in response to the effects of aging, in addition to expressing concern with aspects of body appearance (Fontane, 1996; Liechty & Yarnal, 2010a). Data from semi-structured interviews with older adult women (61 – 92 years) indicate that weight-related concern for these women is linked to the importance of good health and independence, as opposed to focusing solely on visual appearance/attractiveness (Hurd Clarke, 2002). Together, these findings indicate that body function potentially represents a meaningful aspect of body image to adult women.

Some researchers hypothesise that body image concerns shift in focus from physical appearance to physical condition as women get older (Ferraro et al., 2008), with individuals becoming particularly alert to the symptoms of physical illness (Baker & Gringart, 2009). This hypothesis has been supported by quantitative data: in a systematic review of body image among older adult women living in Western countries, Roy and Payette (2012) found that older adult women placed less importance on physical appearance aspects of body image and more importance on body competence and function than did younger women. Relative to younger women, the shift in concerns of aging women from appearance to function suggests appearance becomes less central to their sense of well-being (Waddell & Jacobs-Lawson, 2010), and has been postulated as protective against the impact of negative body-related evaluations (Grogan, 2012).

As physical health and bodily function becomes more important as women age, it might be hypothesised that investment in body function is healthy for women’s body image attitudes and overall well-being, especially in older samples. According to the National Ageing Research Institute and the Council of
Ageing Victoria, an indicator of healthy aging is the extent to which individuals incorporate regular physical activity into their lifestyle (Victorian Department of Health, 2012). Although for many women participation in physical activity may be initially motivated by a desire to change one’s physical appearance, long-term participation may redirect women’s attention away from appearance and toward the broader goals of physical and mental health (Martin & Lichtenberger, 2002).

Investment in body function is associated with a variety of positive outcomes. Research indicates that females who participate in sports or exercise, where the capabilities of the body (e.g., strength, speed, skill) are central to performance, such as yoga and circuit/ weight training, report positive appearance and fitness/ health evaluations (Henry, Anshel, & Michael, 2006); attribute less importance to features of appearance than competency-based characteristics as central to their physical self-concept (Prichard & Tiggemann, 2008); and, a greater awareness and responsiveness to their bodily sensations (Daubenmier, 2005). Although investment in body health and fitness through, for example, participation in physical activity, may contribute to women’s body image attitudes, limited studies incorporate measures that assess women’s perceived level of and cognitive and behavioural investment in body function, and those available sample student populations (e.g., Abbott & Barber, 2011; Greenleaf et al., 2009), who may have different attitudes about body function to older adult women.

Model of Body Image Attitudes Relevant for Women

The literature on body image presented in this chapter clearly indicates that women’s attitudes about their bodies are commonly assessed along the
cognitive, affective, or behavioural dimensions. It has been argued, however, that the multi-dimensionality of women’s body image attitudes can be best conceptualised as encompassing evaluations of, or investment in, one’s appearance and physical competence/ functionality. Specifically, women’s body image attitudes constitute evaluative and investment elements that may be cognitive, behavioural, or emotional in nature (Cash, 1994; 2012), and are represented along the vertical axis of Figure 2.1. These attitudes are endorsed/ held about the body’s appearance and its function and are represented along the horizontal axis of Figure 2.1. The dichotomous presentation of the body image dimensions along these axes is merely used to summarise how theoretical dimensions of body image could be, and have been assessed using existing measures of body image; it is not suggested that these dimensions are bipolar.

On the basis of the literature reviewed throughout this chapter, aspects of body image relevant to adult women’s attitudes can be summarised within the four quadrants of Figure 2.1: appearance evaluations; appearance investment; functional evaluations; and functional investment.

**Appearance evaluations** refer to appraisals of an individual’s physical appearance, and may comprise cognitive or affective components. Assessments of appearance evaluations relevant for adult women include the extent to which a woman believes her body resembles/ is discrepant from her ideal physical appearance, the valence (i.e., positive to negative satisfaction) with which she holds these beliefs, and the affective response to holding such beliefs. Additionally, the impact of one’s appearance-appraisals on quality of life is also relevant to women’s body image evaluations.
 Appearance investment refers to the psychological importance and salience of an individual’s physical appearance, and may manifest as thoughts, behaviours or emotions. Assessments of appearance investment for adult women include the value attributed to achieving an ideal physique, the cognitive salience and attention given to one’s weight/shape, and the time and effort spent on engaging in behaviours in order to maintain or improve one’s appearance. Women’s behavioural investment need not be related to changing one’s appearance: many women tend to compare their bodies to that of other people, and choose certain clothing in an attempt to control or manage the body, which are also suggestive of a focus on appearance.

Figure 2.1. Proposed Conceptualisation of Body Image Attitudes for Adult Women, Including Measures Used to Assess Each Dimension

- Body Ideal Discrepancy
- Body Satisfaction
- Affective Response to Body Image
- Impact of Body Image on Quality of Life

- Importance of Body Image Ideal
- Overweight Preoccupation
- Appearance Orientation
- Body Improvement
- Physical Appearance Comparison
- Body Concealment

- Health Evaluation
- Fitness Evaluation

- Health Orientation
- Fitness Orientation
- Illness Orientation
Functional evaluations refer to appraisals of the body’s physical competence integrity, and/or its functional qualities, and may comprise cognitive or affective components. Assessments of functional evaluations relevant to women’s appraisals of their bodies include variables that focus on the body’s instrumental capacity to remain active/fit, and healthy. For adult women, these evaluations incorporate beliefs about the body’s strength, physical competence, and the extent to which one feels healthy and free from disease.

Functional investment refers to the psychological importance and salience attributed to the body’s physical competence integrity, and/or its functional qualities, and may manifest as thoughts, behaviours or emotions. Assessments of functional investment for adult women include the relative importance/concern attributed to the body’s capacity to remain active or healthy, and the deliberate effort made to maintain a well-functioning body, through engagement in health and fitness-related activities, such as physical activity, and responding to bodily sensations, such as symptoms of illness.
Chapter Three

Psychological Well-Being

Psychological well-being is a widely used and internationally recognised indicator of mental health. Well-being is purported to represent an individual’s judgement or evaluation about his/her functioning in a variety of life domains (Keyes & Annas, 2009). An extant literature on well-being has highlighted biological (e.g., physical health), environmental (e.g., financial, physical safety/housing), social (e.g., intimacy/relationships), and psychological (e.g., mental development, spirituality/meaning, empowerment, political freedom/autonomy) domains of functioning relevant to men and women’s evaluations of well-being (e.g., Cummins, 1996; Ranis, Stewart, & Samman, 2006; Ryan & Deci, 2001; Ryff, 1989a; Ryff & Keyes, 1995; Samman, 2007).

Research on well-being is a major focus for policymakers around the world who have shown interest in improving the well-being of citizens at a population level (Diener & Seligman 2004; Samman, 2007). International interest in mental health has occurred in the context of an increasing number and proportion of older people relative to other age groups in the population (World Health Organization [WHO], 2002), with organisations aiming to enhance the quality of life of men and women as they age. In terms of mental health outcomes, targeting the well-being of adult populations is an important area of study, with research showing that individuals with a high level of well-being are more productive, are socially active and have better quality relationships, have stronger bodies and immune systems, and are less likely to have a mental illness (Lyubomirsky, King, & Diener, 2005; Pressman & Cohen, 2005; Sadler, Miller, Christensen, & McGue, 2011; Seeman, 2000).
Women have been shown to suffer a high prevalence rate of mental disorders. In Australia, mental disorders have been estimated to represent the highest burden of illness for adult women (Commonwealth of Australia, 2010), with almost half of the female population (43%) expected to suffer from mental illness at some point in their lives (ABS, 2007). Nationally-representative data, drawing samples from diverse social contexts, indicate that 33% of women will meet the criteria for an anxiety disorder (McLean, Asnaani, Litz, & Hofmann, 2011) and 12% for a mood disorder (Kessler et al., 2005) during their lifetime. In comparison to men, women are two times more likely to suffer from depression (Lewinsohn, Rhode, Seeley, & Baldwin, 2001) and up to three times more likely to have an anxiety disorder (Kessler et al., 2005). Additionally, women are five times more likely to suffer from eating disorders than are men (Preti et al., 2009).

A considerable body of evidence identifies the psychological distress for women may partly result from societal attitudes towards women. Historically, women have been the subjects of discrimination and oppression, and devalued across cultures (Worell & Remer, 2003). Past research has shown that differences between men and women’s experiences of labour in the workforce, the home, and the wider community, and gender-specific expectations about roles, responsibilities, and social and political power relations are correlated with illness and disease among women (Bishop, 2002). As a result, the unique health risks, needs, attitudes, and behaviours of women have been a major focus of inquiry for community and government-based organisations (Women’s Health East, 2013).

National organisations, such as the United State’s Office on Women’s Health (OWH), the Australian Health Issues Centre, and a variety of task forces of the American Psychological Association (e.g., Societies for: the Psychology of
Women; the Psychological Study of Social Issues; Clinical; Counseling; and Health Psychology), have acknowledged and responded to the need to address issues faced by women with regard to their mental health (Department of Health and Aging [DHA], 2010; Galson, 2009; OWH, 2009). Leaders in these organisations have proposed initiatives aimed at not only reducing women’s symptoms of psychological distress, but also aimed at promoting positive functioning for women across the lifespan. Whether investigated as a predictor, moderator, or outcome variable of mental health, research on psychological well-being can contribute to such initiatives, and will be a focus of this thesis.

In the next section of this chapter, the dimensions that characterise psychological well-being among adult women (i.e., self-esteem, self-determination, sense of control, relatedness, and meaning in life) will be presented through a discussion of relevant empirical findings and theoretical perspectives. Limitations and problems identified with the conceptualisation and measurement of women’s well-being are then presented. Finally, a model of well-being (i.e., Ryff’s model of psychological well-being; 1989a) believed to address the identified problems will be presented, which will include a discussion of empirical literature on the validity of the model.

**Aspects of Psychological Well-Being Relevant to Women Across the Adult Lifespan**

**Self-Esteem**

Self-esteem has been defined as an evaluation of the value or worth an individual attributes to his/ her self (Baumeister, Campbell, Krueger, & Vohs, 2003). Numerous studies operationalise women’s psychological well-being using
assessments of self-esteem as an indicator of positive functioning, in conjunction with other outcome measures, such as life satisfaction and the presence or absence of depressive symptoms (Dijkstra & Barelds, 2009; Glenn & Byers, 2009; Mercurio & Landry, 2008; Napholz, 1995). Research indicates that positive self-appraisals serve as an internal resource that contributes to the maintenance of higher mental health during periods of adjustment, such as during the transition into motherhood (Taubman-Ben-Ari, Shlomo, Sivan, & Dolizki, 2009), and following marital separation (Buehler & Legg, 1993). Although research has not clearly established causation, high self-esteem may buffer the effect of stress-related life events (Corning, 2002), and contribute to high levels of happiness (Baumeister et al., 2003).

Meta-analytic data indicate gender differences in self-esteem, with females scoring lower than males on measures of global self-esteem (Gentile, Grabe, Dolan-Pascoe, Twenge, & Wells, 2009; Kling, Shibley Hyde, Showers, & Buswell, 1999). It has been suggested that women learn to devalue themselves as part of a socialisation process that encourages greater dominance, assertiveness, and self-praise in males (Kling et al., 1999). However, others have proposed that differences in the experience of socialisation for men and women vary depending on the specific aspect of self being evaluated. For example, although recent research fails to support gender differences in global self-esteem, physical appearance is a specific aspect of self for which men and women’s level of self-esteem consistently differs, with women placing a greater emphasis on physical appearance compared to men (Gentile et al., 2009; Marcic & Kobal Grum, 2011). Well-being is likely to be (negatively) impacted for women, whose self-esteem is contingent upon physical appearance.
There is some evidence to suggest that self-esteem is not only due to positive feedback on self (Epstein, 2006). Studies sampling older adults suggest that older women who proactively review their past in a manner that is less obsessive (ruminating on past events) and more integrative (accepting and coming to terms with the past) and instrumental (using the past to deal with the present) tend to report a greater sense of well-being than older women and men who do not engage in these behaviours (Arkoff, Meredith, & Pabst Dubanoski, 2004; Wong & Watt, 1991). That is, the capacity to accept good and bad qualities of the self appears to contribute to self-preservation/ self-esteem in older women, and is supported by empirical findings that show self-esteem remains relatively stable into old and very old age (Huang, 2010; Marsh, Martin, & Jackson, 2010; Wagner, Gerstorf, Hoppmann, & Luszcz, 2013).

Self-Determination

Self-determination involves the degree to which an individual feels a sense of agency/ autonomy in self-evaluations and behaviours (Deci & Ryan, 2000), and has been highlighted in theories of human development as governing a person’s motivation, behaviour, and psychological well-being (e.g., self-determination theory [SDT]; Ryan & Deci, 2000). Self-determination theory posits that when an individual’s psychological need for autonomy is supported within their social context, his/ her experience of autonomy facilitates well-being. An autonomy-supportive environment provides opportunities for choice and minimises external pressure and control (Chatzisarantis & Hagger, 2009), such that an individual’s behaviour is experienced as willingly enacted and is an expression/ representation of his/ her authentic interests or values (Deci & Ryan, 2000; Ryan, 1995).
Some researchers have disputed whether the need for autonomy and self-determination is universal across cultures and contexts, arguing that the value of autonomy is specific to people living in Western societies who are presumed to adopt individualistic ideals of choice, personal freedom, and independence (Miller, 1997; Oishi, 2000). Literature on the autonomy of women from non-Western cultures often focuses on the concept of empowerment, whereby autonomy is defined as the ability of women to make decisions relative to their husbands (Anderson & Eswaran, 2009). Indeed, for women living in Eastern countries (e.g., India, Pakistan, Malaysia, Philippines, Thailand), indicators of autonomy represent the degree of control women have relative to men over various aspects of their lives, such as in relation to freedom from violence, participation in family decisions, community involvement, and participation in household economic decisions (Agarwala & Lynch, 2006; Ghuman, Lee, & Smith, 2006). Despite variations in how the construct of autonomy is operationalised, conceptual and empirical findings support the proposal that autonomy is a basic psychological need of humans across cultures and gender (Chirkov, Ryan, Kim, & Kaplan, 2003; Kagitzbasi, 2005), and promotes an individual’s sense of well-being.

While the need to experience a sense of autonomy is evident during adolescence (e.g., as part of the process of identity formation typically associated with this developmental stage; Erikson, 1959), autonomy has also been recognised as an important resource for the well-being of middle-aged and older adult women. A major challenge for women living in the 21st century is balancing work and personal life (Frone, 2003; Gambles et al., 2006), which for many women, entails dealing with responsibilities to their children, and/or, older family
members, especially their parents, as well as work-related responsibilities (Chassin, Macy, Seo, Presson, & Sherman, 2010). Certain work contexts are proposed to assist women with managing the demands of work and family life through the provision of flexible work schedules and the opportunity for the self-governed implementation of work roles (Annink & den Dulk, 2012; Valcour, 2007; Voydanoff, 2004). Prior research has shown that, when financially feasible, women choose autonomy-supportive work contexts, such as self-employment or part-time work, as a means for balancing the demands of work and care-tasks (Rouse & Kitching, 2006; Tausig & Fenwick, 2001), which is in contrast to men’s reasons for becoming self-employed that show little association with their parental status (Boden, 1999).

Building on one’s self-determination/autonomy provides individuals with the resources for self-growth, which has been proposed as a means for acquiring, maintaining (Robitschek, 1999) and enhancing (Robitschek & Keyes, 2009) mental health and well-being. Individuals whose actions are self-regulated and intrinsically motivated tend to report higher levels of well-being than those whose goals pursuits are extrinsically motivated (e.g., Deci & Ryan, 1985). Although the process of self-growth involves intentionally striving toward change and development as a person (Robitschek, 1998), women’s experience of self-growth has traditionally been explored in relation to their ability to manage the hardship or struggles that result in response to trauma or negative life events, such as bereavement, dealing with sexual assault/abuse, and chronic or terminal illness, and less to their self-determined responses that are enacted with volition, and everyday goal pursuits aimed at personal growth and development (Tedeschi & Calhoun, 2004).
Empirical data indicate that women can experience growth when they have the opportunity to learn something new about themselves and discover new meaning in life (Taubman-Ben-Ari et al., 2009). For example, prior research on women’s experiences of typically stressful life transitions, such as the transition into menopause (Deeks & McCabe, 2004), and leaving a satisfying job in the transition to retirement (Kubicek, Korunka, Raymo, & Hoonakker, 2011), have shown that women maintain high levels of well-being through a process of positive appraisals, whereby they focus on the benefits of the transition rather than the losses. Furthermore, prior research has shown that pregnant women who view motherhood as challenging, but supportive, experience a greater sense of personal growth during this transition period (Taubman-Ben-Ari et al., 2009).

In addition to life transitions, women’s experiences in everyday life have been implicated in studies of well-being as providing women with the opportunity for self-growth. For example, contexts that facilitate building a sense of confidence and skill acquisition, such as group exercise classes, have been associated with enhanced levels of psychological well-being among women (Lloyd & Little, 2010). Furthermore, analyses of women’s (and men’s) descriptions of growth and change over the lifespan, highlight the importance of everyday experiences, such as having meaningful relationships with partners and family members, or undertaking a demanding new social role, as pivotal in transforming their views of themselves, which resulted in deliberate and active attempts to change the self and one’s relationships (Friedlander, Lee, & Bernardi, 2012; Miller, 2004).
Relatedness

Relatedness has been referred to as the human need for feeling connected to others in a meaningful way and constitutes the ability to create new and maintain existing productive relationships (Deci & Ryan, 2000; Levesque, Zuehlke, Stanek, & Ryan, 2004; Shahar, Henrich, Blatt, Ryan, & Little, 2003). The role and significance of warm, trusting and satisfying relationships has been identified as foundational to promoting individual quality of life, and health within the wider community (Breslow, 1999; Diener & Seligman, 2004; WHO, 2004). Although both men and women benefit from having social supports and relationships, it has been suggested that in comparison to men, women develop a greater sense of well-being through quality connections with others (Castañeda & Burns-Glover, 2008; Cross & Madson, 1997). Quality relationships are characterised by interactions that involve mutual love, empathy, compassion, support, security, and cultivate confidence, comfort and meaningful connections.

Relative to men, feeling connected to others appears to be particularly important to women’s mental health, with epidemiological studies indicating that the presence or absence of social support and familial relationships contributes to the aetiology or prevention of mental disorders more prevalent in women, such as major depressive disorder (Ryan, Deci, Grolnick & La Guardia, 2006), and eating disorders (Choate, 2005; Littleton & Ollendick, 2003). Indeed, the presence of quality relationships with others has been proposed as a protective factor against life stresses including heart disease (Boehm, Peterson, Kivimaki, & Kubzansky, 2011); managing multiple roles such as employee and mother (Dijkstra & Barelds, 2009); and during life transitions such as retirement (Kubicek, Korunka, Raymo, & Hoonakker, 2011) and bereavement (Hahn, Cichy, Almeida, & Haley,
That is, a sense of relatedness appears to contribute to the prevention or attenuation of ill-health among women. Moreover, the presence of close social relationships among women is correlated with a variety of positive mental health indicators, including a sense of vitality, positive affect, and life satisfaction (Diener & Seligman, 2002; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000).

**Sense of Control**

Perceived control has been defined as the extent to which one believes they can effectively influence events and conditions in their life and surroundings (Ross & Sastry, 1999), and has been theorised as an important feature in understanding the development of psychosocial well-being (Heckhausen & Schulz, 1995). Empirical research on this concept covers related but distinct aspects such as locus of control, sense of agency or coherence, competence, and control over one’s medical conditions or their treatment (Lee, Ford, & Gramotnev, 2009). The ability to exert control over one’s situation has been proposed to lead to constructive coping strategies (i.e., active problem-solving) that promote psychological adjustment and resilience (Grote, Bledsoe, Larkin, Lemay, & Brown, 2007; Lee et al., 2009; Theorell, 2003). While a sense of control and competence in one’s life has been theorised as an innate psychological need motivating human development (e.g., SDT; Deci & Ryan, 2000), it has been suggested that individuals experience varying levels of control across the lifespan (Heckhausen, 1997), and an individual woman may be more able to control events in some aspects of her life than in others.

Well-being among women appears to be impacted by the perceived level of control they have across the multiple roles they occupy (Christensen, Stephens, & Townsend, 1998). For example, researchers have demonstrated that women’s
perceived competence and control in multiple roles (e.g., mother, wife, caregiver), has a cumulative effect, such that the greater amount of control and competence perceived in a given role, the greater life satisfaction reported (Ahrens & Ryff, 2006; Christensen et al., 1998). In contrast, research indicates that a perceived lack of competence or control in one’s job (D’Souza, Strazdins, Lim, Broom, & Rodgers, 2003) contributes to poor mental health outcomes, such as depressive symptoms, anxiety, and decreased levels of psychological well-being.

Theoretical and empirical studies have also highlighted the role of perceived control for older adults’ experience of ‘successful’ aging (Heckhausen, Wrosch, & Schulz, 2010; Infurna, Gerstorf, Robertson, Berg, & Zarit, 2010). Specifically, perceived control and striving for competence appear to play an important role in an individual’s attempt to maintain and/or recover self-esteem after failure or loss, for example, through the use of control strategies and assimilative processes such as goal adjustment or downward comparison (Heckhausen & Schulz, 1995). For example, an individual woman may come to terms with unattainable goals or losses by adjusting her initial level of aspiration, and in so doing, maintain a coherent sense of self. Although such compensatory control strategies are important throughout the lifespan, they may become particularly important in later life for protecting or maintaining a sense of self, with the increased risks of loss-experiences and age-related mental and physical strain (Brandtstädter, 1999). Aspects of perceived control and adaptive capacities have been proposed to be robust among older adults (Brandtstädter & Renner, 1990; Charles & Carstensen, 2010), with empirical findings indicating higher perceived internal control is associated with higher self-esteem among older aged-adults (Wagner et al., 2013).
Meaning in Life

Another aspect of positive functioning is the importance of having a sense of purpose in life. Goals to pursue in life has been highlighted as a key feature of therapeutic approaches, including humanistic (e.g., Rogers, 1961) and cognitive-based therapies (e.g., Acceptance and Commitment Therapy; Hayes, Strosahl, & Wilson, 1999). Theses holistic therapeutic approaches emphasise considering how meaningful and purposeful living may manifest in different aspects of an individual’s life.

Parenthood is one context in which having purpose has been shown to increase women’s sense of well-being. Motherhood results in numerous psychological advantages, such as emotional and psychological maturation, personal growth, and expanding opportunities to feel useful and needed (Hansen, 2011; Hoffman & Manis, 1979). For older women, purpose in life is, in part, represented by the perceived ability to participate in meaningful activities, and a sense that one can contribute to ‘the greater good’ (Waddell & Jacobs-Lawson, 2010). Furthermore, longitudinal data indicate that women’s well-being during retirement is partly determined by whether they possessed personal resources that involved actively pursuing one’s goals (i.e., possessing goal tenacity and flexibility in goal adjustment) during their working lives (Kubicek et al., 2011). Living in accordance with, and striving toward meaningful goals has been found to be a strong motivation for self-actualisation in men and women across cultures (Vaingankar et al., 2012).
Model of Psychological Well-Being Relevant to Women Across the Adult Lifespan

Conceptual and Measurement Issues

The concept of well-being is not a uni-dimensional phenomenon, but rather constitutes multiple constructs that reflect components of psychological health (Gallagher, Lopez, & Preacher, 2009; Keyes & Magyar-Moe, 2003). Over the past two decades, research on well-being has been guided by different theoretical perspectives, including psychological and philosophical accounts of happiness (Keyes, Shmotkin, & Ryff, 2002) that encompass many representations of mental health, including ‘‘psychological well-being’’ (Ryff, 1989a; Ryff & Keyes, 1995), ‘‘subjective wellbeing’’ (Diener, 2000), ‘‘quality of life’’ (Frisch et al., 1992), and ‘‘happiness’’ (Lyubomirsky & Lepper, 1999; Myers, 2000).

Although the literature indicates women’s psychological well-being is multi-dimensional, the way in which it is assessed is problematic. Past operationalisations of well-being have been considered atheoretical, measuring global constructs that describe well-being rather than define what it means to be psychologically functioning well (Deci & Ryan, 2008; Ryff & Singer, 2008). For example, an operational definition of well-being that equates happiness, as measured by global happiness or the presence/absence of positive affect, with optimal psychological functioning, overlooks important aspects of human striving that are conducive to positive functioning (Ryff & Singer, 2008). Furthermore, research studies that do include measures indicative of positive functioning limit the scope of dimensions to focus on only one to two aspects of well-being, such as self-esteem (e.g., Dijkstra & Barelds, 2009; Greenleaf et al., 2009) and self-
efficacy (e.g., Adelmann, 1994) and thus do not fully capture the psychological conditions that constitute living well and actualising one’s human potential.

The lack of a holistic view regarding the measures of and evidence for women’s well-being may be due, in part, to research being conducted within a framework of mental health that has historically emphasised psychological ill-being, or the absence of disease as the indication of health (Boehm et al., 2011). For example, well-being is often researched in terms of its functionality in dealing with, or as an antecedent/ consequence of, life stresses (e.g., in the context of loss and difficulty), with less emphasis given to women’s proactive choices that lead to an improvement in positive mental functioning (e.g., job changes, marriage or the birth of children; Ryff & Singer, 1998). Consequently, researchers often utilise assessments of short-term affective well-being, such as those that measure the absence or presence of depressive symptoms and positive or negative affect, as primary indicators of well-being (e.g., Dijkstra & Barelds, 2009; Fischer & Bolton Holz, 2010; Hansen, Slagsvold, & Moum, 2009; Vandewater & Stewart, 2006).

Within a framework where a lack of symptom distress is equated with improved psychological well-being, affective states are viewed as operating on a dichotomous continuum, with positive affect at one end and negative affect at the other. That is, positive and negative affect are proposed to be inversely correlated, such that as positive affect increases, negative affect is assumed to decrease. However, the above research indicates that women may experience both positive and negative affect simultaneously, especially in situations that involve a conflict in values (e.g., sharing one’s physical, psychological and emotional resources in a generous yet self-sacrificing way across a variety of care-taking roles).
In addition to affective states, the literature indicates that more enduring states of psychological functioning (such as living meaningfully with direction, maintaining satisfying relationships with others, and gaining a sense of self-realisation), are important to women’s sense of psychological well-being (Ryff, 1995), which may or may not be accompanied by feeling good (i.e., positive affect). Indeed, a multi-dimensional conceptualisation of mental health and well-being has been shown to include not only measures of affect, but functional and psychological components, and the skills (i.e., coping skills used to relieve stress) required to achieve them (Vaingankar et al., 2012).

Investigations into women’s well-being would benefit from employing a conceptual framework of psychological well-being that accounts for the elements underlying positive states of being and that capture developmental trajectories of women’s experiences. In other words, research attempts to assess women’s well-being could be enhanced by utilising a measure of well-being that is based on a theoretically grounded model of psychological well-being, which encompasses key features of positive functioning implicated in empirical literature, and considers long-standing or enduring states of being (e.g., captures a sense of hopefulness, usefulness, and purpose).

**Ryff’s Domains of Psychological Well-Being**

Ryff (1989a; 1989b) formulated a framework of psychological well-being grounded in multiple theoretical accounts of positive functioning from subfields of psychology and philosophy. The most important conceptualisations of well-being from psychology on which her theory was based were: life span theories (e.g., Erikson, 1959), clinical theories on personal growth (e.g., Allport, 1961; Maslow, 1968; Neugarten, 1973; Rogers, 1961), and criteria of positive mental
Ryff proposed that philosophical interpretations of the ‘good life’ converged with, or complemented criteria of positive psychological functioning, which focused on well-being rather than illness. These theoretical views, combined with insights from research on well-being and development throughout the life course (Ryff, 1995; Ryff & Keyes, 1995), were integrated into a single theory of well-being.

Ryff’s multi-dimensional model of well-being (1989a) identifies and describes central features of adult lives that are well-lived (i.e., psychological well-being) and examines how they work together to embody a fully functioning, healthy existence (Ryff & Singer, 1998). Ryff distinguished six super-ordinate categories to define engagement in living, and as such, constitute positive psychological functioning: Self-Acceptance (positive evaluations of oneself and one’s past life); Positive Relations with Others (the possession of quality relations with others); Purpose in Life (the belief that one’s life is purposeful and meaningful); Autonomy (a sense of independence and self-determination); Personal Growth (a sense of continued growth and development as a person); and Environmental Mastery (the capacity to manage effectively one’s life and surrounding world; Ryff, 1989a; Ryff, 2014). According to Ryff and Singer (1998), psychological well-being is not experienced through the achievement of any one of these dimensions, nor are they an end state at which an individual arrives; rather, these dimensions of well-being involve a dynamic process that may be altered or modified daily, but requires continued effort and investment. As such, Ryff’s model addresses the need to conceptualise and measure psychological well-being as inherently long-standing and enduring.
As demonstrated earlier, empirical literature indicates that multiple psychological factors contribute to women’s well-being, and it changes throughout the life-span. Ryff’s (1989a) formulation of well-being goes beyond viewing happiness as the ultimate indicator of wellness, accounts for key aspects of positive functioning, and provides a model and a measure of well-being from a developmental perspective that is particularly relevant for capturing the nature of women’s well-being.

**Empirical findings on Ryff’s model.** Validation studies consistently show that Ryff’s model of psychological well-being represents well-being for both adult women and men. Using nationally representative samples of nonclinical, English-speaking adults, and using confirmatory factor analyses, researchers have demonstrated that Ryff’s theoretical six-factor model best fits empirical data on well-being in comparison to single-factor and prior models of well-being (i.e., happiness, life satisfaction and depression; Ryff & Keyes, 1995). Two of Ryff’s factors, Self-Acceptance and Environmental Mastery, have been found to produce moderate to strong associations with prior measures of positive functioning, including life satisfaction, affect balance, and both single and multi-item scales of happiness (Ryff, 1989a; Ryff & Keyes, 1995). Given that Ryff’s six factor model has a strong theoretical base, these findings indicate that: a) components of well-being evident in empirical studies are linked to those evident in theoretical accounts of well-being; and b) commonly used indicators of well-being that only assess women’s life satisfaction, general happiness, or balance in affect, neglect key aspects of well-being (such as positive relations with others, autonomy, purpose in life, and personal growth), that are emphasised in
theoretical accounts of positive functioning, as well as empirical findings obtained from the literature on women’s lives (Ryff, 1989a).

Although some researchers have suggested that four of Ryff’s six dimensions should be collapsed into one, thereby leaving a three-factor model comprising separate factors for autonomy, positive relations with others, and the third factor measuring general well-being (e.g., Abbott, Ploubidis, Huppert, Kuh, & Croudace, 2010; Springer & Hauser, 2006), others have confirmed Ryff’s a priori six factor model best fits accounts of psychological well-being in adult samples (e.g., Clarke et al, 2001; Gallagher et al., 2009; Ryff & Keyes, 1995; van Dierendonck, 2004). Furthermore, studies have demonstrated the versatility of Ryff’s well-being assessment, finding that shorter versions of the measure have been validated cross-culturally in a Spanish-language sample (van Dierendonck, Diaz, Rodriguez-Carvajal, Blanco, & Moreno-Jimenez, 2008), a Chinese sample (Cheng & Chan, 2005), and a Swedish sample (Lindfors et al., 2006).

The issue of scale length has received extensive psychometric scrutiny. Although the initial measurement scales comprised 20 items for each of the six dimensions (120 items in total; Ryff, 1989a), shorter versions have been employed by researchers to reduce the encumbrance placed on respondents in completing the inventory (e.g., Ryff, Lee, Essex, & Schmutte, 1994; Schmutte & Ryff, 1997). Modified versions of the scales range from a 3-item version (18 items in total) to a 14-item version (84 items in total), which have been found to correlate highly with the original 120-item format (Ryff & Keyes, 1995). However, utilising the extremely shortened version may compromise internal consistency, with one study reporting low alpha coefficients for the 18-item format in a nationally representative sample of adults (Ryff & Keyes, 1995).
Recent evidence supports the use of, at minimum, a 7-item format (42 items in total) to achieve a balance between scale length (i.e., respondent burden) and the reliable assessment of the well-being dimensions (Morozink, Friedman, Coe, & Ryff, 2010; Ryff, 2014).

**Summary of the Literature on Well-Being**

Recent perspectives of well-being can be thought of as falling into two main traditions. According to one tradition, well-being is viewed as an individual’s cognitive and affective appraisals toward a given life domain, and assesses constructs such as life satisfaction and the balance of positive and negative emotions (e.g., Diener, 2000). The other formulation of well-being focuses on an individual’s evaluation of how they function in life, and assesses constructs such as autonomy, purpose in life, mastery and growth (e.g., Deci & Ryan, 2008; Keyes & Ryff, 1999; Ryff, 1989a; Ryff & Singer, 2008). Although the first approach, which focuses on an individual’s feelings about their life, is typically adopted as the conceptual framework in well-being research endeavours, there is growing recognition and evidence for the important contribution of adopting the second approach, which emphasises an individual’s judgement of their functioning in life, in understanding what it means to live well and function positively (Deci & Ryan, 2008).

An analysis of empirical literature on well-being implicates six psychological features relevant to well-being among women: relatedness, autonomy, mastery, purposeful living, self-growth, and self-acceptance. Research findings indicate that for women, living ‘well’ involves reciprocity in relationships (i.e., mutually feeling understood and cared for), which is consistently found to play a role in protecting against ill-health, and empirical
evidence supports the contribution of relatedness to enhanced positive psychological functioning. Research findings also implicate the importance of having the capacity to exercise choice in important life domains (e.g., leisure and social roles) and a sense of willingness to engage in activities of interest; that is, living well involves freely regulating behaviour from within, without feeling coerced by external opinions or expectations. Positive psychological functioning also involves feeling effective and competent in multiple life domains, such as in social roles and vocation. Evidence suggests that a sense of meaning and fulfilment is conducive to enhanced well-being, and for women across adulthood, there are multiple contexts (e.g., family, broader community and self-evaluations) in which purposeful living may manifest or be cultivated. Self development is a continual process that for women, involves building self-confidence and a sense of skill acquisition in response to difficult and positive life events. Finally, a sense of self-worth can be protective against difficult life events, but adaptive functioning involves more than just acknowledging positive aspects of self (i.e., self-esteem); it also involves acceptance of multiple aspects of one’s life, including the good and bad qualities within one’s current/past life events.

Ryff’s (1989a; 2014) multi-dimensional formulation and measure of psychological well-being, which is grounded within an eudaimonic tradition, provides a useful conceptual framework for exploring well-being among adult women. In an attempt to move beyond narrow interpretations of wellness, Ryff identified recurrent themes and points of convergence across numerous philosophical and psychological accounts of positive functioning, and distinguished six features that encapsulate what it means to flourish and function optimally. Ryff’s features of well-being are: positive relations with others,
autonomy, environmental mastery, purpose in life, personal growth, and self-acceptance. These six principles guided the development of a construct-oriented self-report measure of well-being (Ryff, 1989a) that has been widely used among predominantly older-aged adults. Although cumulative knowledge about the factorial validity of Ryff’s six-factor model is inconclusive due to variation in the formats used (e.g., versions of the scales range from 120 items to 12 items), the scales have been validated among community and population-based samples of women and men.
Chapter Four

Body Image and Psychological Well-Being

The link between evaluations of the physical self and psychological functioning has been an important area of investigation in the field of body image research. Given that a significant proportion of women experience some level of dissatisfaction with their body’s appearance or physical composition (Allaz, Bernstein, Rouget, Archinard, & Morabia, 1998; Bearman et al., 2006), a major focus of research is whether there is a relationship between a negative body image and impaired psychosocial adjustment, such as problems with mental health and well-being (Bedford & Johnson, 2006). Women’s concerns with the physical self may reflect broader negative-self-perceptions, including concerns about self-worth, control, autonomy, relationships, and overall quality of life, particularly when effort invested in improving one’s physical self compromises the development of, or effort invested in, other areas of a woman’s life (Strachan & Cash, 2002; Striegel-Moore & Franko, 2002).

A review of the research examining the relationship between body image attitudes and psychological well-being is discussed below, followed by an exploration of associations between aspects of well-being and body image that have not been the focus of research attention. Areas that have been well researched (i.e., body image and self-esteem; body image and autonomy; body image and positive relationships with others), will be considered first, followed by areas that require further research attention. Factors that may impact the relationship between body image attitudes and psychological well-being, namely age and social role occupancy are then considered. Finally, an outline of the aims, hypotheses and design of the current study are presented.
Body Image and Self-Esteem

Body image, sometimes assessed using a measure of body esteem, is viewed by some researchers as one component of more global evaluations of the self; that is, body image is thought of as one of multiple dimensions constituting global self-esteem (Bracken, 1992; Fox, 1988; O’Brien & Epstein, 1988). Theoretical perspectives of self-concept propose that discontent with any aspect deemed important to a person’s self-definition is likely to impact an individual’s self-esteem (Crocker, Luhtanen, Cooper, & Bouvrette, 2003; Tiggemann, 1994). Relative to men, stronger associations between body dissatisfaction and levels of self-esteem across the lifespan have been proposed to indicate physical appearance as more important to women’s sense of self in adolescence and beyond (Hurd Clarke, 2012; Murnen, 2011), with appearance proposed to represent a large portion of an individual woman’s self-concept (Tiggemann, 1994). Given the central role played by appearance in women’s lives, poor body image is expected to be associated with low self-esteem among adult women.

Many studies examining the relationship between body image and self-esteem have focused on the life stages of adolescence and young adulthood, perhaps because the establishment of a coherent sense of self and identity is a major developmental task during this time period (Erikson, 1968), and a peak in prevalence of eating disorders are observed during these life stages (Smink et al., 2012). In general, adolescent and young adult women who express greater discontent with their physical appearance tend to score lower on measures of self-esteem than women who are more satisfied with their bodies (Mendelson, White, & Mendelson, 1996; Ricciardelli & McCabe, 2001; Sira & White, 2010; Tiggemann, 2005; van den Berg, Wertheim, Thompson, & Paxton, 2002). A
similar relationship has been found among middle-aged and older adult women, with moderate to strong correlations (i.e., $r \geq .40$) observed between measures of self esteem and body satisfaction (Green & Pritchard, 2003; Tiggemann & Williamson, 2000; Webster & Tiggemann, 2003; Wilcox, 1997). The stability of the relationship between self-esteem and body dissatisfaction indicates that, regardless of age, women with lower self-esteem are more likely to report dissatisfaction with their physical size or shape (Mellor, Fuller-Tyszkiewicz, McCabe, & Ricciardelli, 2010).

Despite the consistent finding of a negative association between self-esteem and body satisfaction among women, the direction of this relationship over time, is unclear, particularly in middle-aged and older adult samples. The results of studies sampling adolescents (predominantly girls) appear to support a model whereby self-esteem is predicted by level of body satisfaction. For example, Harter (2000) found that girls who perceived poor body image led to poor self-esteem, were more likely to feel worse about their appearance and report lower levels of self-esteem than girls who believed self-esteem preceded body dissatisfaction. Furthermore, the results of previous longitudinal studies have demonstrated that, for adolescent girls, appearance dissatisfaction predicted lower self-esteem several years later (Paxton, Neumark-Sztainer, Hannan, & Eisenberg, 2006; Thompson, Coovert, Richards, Johnson, & Cattarin, 1995), while no support was found for the reverse direction (i.e., self-esteem did not predict levels of body dissatisfaction over the same time period; Tiggemann, 2005). Although some researchers have proposed a similar relationship exists among middle-aged women (i.e., body dissatisfaction early in life is hypothesised to impair self-esteem in later life; e.g., Wardle, Waller, & Fox, 2002), the results of cross-
sectional (e.g., Baker & Gringart, 2009) and longitudinal studies (e.g., Mellor et al., 2010) fail to support the hypothesised relationship for middle-aged or older women (i.e., > 31 years). It has been suggested that unlike young women for whom self-esteem may be more contingent on appearance, appearance is not as central to self-esteem among women as they get older (Mellor et al., 2010).

**Body Image and Autonomy**

Perceived pressure to be thin is a strong predictor of body dissatisfaction. Past studies investigating this association consistently demonstrate that perceived sociocultural pressure to conform to the thin ideal (i.e., perceived pressure to be thin from family, friends, romantic partners and the media), is one path by which young women develop body dissatisfaction (Dittmar, 2005; Field et al., 2001; Stice & Whitenton, 2002). However, not all women are equally susceptible to internalising the thin ideal as a personal standard of appearance (Polivy & Herman, 2004), and researchers have focused on identifying intrapersonal factors, such as self-esteem (as discussed in the previous section) and self-determination, underlying the link between endorsement of thin-ideal beliefs and body dissatisfaction (e.g., Pelletier & Dion, 2007). Self-determination theorists propose that the motivation underlying an individual’s beliefs and behaviours ranges from intrinsic (i.e., autonomous) to extrinsic (i.e., controlled), with autonomously motivated orientations expected to promote more adaptive functioning (Deci & Ryan, 1985). Guided by theories of autonomy and self-determination, body image researchers have proposed that the assimilation or internalisation of thin-ideal cognitions varies as a function of the extent to which a woman feels she is an active agent or self-determined toward body-related cognitions and behaviours (Kopp & Zimmer-Gembeck, 2011).
Empirical research supports the link between perceived autonomy and adaptive/positive body image attitudes. Global levels of autonomy among university-aged women ($M_{age} = 22 – 26$ years) have been negatively associated with perceived pressure to achieve a thin physique, the endorsement of thin-ideal beliefs, body dissatisfaction (Pelletier & Dion, 2007), and severe dietary restraint (Pelletier, Dion, & Levesque, 2004). Further, using structural equation modeling, several studies have found an indirect link between perceived autonomy (as one of three basic psychological needs, including relatedness and competence) and unhealthy weight control behaviours via a variety of body image variables, including body dissatisfaction and weight preoccupation (Thøgersen-Ntoumani, Ntoumanis & Nikitaras, 2010), and weight-related appearance anxiety (Thøgersen-Ntoumani, Ntoumanis, Cumming, & Chatzisarantis, 2011). Together, this evidence suggests that young women may be less at risk of body dissatisfaction when they are able to dismiss thin ideal messages received from the social environment (whether this is via family, friends, or the media), and rely on their own personal values and standards (Kopp & Zimmer-Gembeck, 2011).

**Body Image and Positive Relationships with Others**

An individual’s body image is developed and maintained within an interpersonal context (Paxton, Schutz, Wertheim, & Muir, 1999; Stice & Whitenton, 2002). The results of investigations of factors contributing to the development of body image highlight the role of peer and familial relationships, particularly during adolescence and early adulthood (Field et al., 2001; Tantleff-Dunn & Gokee, 2002). Appearance-related feedback (e.g., subtle body language and verbal commentary) has been associated with negative evaluations and investment in one’s appearance, including dietary restraint (Herbozo &
Thompson, 2010), body dissatisfaction, distress, and dysfunctional investment in appearance (Cash, Theriault et al., 2004; Herbozo & Thompson, 2006a; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999b). In a longitudinal study investigating factors that influenced the recovery from eating disorder symptoms among university-aged women, the authors found that having a positive role model in the home led to improved body image, whereas women who reported being teased and having hypercritical family members were more likely to engage in dietary restraint (Hesse-Biber, Marino, & Watts-Roy, 1999). Although the information received in a family environment can both positively and negatively influence a woman’s body image, the way in which the opinions of significant others shape an individual’s body image early in life can influence future self-perceptions and, in turn, future body-related behaviours in one’s adult life.

Women’s peer interactions and platonic relationships are also thought to impact on their body image. Research findings indicate that female students with greater body satisfaction experience increased social confidence, a sense of mastery over social interactions, and more intimate day-to-day interactions, relative to females with a less positive body image (Nezlek, 1999). In a sample of undergraduate females, body satisfaction predicted higher perceived warmth and positivity in interactions with same-sex friends (Forand, Gunthert, German, & Wenze, 2010). While satisfaction with one’s appearance may be facilitative of confidence and comfort in interpersonal interactions, the view that one’s appearance is unsatisfactory potentially contributes to affective and behavioural outcomes that further perpetuate poor self-image. For example, body dissatisfaction and a high level of investment in appearance have been found to be associated with distress and anxiety in, or avoidance of situations in which
appearance is salient (e.g., in conversations about appearance with friends, at parties, in social situations in general), and low confidence in interpersonal interactions (Schutz & Paxton, 2007; Tantleff-Dunn & Lindner, 2011). Thus, there may be a reciprocal relationship between perceived appearance-related feedback, body image, and relationships with others, whereby a woman with body dissatisfaction is likely to perceive others’ comments/reactions negatively, which results in avoidance of social interactions, and further increases feelings of isolation or lack of support.

The association between interpersonal interactions and body image among females is particularly important as young women’s relationships expand to include emotional and sexual interactions with romantic partners. The existence and desire for romantic partner relations is particularly relevant for middle-aged and older adult women (Knight, 2012), and has been shown to be directly related to perceptions of appearance. For example, physical attraction is emphasised in men’s choice of romantic partner to a greater extent than that of women’s (Hoyt & Kogan, 2002; Lundy, Tan, & Cunningham, 1998; Townsend & Levy, 1990). Women’s body image perceptions continue to influence romantic interactions and sexual functioning within relationships once they are established (Woertman & van den Brink, 2012). Together, these findings highlight the relevance of considering an individual woman’s self-appraisals, affect, and investment in appearance, experienced within interpersonal contexts, and the implications these appearance-related attitudes can have on her perceptions of interpersonal interactions and relationships.
Other Aspects of Associations Between Body Image and Psychological Well-Being

Although the relationship between body image and global evaluations of self, such as global self-esteem, has been well-documented (e.g., Geller et al., 1998; Harter, 1999; O’Dea, 2012), a majority of the existing research is based on young women in their 20s and 30s. Beyond young adulthood, natural biological processes including decreases in basal metabolic rate, muscle tone, and strength (Chrisler, 2007; Hurd Clarke, 2012; Santrock, 1999) can lead to increases in adiposity, weight and body size as women age. Because of negative societal connotations of having an aged body (Grogan, 2012), and the discrepancy between the physical reality of growing older and achieving the slender, wrinkle-free Western societal ideal, it is expected that appearance dissatisfaction experienced by aging women will be related to negative global self-evaluations in middle and older adulthood. While this proposal has theoretical support, and body dissatisfaction does appear to remain stable as women get older (Grogan, 2008; Tiggemann, 2004; Tiggemann & Slevec, 2012), older adults have been found to engage in accommodative, assimilative, and compensatory processes that are proposed to preserve a sense of self through age-related physical and psychological change/ loss (Brandstätter & Greve, 1994).

There is a growing body of evidence to suggest that self-acceptance (global and domain-specific) is relevant to older women’s body image attitudes. For example, Tiggemann and McCourt (2013) found that women aged over 50 years reported greater levels of acceptance and appreciation of their bodies (i.e., measured as body appreciation) than did their younger counterparts (18-49 years). Furthermore, the results showed that whereas body dissatisfaction remained stable
across the adult sample, body appreciation increased with age. The different trajectories of body appreciation and body (dis)satisfaction across age demonstrates that it is possible for women to simultaneously experience some level of body dissatisfaction but also to appreciate and respect their body in other ways (Tiggemann & McCourt, 2013). Despite age-related changes to physical appearance, the ability to accept one’s body and its physical imperfections may promote positive body image among aging women (Tiggemann & Lynch, 2001; Tiggemann & McCourt, 2013; Webster & Tiggemann, 2003), and in turn a positive view of the self.

As women move from middle to later adulthood, they may modify their definition of beauty and their preferred/‘ideal’ body shape and size, as their own figures increase in size. Indeed, empirical data has shown that the ideal physique of older (40 – 65 years) women is much larger than that indicated by younger (20 – 22 years) women (Lamb, Jackson, Cassidy, & Priest, 1993). Research findings have also demonstrated that women in late adulthood are less likely to make appearance comparisons than younger women (e.g., Davison & McCabe, 2005; Kozar & Damhorst, 2009), which in turn may serve to protect them from increased body dissatisfaction and the preservation of self-worth (Hurd Clarke, 2012). The findings of qualitative data further support the contention that women may become more accepting of their physical bodies as they age. For example, in a study of 12 women aged 60 – 75 interviewed about their body image, women reported attributing weight gain to biological changes associated with aging, which meant they felt less personally responsible for age-related changes to the body, and in turn experienced less shame and discomfort (Hurd Clarke, 2002).
Autonomy has also been implicated in research on body image of adult women. As women get older and form a stronger sense of self and individuation (Apter, 1996; Levinson, 1996), they may be less influenced by societal standards of beauty. Though individual variation exists, with age, women may begin to dissociate themselves from sociocultural pressures (e.g., messages received from family, peers, and the media that communicate one’s worth is tied to body size and shape), and instead draw on internal resources to construct their self-concept and body-related attitudes (Kozar & Damhorst, 2009).

In sum, existing literature on the association between body image and well-being in adult women has limited the focus of well-being to one aspect of self (i.e., self-esteem/ self-worth), and predominantly investigated body image in relation to appearance. However, there is evidence to suggest that other aspects of positive functioning, such as the extent to which an individual accepts certain aspects of the self and experiences a sense of agency and control over themselves, may be related to women’s attitudes about their appearance and the body’s functionality, particularly for middle aged and older adult women.

**Age and Roles as Moderators of the Association Between Body Image and Psychological Well-Being in Women**

Psychological well-being has been a target, although not exclusively, of research on ‘successful’ aging (e.g., Baltes & Baltes, 1990; Parslow, Lewis, & Nay, 2011). The life expectancy of women (and men) in Australia, as in many other countries, has substantially increased over the past century and this increase is expected to continue, with the projection that the proportion of those over 85 years will more than quadruple over the next forty years (ABS, 2011b; DHA, 2010). The lengthened life span has resulted in increasing numbers of women in
midlife or in an older age category. Numerous physical and psychological changes that commonly occur during these life stages are likely to impact women’s body image and sense of well-being as they move from young to later adulthood.

**Psychological Well-Being and Age**

In terms of understanding individual variation in well-being, age has been a key focus of research studies. Within the framework of the six guiding dimensions of well-being, Ryff (1989a) examined whether profiles of positive psychological functioning varied across the adult lifespan and found diverse patterns of well-being across young (18 – 29 years) midlife (30 – 64 years) and older adults (65 years or older). The findings indicated levels of environmental mastery and autonomy increased with age, whereas personal growth and purpose in life decreased; and no differences were found in patterns of positive relations with others and self-acceptance across the three age groups. Most of these findings were replicated in a series of studies using community- and population-based samples, with the exception of ratings in positive relations with others, which were also found to increase with age (Clarke, Marshall, Ryff, & Rosenthal, 2000; Ryff, 1991; Ryff & Keyes, 1995).

Although the findings from a series of studies suggest consistency of cross-sectional age patterns in well-being, a recent study with similar sample characteristics and age-groupings found that with the exception of environmental mastery, Ryff’s well-being dimensions did not consistently demonstrate distinct age profiles over time (Springer, Pudrovsk, & Hauser, 2011). The researchers suggested that disparate age patterns in well-being ratings could reflect, in part, methodological effects (e.g., positive or negative item-wording) rather than age-
related effects exclusively, and concluded that there existed insufficient, consistent evidence of age variation in psychological well-being across the life course (Springer et al., 2011). That is, variation in well-being across the adult lifespan may not be sufficiently accounted for by chronological age, exclusively.

In addition to the improvement or decline of well-being with increasing chronological age, studies have examined well-being in relation to adult development and ‘psychological aging’ (Ryff, 2014). How individuals interpret and construe the diverse array of life experiences and developmental tasks as they transition from early to late adulthood has been linked to variation in well-being among adults (Ryff, 1995). For example, multiple studies have associated subjective age (i.e., how old one feels) to psychological well-being (Ryff, 1991; Ward, 2010), with higher well-being related to younger felt-age, without the desire to actually be younger (Keyes & Westerhof, 2012). High levels of well-being have also been associated with themes of personal growth that have emerged from the narratives of adults’ reflections on major life goals, autobiographical memories, and stories of life transitions (Bauer & McAdams, 2004, 2010; Bauer, McAdams, & Sakaeda, 2005).

The maintenance or increase in well-being as individuals transition from early to late adulthood has been associated with the adoption of certain adaptive strategies, such as the use of certain coping strategies (e.g., meaning-based, active, and passive; Schanowitz & Nicassio, 2006), and shifting goal orientations from goal-striving to goal maintenance and loss prevention (Ebner, Freund, & Baltes, 2006). Together, these research findings suggest that well-being changes as individuals negotiate the transitions, events and challenges of adult life (Ryff,
Body Image, Psychological Well-Being and Age

The results of research investigating the relationship between body image and well-being indicate that age acts as moderator on the association between appearance-related attitudes and aspects of self-esteem among women across the lifespan. Specifically, research findings demonstrate body dissatisfaction is related to lower self-esteem for adolescent girls (Tiggemann, 2005), young university-aged women (Tiggemann, 1992), middle-aged women (Paa & Larson, 1998), and for overweight middle-aged women (Wardle et al., 2002). However, few studies have explicitly examined the relationship between body image and psychological well-being in different age groups. There is some evidence to suggest that the influence of body dissatisfaction on evaluations of self-worth remains stable or strengthens in midlife. For example, in a sample of women aged 18 to 60 years, Tiggemann and Stevens (1999) showed that only for middle-aged women (i.e., 30 to 49 years) was body and weight dissatisfaction related to lower self-esteem, and no significant relationship emerged for younger or older women. Webster and Tiggemann (2003) similarly found age to moderate the relationship between women’s body dissatisfaction and self-esteem, such that the association was much stronger in the young adult (20 – 35 years) and middle-aged (35 – 50 years) groups than for the group of older women (50 – 65 years). These findings have led some researchers to conclude that appearance becomes less central/important to women’s overall view and feelings about themselves as they get older, and in turn, may protect aging women against negative self-evaluations.
associated with body image (Tiggemann & Stevens, 1999; Webster & Tiggemann, 2003).

However, not all research has found age to moderate the relationship between body image and self-esteem. For example, the results of a study examining the relationship between body image and self-esteem in women and men grouped in age by decades (ranging from 20 to 79 years) showed that the level of body dissatisfaction and magnitude of the relationship between body image attitudes and self-esteem did not vary as a function of age (Wilcox, 1997). The results of Mellor and colleagues (2010) likewise showed that the strength of the relationship between body dissatisfaction and self-esteem remained constant for women (and men) aged 20 to 86 years. Interestingly, although Mellor et al. found a decline in appearance dissatisfaction across age, the results also showed an increase in body image importance in their sample across the lifespan. The authors suggested that body image importance has a different meaning for women as they age, such that facets of body image, other than body dissatisfaction, become more pertinent to women’s body image attitudes in later life (Mellor et al., 2010).

Although the research is limited, there is good reason to expect that other aspects of body image may become more salient to women’s sense of self with age, as middle aged to older women identify the importance of body function, such as their health, fitness, and strength as relevant to participation in meaningful activity (Liechty & Yarnal, 2010b). Tiggemann (2004) argued that while appearance is still important in later life, evaluations of functional aspects of the body may take precedence over satisfaction with appearance. Although limited, empirical data support the contention that appearance becomes less strongly
linked to self-esteem in older adulthood. For example, in women aged 65 – 85 years, while appearance evaluation was not significantly related to self-esteem, the strongest predictors of self-esteem were measures of perceived health evaluations, and preoccupation with being or becoming overweight (Baker & Gringart, 2009). This does not imply that appearance becomes unimportant as women age, but suggests that as a woman moves into middle and late adulthood, she may experience a shift in her attitudes from an emphasis on outward appearance/ aesthetics to an inner sense of self that focuses on body function and physical health (Ferraro et al., 2008; Franzoi & Koehler, 1998; Reboussin et al., 2000; Waddell & Jacobs-Lawson, 2010). Taken together, these theoretical perspectives and empirical data suggest that while women’s body image concerns may be related to their well-being, different aspects of body image may impact women’s sense of self-worth differentially according to their age. However, these conclusions are preliminary, given the paucity of research utilising measures of body image other than body dissatisfaction (e.g., appearance investment, and evaluations and investment in body function) to examine age effects on the association between body image and self-esteem.

**Psychological Well-Being and Roles**

Women often occupy multiple roles, such as employee, mother, wife, daughter, friend and social club member, and research consistently demonstrates a relationship between the occupation of multiple social roles and a number of indicators of psychological well-being (Adelmann, 1994; Cochran, Brown, & McGregor, 1999; Dautzenberg et al., 1999; Elgar & Chester, 2007; Kopp & Ruzicka, 1993; Lahelma et al., 2002; Reid & Hardy, 1999). Research in this field has traditionally focused on women’s attempt to balance an array of
responsibilities across work and family roles, with time-based pressures and
behavioural incompatibilities proposed to contribute to role conflict (whereby the
fulfilment of one role impedes one’s ability to fulfil another role; Holahan &
Gilbert, 1979) and psychological strain (e.g., Goode, 1960). However, these role
overload/conflict approaches have been criticised for being too simplistic, as they
fail to recognise women as active agents, with the ability to choose not to conform
to role expectations (Baruch, Biener, & Barnett, 1987) and the flexibility,
ambiguity, and inconsistency with which women hold role expectations
(Steinberg, True, & Russo, 2008).

Contemporary research on the relationship between social role
involvement and well-being suggests that women’s multiple roles can conflict or
facilitate each other in dynamic and interactive ways (Demerouti, Bakker, &
Bulters, 2004; Frone, 2003; Frone, Russell & Cooper, 1997). For example,
multiple role involvement can generate interpersonal connections and skills (such
as empathy, listening and communication skills) that may serve as a protective
factor for coping with stress in other roles and difficult life events (Nordenmark,
2004; Ruderman, Ohlott, Panzer, & King, 2002). That is, resources developed or
stimulated in one type of role may ‘spill-over’ and offset the resources or strains
of others (Frone, 2003), with the potential for both negative and positive spill-
over effects to operate simultaneously (Grzywacz, 2000).

The occupation of multiple social roles is proposed to impact women’s
mental health via two main mechanisms: role-related experiences (i.e.,
consequences inherent in occupying multiple roles such as, time demands, role
quality, role stress) and intrapersonal risk/protective factors (e.g., mastery, social
support, self-esteem, self-efficacy and so on; Castro & Gordon 2012). Some
studies show that the positive effects of role-involvement result from: an even
distribution of commitment and involvement in multiple roles (i.e., role balance;
Marks & MacDermid, 1996); the perceived ability to control/ manage those roles
(i.e., role-management/ negotiation; Ahrens & Ryff, 2006); and/ or, occupying
roles that are meaningful and hold some value (i.e., quality of role involvement;
Reid & Hardy, 1999; Vandewater, Ostrove, & Stewart, 1997). With regard to
protective factors, literature on social roles indicate that multiple role occupancy
enhances an individual woman’s psychological resources by increasing
opportunities to feel good about herself, activities, and accomplishments
(Nordenmark, 2004; Ruderman et al., 2002). Study findings indicate that women
develop a sense of confidence, esteem, satisfaction and perspective through
occupying roles such as mother, friend and employee (Dijkstra & Barelds, 2009;
Hansen et al., 2009; Ruderman et al., 2002), which collectively contributes to a
high level of overall well-being.

Understanding when or how multiple role occupancy does or does not
promote psychological well-being requires investigators to consider the joint and
interacting effects of women’s involvement in such roles. Examining the
independent effects of marital and occupational status (or any other single
demographic variable) is not sufficient to predict well-being for unique role
combinations (Steinberg et al., 2008). A broader conceptualisation of women’s
role involvements and activities (e.g., community relationships/ responsibilities,
occupation, familial commitments and general social relationships) may yield a
better understanding of sources of energy as well as depletion, for women’s
mental health and well-being.
Body Image, Psychological Well-Being and Roles

Past research on women’s body image and social roles have focused on gender roles, and found that endorsing particular attitudes about femininity (i.e., traditional notions about women’s roles as feminine) is related to a woman’s level of appearance-investment and her sense of well-being (Gillen & Lefkowitz, 2006; Lennon et al., 1999). However, women’s attitudes toward gender role expectations will not be the focus of this study; rather, women’s experience of and involvement in social roles will be explored.

Research findings indicate that women who are not invested in their roles, or women whose resources are dispersed thinly across multiple roles (e.g., across the work and family domains), may feel a sense of guilt (low self-acceptance) or feel out of synch compared to others (low sense of autonomy) if they perceive they are not meeting the demands of their roles (McLean, Paxton, & Wertheim, 2010; Roberts & Friend, 1998). The combination of low self-acceptance and autonomy with the perception that one is not fulfilling their roles is likely to have consequences for self-care attitudes and practices that, in turn, may contribute to difficulties with body image (McLean et al., 2010). This proposal has been supported empirically, with research findings indicating that women who invest in their roles, in particular an employee role, report high levels of self-acceptance/self-esteem and positive evaluations of their body function and health (Christensen et al., 1998; Lennon et al., 1999; Roberts & Friend, 1998; Vandewater et al., 1997). Furthermore, conceptual models proposed to represent mechanisms linking multiple role-occupancy to well-being among women indicate a complex interaction between type and combination of roles-occupied,
age, and perceived physical health as factors proposed to mutually influence each other (e.g., Castro & Gordon, 2012).

**Summary**

Although both body image and well-being are comprised of multiple components, limited aspects of each construct have been considered in investigations of the association between them. Measures of body image have been limited to the appearance domain (e.g., evaluations of body satisfaction), and how this is related to one, of many, aspects of well-being, namely self-esteem, particularly in young women. However, it is important to investigate the associations between body image attitudes and well-being as women age, with numerous factors proposed to influence the relationships. As women move from young to later adulthood they experience physical changes to the body, and role-related changes, such as in their occupational identity, financial independence or the transition into motherhood. In the context of these changes, there is good reason to expect appearance concerns may become a less important source of women’s self-esteem relative to other aspects of their lives, while aspects of body function and multiple dimensions of well-being, such as perceived relatedness and agency/ self-determination, appear to become more salient to the attitudes of adult women. Although age and role involvement have been implicated as important variables to consider in understanding the relationship between women’s body image and psychological well-being, few studies have investigated their potentially moderating effects; rather the foci of empirical studies have predominantly been broad associations among body image, well-being, age and roles independently. Furthermore, the direction of the relationships between body image and psychological well-being have been considered to a limited extent and
only recently, with inconsistencies reported among the available literature, suggesting that the relationship between body image and psychological well-being is complex, and impacted by one’s relative stage of life experiences.

**Research Aims**

The proposed study aimed to explore the associations between multiple aspects of body image and psychological well-being in a community sample of adult women. The broad aims of the thesis were threefold: (a) to examine the conceptual relationship between body image and well-being in adult women; (b) to determine whether life-stage/ experience (as measured by age and social role involvement) contributed to variation in the relationship between body image and well-being; and (c) to understand the experiences and views about body image and well-being as understood by women with higher and lower levels of body image and well-being. The proposed study extends previous research on body image in adult women by: investigating the fit of a model of body image applied to a sample of community-dwelling women; exploring the associations between multiple aspects of body image and various dimensions of psychological well-being in a single study; employing a multi-dimensional model of mental health that represents the presence of positive functioning (i.e., well-being) as opposed to the absence of ill-being; and incorporating age and social role involvement as potential moderators of the relationship between body image and psychological well-being.

**Research Questions**

1. How is body image related to psychological well-being in adult women?
a. Which aspects and dimensions of body image are related to specific dimensions of psychological well-being?

b. What is the direction of the proposed relationships between body image and psychological well-being?

2. Does life-stage/ experience (as measured by age and social role involvement) contribute to variation in the relationship between body image and well-being?

   a. Does body image vary according to age?

   b. Does level of well-being vary according to age and social role involvement?

   c. Does the association body image and level of well-being vary according to women’s age and social role involvement?

3. What are the experiences and views about body image and well-being as understood by women with higher and lower levels of body image and well-being?

   Hypotheses

1. All aspects of body image (body satisfaction, body ideal discrepancy, appearance orientation, importance of appearance ideals, overweight preoccupation, body concealment, body improvement, impact of body image on quality of life, appearance comparison, affective response to body image, health/ fitness evaluation, fitness/ health orientation, and illness orientation) are expected to be related to the six dimensions of well-being (self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth) among adult women.
2. The associations between body image and well-being are expected to be moderated by women’s age and social role involvement, such that body image variables would have different predictive strengths on well-being at different stages of adulthood (i.e., at different age groups) and at different levels of social role involvement.

3. The proposed relationships between the body image domains and well-being dimensions are expected to be bidirectional.

The above hypotheses will be further explored through interviews among women with high or low levels of body image and well-being.

**Research Design**

A primary objective of the current cross-sectional study was to explore the association between body image and psychological well-being in a nonclinical, adult population (≥ 18 years) of women, using well-established measures that capture the multi-dimensionality of both constructs. A mixed-methodology approach was employed to quantify levels of body image and well-being among adult women, and to describe variations in their experiences with more elaborate and rich information obtained qualitatively. To this end, regression, multivariate analyses of variance, and structural equation modeling were employed to explore the associations between body image, well-being, and stage of life (i.e., age and social role involvement), and thematic analysis was used to garner rich descriptions and in-depth themes to enhance our understanding of the complexity and nuances of the variation in women’s experiences across the adult life span.
Chapter Five

Method Study 1

Participants

The target population for this study was adult women aged 18 years or older. The initial sample before data screening was made up of 810 participants. Women who reported they had been diagnosed with a major mental illness (e.g., eating disorder, psychotic disorder), or an intellectual disability were excluded from the current investigation in order to generalise the findings to a nonclinical population.

The final sample was composed of 717 women, aged 18 to 59 ($M = 29.51$ years, $SD = 9.73$ years). Body mass index of the sample ranged from underweight to obese ($M = 27.13$, $SD = 8.23$). The majority of participants (87%) indicated they had completed some tertiary studies (i.e., 13 or more years of education), and were employed at the time of data collection (34% full-time, 24% part-time, and 12% employed on a casual basis). A small number of women were retired (2%). More than half of the participants were in a romantic relationship (31% married, 24% dating one person exclusively, 5% dating someone but not exclusively, and 9% in a de-facto relationship), and a third of women were single (31%).

Materials

A battery of self-report measures was used to collect information on participant’s sense of well-being and body image. Each specific measure and subscale used to assess multiple aspects of body image (body satisfaction, body ideal discrepancy, appearance orientation, importance of appearance ideals, appearance-related behaviours, impact of body image on quality of life,
appearance comparison, affective response to body image, health/fitness
evaluation, health/fitness orientation and illness orientation) and well-being
(autonomy, self-acceptance, purpose in life, personal growth, positive relations
with others and environmental mastery) are described below. The properties of
each measure, including total number of items, response scale, range of possible
scores, and sample items, as well as alpha levels reported by the instrument’s
authors, are presented in Table 5.1.

**Demographic Information**

All participants provided demographic information including, age, number
of years of education, occupation, relationship status, sexual orientation, height,
weight, pregnancy status and current physical and or mental illness. Data
indicating the types of social roles the participant identified with were also
collected using a check-list of social roles examined in the literature, including:
mother; partner/wife; paid employee; friend; student; social club member; carer;
volunteer; and, other.

**Body Image Measures**

The sections that follow present materials used to measure the appearance
and functionality dimensions of body image.

**Body appearance.** The appearance domain of body image refers to
attitudes about one’s external physical body, and includes an individual’s
evaluation of and investment in certain beliefs or assumptions about the
importance, meaning, and influence of appearance in his/her life.

**Body satisfaction.** Body satisfaction was assessed with the Appearance
Evaluation scale and Body Areas Satisfaction scale of the Multidimensional
Body-Self Relations Questionnaire (MBSRQ; Brown et al., 1990; Cash, 2000; see
Appendix A). The psychometric properties of the scales can be found in Table 5.1. The Appearance Evaluation (AE) scale assesses satisfaction with one’s overall appearance. Higher scores on this scale indicate greater satisfaction with one’s appearance. Internal reliability for the AE scale was high ($\alpha = .92$) among women in the present study. The Body Areas Satisfaction scale (BASS) assesses satisfaction with discrete aspects of one’s appearance; higher scores on this scale indicate greater content with most areas of one’s body. Internal reliability for the BASS was high ($\alpha = .85$) among women in the present study. Both the AE and BASS provide a measure of the evaluative component of body image. The respective scale scores were averaged using standardised z-scores to generate a composite score of body satisfaction (Cash, 2000).

**Appearance orientation.** The Appearance Orientation (AO) scale from the MBSRQ (Brown et al., 1990; Cash, 2000; see Appendix A) was used to measure the cognitive and behavioural effort women invest in their appearance. The AO scale assesses the level of importance a woman attributes to her appearance and the extent to which she engages in appearance-related activities. The psychometric properties of this scale can be found in Table 5.1. Higher scores indicate the respondent places more importance on how they look, pays more attention to their appearance, and engages in extensive grooming behaviours (Cash, 2000). Internal reliability of the AO scale was high ($\alpha = .86$) among women in the present study.

**Body ideal discrepancy.** The Body Image Ideals Questionnaire (BIIQ; Cash & Szymanski, 1995; see Appendix B) was used to assess the degree to which women felt their bodies resembled or were discrepant from their personal ideals. A composite ‘discrepancy’ (BIIQ-D) score was generated from the Part-A
questions of the 11 items on which respondents indicate perceived degree of disparity from various ideal physical characteristics. The psychometric properties of this scale can be found in Table 5.1. Higher scores indicate greater perceived discrepancy to one’s personal ideal. Internal reliability of the BIIQ-D scale was high ($\alpha = .81$) among women in the present study.

**Importance of appearance ideals.** The ‘Importance’ subscale of the Body Image Ideals Questionnaire (BIIQ-I; Cash & Szymanski, 1995; see Appendix B) was used to assess the importance a woman assigns to attaining ideal physical attributes. A composite ‘importance’ score was generated from the Part B questions of the 11 items on which individuals evaluate how important it is to achieve their ideal physical attributes. The psychometric properties of this scale can be found in Table 5.1. Higher scores indicate more importance placed on achieving physical ideals. Internal reliability of the BIIQ-I scale was high ($\alpha = .87$) among women in the present study.

**Appearance-related behaviours.** Women’s appearance-related behaviours and activities were assessed using the Overweight Preoccupation subscale of the MBSRQ (Brown et al., 1990; Cash, 2000; see Appendix A) and the Body Image Behaviour Scale (BIBS; Davison & McCabe, 2005; see Appendix C). The psychometric properties of the scales can be found in Table 5.1. The Overweight Preoccupation (OP) subscale reflects weight vigilance, fat anxiety, dieting and eating restraint. Internal reliability of the OP scale was adequate ($\alpha = .75$) among women in the present study. The Body Concealment scale of BIBS assesses the tendency to conceal one’s body from the gaze of others and to avoid discussion about body size and shape. Higher scores on this scale indicate greater engagement in attempts to conceal the body. Internal reliability of the Body
Table 5.1
Summary of Psychometric Properties of Self-report Measures

<table>
<thead>
<tr>
<th>Scale &amp; author Subscales</th>
<th>No. of items</th>
<th>Response scale</th>
<th>Range of total score</th>
<th>Cronbach’s α; re-test correlations</th>
<th>Sample item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multidimensional Body-Self Relations</td>
<td>69</td>
<td>1 (definitely disagree) to 5 (definitely agree)</td>
<td>1 to 5*</td>
<td>.88 .91</td>
<td>My body is sexually appealing</td>
</tr>
<tr>
<td>Questionnaire (MBSRQ)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Brown, Cash &amp; Mikulka, 1990; Cash, 2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance Evaluation (AE)</td>
<td>7</td>
<td>1 to 5*</td>
<td>.77 .79</td>
<td></td>
<td>I easily learn physical skills</td>
</tr>
<tr>
<td>Fitness Evaluation (FE)</td>
<td>3</td>
<td>1 to 5*</td>
<td>.83 .79</td>
<td></td>
<td>I am a physically healthy person</td>
</tr>
<tr>
<td>Health Evaluation (HE)</td>
<td>6</td>
<td>1 to 5*</td>
<td>.85 .90</td>
<td></td>
<td>I use few grooming products</td>
</tr>
<tr>
<td>Appearance Orientation (AO)</td>
<td>12</td>
<td>1 to 5*</td>
<td>.90 .94</td>
<td></td>
<td>I do things to increase my physical strength</td>
</tr>
<tr>
<td>Fitness Orientation (FO)</td>
<td>12</td>
<td>1 to 5*</td>
<td>.78 .85</td>
<td></td>
<td>I have deliberately developed a healthy lifestyle</td>
</tr>
<tr>
<td>Health Orientation (HO)</td>
<td>12</td>
<td>1 to 5*</td>
<td>.75 .78</td>
<td></td>
<td>At the first sign of illness, I seek medical advice</td>
</tr>
<tr>
<td>Illness Orientation (IO)</td>
<td>5</td>
<td>1 to 5*</td>
<td>.76 .89</td>
<td></td>
<td>I constantly worry about being or becoming fat</td>
</tr>
<tr>
<td>Overweight Preoccupation (OWP)</td>
<td>4</td>
<td>1 to 5*</td>
<td>.73 .74</td>
<td></td>
<td>I am... with my mid torso (waist, stomach)</td>
</tr>
<tr>
<td>Body Areas Satisfaction (BASS)</td>
<td>9</td>
<td>1 (very dissatisfied) to 5 (very satisfied)</td>
<td>1 to 5*</td>
<td>.89 .74</td>
<td>I think I am...</td>
</tr>
<tr>
<td>Self-Classified Weight (SCW)</td>
<td>2</td>
<td>1 (very underweight) to 5 (very overweight)</td>
<td>1 to 5*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scale &amp; author Subscales</td>
<td>No. of items</td>
<td>Response scale</td>
<td>Range of total score</td>
<td>Cronbach’s α; test retest correlations</td>
<td>Sample item</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
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<td>----------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Body Image Ideals Questionnaire (BIIQ)</strong></td>
<td>11</td>
<td>0 to 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body Image Ideal – Discrepancy (BIIQ-D)</td>
<td>11 (A)</td>
<td>0 (exactly as I am) to 3 (very unlike me)</td>
<td>0 to 3</td>
<td>.75</td>
<td>My ideal height is...</td>
</tr>
<tr>
<td>Body Image Ideal – Importance (BIIQ-I)</td>
<td>11 (B)</td>
<td>0 (not important) to 3 (very important)</td>
<td>0 to 3</td>
<td>.82</td>
<td>My ideal weight is...</td>
</tr>
<tr>
<td><strong>Body Image Behaviour Scale (BIBS)</strong></td>
<td>11</td>
<td>1 (never) to 6 (always)</td>
<td>&gt; .80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body Concealment</td>
<td>8</td>
<td>8 to 48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body Improvement</td>
<td>3</td>
<td>3 to 18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Body Image Quality of Life Inventory (BIQLI)</strong></td>
<td>19</td>
<td>-3 (very negative effect) to 3 (very positive effect)</td>
<td>-3 to +3</td>
<td>.95</td>
<td>Rate how much your feelings about your body affect...my relationships with friends</td>
</tr>
<tr>
<td><strong>Physical Appearance Comparison Scale (PACS)</strong></td>
<td>4</td>
<td>1 (never) to 5 (always)</td>
<td>4 to 20</td>
<td>.78 .72</td>
<td>In social situations, I sometimes compare my figure to the figures of other people</td>
</tr>
<tr>
<td><strong>Situational Inventory of Body Image Dysphoria (SIBID)</strong></td>
<td>20</td>
<td>0 (never) to 4 (always or almost always)</td>
<td>0 to 4</td>
<td>.94 .87</td>
<td>Indicate how often you have negative emotional experiences... when I am with a certain person</td>
</tr>
<tr>
<td>Scale &amp; author Subscales</td>
<td>No. of items</td>
<td>Response scale</td>
<td>Range of total score</td>
<td>Cronbach’s alpha; test retest correlations</td>
<td>Sample item</td>
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<tr>
<td><strong>Scales of Psychological Well-being (SPWB)</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ryff, 1989a; Ryff &amp; Keyes, 1995</td>
<td>54</td>
<td>1 (strongly disagree) to 6 (strongly agree)</td>
<td>1 to 6</td>
<td>.86(^a) .88</td>
<td>My decisions are not usually influenced by what everyone else is doing</td>
</tr>
<tr>
<td>Autonomy (A)</td>
<td>9</td>
<td>1 to 6</td>
<td>.93 (^e) .85</td>
<td>I like most aspects of my personality</td>
<td></td>
</tr>
<tr>
<td>Self-acceptance (SA)</td>
<td>9</td>
<td>1 to 6</td>
<td>.90 (^e) .82</td>
<td>I am an active person in carrying out the plans I set for myself</td>
<td></td>
</tr>
<tr>
<td>Purpose in Life (PL)</td>
<td>9</td>
<td>1 to 6</td>
<td>.87 (^e) .81</td>
<td>I have the sense that I have developed a lot as a person over time</td>
<td></td>
</tr>
<tr>
<td>Personal Growth (PG)</td>
<td>9</td>
<td>1 to 6</td>
<td>.91 (^e) .83</td>
<td>Most people see me as loving and affectionate</td>
<td></td>
</tr>
<tr>
<td>Positive relations with others (PR)</td>
<td>9</td>
<td>1 to 6</td>
<td>.90 (^e) .81</td>
<td>In general, I feel I am in charge of the situation in which I live</td>
<td></td>
</tr>
<tr>
<td>Environmental Mastery (EM)</td>
<td>9</td>
<td>1 to 6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.** Cronbach’s alphas and test-retest correlations reported by scale’s authors; re-test reliabilities were stable over one month period, except for the Scales of Psychological Well-Being, which were found to be stable over a 6 week period. \(^a\)Range of total score is derived from the mean of items. \(^e\)Each item is made up two parts: Part A and Part B. \(^e\)One item was removed due to a low corrected item-total correlation; see description of the scale in the body of the text, under the ‘Materials’ section for further detail. \(^e\)Chronbach’s alphas reported by the author at a later date in a revised user’s manual (Cash, 2002b). \(^e\)Alpha’s based on author’s original 120-item format (Ryff, 1989a). The abbreviated 54-item format used in this study has been found to correlate highly with the original 120-item version (Ryff & Keyes, 1995).
Concealment scale was high ($\alpha = .90$) among women in the present study. The Body Improvement Scale of the BIBS assesses engagement in attempts to improve one’s body. Higher scores indicate a greater tendency to engage in attempts to improve the body. Although psychometric characteristics of the Body Improvement scale were found to be adequate with a community sample of men and women (Davison & McCabe, 2005), item 1 correlated with others at a low level in the present sample of women. This item was excluded from the composite scale score, which resulted in an acceptable level of internal reliability ($\alpha = .83$) among women in the present study.

**Affective response to body image.** The Situational Inventory of Body Image Dysphoria, short form (SIBID; Cash, 2002b; see Appendix D) was used to assess a woman’s negative body image emotions in specific situational contexts. The psychometric properties of this scale can be found in Table 5.1. Higher scores on the SIBID indicate more frequent cross-situational negative body image emotions. Internal reliability of the SIBID was high ($\alpha = .96$) among women in the present study.

**Impact of body image on quality of life.** The Body Image Quality of Life Inventory (BIQLI; Cash & Fleming, 2002; see Appendix F) was used to assess the emotional impact of a woman’s body image experiences on her quality of life. Respondents rate the extent to which feelings about their body impacts a range of life domains (e.g., sense of self, sexuality, emotional well-being, eating, exercise, grooming, etc.). The psychometric properties of this scale can be found in Table 5.1. Higher scores indicate body image has a greater impact on multiple life domains; and valence indicates whether body image had a positive, negative or no
impact on multiple life domains. Internal reliability of the BIQLI was high ($\alpha = .97$) among women in the present study.

**Appearance comparison.** The Physical Appearance Comparison Scale (PACS; Thompson, Heinberg, & Tantleff, 1991; see Appendix E) was used to assess overall appearance comparisons with others. Respondents indicate how often they compare their bodies with those of other people. The psychometric properties of this scale can be found in Table 5.1. Higher scores indicate greater use of social comparisons. In a university sample of undergraduate females, the authors reported internal consistency of Cronbach’s $\alpha = .78$ and test re-test reliability of $r = .72$. Although psychometric characteristics were found to be adequate with a university sample (Thompson et al., 1991), item 4 correlated with other items at a low level in the present community sample, which replicates findings from previous research containing large samples of females (e.g., Davison & McCabe, 2005; Davison & McCabe, 2006). This item was excluded from the composite scale score, which resulted in an acceptable level ($\alpha = .84$) of internal reliability among women in the present study.

**Body Functionality.** The *body functionality* domain of body image refers to attitudes about the body’s perceived competence/fitness and health, and includes an individual’s evaluation of and investment in maintaining or enhancing body-wellness.

**Health/fitness evaluation.** The Health Evaluation scale and Fitness Evaluation scale of the MBSRQ (Brown et al., 1990; Cash, 2000; see Appendix A) were used to assess women’s perceptions of their health and fitness. The psychometric properties of the scales can be found in Table 5.1. The Fitness Evaluation (FE) scale assesses the degree to which a woman feels physically fit or
unfit. High scores on the FE scale reflect perceptions of being ‘in shape’ or athletically active/competent, and indicate the person values fitness. Internal reliability of the FE scale was adequate ($\alpha = .76$) among women in the present study. The Health Evaluation (HE) scale assesses the degree to which a woman feels healthy and/or free from physical illness. Individuals who obtain higher scores on the HE scale feel their bodies are in good health. Internal reliability of the HE scale was adequate ($\alpha = .79$) among women in the present study. Scale scores on the FE and HE were averaged to calculate a total composite score for perceived health/fitness.

**Health/fitness orientation.** The Fitness Orientation and Health Orientation scales of the MBSRQ (Brown et al., 1990; Cash, 2000; see Appendix A) were used to assess the degree to which women felt their fitness and health were important aspects of their body image, how much attention they expend on each aspect, and how actively they maintain these aspects of their body image. The Fitness Orientation (FO) scale assesses the extent of investment in being physically fit or athletically competent, with higher scores indicating the person values fitness and is actively involved in activities to enhance or maintain their fitness. Internal reliability of the FO scale was high ($\alpha = .91$) among women in the present study. The HO scale assesses the extent to which a person is invested in a physically healthy lifestyle, with high scores indicative of a person who is ‘health conscious’ and trying to lead a healthy lifestyle. Internal reliability of the HO scale was acceptable ($\alpha = .80$) among women in the present study. Total scores for each scale are calculated as the average of the corresponding items. Scales scores on the FO and HO were averaged to calculate a total score of health/fitness orientation.
**Illness orientation.** The Illness Orientation (IO) scale of the MBSRQ (Brown et al., 1990; Cash, 2000; see Appendix A) provides a measure of a person’s reactivity to being or becoming ill and was used to assess sensitivity to physical symptoms of illness. High scores indicate both a greater sense of alertness to personal symptoms of physical illness and a disposition to seek medical attention. Internal reliability of the IO scale was adequate ($\alpha = .74$) among women in the present study.

**Psychological Well-Being**

The Scales of Psychological Well-Being (SPWB) were used to assess several aspects of women’s well-being (Ryff, 1989a; Ryff & Keyes, 1995; see Appendix G). The SPWB comprise six scales that capture different aspects of an individual’s well-being including: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Based on previous research supporting the use of, at minimum, 7-item scales for the quality assessment of each construct (Ryff, 2014); a 9-item version (54 items in total) was used in this study for the purpose of balancing brevity with internal consistency. The questions for each subscale are distributed randomly throughout the measure. Subscale scores are calculated by averaging the scores of corresponding items, after positively worded items have been reverse-scored. The psychometric properties of the scales can be found in Table 5.1.

**Autonomy.** The Autonomy scale provides a measure of internal locus of control and level of individuation. High scores on autonomy indicate that the individual is independent and self-determining; regulates behaviour from within; able to resist social pressures to think and behave in certain ways; and evaluates
the self by personal standards (Ryff, 1989a). Internal reliability of the Autonomy scale was adequate ($\alpha = .79$) among women in the present study.

**Self-acceptance.** The Self-acceptance (SA) scale provides a measure of attitudes toward oneself. High scores on self-acceptance indicate that the individual has a positive attitude toward the self; acknowledges and accepts personal good and bad qualities; and feels positive about their past life (Ryff, 1989a). Internal reliability of the SA scale was high ($\alpha = .91$) among women in the present study.

**Purpose in Life.** The Purpose in Life (PL) scale provides a measure of the extent to which an individual feels that life is meaningful. High scores on purpose in life indicate that the individual has goals in life and a sense of direction; holds beliefs that gives life purpose; feels there is meaning to present and past life; and has objectives for living (Ryff, 1989a). Internal reliability of the PL scale was acceptable ($\alpha = .85$) among women in the present study.

**Personal Growth.** The Personal Growth (PG) scale assesses the extent to which an individual has a feeling of continued development and a sense of realizing his or her potential. High scores on personal growth indicate that the individual sees themselves as expanding, growing, and open to new experiences; sees improvement in self and behaviour over time; and feels that he or she is changing in ways that reflect more effectiveness and self-knowledge (Ryff, 1989a). Internal reliability of the PG scale was acceptable ($\alpha = .80$) among women in the present study.

**Positive Relations with Others.** The Positive Relations with Others (PR) scale provides a measure of an individual’s perceived ability to develop and maintain warm, trusting interpersonal relations. High scores on this scale indicate
that the individual is concerned with the welfare of others; has satisfying and trusting relationships; capable of strong affection, empathy, intimacy; and understands the give-and-take nature of relationships (Ryff, 1989a). Internal reliability of the PR scale was acceptable ($\alpha = .86$) among women in the present study.

**Environmental Mastery.** The Environmental Mastery (EM) scale provides a measure of participation in and mastery of one’s environment. High scores on environmental mastery indicate the individual feels competent to manage their environment; controls an array of external activities; makes effective use of opportunities; and creates or chooses contexts that correspond with personal needs and values (Ryff, 1989a). Internal reliability of the EM scale was acceptable ($\alpha = .85$) among women in the present study.

**Procedure**

The study’s methodology and the use of human participants were reviewed and approved by the Human Ethics Advisory Group of Deakin University (see Appendix H). Women were recruited from advertisements (see Appendix I) posted around various locations within Melbourne (Deakin University campus, community centres, and church bulletins) and websites (social networking sites and local classifieds sites). The advertisement included information about the study and a URL address for the electronic questionnaire packet. A number of health organisations, online blogs, and psychological-related research sites were contacted to display an online link to the survey (see Appendix J for a list of websites contacted), and the following sites agreed to display an online link to the survey: Gumtree, Women’s Forum Australia, Women’s Health East, Psychological Research on the Net, Social Psychology
Network, and Our Bodies Ourselves. The present study was also featured on two online news websites: ‘GirlsGerms’ and ‘Deakin University Newsroom’ from January – February, 2012. A snowball technique was also used with women who consented to participate.

After following the URL address connecting participants to the online survey, which was hosted by Deakin University, participants were initially directed to an introductory page that provided a brief summary of the study’s aim and procedure (see Appendix K). Participants who chose to continue were directed to an online consent form, which further explained the study (see Appendix L). Informed consent was assumed if the participant chose to continue. Once an individual consented, they were directed to complete the remaining measures. The measures were presented in the following order: demographics questionnaire, SPWB, MBSRQ, SIBID, BIQLI, BIIQ, PACS, and BIBS. The battery of questionnaires required approximately 45 minutes to complete. Participants were able to access the online survey between November 2011 and February 2012.

Participants’ anonymity was maintained because no identifying information was requested, with the exception of participants who voluntarily provided their email address or phone number in order to be contacted about participating in a follow-up study. All surveys submitted online were automatically assigned an identification number, which was separated from participants’ contact information. Study materials were stored electronically, only accessible to the researcher and protected by secure password.
Study Design and Plan for Data Analysis

A cross-sectional design was used for Study 1 in order to explore the associations between body image and well-being in adult women. Multiple regressions were used to answer the first research question regarding which body image dimensions were related to each aspect of well-being (autonomy, self-acceptance, purpose in life, personal growth, positive relations with others, environmental mastery). Separate regressions were conducted for the six aspects of well-being (dependent variable). The independent variables were the various measures of body image: body satisfaction, body image ideals discrepancy, body image ideal importance, appearance orientation, overweight preoccupation, body concealment, body improvement, body image impact on quality of life, appearance comparison, situational body image distress, health/fitness evaluation, health/fitness orientation, and illness orientation.

The second research question looked at whether age and social role involvement moderated the relationship between body image and well-being among women at different age groups and with different levels of social-role involvement. Separate analyses were conducted as follows:

a) Before testing the moderation hypothesis, a one-way multivariate analysis of variance (MANOVA) was performed to determine whether mean differences in body image existed for women in different age groups. The dependent variables were the various measures of body image (as stated in the previous paragraph) and the independent variable was age, with four levels: 18 – 29 years, 30 – 39 years, 40 – 49 years, and 50-59 years. Where age was found to have a main effect on the body image measure, a
follow-up univariate analysis (one-way analysis of variance – ANOVA) was conducted to determine which groups significantly differed.

b) A two-way MANOVA was also performed to answer the second research question examining whether age and type(s) of social-role involvement interact to predict levels of psychological well-being among women. The dependent variables were the various aspects of well-being (as stated in the previous paragraph) and the independent variables were role-combination (i.e., partner only; employee only; mother and partner; partner and employee; mother, partner and employee), and age category, which had four levels: 18 – 29 years, 30 – 39 years, and 40 – 59 years.

c) Using the significant age-body image main-effect term and/ or the age*role-combination interaction term found in the MANOVAs described above (point a and b), six separate hierarchical multiple regressions, were performed on each aspect of well-being (autonomy, self-acceptance, personal growth, purpose in life, positive relations with others, environmental mastery) to determine whether age and social role combination moderated the relationship between body image and well-being after controlling for the effects of body image, age, and social role involvement. The body image measures, age and social role combination were entered at the first step of the regression, followed by the age-body image main-effect terms and/ or the age*role-combination interaction term, entered at step two.

In order to explore the nature of the relationships between multiple aspects of body image and various aspects of well-being, hypothesised models were evaluated using structural equation modeling. As part of this process,
confirmatory factor analysis was used to identify a model of the body image construct that best represents body image attitudes among women.
Chapter Six

Results: Study 1

In this section, analyses of the data for the sample of adult women are presented. Initially, the screening of data is reported. Then, hypotheses regarding the relationships between body image, well-being, age and social roles are explored using a variety of quantitative analyses. The goal of the first set of analyses was to explore differences in body image and well-being according to age and social role occupation, looking at the results of multivariate analyses of variances. Multiple regressions were then employed to examine the differential prediction of various aspects of well-being by the multiple aspects of body image. Confirmatory factor analyses were employed to test two proposed models of body image attitudes and to identify the most parsimonious model. Finally, the relationships and directions between all aspects of body image and well-being were modelled and tested, using structural equation modeling.

Initial Data Screening

Prior to conducting analyses, individual scores were checked for out-of-range values, and the dataset was screened for missing values. Of the initial sample ($N = 810$), twenty-one cases completed less than 75% of scale items and two cases had duplicate data, and were therefore deleted from the dataset. Given the majority of respondents were of a nonclinical population, thirty-nine cases identified as currently having a diagnosed major mental illness (including an eating disorder, post-traumatic stress disorder, borderline personality disorder, attention deficit hyperactive disorder, Asperger’s syndrome, bipolar disorder, schizophrenia or other psychotic disorder) or an intellectual disability were
excluded from further analyses in order to reduce the likelihood of psychological deficits limiting the respondent’s capacity to comprehend and respond to the content, and to ensure that the results generalise to a nonclinical population. Furthermore, only a small number of respondents (3%; twenty-five cases) were aged 60 years or older, which was deemed insufficient to be representative of older women in the population. Therefore, these cases were excluded from subsequent analyses, in order to maximise the generalisability of the results to young and middle-aged women.

An inspection of the accuracy of data entry revealed 58 cases entered their height as less than 100cm, and 16 cases reported their weight as less than 35kg. As it could not be determined whether these values were correctly reported or due to typing error, these values were deleted (i.e., treated as missing data). The Missing Values Analysis function in SPSS (Version 17.0) indicated statistical deviation from randomness using Little’s missing completely at random test, $\chi^2(62767) = 65247.62$, $p < .000$. However, exploratory data analyses indicated that variables with more than five percent of missing data were height (11%) and weight (7%); and, manual deletion of implausible values for height and weight accounted for the majority of missing data on these variables. Missing data on the remaining dataset (including body image and psychological well-being variables) were minimal (less than 3%) and appeared to be random in pattern.

Since most procedures for handling a small amount of random missing values typically yields similar results (Tabachnick & Fidell, 2007, p. 63), missing data were treated with the expectation maximisation (EM) method. The EM imputation method used to replace missing data resulted in only slight changes to the means and standard deviations of variables, indicating that the EM method
had minimal impact on the variance of the original data. Imputed values were rounded to the nearest whole number to correspond with the possible range of values on each scale item; then, the range of values for each scale item were re-checked to ensure accuracy. Each body image and well-being variable was then computed in accordance with scale instructions.

Prior to conducting analyses, the data were screened separately for ungrouped data to be used in the regression analyses and grouped data to be used in the MANOVA analyses.

**Data Screening for Regressions**

Using ungrouped data, all variables were examined for univariate and multivariate outliers. Univariate outliers were determined statistically using standardised scores \(z > \pm 3.29, \alpha \leq .01\), and visually from box plots. Univariate outliers were detected for the following variables: two cases for Purpose in Life, three cases for Personal Growth, one case for Positive Relations with Others, and two cases for Environmental Mastery. In order to reduce the impact of deviant scores on a distribution, it is often appropriate to change the scores to less extreme values (Tabachnick & Fidell, 2007, p. 77). However, the raw scores of the outliers identified in the sample could not be recoded because they were within one unit of the next most deviant score. Examination of the 5% trimmed mean statistic showed minimal differences in the mean and standard deviation values with and without the top and bottom 5% of cases deleted. Furthermore, all univariate outliers identified were within four standard deviations of the mean, and given the large sample size, the extreme nature of these values seemed reasonable (Tabachnick & Fidell, 2007), and thus cases were retained in the sample. The data were also examined for the presence of multivariate outliers. Seven cases were
detected using Mahalanobis distance ($\alpha = .001$). However, one of these cases only slightly exceeded the critical $\chi^2$ value and was retained in the sample (Pallant, 2011). The remaining six cases with values that substantially exceeded the critical $\chi^2$ value were excluded from regression analyses. Following this data screening procedure, 717 of the original 810 cases were retained for the regression analyses.

Univariate normality is often assessed by evaluating the significance of standardised skewness and kurtosis values. However, given the moderately large size of the sample, reaching statistical significance was likely for even slight deviations from normality (Tabachnick & Fidell, 2007). Furthermore, Monte Carlo simulations of multivariate data with large sample sizes indicate that it is appropriate to evaluate absolute skewness and kurtosis values, with skewness values greater than ± 2 and kurtosis values greater than ± 4 that result in inaccurate estimates of the test statistic (Curran, West, & Finch, 1996; Hu & Bentler, 1999). The absolute values of skewness and kurtosis for all variables included in the analysis were well within the acceptable limits. The data were also screened for violations of multivariate normality, linearity and homoscedasticity. An inspection of residual normal probability plots and scatterplots indicated these assumptions were met.

Multicollinearity and singularity were assessed by examining correlation matrices between body image variables (i.e., independent variables in regression analyses), with bivariate correlations greater than .70 considered evidence of multicollinearity. Multicollinearity was present in the data between the following variables: body satisfaction and four body image variables (body image ideals discrepancy, body concealment, impact of body image on quality of life, and situational body image distress); and situational body image distress and body
concealment (see Table 6.1). Variables that were most strongly correlated with the greatest number of dependent variables were retained for subsequent analyses (regressions and MANOVAs), and as a result body satisfaction and situational body image distress were omitted. The eleven body image variables that were retained and were used in all subsequent analyses were: body image ideals discrepancy, body image ideal importance, appearance orientation, overweight preoccupation, body concealment, body improvement, body image impact on quality of life, appearance comparison, perceived health/fitness, health/fitness orientation, and illness orientation.

**Data Screening for MANOVAs**

All variables were examined for univariate and multivariate outliers, with screening occurring separately for different age categories (i.e., the grouping variables to be used in the one-way MANOVA: 18 – 29 years; 30 – 39 years; 40 – 49 years; and 50 – 59 years). Univariate outliers were examined using standardised residuals and histograms, which resulted in eight cases detected as univariate outliers; these cases were the same as those identified during data screening of ungrouped data for the regression analyses above. As described in the previous section on data screening, these cases were retained in the sample. One case was identified as a multivariate outlier using Mahalanobis distance ($\alpha = .001$), and was excluded from the analysis. Following this data screening procedure, 722 of the original 810 cases were retained for the one-way MANOVA analysis.

All variables were screened for univariate normality by examining absolute values of skewness and kurtosis, which were well within the acceptable limits of normality (skew < 2 and kurtosis < 4; Hu & Bentler, 1999; Curran et al.,
1996). The data were also screened for violations of homogeneity of variance-covariance matrices and linearity. The observed covariance matrices of the dependent variables were equal across groups (Box’s M test $p > .05$) and an examination of scatterplots between body image variables according to age groupings appeared linear, indicating that these assumptions were met. There was no evidence of multicollinearity or singularity between the eleven body image (dependent) variables identified in the previous section on data screening (i.e., bivariate correlations were less than .70).

For data grouped by role-combinations and age categories (as per the two-way MANOVA), five cases were detected as univariate outliers; however, their standardised scores were only slightly in excess of $\pm 3.29$ and given the moderately large sample size, they were retained in the sample. Nine multivariate outliers were identified and excluded from the analysis. The variance-covariance matrices were not homogenous (Box’s M test $p < .05$), and with unequal sample sizes between cells, the robustness of the Wilk’s Lambda multivariate test statistic was questionable; thus a more stringent criterion, namely, Pillai’s Trace, was utilised to evaluate multivariate significance (Tabachnick & Fidell, 2007, p. 252). Data were also tested for normality, linearity, and multicollinearity, with no serious violations noted. Following data screening, 488 of the possible 495 cases were retained for the two-way MANOVA analysis.

**Age Differences in Women’s Body Image**

A one-way MANOVA was performed to determine whether aspects of body image varied for women in different age groups. The dependent variables were the following measures of body image: body image ideals discrepancy, appearance orientation, body image ideal importance, overweight preoccupation,
body concealment, body improvement, body image impact on quality of life, appearance comparison, health/fitness evaluation, health/fitness orientation, and illness orientation. The independent variable was age group, which had four levels: 18 – 29 years, 30 – 39 years, 40 – 49 years, and 50-59 years. The delineation of age brackets was carried out to examine variation in body image variables for women at different stages of adulthood, and to meet the requirements of parametric statistical analyses by approximating equivalent sample sizes.

Women’s body image ratings significantly differed between different age groups, $F(33, 2130) = 1.99, p < .01$; Pillai’s Trace = .09, partial eta squared = .03. The univariate effects for dependent variables were evaluated separately using a Bonferroni type adjustment in order to decrease the likelihood of a Type I error (Pallant, 2011). Effects were considered significant at an adjusted alpha less than .005, and are reported below.

Body image ratings found to significantly differ between age groups were: importance of body image ideals, $F(3, 718) = 5.58, p < .01$; eta squared = .02, and body improvement, $F(3, 718) = 6.91, p < .001$; eta squared = .03. Post hoc analyses indicated that young adult women (18 - 29 years) assigned greater importance on achieving body image ideals than middle-aged (30 – 39 years) and later middle-aged women (40 – 49 years; see Table 6.2). Older women (50 – 59 years) were more likely to engage in attempts to improve the body than were younger participants (see Table 6.2). Mean ratings of body image ideals discrepancy, appearance orientation, overweight preoccupation, body concealment, body image impact on quality of life, appearance comparison, health/fitness evaluation, health/fitness orientation, and illness orientation did
Table 6.1
*Pearson Correlations Between Body Image Variables for the Sample*

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<tbody>
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<td>1. Body satisfaction</td>
<td>.10**</td>
<td>- .78**</td>
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<td>-.22**</td>
<td>.25**</td>
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<td>3. BI ideal importance</td>
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<td>.19**</td>
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<td>4. Appearance orientation</td>
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<td>.45**</td>
<td>.38**</td>
<td>.44**</td>
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<td>5. Overweight preoccupation</td>
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<td></td>
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<td>.19**</td>
<td>.38**</td>
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<td>6. Body concealment</td>
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<td>.63**</td>
<td>.28**</td>
<td>.18**</td>
<td>.52**</td>
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<td>7. Body improvement</td>
<td>-.05</td>
<td>.03</td>
<td>.36**</td>
<td>.35**</td>
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<td>.14**</td>
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<td>8. BI impact on quality of life</td>
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<td>-.05</td>
<td>-.40**</td>
<td>-.64**</td>
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<td>9. Appearance comparison</td>
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<td>.44**</td>
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<td>-.43**</td>
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<td>10. Situational body image distress</td>
<td>-.79**</td>
<td>.68**</td>
<td>.38**</td>
<td>.30**</td>
<td>.59**</td>
<td>.77**</td>
<td>.18**</td>
<td>-.69**</td>
<td>.62**</td>
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<tr>
<td>11. Perceived fitness/health</td>
<td>.52**</td>
<td>-.52**</td>
<td>.01</td>
<td>.00</td>
<td>-.20**</td>
<td>-.40**</td>
<td>.26**</td>
<td>.47**</td>
<td>-.21**</td>
<td>-.43**</td>
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<tr>
<td>12. Fitness/health orientation</td>
<td>.40**</td>
<td>-.40**</td>
<td>.14**</td>
<td>.14**</td>
<td>.02</td>
<td>-.30**</td>
<td>.60**</td>
<td>.36**</td>
<td>-.07</td>
<td>-.27**</td>
<td>.62**</td>
<td></td>
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</tr>
<tr>
<td>13. Illness orientation</td>
<td>.26**</td>
<td>-.24**</td>
<td>.06</td>
<td>.20**</td>
<td>-.00</td>
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<td>-.10**</td>
<td>-.18**</td>
<td>.22**</td>
<td>.42**</td>
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</tbody>
</table>

Note: BI ideal discrepancy = body image ideal discrepancy; BI ideal importance = importance of body image ideals. N = 717, **p<.01 two-tailed
not differ significantly between participants of different age groups (see Appendix M).

Table 6.2

**Significant Differences on Body Image Scores by Age Group**

<table>
<thead>
<tr>
<th>Age group</th>
<th>n</th>
<th>BI ideal importance</th>
<th>Body improvement</th>
</tr>
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<tr>
<td>18 – 29</td>
<td>433</td>
<td>1.66&lt;sub&gt;a&lt;/sub&gt;</td>
<td>10.58&lt;sub&gt;b&lt;/sub&gt;</td>
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<tr>
<td>30 – 39</td>
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<td>1.48&lt;sub&gt;b&lt;/sub&gt;</td>
<td>10.03&lt;sub&gt;b&lt;/sub&gt;</td>
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<tr>
<td>40 – 49</td>
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<td>9.55&lt;sub&gt;b&lt;/sub&gt;</td>
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<tr>
<td>50 – 59</td>
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<td>1.65&lt;sub&gt;a&lt;/sub&gt;</td>
<td>12.45&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
</tbody>
</table>

*Note.* BI ideal importance = importance of body image ideals. Means in the same column that do not have the same subscript differ significantly at *p* < .05 in the Tukey honestly significance difference comparison, with the exception of means for BI ideal importance, which differed significantly at *p* < .05 on the Games-Howell’s significant difference test. Means without a subscript denote group comparisons did not reach statistical significance.

**Social Roles and Age Differences in Women’s Well-Being**

A two-way MANOVA was performed to determine whether the level of well-being varied for women according to the combination of their age and type(s) of social role(s) they occupied. Dependent variables were the following aspects of well-being: autonomy, self-acceptance, personal growth, purpose in life, positive relations with others, environmental mastery. Independent variables were five social-role combination(s): partner; employee; mother and partner; partner and employee; mother, partner and employee, and age group, with three levels: 18 – 29 years, 30 – 39 years, and 40 – 59 years. The delineation of age brackets was carried out to examine variation in body image variables for women at different stages of adulthood, and to meet the requirements of parametric statistical analyses by approximating equivalent sample sizes.
Women’s well-being ratings were found to be significantly different for women who occupied different social roles, $F (24, 1884) = 1.84, p < .01$; Pillai’s Trace = .09, partial eta squared = .02, and for women within different age groups, $F (12, 938) = 2.09, p < .05$; Pillai’s Trace = .05, partial eta squared = .03. There was no significant interaction effect, $F (48, 2838) = .91, p > .05$; Pillai’s Trace = .09. The univariate effects for dependent variable were examined separately using a Bonferroni type adjustment in order to decrease the likelihood of a Type I error (Pallant, 2011). Effects were considered significant at an adjusted alpha less than .008, and are reported below.

Although the multivariate effects indicated social-role effects on women’s well-being ratings, when the results for each aspect of well-being were considered separately, no differences reached statistical significance using a Bonferroni adjusted alpha level of .008. Social role differences in personal growth approached statistical significance, $F (4, 473) = .96, p < .05$, partial eta squared = .03, with women who occupy the role of a partner/ wife reporting the greatest level of personal growth ($M = 5.13, SD = .62$) relative to women within other types of roles (i.e., paid employee; mother and partner/ wife; partner/ wife and paid employee; and, mother, partner/ wife and paid employee).

Women’s well-being scores were found to significantly differ between age groups on autonomy ratings, $F (2, 711) = 5.75, p < .01$; eta squared = .02. Post hoc analyses indicated that later middle-aged women (40 – 59 years) had higher levels of autonomy ($M = 4.39, SD = .78$) than young adult women (18 - 29 years; $M = 4.13, SD = .81$). Although mean ratings of self-acceptance, purpose in life, personal growth, positive relations with others, and environmental mastery did not differ significantly between participants of different age groups (see Appendix
N), an examination of data plots (see Figures M1 to M6, Appendix O) indicated there may be differences. Post-hoc t-tests were conducted to determine whether mean well-being ratings differed between each age group, with no further significant findings observed using a Bonferroni adjusted alpha level of .017.

**Relationships Between Body Image and Well-Being**

In this section, the relationships between multiple aspects of well-being and the various aspects of body image measured in this study are explored. Separate hierarchical multiple regression analyses were performed on each aspect of well-being in order to answer two questions: a) which specific body image variable (body image ideals discrepancy, body image ideal importance, appearance orientation, overweight preoccupation, body concealment, body improvement, body image impact on quality of life, appearance comparison, health/fitness evaluation, health/fitness orientation, and illness orientation) contributed to the prediction of each aspect of well-being; and, b) did age moderate the relationships between body image and the six aspects of well-being after controlling for the effects of body image. Body image variables and age were entered at the first step of the regression, followed by interaction terms for age and body image (using body image variables found to vary with age, as identified in the previous one-way MANOVA), at step two of the analysis. In order to reduce the number of potential independent body image variables included in each analysis, only those variables that significantly correlated with the dependent well-being variable were included in the analysis (see Appendix P).

**Prediction of Autonomy.** The independent body image variables entered at step 1 of the regression predicted levels of autonomy among women, $F(11, 705) = 17.64, p < .001$. As seen in Table 6.3, after the inclusion of the age*body-
Table 6.3

**Summary of Regression Equations Predicting Women’s Level of Autonomy**

<table>
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<th>Predictors</th>
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<th>t</th>
<th>$sr^2$</th>
<th>$R^2$</th>
<th>$R^2$ change</th>
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<td>.02</td>
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<tr>
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<td>.04</td>
<td>1.01</td>
<td>.00</td>
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</tbody>
</table>

Note: BI ideal discrepancy = body image ideal discrepancy; BI impact on QOL = impact of body image on quality of life; BI ideal importance = importance of body image ideals; BI improvement = body image improvement. Age*BI interaction = interaction term between age and body image variable; $sr^2$ = Squared Semipartial Correlation; *$p \leq .05$; **$p \leq .01$; ***$p \leq .001$

image interactions there was no significant increase in the prediction of autonomy levels among women in the sample, $F$ change (2, 703) = 1.605, $p > .05$. However, the final model entered at step 2 (including body image variables and the age*body image interaction terms) was significant, $F$ (13, 703) = 15.09, $p < .001$.

Three of the independent variables contributed uniquely to the prediction of
autonomy in the sample: appearance comparison, impact of body image on quality of life, and age. Altogether, 22% ($R^2$) or 20% (Adjusted $R^2$) of the variability in women’s level of autonomy were predicted by knowing scores on body image variables included at step 1 of the model (see Table 6.3).

**Prediction of Self-Acceptance.** The independent body image variables entered at step 1 of the regression predicted levels of self-acceptance among women, $F(10, 706) = 58.98, p < .001$. As seen in Table 6.4, after the inclusion of the age*body image interaction there was no significant increase in the prediction of self-acceptance levels among women in the sample, $F$ change $(2, 704) = 1.45, p > .05$. However, the final model entered at step 2 (including body image variables and the age*body image interaction terms) was significant, $F(12, 704) = 49.46, p < .001$. Four of the independent variables contributed uniquely to the prediction of self-acceptance in the sample: impact of body image on quality of life, perceived health/fitness, importance of body image ideals, and appearance comparison. Altogether, 46% ($R^2$) or 45% (Adjusted $R^2$) of the variability in women’s level of self-acceptance were predicted by knowing scores on body image variables included at step 1 of the model (see Table 6.4).

**Prediction of Purpose in Life.** The independent body image variables entered at step 1 of the regression predicted levels of purpose in life among women, $F(10, 706) = 24.27, p < .001$. As seen in Table 6.5, after the inclusion of the age*body image interaction there was no significant increase in the prediction of purpose in life levels among women in the sample, $F$ change $(2, 704) = 2.32, p > .05$. However, the final model entered at step 2 (including body image variables and the age*body image interaction terms) was significant, $F(12, 704) = 20.69, p < .001$. Four of the independent variables contributed uniquely to the prediction
Table 6.4

Summary of Regression Equations Predicting Women’s Level of Self-Acceptance

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<tr>
<th>Predictors</th>
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<th>R² change</th>
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<td></td>
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Note. BI ideal discrepancy = body image ideal discrepancy; BI ideal importance = importance of body image ideals; BI impact on QOL = impact of body image on quality of life; BI improvement = body image improvement. Age*BI interaction = interaction term between age and body image variable. sr² = Squared Semipartial Correlation; *p ≤ .05; **p ≤ .01; ***p ≤ .001

Purpose in life in the sample: perceived health/fitness, impact of body image on quality of life, health/fitness orientation, and appearance comparison. Altogether, 26% (R²) or 25% (Adjusted R²) of the variability in women’s level of purpose in life were predicted by knowing scores on body image variables included at step 1 of the model (see Table 6.5).
Table 6.5

**Summary of Regression Equations Predicting Women’s Level of Purpose in Life**

<table>
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<th>sr²</th>
<th>R² change</th>
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*Note.* BI ideal discrepancy = body image ideal discrepancy; BI ideal importance = importance of body image ideals; BI improvement = body image improvement; BI impact on QOL = impact of body image on quality of life. Age*BI interaction = interaction term between age and body image variable. sr² = Squared Semipartial Correlation; *p ≤ .05; **p ≤ .01; ***p ≤ .001

**Prediction of Personal Growth.** The independent body image variables entered at step 1 of the regression predicted levels of personal growth among women, F (11, 705) = 15.53, p < .001. As seen in Table 6.6, after the inclusion of the age*body image interaction there was no significant increase in the prediction of personal growth levels among women in the sample, F change (2, 703) = .47, p > .05. However, the final model entered at step 2 (including body image variables
and the age\textarrow*body image interaction terms) was significant, $F (13, 703) = 13.19, p < .001$. Three of the independent variables contributed uniquely to the prediction of personal growth in the sample: body concealment, perceived health/fitness, and health/fitness orientation. Altogether, 20\% ($R^2$) or 18\% (Adjusted $R^2$) of the variance in personal growth was explained by the model.

Table 6.6

**Summary of Regression Equations Predicting Women’s Level of Personal Growth**

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<th>Predictors</th>
<th>$B$</th>
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*Note.* BI ideal discrepancy = body image ideal discrepancy; BI ideal importance = importance of body image ideals; BI improvement = body image improvement; BI impact on QOL = impact of body image on quality of life. Age*BI interaction = interaction term between age and body image variable. $sr^2 =$ Squared Semipartial Correlation; $^*p \leq .05; ^{**}p \leq .01; ^{***}p \leq .001$
variability in women’s level of personal growth were predicted by knowing scores on body image variables included at step 1 of the model (see Table 6.6).

**Prediction of Positive Relations with Others.** The independent body image variables entered at step 1 of the regression predicted levels of positive relations with others among women, $F (10, 706) = 20.92, p < .001$. As seen in Table 6.7, after the inclusion of the age*body image interaction there was no significant increase in the prediction of levels of positive relations with others among women in the sample, $F \text{ change} (2, 704) = 1.96, p > .05$. However, the final model entered at step 2 (including body image variables and the age*body image interaction terms) was significant, $F (12, 704) = 17.80, p < .001$. Three of the independent variables contributed uniquely to the prediction of positive relations with others in the sample: impact of body image on quality of life, perceived health/fitness, and body concealment. Altogether, 23% ($R^2$) or 22% (Adjusted $R^2$) of the variability in women’s level of positive relations with others were predicted by knowing scores on body image variables included at step 1 of the model (see Table 6.7).

**Prediction of Environmental Mastery.** The independent body image variables entered at step 1 of the regression predicted levels of environmental mastery among women, $F (11, 705) = 32.95, p < .001$. As seen in Table 6.8, after the inclusion of the age*body image interaction there was no significant increase in the prediction of environmental mastery levels among women in the sample, $F \text{ change} (2, 703) = .85, p > .05$. However, the final model entered at step 2 (including body image variables and the age*body image interaction terms) was significant, $F (13, 703) = 28.00, p < .001$. Five of the independent variables contributed uniquely to the prediction of environmental mastery in the sample:
impact of body image on quality of life, perceived fitness/health, importance of body image ideals, overweight preoccupation, and age. Altogether, 34% \( (R^2) \) or 33% \( \text{Adjusted } R^2 \) of the variability in women’s level of environmental mastery were predicted by knowing scores on body image variables included at step 1 of the model (see Table 6.8).

Table 6.7
Summary of Regression Equations Predicting Women’s Level of Positive Relations with Others

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*Note.* BI ideal discrepancy = body image ideal discrepancy; BI ideal importance = importance of body image ideals; BI impact on QOL = impact of body image on quality of life; BI improvement = body image improvement. Age*BI interaction = interaction term between age and body image variable. \( sr^2 \) = Squared Semipartial Correlation; \( *p \leq .05; \ **p \leq .01; \ ***p \leq .001 \)
Table 6.8

**Summary of Regression Equations Predicting Women’s Level of Environmental Mastery**

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*Note.* BI ideal discrepancy = body image ideal discrepancy; BI ideal importance = importance of body image ideals; BI impact on QOL = impact of body image on quality of life; BI improvement = body image improvement. Age*BI interaction = interaction term between age and body image variable. sr² = Squared Semipartial Correlation; *p ≤ .05; **p ≤ .01; ***p ≤ .001

**Summary of the Relationships Between Body Image and Well-Being**

The correlation matrix presented in Appendix P shows significant relationships between multiple aspects of women’s well-being and the majority of the body image variables. Of the significant relationships, all aspects of well-
being were associated with each aspect of body image in the expected direction. Specifically, lower levels of well-being were associated with greater investment in appearance, a greater perceived discrepancy between one’s own and ideal body, greater importance attributed to attaining one’s ideal body, greater preoccupation with one’s weight, and more frequent engagement in behaviours that attempt to conceal the body or compare one’s appearance to that of others. Higher levels of well-being were associated with more positive perceptions of the impact of one’s body image on quality of life, more frequent attempts to improve the body, higher perceived evaluations of oneself as healthy and fit, greater time and effort put into leading a fit/healthy lifestyle, and greater attention given to physical symptoms of illness. Furthermore, strongest relationships (bivariate correlations greater than .50) were found between body image variables (body image ideal discrepancy, body concealment, and impact of body image on quality of life) and self-acceptance.

Age differences were found in two aspects of body image ratings; namely, in the rated importance of attaining one’s ideal body and the level of engagement in body-improving behaviours. Younger women (18 – 29 years) assigned greater importance to attaining their ideal body than middle-aged (30 – 39 years) and later middle-aged women (40 – 49 years). Although it appears contradictory, women in later adulthood (50 – 59 years) were more likely to engage in behaviours aimed at improving the body than were all younger participant groups. Although one interaction term (age*body image importance) made a significant unique contribution to the prediction of positive relations with others and purpose in life scores, the inclusion of this interaction term into the regression analyses did not significantly increase the prediction of any aspect of well-being, beyond the
effects of age and body image variables. That is, in contrast to expectations, age did not moderate the relationship between multiple aspects of body image and well-being in this study.

With regard to the potential moderating effects of age and social role involvement, mean ratings of each aspect of well-being did not differ between women who occupied different social roles (i.e., partner/wife; paid employee; mother and partner/wife; partner/wife and paid employee; and, mother, partner/wife and paid employee). Age differences were found for only one aspect of well-being; namely ratings of autonomy. Middle-aged women (40 – 59 years) reported greater levels of autonomy than young adult women (18 – 29 years). In terms of the multivariate model, contrary to expectations, women’s well-being ratings did not differ as a function of their age and type(s) of social role(s) they occupied, and therefore the interaction terms measuring life-stage/experience (i.e., age*social role) were not tested further for moderation.

Despite the presence of significant correlations between the majority of body image variables and all aspects of well-being, hierarchical multiple regression analyses showed that several body image variables, namely, body image ideal discrepancy, body improvement, and illness orientation, did not uniquely contribute to the prediction of any aspect of well-being. However, although only a limited number of body image variables were found to predict each aspect of well-being, these were strong relationships, with most unique contributions being significant at the $p < .001$ level (see Appendix Q).

Regression analyses were conducted to explore the amount of variance explained in each aspect of well-being by all body image variables together. Body image variables included in each regression equation explained the most variance
in self-acceptance scores (46%) and scores on environmental mastery (34%). Total variance explained by body image variables in the remaining four aspects of well-being (autonomy, purpose in life, personal growth, and positive relations with others) ranged from 20% to 26%. As seen in Tables 6.3 to 6.8, the unique contribution of individual body image variables to the prediction of well-being scores was mostly low (often less than 2%).

Each aspect of well-being was predicted by different combinations of body image variables; however, two body image variables (impact of body image on quality of life and perceived health/fitness) significantly contributed to the prediction of almost every aspect of well-being (see Appendix Q). With the exception of personal growth, perceived impact of one’s body image on quality of life contributed to the prediction of every aspect of well-being, and was the strongest unique body image predictor for half of the well-being dimensions (self-acceptance, positive relations with others, and environmental mastery). Similarly, variability on all aspects of well-being, except autonomy, was predicted by the body image variable perceived health/fitness. This body image variable (perceived health/fitness) was the second strongest unique predictor for four of the six aspects of well-being (self-acceptance, personal growth, positive relations with others, and environmental mastery), and the strongest unique predictor of purpose in life. Therefore, the strength and contribution of these two body image variables (impact of body image on quality of life and health/fitness evaluation) to the prediction of each aspect of well-being suggests that perceptions of body function/competence and the impact of body image on a range of life domains were strongly related to women’s sense of well-being.
Developing a Hypothesised Model of the Relationships Between Women’s Body Image and Well-Being

One aim of this study was to develop and test models representing the relationships (and their direction) between multiple aspects of body image and various aspects of well-being among adult women. Structural equation modeling (SEM) was employed to test proposed models using IBM AMOS, version 21 (Arbuckle, 2012). The following section provides an overview of the SEM analysis utilised in this study.

Structured Equation Modeling

Structured equation modeling involves a range of statistical techniques that enable the relationships between complex sets of variables to be estimated (Kline, 2010). For example, SEM allows for the estimation of relationships among sets of measured (i.e., observed) variables and the underlying constructs (i.e., latent variables) that are measured by these observed variables (Byrne, 2001; Kline, 2010). The Maximum Likelihood Estimation method was used in this study to estimate the proposed models, although model fit was evaluated using Hu and Bentler’s (1999) combination approach, which is described in further detail below.

In terms of the procedure for conducting SEM, Anderson and Gerbing (1988) advocate a two-step approach. First, confirmatory factor analysis (CFA) is used to establish whether the measurement of a latent construct is consistent with the theoretical structure imposed on the data. That is, CFA is used to determine what observed variables best represent the latent constructs (i.e., the measurement model), which is confirmed by the observed variables adequately loading on the latent constructs as they are hypothesised by existing theory. Once the
measurement models are deemed of good fit, the second step involves analysing a series of *a priori* relationships proposed between latent variables (i.e., structural model). The fit of the structural model is tested by measuring the degree to which the covariances predicted by the proposed models correspond to the observed covariance in the data. Establishing the fit of a measurement model before a structural model enables one to infer whether a poor-fitting model is due to measurement problems or structural problems.

**Evaluation of model fit.** A range of statistical techniques employed in SEM are used to evaluate the fit between a hypothesised model and a data set. A model deemed to have good-fit to the data will have parameter estimates (i.e., measurement errors, factor loadings, correlations and variances amongst latent factors) with minimal differences between the sample covariance matrix and the population covariance matrix implied by the model. Evaluation of model fit is achieved through the inspection of absolute and incremental fit indices. A variety of fit indices have been developed to assess model fit, however, the following description encompasses only those fit indices used in the present study, based on recommendations in SEM literature that advocate the inspection of a combination of fit indices (e.g., Byrne, 2001; Hu & Bentler, 1999; Kline, 2010).

*Absolute* fit indices determine how accurately a hypothesised model reproduces the sample data (McDonald & Ho, 2002), and provides a measure of how well the model fits in comparison to no model at all. The chi-square ($\chi^2$) value is the most basic statistic of the absolute fit indices, and indicates whether there is a statistically significant difference between the sample and fitted covariance matrices’ (Hu & Bentler, 1999). A non-significant $\chi^2$ value indicates minimal discrepancy between the sample and population covariance matrices,
thus establishing a good model fit. However, because the $\chi^2$ statistic is essentially a statistical significance test, it is sensitive to sample size, thus when sample sizes are large, non-significant $\chi^2$ values are infrequently obtained (Kline, 2010; Ullman, 2006). Consequently, alternative fit indices are required to be examined to assess model fit. The root mean square error of approximation (RMSEA) and the standardised root mean square residual error (SRMR) were employed as the absolute fit indices evaluating model fit for the present study.

The RMSEA provides a measure of the amount of error, or the degree of misfit in a proposed model, by comparing the implied model to an assumed population matrix (Byrne, 2001). Although recommendations for RMSEA cut-off points have historically varied, more recently acceptable cut-off points have reduced considerably (Hooper, Coughlan, & Mullen, 2008). An RMSEA value of less than .05 corresponds to a “good” fit of the model in relation to degrees of freedom (i.e., 5% or less error in the approximation), with values ranging between .05 and .08 corresponding to an “adequate” error of approximation, and values exceeding .10 as indicative of a “poor” fit (Hooper et al., 2008; McDonald & Ho, 2002). The SRMR statistic also provides as assessment of the average error in the implied model, evaluating how well it fits the sample (observed) covariance matrix. An SRMR value less than or equal to .06 is indicative of a “good” fit, however values as high as .08 are deemed acceptable (Hu & Bentler, 1999).

Incremental fit indices provide a comparison of the hypothesised model to a null model (also known as baseline or independence models), where all variables are assumed to be uncorrelated (McDonald & Ho, 2002). That is, incremental fit indices indicate the degree of improvement of the hypothesised model’s overall fit relative to the null model (Hu & Bentler, 1999). The
incremental fit indices used in the present study were Bentler’s (1990) comparative fit index (CFI) and the Tucker-Lewis index (TLI; also known as the non-normed fit index – NNFI). Values for the CFI and TLI range from 0 to 1, with zero indicating that the proposed model is equivalent to the null model, and one indicating the proposed model is a perfect fit. As such, a CFI or TLI value greater than or equal to .90 may indicate “adequate” model fit, with values greater than or equal to .95 recognised as indicative of “good” fit (i.e., the proposed model is ≥ 95% better than the null model; Hooper et al., 2008; Hu & Bentler, 1999; Kline, 2005).

**Model of Body Image in Adult Women**

In accordance with the first step of two in performing structural equation modeling (Anderson & Gerbing, 1988), a confirmatory factor analysis approach was used to determine whether a proposed model of body image (i.e., measurement model) was consistent with the theoretical structure imposed on the data. Two specific models of body image were tested, based on expectations of which body image variables represented theoretically derived aspects of body image.

Model 1, a bi-factor model, with four domain-specific factors (see Figure 6.1), tested the hypothesis that body image variables simultaneously tap both specific (i.e., evaluative- or investment-related attitudes about the body’s appearance or function) and global ideas about body image. The alternative model, Model 2 (see Figure 6.2), is a bi-factor model, with two domain-specific factors, and tested the hypothesis that body image variables simultaneously tap both specific (i.e., attitudes about the body’s appearance or function, regardless of the mode – evaluation or investment) and global ideas about body image.
Whereas Model 1 represents a theoretical distinction between different types of attitudes as either evaluative or investment, Model 2 represents body image attitudes as an amalgamation of evaluations of, and investment in, the body’s appearance or function.

In Model 1 (Figure 6.1), body image variables representing evaluative-attitudes about one’s appearance or physical self (i.e., evaluating the extent to which one’s body resembles one’s ideal, namely, ‘body image ideals discrepancy’, and evaluating the impact of body image on quality of life) were constrained to load on the Appearance-Evaluation factor. Variables representing investment-type-attitudes toward one’s appearance or physical self (i.e., overweight preoccupation, body improvement, appearance orientation, appearance comparison, importance of body image ideals, and body concealment) were modelled to load onto the Appearance-Investment factor. Variables reflecting evaluative-attitudes about the function of one’s body (i.e., perceived fitness and perceived health) were constrained to load on the Function-Evaluation factor. Variables reflecting investment-type-attitudes in the body’s functionality (i.e., fitness orientation, health orientation, and illness orientation) were constrained to load on the Function-Investment factor. All body image variables captured variance in overall body image, and were therefore constrained to also load on the Body Image factor.

In Model 2 (Figure 6.2a), body image variables representing attitudes about one’s appearance or physical self (i.e., body image ideals discrepancy, impact of body image on quality of life, overweight preoccupation, body improvement, appearance orientation, appearance comparison, importance of
Figure 6.1. Model 1 – Bi-factor, Four-domain Measurement Model of Body Image Attitudes in Adult Women.

Body image ideals, and body concealment) were constrained to load on the Appearance factor. Variables reflecting attitudes about the function of one’s body (i.e., perceived fitness/ health, fitness/ health orientation, and illness orientation) were constrained to load on the Function factor. All body image variables captured variance in overall body image, and were therefore constrained to load to load on the Body Image factor.

**Body image model-fit.** Model 1, the bi-factor (general Body Image and Appearance/ Function), four-domain (Appearance Evaluation, Appearance Investment, and Function Evaluation, Function Investment) model, yielded an inadmissible solution due to a significant negative error variance associated with
the variable Health/ Fitness Orientation. A likely result of sampling fluctuations, the negative error variance was constrained to a low positive value (.001) and re-estimated (Chen, Bollen, Paxton, Curran, & Kirby, 2001). The result yielded an admissible solution; however, the fit was poor, $\chi^2 (51, N = 723) = 491.16, p < .001; \text{CFI} = .89; \text{TLI} = .83; \text{RMSEA} = .11; \text{SRMR} = .07$. Sources of model misfit were identified through inspection of Modification Indices (MIs; i.e., Lagrange Multiplier statistic) and the standardised residual covariance matrices. A specification search revealed several sources of misspecification, one of which was deemed theoretically reasonable, and therefore was employed. Specifically, error covariance between Appearance Orientation and Appearance Comparison was modelled (MI = 37.45) because both measures capture variance associated

*Figure 6.2a. Model 2 – Bi-factor, Two-domain Measurement Model of Body Image Attitudes in Adult Women.*
with the extent to which an individual attends to her physical appearance. The
modification improved the solution; however, the fit remained poor $\chi^2 (50, N = 723) = 450.81, p < .001; \text{CFI} = .90; \text{TLI} = .85; \text{RMSEA} = .11; \text{SRMR} = .07$.

Model 2 (Figure 6.2a), evaluated a bi-factor (general Body Image and Appearance/ Function), two-domain model (Appearance and Function). This model initially resulted in an inadmissible solution due to a significant negative error variance associated with the variable Health/ Fitness Orientation. The negative error variance was constrained to a low positive value (.001) and re-estimated, and resulted in poor fit $\chi^2 (34, N = 723) = 346.09, p < .001; \text{CFI} = .91; \text{TLI} = .85; \text{RMSEA} = .11; \text{SRMR} = .06$. A specification search revealed several sources of misspecification, two of which were deemed theoretically reasonable, and therefore were employed. First, error covariance was modelled between Appearance Orientation and Appearance Comparison (MI = 44.59) because both measures capture variance associated with the extent to which an individual attends to her appearance. Second, one cross-loading was modelled between Health/ Fitness Evaluation and the Appearance factor (MI = 78.08), while maintaining its primary loading on the Function factor because it was deemed reasonable that women may equate an attractive body with a fit and healthy one. In line with model building procedures, modifications were made sequentially and model re-estimation followed each re-specification. All modifications yielded significant improvements in model fit ($\Delta \chi^2 (1) > 3.84$, and $\Delta \text{TLI} > .01$). The final respecified model (Model 2; Figure 6.2b) resulted in acceptable fit to the data, $\chi^2 (32, N = 723) = 206.55, p < .001; \text{CFI} = .95; \text{TLI} = .91; \text{RMSEA} = .08; \text{SRMR} = .04$, and produced the best fit relative to Model 1 ($\Delta \text{TLI} = .07$; Model 2b – Model 1).
The factor loadings for the final model (Model 2) are presented in Figure 6.2b. They are reported again in Table 6.9 so that the clustering of the variables can be clearly seen. The Appearance factor was quite robust as 100% of body image measures had loadings over .40 and a mean of .60, suggesting that the variables were good indicators of women’s attitudes about their appearance. Overweight Preoccupation and Body Concealment were the strongest indicators of the appearance factor; that is, the investment put into thinking about or trying to change one’s weight and the time and effort invested in hiding the body, largely contribute to women’s body image attitudes. Women’s evaluations of their

![Figure 6.2b. Model 2 – Bi-factor, Two-domain Measurement Model of Body Image Attitudes in Adult Women, Respecified, with Standardised Factor Loadings.](image-url)
health and fitness resulted in almost equivalent factor loadings on the Appearance
($\beta = -.29$) and Function ($\beta = .21$) domains, indicating attitudes about the body’s
appearance and function equally reflect evaluations of perceived health and
fitness.

In contrast to the Appearance factor, the Function factor was less robust,
as most factor loadings were below .30, with Health/ Fitness Orientation
representing the strongest indicator of women’s attitudes about body function ($\beta = .57$). Although all measures loaded significantly onto the Function factor, contrary
to expectations, function-related body image measures (i.e., Health/ Fitness
Orientation, Health/ Fitness Evaluation, and Illness Orientation) loaded more
strongly onto the general Body Image factor. Factor loadings on the general Body
Image factor varied in magnitude ($\beta$ ranged from -.07 to -.82), with the strongest
indicators being: the extent to which women think they are fit/ healthy, and the
level of importance attributed to, and time and effort invested in, obtaining/
sustaining a fit and healthy body. With the exception of Overweight
Preoccupation and Appearance Comparison, all body image variables contributed
significantly to the general Body Image factor.

In summary, although it was expected that a bi-factor, four-domain model
would best fit the data (see Figure 2.1, Chapter 2), model comparisons for body
image attitudes revealed the more parsimonious bi-factor model, with two-
domains provided the best fit to the data. Specifically, the model comprised a
general body image factor and two specific domains/ dimensions upon which
body image attitudes are based (i.e., appearance and function).
Table 6.9

*Standardised Factor Loadings for the Final (Model 2) Body Image Measurement Model*

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Function</th>
<th>Body Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overweight preoccupation</td>
<td>.76</td>
<td>-.07†</td>
</tr>
<tr>
<td>Body improvement</td>
<td>.55</td>
<td>-.70</td>
</tr>
<tr>
<td>Appearance orientation</td>
<td>.42</td>
<td>-.23</td>
</tr>
<tr>
<td>Appearance comparison</td>
<td>.64</td>
<td>.11†</td>
</tr>
<tr>
<td>Importance of body image ideals</td>
<td>.48</td>
<td>-.18</td>
</tr>
<tr>
<td>Body concealment</td>
<td>.73</td>
<td>.36</td>
</tr>
<tr>
<td>Body image ideals discrepancy</td>
<td>.64</td>
<td>.47</td>
</tr>
<tr>
<td>Body image impact on quality of life</td>
<td>-.56</td>
<td>-.49</td>
</tr>
<tr>
<td>Health/ fitness orientation</td>
<td></td>
<td>.57</td>
</tr>
<tr>
<td>Health/ fitness evaluation^</td>
<td>-.29</td>
<td>.21</td>
</tr>
<tr>
<td>Illness orientation</td>
<td>.15</td>
<td>-.41</td>
</tr>
</tbody>
</table>

*Note.* ^ Fitness/ health evaluation = perceived fitness/ health. † Non-significant factor loadings; all other factor loadings were statistically significant (*p* < .001). **Bolded** items indicate strongest factor loading for each body image variable on latent factors.

**Model of Well-Being in Adult Women**

Confirmatory factor analysis was performed to evaluate the factorial properties (i.e., factor structure and loadings) of the well-being measurement model (Model 3, see Figure 6.3) on the current sample. The model replicates the original six-factor structure proposed by Ryff and Keyes (1995), with the six dimensions of positive functioning comprising a general well-being factor. The model resulted in acceptable fit $\chi^2(9, N = 723) = 96.71, p < .001; \text{CFI} = .95; \text{TLI} = .92; \text{RMSEA} = .12; \text{SRMR} = .04$. Standardised factor loadings were moderate to strong and significant (*p* < .001) in the sample of adult women, suggesting that the well-being construct was adequately characterised by the six dimensions of
positive functioning. The strongest indicators of general well-being in the current sample were Self-acceptance and Environmental Mastery ($\beta \geq .80$).

Figure 6.3. Model 3 - Measurement Model of Well-Being in Adult Women, with Standardised Factor Loadings.

**Model of the Relationships Between Body Image and Well-Being**

Structural equation modelling was performed to evaluate the factorial properties (i.e., factor structure and loadings) of two alternative structural models, which represented a series of *a priori* relationships proposed between body image and well-being. Each structural model comprised the final (best fitting) measurement models described earlier for body image (i.e., Model 2) and well-being (i.e., Model 3). The first structural model (Model 4; see Figure 6.4) proposed that body image attitudes predicted perceptions of well-being and the second, alternative structural model proposed the reverse direction of relationships (Model 5; see Figure 6.5). Although age and social roles were expected to moderate the relationships between body image and well-being, the results of zero-order correlations and MANOVAs indicated limited and weak ($r <$
associations with the outcome variables, and therefore were not included in the structural model.

Goodness-of-fit statistics indicated that Model 4, evaluating the proposition that body image attitudes predicted well-being ratings, resulted in acceptable fit to the data, $\chi^2 (104, N = 723) = 570.39, p < .001; \text{CFI} = .92; \text{TLI} = .89; \text{RMSEA} = .08; \text{SRMR} = .05$. Overall, the model accounts for 53% of the variance in psychological well-being. Appearance and Function domains were both found to predict psychological well-being levels ($\beta = -.48, p < .001$ and $\beta = -.09, p < .05$, respectively), as did the general Body Image attitudes factor ($\beta = .54, p < .001$). All path coefficients in the model were significant ($p < .05$). With the exception of Overweight Preoccupation, which did not significantly contribute to the prediction of the general Body Image factor ($\beta = .07, p < .09$).

Goodness-of-fit statistics indicated the alternative structural model, Model 5, evaluating the proposition that well-being ratings predicted body image attitudes, resulted in a similar solution to Model 4, with acceptable fit to the data, $\chi^2 (104, N = 723) = 569.33, p < .001; \text{CFI} = .92; \text{TLI} = .89; \text{RMSEA} = .08; \text{SRMR} = .05$. Inspection of significance tests of individual parameters indicated all paths were significant. Overall, the model accounted for: 39% of the variance in appearance-related attitudes; 5% of variance in function-related attitudes; and 33% of overall body image attitudes. Overall level of psychological well-being was found to predict women’s attitudes about appearance ($\beta = -.62, p < .001$), function ($\beta = -.21, p < .05$), and overall body image ($\beta = .57, p < .001$).

Noteworthy features of these models (see Figure 6.4 and 6.5) include the predominantly negative relationships between well-being and body image dimensions. Appearance-related and Function-related attitudes about one’s body
were both negatively and significantly associated with overall level of psychological well-being. In other words, if women reported low levels of autonomy, self-acceptance, purpose in life, personal growth, positive relations with other, and mastery, then they were more likely: to view a discrepancy between their actual and ideal physiques and attribute importance to achieving their physical ideals; to be preoccupied with being or becoming overweight; and to engage in appearance related behaviours, such as dieting, concealing parts of the body, comparing one’s body with those of others and grooming behaviours. Women with low levels of psychological well-being were also likely to perceive themselves as having poor health (e.g., physical illness, out of shape and athletically incompetent), and report greater passivity in maintaining or enhancing fitness and health. These finding were also true in the reverse direction, such that women who held negative views about the body’s appearance or function, also reported lower levels of psychological well-being.

**Summary of the Results of the Structural Equation Analyses on the Relationships Between Body Image and Well-Being**

The results of a CFA on a model of body image indicated theoretical support for a bi-factor model, modelled at the first-order level, delineating appearance-related from functional-related body image attitudes. While appearance and function capture different dimensions of body image attitudes, all measures overlap in capturing some aspect of an individual’s general body image attitudes. The cluster of body image indicator variables utilised in the study were adequately represented by an Appearance factor, with the majority of body image measures generating high (i.e., > .50) factor loadings onto this dimension. However, women’s attitudes about their appearance extended beyond aesthetics.
Figure 6.4. Structural Model (Model 4) of Body Image Predicting Well-Being in Adult Women, with Standardised Factor Loadings.
Figure 6.5. Structural Model (Model 5) of Well-Being predicting Body Image in Adult Women, with Standardised Factor Loadings.
and comprised evaluations of personal health and fitness, illustrating the multi-dimensionality of the body image construct. The strongest indicators of the general Body Image factor comprised function-related measures of body image, with the strongest loadings reflecting the tendency to value being athletically competent and healthy, and the adoption of a proactive approach to achieving a fit and healthy body. The results of a CFA on Ryff’s (1989a) original model of psychological well-being indicated support for the \textit{a priori} first-order 6-factor structure. The majority of aspects of positive functioning generated moderate to high (i.e., $> .50$) factor loadings onto the general Well-being factor, indicating the six dimensions were adequate indicators of global psychological well-being.

Based on the results of the CFAs, structural equation analyses tested two models representing the direction of relationships between body image and well-being, with each modelling the relationships between the constructs in the opposing direction. Both models resulted in adequate fit to the sample data, with equivalent fit indices. Appearance-related and function-related attitudes were found to be negatively associated with psychological well-being, and these associations were bidirectional in the sample of adult women.
Chapter Seven

Method: Study 2

The purpose of this study was to use a qualitative methodology to understand the experiences of women who reported either high or low levels of body image and well-being. The descriptions, opinions and experiences of body image and well-being were examined among these women, with the aim of looking for any emergent meaning in views underlying their conceptualisation of the relationship between body image and well-being.

Participants

The target sample for this study was adult women who experienced high body image and well-being or low body image and well-being, as measured by their scores on self-report measures of body image and well-being scales from the previously reported (quantitative) study. Potential participants for this study comprised 346 of the initial 810 respondents from the first study (42%) who registered their interest in completing a follow-up study. Considering the target population for the thesis was a nonclinical sample, one participant’s response was excluded from the current study because she reported concern that a recent experience of sexual assault would trigger symptoms of her previously diagnosed eating disorder and post-traumatic stress disorder. The selection criteria and recruitment process are outlined in more detail in the ‘Procedure’ section below.

The final sample comprised 24 women, aged 19 to 58 ($M = 32.71$ years, $SD = 10.25$ years). The majority of participants (92%) indicated they had completed some tertiary studies (i.e., 13 or more years of education), and were employed at the time of data collection (34% full-time, 25% part-time, and 13%
employed on a casual basis). More than half of the participants were in a romantic relationship (58% married, 8% dating one person exclusively, 4% dating someone but not exclusively, and 8% in a de-facto relationship), and less than a third of women were single (21%).

**Materials**

The data for this study were derived from participants’ responses to ten questions that were developed for this study (see Appendix R). The set of questions was developed to obtain participants’ views on their understanding and experience of their own body image and well-being, as well as any connection they experienced between these two aspects of their self. The content of the questions covered three broad areas: body image, well-being, and the potential relationship between these two constructs. The questions were open-ended and reflected four main categories of inquiry: respondents’ descriptions of personal body image and well-being; perceived antecedents of body image and well-being; respondents’ conceptions of positive psychological functioning; and, perceptions of the relationship between body image and well-being and its manifestation in daily living. Some questions were subdivided as a means of optimising comprehensive information about any one question, and also to provide participants with an opportunity to elaborate their response in more detail.

**Procedure**

The study’s design was reviewed and approved by the Human Ethics Advisory Group of Deakin University (see Appendix H). Participants were selected for inclusion in the current study based on the combination of scores on various scales of well-being and body image measured in Study 1. The results of
Study 1 indicated that specific body image attitudes, namely, evaluations of body competence (i.e., perceived health/fitness) and the impact of body image on quality of functioning in a range of life domains, were strongly related to multiple aspects of well-being, in particular with ratings of self-acceptance and environmental mastery (for more detail see Chapter 6: ‘Summary of the relationships between body image and well-being’). Participants were selected for inclusion in the current study based on their scores on these body image and well-being scales. The demarcation of ‘higher’ and ‘lower’ levels of body image/well-being were initially determined as scores that exceeded two standard deviations from the mean on the combination of a body image and a well-being scale. For example, a participant whose score exceeded two standard-deviations from the mean on perceived health/fitness and self-acceptance was considered to have a ‘high’ level of body image/well-being. However, given a limited number of participants with scores in excess of two standard deviations on the combination of body image/well-being scales (n = 55), the criteria demarcating ‘high’ or ‘low’ categories was expanded to one standard deviation from the mean on the combination of body image/well being scores (n = 103).

Participants who met the selection criteria (i.e., scored in the ‘high’ or ‘low’ categories on both body image and well-being and registered interest to participate in current study) were short-listed and were informed via email that the follow-up study was available to be completed online. As a reminder and invitation to participants, the email briefly outlined the purpose and requirements of involvement for the follow-up study, and contained the URL address that connected participants to a detailed information page of the study (see Appendix S). The information page detailed the study’s aim and procedure, and a reminder
that participation was entirely voluntary. Informed consent was assumed if the participant chose to continue. Once an individual consented, they were directed to complete the short-answer questions. Of those eligible to participate, 25 women completed the study, with the ‘high’ body image/well-being group comprising 60% \((N = 15)\) of the final sample, and the ‘low’ group comprising approximately 40% \((N = 9)\) of the final sample. Participants were able to access the online questionnaire between July and October, 2012.

**Plan for Data Analysis**

Thematic analysis is a method for identifying, analysing and reporting patterns of experience that arise from qualitative data (e.g., conversations and interviews; Braun & Clarke, 2006). It involves the organisation and description of data in rich detail and enables the researcher to interpret various aspects of a research topic (Boyatzis, 1998). Thematic analysis has been often identified as a tool used within or across specific qualitative analysis approaches, such as grounded theory and cultural ethnography (Boyatzis, 1998). However, Braun and Clarke (2006) proposed that thematic analysis is a qualitative analytic method that can be conducted independent of theoretical and epistemological frameworks, and outlined six phases (steps) to guide its systematic application in qualitative research. Following Braun and Clarke’s (2006) 6-step guideline for thematic analysis, data obtained from the 24 adult women were analysed by the author (doctoral student; primary investigator - PI) and cross-referenced by the author’s thesis-supervisor. Each step of the analysis is presented below.
Step 1: Familiarisation with data.

Participants responded to the set of questions in written format (referred to here as a *record*), and thus transcription was not required. The author read all 24 records straight through to get an overall feel for the participants’ descriptions and patterns of responding. During this phase, the author noted initial ideas for coding and made meaningful or contextual notes deemed relevant to each record.

Step 2: Generating initial codes.

Initial codes were created by the PI. The initial codes thought to capture unique/meaningful features of the data were identified systematically across all records through repeated readings of the entire data set. Although presumptions about the data set based on previous theoretical and empirical literature and the results from the prior quantitative analyses were in the PI’s mind, all statements in the dataset were treated with equal attention throughout the coding process.

Step 3: Searching for initial themes.

Thematic categories were created by sorting and collating all initial codes into potentially meaningful categories. Some thematic categories emerged within individual response records, whereas others emerged across many records. Relationships between codes and within potential themes were considered and revised, and at this point were shared with the PI’s supervisor, who provided feedback on ideas for additions/ revisions. This process resulted in a collection of themes and sub-themes that were organised to be reviewed in the next phase.

Step 4: Reviewing themes.

Coded statements (collated data extracts categorised into potential themes) were reviewed for patterns of coherence and distinction, and to determine whether additional sub-categories should be created, and/or whether multiple categories
should be merged. The entire data set was re-read to examine whether the proposed thematic categories reflected the meaning evident in the data set as a whole. The relevant thematic categories were examined regarding their connection to the research questions and organised into final themes.

**Step 5: Defining and naming themes.**

Thematic categories and sub-categories derived from step 4 were defined and further refined by clarifying the essence of what each theme captured in regards to the entire data set. In order to generate a parsimonious representation of the data, the collated data extracts for each theme, and sub-themes were reviewed and organised into coherent and internally consistent themes. During this phase, the PI consulted several times with her thesis supervisor to obtain a fresh view and feedback on the final themes.

**Step 6: Write-up of the results.**

See Chapter 8 for the final results of the thematic analysis.
Chapter Eight

Findings: Study 2

In this chapter, the analyses of qualitative data for the sample of adult women are presented. The goal of the analyses was to explore the descriptions, opinions and experiences of body image and well-being among a sample of adult women. Generally, these experiences were shared among participants, and could be grouped into five categories: factors comprising body image and well-being; factors that shape/ contribute to the development of their body image and well-being; respondents’ conceptualisation of the connection between body image and well-being; the impact of body image on day-to-day functioning; and, the function of having high/ low levels of body image and well-being.

The sample comprised two groups of women with either high or low levels of body image and well-being (referred to as highs or lows, or reported as high body image/ well-being or low body image/ well-being). In outlining the differences and similarities between emergent themes and experiences of the participants, examples from the data are used to provide a rich and ‘thick’ description of the experience of body image and well-being in the lives of the participants. The examples presented are those that exemplify or elaborate most succinctly the patterns identified and the essence of the data; therefore, not all participants are represented.

Direct quotes will be referenced according to the participant’s group membership. For example, H16 represents the sixteenth respondent belonging to the ‘high’ body image and well-being group, whereas L03 represents the third
participant from the ‘low’ body image and well-being group. The number corresponds to the initial coding number provided for the participant in Study 1.

The data relating to the first two categories (i.e., factors comprising, and factors that shape/contribute to the development of body image and well-being) will be presented separately because one set of data relates to body image and the other to well-being. Data relating to the third, fourth and fifth categories (i.e., conceptualisation of the connection between body image and well-being, the impact of body image on day-to-day functioning, and the function of having high/low levels of body image and well-being) will be presented simultaneously because they all relate to the association between body image and well-being.

**Factors Comprising Women’s Body Image and Psychological Well-Being**

**Body Image**

Women’s descriptions of their body image were allocated to two sub-categories: evaluations and investment. Women described their body image by evaluating aspects of the body’s appearance or functionality, and considering the extent to which they were invested in appearance.

**Evaluations.** The most commonly described feature of women’s body image was the extent to which they were (dis)satisfied with their weight and appearance. As might be expected, lows generally reported negative affect toward their present weight: “I hate the weight I have gained” (L111); and “I don’t like being overweight” (L72); and had difficulty evaluating their appearance positively: “I can’t think of anything I like about my body” (L11). In contrast, highs were generally content with, and made positive evaluations about, their appearance: “I feel great about my body and happy with the way I look” (H75).
The positive affect experienced by highs with regard to their overall appearance was described by several participants as having evolved over time: “My body image has become more positive throughout the years” (H127), and as a result of accepting body imperfections: “I feel reasonably happy with the way I see my body most of the time. I can always find flaws but try to focus on the positives rather than the negatives” (H119). For several women from the low-group, positive affect toward one’s appearance was described as effortful and “a constant struggle” (L72).

Evaluations of body functionality were only described by women belonging to the ‘higns’ group. For these women, body image descriptions included evaluations of the body’s perceived functionality: “I’m quite athletic” (H134), and “reasonably healthy” (H87); and, an appreciation for the body’s instrumentality: “I appreciate what my body has been through and the marks that remain” (H117). In the case of H77, focusing on the body’s capacity for mobility and transportation is a means for maintaining positive affect toward the body despite its aesthetic imperfections:

On the whole I often focus on how amazing the human body is and it is necessary to reward it by eating well and exercising often... sometimes when I feel ugly or fat... when I feel like this I remind myself that despite the cellulite and stretch marks on my legs, they are still able to carry me for kilometres and are capable of basic movements such as walking...

**Investment.** The relative importance of appearance to overall body image emerged in highs’ descriptions of body image. A consensus among highs was that
appearance is of little importance to one’s body image attitudes. For example, in the case of H116, being healthy superseded negative appearance evaluations: “although there are some aspects I don’t like/ am not happy with at times, this is pretty normal and I am healthy so it doesn’t really matter”.

Well-Being

The participants’ descriptions of their present and ideal well-being comprised multiple components, and were grouped under the following headings: health status; self-respect; purpose in life; resilience; financial security; and relatedness. These components were considered important in enabling an individual to experience positive functioning

**Health status.** Health is concerned with the state of complete physical and mental well-being, and viewed by participants as comprising both components. The presence or absence of illness was evaluated in many women’s descriptions of their personal well-being. However, differences emerged between highs and lows in regard to the type of illness they evaluated. Women from the high group focused on physical health as constituting personal well-being: “I focus on eating well and exercising rather than losing weight which I think enriches my well-being” (H77). In contrast, lows considered the presence of mental illness in descriptions of their well-being: “Not so well... I stay depressed a lot and have panic attacks” (L9). However, maintaining physical and mental health through being active and eating a balanced diet was considered important to well-being by participants regardless of their membership in the high or low groups. Thus, participants held similar views in regard to how to attain physical and mental health, although they differed in terms of how they evaluated their personal health status.
Self-respect. Although a variety of self-beliefs and behaviours, including self-worth, self-acceptance, and self-care, was described as characteristic of optimal functioning, they were infrequently reported in participants’ personal descriptions of their present well-being.

Self-worth. Self-worth, in the view of participants, was described as involving a sense of “confidence” as central to positive functioning, regardless of their membership in the high or low group. For some women, confidence manifests as the ability to be in social situations without anxiety, and for others, confidence was described as being able to view one’s self and opinion as worthy. To illustrate, case L100 described a well-adjusted person as having the ability to “be who they are, not what they think they should be”. Similarly, case H114 believed “realising that the thoughts of others don’t matter a damn” was important to her sense of well-being. That is, recognising the worth in one’s self and behaving accordingly was viewed by women as evidence of positive functioning.

Self-acceptance. Self-acceptance was described, although seldom, as important to, and part of, personal descriptions of well-being for participants of the low and high groups. In these cases, acceptance was described as being able to acknowledge (body-related) imperfections and to look beyond this to see value in one’s self: “A person that is well-adjusted would mean... you don’t worry however you look, you are comfortable with yourself just the way you are” (H134).

Positive self-appraisals. A common theme to emerge regarding characteristics indicative of positive functioning, and unique to participants in the high group, was positive self-appraisals. Several instances of optimism were
described by participants as being long-standing and part of one’s identity, and contributed positively to their sense of well-being. Other traits considered characteristic of a well-adjusted individual included openness, to “challenges” (H132) and “travel” (H82), and gratitude. Women described being appreciative for a variety of non-materialistic resources, including occupational security, physical health, independence and liberty, and for life and good relationships: “I am healthy so I am very grateful for that. I have a wonderful family and great friends” (H132).

**Self-care.** Several participants described having a busy lifestyle, managing multiple roles and tasks, including work, family and leisure. For women with high body image/well-being, finding a balance between the multiple aspects of their life was considered an important feature of positive functioning. For example, in the case of H57, making time for pleasurable activities (e.g., “being able to participate in the activities I like”) was considered as an important part of self-care. However, in several cases, balancing personal needs with the needs of others was considered a central part of self-care: “...having time to myself... to ensure that I have a balance to my life and time for me – not just always giving, giving, giving” (H117). In the case of H89, setting personal boundaries provided her with the opportunity to regenerate and continue managing challenges as they arise:

I have spent a lot of time placing boundaries regarding use of my time, giving and taking from friends. I have learned to say “no”, which is the most important aspect of my well-being. I have learned that I need time for myself to regenerate; if I do not take self time I can become over stretched, taxed, and then I question who I am and why I am doing things I am having difficulty with.
Purpose in life. Goal pursuits and achievement were salient to women’s descriptions of well-being, regardless of their membership in the high or low group. The desire for growth and having the “opportunity to grow through personal development, both through work and personal interests” (L106); was considered characteristic of a well-adjusted person. Realising one’s goals was described as facilitating “happiness” (H119) and providing a sense of “purpose” (H139), and not being able to utilise one’s skills contributed to a sense of underachievement: “I feel like I’m wasting my life. I have a degree and am unemployed” (L122). In the case of H87, although being proud of her accomplishments contributed positively to her well-being, the satisfaction she experienced was derived from the pursuit of meaningful goals for which she felt she could make a contribution:

I function well... I am a sole parent to a wonderful teenage son who is about to go to university. I have fabulously funny friends... There is always more to do, more to achieve. My job is exciting and challenging and contributes to my well-being because I feel I am doing something that contributes to society in a positive way.

Participants’ descriptions highlighted occupation and caring for others as areas of life in which they believed they contributed most meaningfully. For example: “Work is important to me because it gives me a sense of achievement, but only so long as I feel it is for a worthwhile cause” (H57). In the following case, the participant describes how her role as a mother/ wife provides her with a sense of meaning: “I love them [my family] and they need me; there is no one in the world who could do a better job than me” (L101).
Resilience. The ability to function and get on with life despite adversity was a common theme among women’s descriptions of well-being; however, differences emerged between highs’ and lows’ definition of adversity. Adversity for lows referred to poor body image and negative self-evaluations: “I can function in most aspects of my everyday life despite a lack of self-confidence... I don’t think I look particularly beautiful or sexy” (L29). In contrast, highs described adversity in terms of general stressors and obstacles: “I’ve overcome many difficult challenges and have a strong drive and desire to live” (H127). For participants with low body image/well-being, emotional stability and emotion regulation was viewed as a desirable characteristic for positive functioning; whereas, flexibility and general problem-solving were considered important by women from the high group for optimal functioning. Additionally, unlike the lows, highs identified a variety of coping resources used to manage life challenges, including: “I work in the garden to help reduce the stress” (H89), and separating work-related stress from the home environment (H86).

Financial security. Financial security was commonly identified, by women from the high and low groups, as being an important factor contributing to optimal well-being. In addition to security, one case described financial stability as providing her with a sense of independence and autonomy: “Being financially independent gives me the freedom to make my own choices about how I live my life... I know I have enough money for the things I need; I don’t have to worry” (H87).

Relatedness. Both highs and lows considered relationships as part of their well-being, with a focus on the availability of friends and family. As might be expected, highs were “happy with the state of [their] relationships” (H139),
because they felt loved and supported: “I have... a husband who loves me generously, [and] friends that care” (H86). In addition to feeling loved and supported, highs identified certain qualities of relationships were important, including being “meaningful” (H139), providing a sense of belongingness at a community level (e.g., “connected to their community”), and characterised by reciprocity; for example, case H87 describes “loving others and being loved”. In contrast, being the recipient of support and love from others was emphasised in women’s descriptions from the low group. Limited support and guidance seemed to be experienced by women in the low group, and is exemplified in the following case:

I long for a group of supportive, fun women but don’t really know how to make friends as an adult. I would love a mentor but you can’t really advertise for one of those on [a website]. I’ve been taking care of myself since I was about 10 and I’ve never really felt love or supported (L122).

In the case of L122, as in the experience of several other women from the low group, having poor social skills and the avoidance of social interaction resulted in negative evaluations of their well-being. Additionally, few instances of poor body image were reported as impacting the relationships of women in the low group: “... if I’m honest, this [ability to function] has been affected in the past by body issues. In particular, relationships with men have been severely impacted by my overall dissatisfaction with my appearance” (L100).
Factors that Shape the Development of Personal Body Image and Well-Being

Body Image

The factors described by women as contributing to the development of their body image were diverse, and reflected biopsychosocial components. As such, the data relating to determinants of women’s body image were grouped into three sub-categories: biological, psychological, and social learning.

**Biological.** Biological changes to the body were viewed by a number of participants as impacting current body image attitudes. Increases in body mass and overall weight gain were reported by participants in the low group as directly and negatively impacting their body image attitudes. In these circumstances, weight gain often resulted from physical illness:

> When I was [a child] I was sick all the time with an immune disorder and was extremely underweight, so I was put on [medication] to gain weight. It made me gain weight and I hated it, especially because [people] would call me chubby (L11).

In contrast, women from the high group reported biological changes to the body as having an indirect and positive impact on body image attitudes. Specifically, the absence of disease (i.e., “no major health concerns”, H116), and an awareness and appreciation for the body’s various functional capacities, contributed to positive body image attitudes:

> I think the functioning of how my body works shapes how I feel about it. From a young age, I played a lot of team sport so the focus was always more on what my body could do rather than how it looked.
Having a child also made me quite proud of my body and what it could do. I also tend to feel more positive about my body when I have achieved a physical task, e.g., a long hike, or when I completed a marathon (H57).

**Psychological.** Global self-evaluations were prominent in women’s reflections on factors contributing to the development of their body image. Several women from the high group reported positive self-attitudes that reflected acceptance of self and individual differences:

I am a pretty positive person who likes to look on the bright side. I think life experience has shaped my body image and my acceptance of the things I cannot change and now wouldn’t change as they make me uniquely me (H117).

Few instances of accepting one’s body-shape as pre-determined or “inherited” (H89) were reported as shaping current body image attitudes. In the case of H139, acceptance came in the form of surrendering perceived control over genetics:

I went through a period of thinking I had full control over what my body looked like, that somehow with certain training and eating, I could determine the body shape I would have. As I’ve grown older, I’ve come to realise my body is largely a result of my genes”.

In other instances, an acknowledgement of personal strengths, such as “confidence” (H119) and persistence through challenges, such as mental illness contributed to the development of positive body image attitudes: “The biggest shaper of my body image has been my recovery from an eating disorder. I had to
work hard to love what I saw in the mirror, and love what had previously
horrified and scared me” (H75). Whereas for lows, the impact of mental illness,
such as past traumas (e.g., history of “sexual abuse”, L122), and difficulty with
mood-regulation (e.g., “depression and anxiety”, L9), appeared to remain
unresolved, and subsequently contributed to present body image attitudes.
Additionally, lows described self-critical tendencies as impacting their body
image attitudes. In these cases, criticism manifested as comparisons with younger
or healthier versions of themselves:

I think everyone is their own worst critic. Ever since I can remember I
thought I was too fat, it doesn’t matter what weight I was at/am at. If I
look at pictures of myself when I’m lighter, I wonder why I thought I
was fat then, but I still did (L11).

**Social learning.** Social learning is concerned with forming personal views
and opinions about one’s body within a social context, either through observation
or as the result of direct instruction. The data relating to social-learning were
grouped according to two sub-categories: body-related feedback and modeling.

*Body-related feedback* was reported by many women as shaping present
body image attitudes, regardless of high or low group-membership. In almost all
instances, the nature of influential feedback was verbal, critical in regard to
appearance, and often conveyed by an individual’s parent(s); for example, in the
case of L72, her mother’s critical comments during early adulthood contributed to
present body image: “Since my 20s, my mum constantly says things like “you’ve
got to watch your weight, you don’t want to end up fat like me”. Appearance-
related feedback from romantic partners was also reported to impact present body
image attitudes of women from the low group. For example, in the case of L11, repetitive negative appearance-commentary from a long-term partner contributed to the development of her poor body image:

One of the main factors is my husband who always compared my body to previous girlfriends... When I would get upset about him checking out other girls he would tell me he does it because my [bottom] is too big, or just that I’m too fat, and no matter how much weight I lose he doesn’t comment positively.

In another case, poor body image was reportedly impacted by a one-off negative appearance-comment from a “male sexual partner” (L100). That is, body-related feedback from significant others, particularly intimate partners for women with low body image/well-being, can have lasting effects on an individual’s body image.

Participants’ present body images were also shaped by critical body-related feedback from one’s parents during childhood; however, few instances were reported by women from the high group, of using critical-feedback as a source of motivation to view their bodies positively:

“... [My mother’s] dialogue about both her body and mine has really shaped my body image. I suppose because of this I have attempted to be positive about myself despite being fat, firstly to prove to her and others that it is possible to be happy and fat, and then to myself...” (H114).

Few instances were reported of positive body-related feedback, with some women from the high group explaining that during childhood dialogue about
appearance was either absent or its importance minimised, and thus contributed to shaping their positive body image: “My parents have always been positive role models, rewarding academic success over image-related success and teaching my siblings and I to focus on merit rather than appearance as a judge of character” (H77).

**Modeling** a positive attitude toward the self and one’s body was described by several participants from the high group as contributing to their positive body image attitudes. Surrounding oneself with positive people who have a “healthy body image” (H116) and are “happy and have lots of fun” (H119) provided women with encouragement to view themselves in a similar way. In the case of H139, body acceptance was shaped by exposure to her mother’s positive attitude toward herself in spite of non-ideal circumstances:

My parents’ attitudes, especially my mum’s I think. She had quite a positive attitude towards her body and always dressed to suit it. She did not have a perfect body by any means – she had polio as a child and one of her legs is the width of her arm the whole way down from the hip! But she always looks amazing and has such amazing body confidence.

**Well-Being**

The factors described by women as contributing to the development of their personal well-being were diverse, and were grouped into four sub-categories: development of sense of self; dealing with adversity; social support; and, social roles management.

**Development of sense of self.** This category refers to the awareness of, and effort invested in learning about the self. For many women, the process of
developing a strong sense of self shaped present ideas about their identity and evaluations of how well they function in daily life. The data relating to this sub-category were allocated to three sub-themes: self-acceptance/worth, autonomy, and personality.

**Self-acceptance/worth.** The development of self-worth was a dominant theme to emerge from participants’ descriptions of factors contributing to change in well-being, regardless of whether the individual was high or low in body image/well-being. For many women, the process of learning self-worth involved learning to recognise personal needs and prioritising self-care within the context of managing a busy schedule or caring for others:

I think my sense of well-being used to be fuelled more by how those around me that I cared about were doing or if they were not well, then I felt that I couldn’t be; or, that I had to sacrifice taking care of myself to take care of others. Over the past 10 years I have done a lot of work to improve on that and to put my own sense of well-being first and not base it on others (L72).

Realising one’s self-worth also involved developing self-acceptance, for example by acknowledging one’s self-efficacy: “I feel more capable now; more able to achieve. This has improved my sense of well-being markedly. I feel like I know things and that I can contribute those things, whether it be at work or at home” (L29); or by being less self-critical: “learning to love myself and be kind to myself” (L122). In the case of H89, self-worth was realised through learning self-acceptance and developing autonomy:
I have learnt that other people’s opinion of me is not important. This is vital in that I grew up with a super critical mother who only sees the negative in life. I have had to develop a sense of myself, a sense that I do know what I want from life and that my wants, needs, and desires are mine to deal with. I also have given myself permission to make mistakes and to simply shrug them off or learn from them.

**Autonomy.** For participants with high body image/well-being, the level of autonomy developed, and experienced by, women over the years was described as an important factor shaping their well-being. Several instances of autonomy were reported in reference to becoming independent of parents, either through “developing [my] self-confidence” (H114) or “having the opportunity to build a new family” (H75) in a way that was self-determined. In several instances, education about evaluating oneself and one’s body based on personal standards rather than that of others or societal expectations influenced body- and self-acceptance. For example, some women described developing body acceptance through understanding different perspectives of body image and femininity, and learning about individual differences with regard to body shapes and being aware of unrealistic standards of beauty portrayed in the media.

**Personality.** Although few, some women from the high group reported certain personality traits influenced personal well-being. For these women, certain characteristics including, optimism, resilience and gratitude were described as stable parts of their identity and contributed positively to their daily functioning and general outlook on life: “…over time I feel that my own personality and attitude probably just level things out; I’m a pretty steady person with quite an optimistic personality” (H57).
Dealing with adversity. Adverse life events, such as, physical and mental illness, relationship difficulties, and unemployment, were reported by participants as influencing their well-being in two ways: mood and clarification of personal values. Adverse events and life challenges resulted in participants experiencing disappointment, grief, and loss for women with high and low body image/ well-being. However, the impact of adversity on one’s mood was described as transient for some highs, with several instances reported of generating meaning from such adversity. For example, case H117 described clarifying what was important to her through reflecting upon difficult experiences in her past:

Life’s challenges have changed my views on what’s important. Losing loved ones, facing the possibility of not having children, experiencing multiple IVF treatments, two pregnancies and births with stretch marks remaining and etc., have all made me accept that how you look is not as important as family, life, love...

Social support. Social support from friends and family were described by a number of participants as contributing to their sense of well-being. For women of both low and high levels of body image/ well-being, friends and family provided participants with joy, laughter and kept them grounded. However, this was not the case for several participants from the low group, who described having difficulties in their social network, including “marital problems” (L9), “husband’s [negative] comments” (L11), social isolation and “being judged” by others (L101).

Managing multiple roles. The ability to manage multiple social roles was described in a few cases as contributing to shaping well-being. In the case of
H132, this required time-management in order to adjust to physical fatigue that accompanied aging:

As I have aged and had two children, I have learnt what fatigue can do to you... I felt like I had less energy to play, exercise and cook, but kept reminding myself of what was important and stuck to just getting those few things right and make them a priority. Rest, healthy food and getting active with friends so that I got to exercise and socialise at the same time – so managing time became a big thing.

For other women, financial security enabled them to focus on other aspects of their lives, particularly in relation to investing in their relationships and pursing meaningful goals.

**Conceptualisations of the Association Between Body Image and Well-Being**

The consensus experience of participants was that body image attitudes and well-being were interconnected. Variation emerged, however, in data relating to how these constructs were related, and were grouped into two categories: cyclical and unidirectional.

**Cyclical.** For several women from the high group, the relationship between well-being and body image was viewed as cyclical, such that changes in body image would be accompanied by changes in well-being, and vice versa. These participants adopted a holistic view of positive functioning, whereby body image was viewed as one of multiple components of global ‘health’. For example, case H132 describes the rollover effect of physical and mental self-care and positive attitudes, which cascades into positive attitudes about the body and overall functioning:
Body image and well-being are strongly intertwined. I am a strong believer that your body and mind need to be connected and nurtured equally, and challenged to grow and thrive. We need to feel like we have a purpose, that we belong, that we matter and that we contribute positively to the world. Feeling good on the inside and the outside effects everything that we do from dressing in the morning, to the type of job we go for, the friends we attract, and want to attract, and the type of relationships we have with others. When one area is neglected or injured/affected by something positive, the other area is also changed. So balance (harmony) in all aspects of life is so important for well being and body image and overall health.

The interrelated nature of the connection between body image and well-being is further highlighted in the case of H75, who describes making an effort to distinguish whether negative affect is attributable to poor body image or some other life domain:

I think the two are related: when I feel good about myself, I tend to feel good about my body, and vice versa. That said, I’m much better these days in separating out negative thoughts about myself (or hiccups in my well-being) from negative feelings about my body, and no longer project psychological frustrations or upsets onto my “fat”.

**Unidirectional.** A number of women from the low group described the association between body image and well-being as unidirectional, whereby self-confidence was viewed as foundational to functioning well in other aspects of life. For example, case L9 described self-confidence as a resource for coping with
adversity: “I think that people with better body images have better well being in general because they tend to be more self-confident and have more will power to get through life’s challenges”. Although participants in the low group agreed self-confidence was essential to positive functioning, some women were of the opinion that self-confidence was contingent on positive body image: “I think having positive body image can give you confidence and through that, perhaps that positivity can flow onto other parts of your life” (L106); whereas the experience of other women indicate the association functioned in the reverse direction (i.e., positive body image was contingent on self-confidence):

My body image does not dictate my happiness, but my happiness and mood dictates how I feel about my body. When I’m depressed, I hate myself and everything associated with me. When I’m feeling confident I have a very positive body image (L122).

Impact of Body Image on Functioning

Whether viewed as one component of, or distinct from well-being, body image attitudes impacted, to some degree, women’s day-to-day experiences. Differences in the ramifications of body image attitudes on positive functioning emerged between participants with high or low levels of body image/ well-being. The data relating to the impact of body image on functioning were allocated to three sub-categories: cognitive-affective, behaviour, and ability to function.

Cognitive-affective. While negative appearance-related thoughts (e.g., “feeling fat”, H82) were common among women from the high and low groups, the amount of time spent worrying or focusing on such thoughts varied. Women from the high group experienced such negative thoughts infrequently; whereas,
for some women from the low group, such thoughts preoccupied their consciousness: “I think about it pretty much from the time I wake up to the time I got to bed” (L100). In one instance, such preoccupation resulted in avoidance of interpersonal interactions where triggers of negative affect were anticipated: “I don’t go anywhere where I know there will be girls who are skinnier than me. I avoid clubs, bars, beaches, swimming pools. I don’t watch television anymore because even the people in commercials make me feel bad about myself” (L11).

A dominant theme to emerge from participants’ descriptions and experiences of body image in day-to-day functioning was the impact body image had on their emotions. Specifically, the impact of appearance (dis)satisfaction on one’s mood and self-confidence was considered by many women as one of the most important ways that body image could impact daily functioning. Negative appearance evaluations were described as impacting on self-confidence, mostly in social situations, for women with high and low levels of body image/ well-being: for example, “It is hard to be confident when interacting with others or assert myself when I don’t always feel great about how I look” (L72). In the case of H114, as in the case of several other women, appearance dissatisfaction was described as impacting one’s confidence in public contexts and contributed to feeling self-conscious and worrying about being evaluated by others: “It influences your confidence to do things where you may be visible, like at work, speaking at meetings, presenting, even small things like playing with your child in a public space and not being afraid to be seen as the fat running, climbing, mummy”.
For women from the low group, negative body-related affect, such as dissatisfaction, embarrassment, hopelessness and discomfort, generalised to impact global low mood (e.g., feeling “depressed”, L9; “sad”, L101; and “down”, L100). Although women from the high group also experienced unpleasant emotions in regard to their bodies, the impact of negative affect was described as momentary/ fleeting and situation-specific. For example, in the case of H139, self-confidence reduces, slightly, when putting on clothes that do not fit well:

The only part of the day I notice it impacting is in the morning when I’m getting dressed. Once I’m dressed, I usually feel confident... in the morning it impacts sometimes when I go to put on a pair of pants and they feel tight.

However, body image attitudes do not always result in unpleasant feelings for women in the high group. In the case of H75, body image impacted mood and intimacy in a positive way:

...for the most part it’s [impact of body image] in a way that feels positive and something I can be proud of, rather than limiting, or something I need to suffer with. It affects my sex life – again, in a positive way.

**Behaviour.** Participants’ body image experiences were described to impact a variety of behaviours typically performed on a day-to-day basis, including appearance presentation and health and fitness behaviours.

**Appearance presentation.** Body image attitudes were particularly salient to women in the context of clothing and grooming. Although clothing choice was
consistently described by participants as a means of improving affect, differences emerged in the function served by clothing choice for women with high or low levels of body image/ well-being. Unlike the highs, for whom clothing choice was used as an option to enhance positive affect; clothing choice for lows was used as a strategy to manage unpleasant emotions. For example, spending time on appearance and presentation through grooming and clothing choice was described by case H132 as an option used to lift her overall mood: “I try to always present myself neatly, be clean, smell nice, dress well, showing off my shape... if I am having a bad day, then I try to make myself feel better with make-up and a nice outfit”. That is, clothing choice and grooming behaviours were performed in service of enhancing global self-attitudes and associated affect. In contrast, clothing choice was a commonly used strategy to manage unpleasant body-related emotions for women with low body image/ well-being. As a result of body dissatisfaction, clothing was often chosen for the purpose of concealing or hiding features or aspects of the body. Body-concealing behaviours, including clothing choice, were performed despite being inconvenient or time-consuming: “even when it’s hot out I try to cover up as much as possible” (L11); “getting dressed for work can take up to 20 changes; I hate to get out of bed – just the thought of getting dressed depresses me” (L111).

Health and fitness behaviours. Body image attitudes were reported to impact participants’ food choice and engagement in physical activity, in reference to attaining/ maintaining a certain level of ‘health’. These instances were predominantly reported by women from the low group, and often emphasised the effort made to monitor food intake. “In terms of maintaining the weight I am now and my current physical appearance... I eat quite healthily whilst allowing junk
food in moderation” (L106). However, appearance was not always referred to as
equivalent to being healthy: in the case of L29, health and appearance were
distinguished as separate motivations, and body image was not believed to impact
food choice: “My body image doesn’t really impact on what I eat, as I try to eat
well for health reasons rather than physical reasons, and I will still eat chocolate
or ice-cream without consideration of my waistline”. In contrast to the lows,
participants from the high group did not refer to food choice in reference to
maintaining health. Additionally, among highs’ reflections, few instances of
engaging in physical activity were reported in order to maintain health and
fitness; however, engagement in these behaviours was reported to be unrelated to
body image.

Ability to function. In the experience of many women, from both high
and low groups, appearance concern/ dissatisfaction was not so important as to
prevent them from performing tasks or engaging in required activities: “How I
look influences my self-confidence, but usually I get on with things anyway”
(L29). Similarly, in the case of a participant from the high group, body
dissatisfaction did not impede her engagement in daily activities:

I don’t feel that my body image impacts much on my functioning...
while I’m not completely happy with my body, it wouldn’t stop me
from going to the gym, going to work, going to the beach, trying on
clothes; it doesn’t stop me from eating what I want, or from having
intimate relationships (H139).

That is, although many women acknowledged being discontent with any given
aspect of their appearance, several participants were of the opinion that
appearance is not self-defining, and not so important relative to other things in their life:

I don’t find a lot of my body that attractive. It doesn’t look like the bodies that are portrayed as ideal in society and the media. But so what?... I find enough of me attractive and I can deal with the rest... I’ve got better things to think about (H114).

Prioritising the importance of appearance to well-being, relative to other aspects of body image, was common among women’s evaluations of positive functioning from the high group. These participants were of the opinion that feeling unfit/ unhealthy was more important to functioning well than were appearance concerns: “If I am unable to do my normal activities, for example, running and playing sport, then I start to feel sluggish and my personal well-being suffers. But this is more about the way my body feels rather than how it looks” (H57). However, focusing on health/ fitness evaluations as more important than appearance to one’s well-being may not always be helpful, particularly when the body’s level of functioning does not meet personal expectations/ standards, and is illustrated by H57: “I have always focused on what my body can do, rather than how it looks. This approach may let me down as I age and my body can’t do what it used to”.

In sum, women experience body image and well-being in a related way. Participants with high body image/ well-being described their body image as having minimal impact on their ability to function. These women, described the ability to socialise, hold themselves in positive esteem, and perform work duties, despite actually experiencing unpleasant body-related emotions and fleeting
negative thoughts. Additionally, for some women, body image attitudes contributed to global positive affect and the potential to enhance global mood, via behavioural methods such as grooming and clothing choice. The process of considering the relative importance of appearance in relation to body function seemed to contribute to more positive evaluations for women in the high group. In contrast, a number of participants with low body image/well-being, described their body-image attitudes as having extensive ramifications on day-to-day functioning, with implications spanning emotional, social, and behavioural aspects of their lives. Specifically, poor body image became a preoccupation for some women with low body image/well-being, with unpleasant appearance-related thoughts and emotions often generalising to impact global cognitions and emotions. As a result, activities related to changing one’s appearance (or ‘health’ as viewed by some participants), such as body concealment, avoidance of social interaction, and monitoring food intake, were performed in direct relation to managing poor body image, rather than as being able to influence more global attitudes toward the self and overall well-being. For these women, poor body image either impeded their ability/motivation to engage in life, or the quality of functioning in a given life domain.

The Function of Having Higher/Lower Levels of Body Image and Well-Being

The association between body image and well-being was described as having similar and different meanings for women with high or low levels of body image/well-being. Based on the data presented, the similarities and differences to emerge among the sample of adult women were grouped into four categories:
conceptualisation; body image focus; positive self-appraisals; and, coping strategies.

**Conceptualisation.** The association between body image and well-being was viewed by participants as multi-dimensional, with women from both groups agreeing that body image was most impactful on self-evaluations and positive affect. However, differences in how highs and lows conceptualised the link between body image and well-being seemed to impact the relative salience of body image in women’s lives. Specifically, based on a holistic view of health, whereby body image is considered as one, of many, components of overall functioning, positive appearance-attitudes was only one aspect/ life domain from which women from the high group drew upon in evaluating positive self-attitudes and positive functioning. That is, any shortfalls in this aspect of self may be compensated by women doing well in other areas of life. In contrast, the somewhat linear conceptualisation of positive functioning adopted by members of the low group, meant that, for these women, self-confidence/ body image needed to be sufficiently positive in order for them to achieve positivity in other areas of functioning.

**Body image focus.** Appearance dissatisfaction and exposure to negative (critical) appearance-related feedback was experienced by women with high and low levels of body image/ well-being. However, several factors appeared to impact positive body image attitudes experienced by women from the high group that were not reported/ described by women from the low group. Specifically, highs described *accepting* their shape and weight despite acknowledging its imperfections. They also described minimising the *importance* of appearance dissatisfaction relative to the importance attributed to the body’s perceived health
and fitness. In contrast, lows emphasised appearance evaluations, which were often negative (i.e., discontent with appearance) as a central component of body image. They also described investing significant time and energy into maintaining a certain level of appearance/‘health’, without considering, however, the relative importance of appearance in relation to other body attributes, such as body functionality.

**Positive self-appraisals.** Women with high and low levels of body image/well-being believed an individual’s relationship with oneself was central to how well they functioned. For women in the high group, positive self-attitudes were characterised by acceptance and acknowledgement of personal strengths. Not only did the acceptance of aesthetic imperfections contribute to body acceptance for these women, viewing aspects of appearance, such as body shape, as partially outside of one’s control (e.g., hereditary), also contributed to acceptance of individual differences for women in the high group. These women also attributed positive outcomes in daily functioning as a result of personal qualities, including confidence, resilience, optimism and gratitude. That is, women from the high group had the ability to acknowledge their personal strengths. However, women from the high and low group agreed that the process of developing and maintaining self-worth and prioritising one’s needs and opinions as valuable, was effortful. Women from the low group described being unable to maintain such effort, due to having unrelenting personal standards and a tendency to criticise themselves in relation to their bodies. Furthermore, a history of mental illness and trauma were described to further impede the capacity for positive self-appraisals among these women with low body image/well-being.
**Coping strategies.** The consistency with which women from the low group described affect/ mood/ mental illness as related to their low levels of body image/ well-being suggests these women find emotion-regulation difficult, and/ or their resources for managing emotions are limited, with the implication that life challenges or adversities go unresolved and maintain low levels of body image/ well-being. In contrast, descriptions of adversity for women in the high group reflected that they had resolved past issues, and were sufficiently equipped with a number of individual and interpersonal strategies, to manage daily life challenges.

‘Positive relationships with others’ was an aspect of positive functioning identified important by women in both high and low groups, not only in the development of body image and well-being, but also as a resource for managing issues impacting on body image attitudes and well-being. However, a number of women in the low group described having poor social networks, characterised by marital difficulties, poor social skills and social isolation, which contributed to present difficulties with body image and well-being. Furthermore, unlike women in the high group who described having developed a sense of autonomy from their parents and learned to make decisions based on personal standards rather than the opinion of others, women from the low group described the opinions of others, such as partners and parents, as influential on their body image and well-being. That is, women from the low group appeared to be more sensitive to the attitudes and opinions of others in their social environment, which may be unhelpful for those women with poor social networks.
Chapter Nine

General Discussion and Conclusions

The aim of this thesis was to explore the association between body image and psychological well-being among a community sample of adult women. Although past research has established significant relationships between body image attitudes and mental health/well-being among women, the foci of investigations have predominantly been limited to appearance-related aspects of body image, such as body dissatisfaction, and a limited range of well-being measures, such as self-esteem, or indicators of ill-health, such as the presence/absence of depressive symptoms. While such literature illustrates the negative psychological outcomes of appearance-concerns, it fails to consider women’s intra- and inter-personal resources that may serve as protective factors against adverse outcomes. A further concern with the literature is that a majority of studies utilise samples recruited from university settings, representing a narrow age range of adult women.

While appearance plays an important role in the lives of women across the lifespan, the way in which women conceptualise body image may change throughout adulthood, as they experience a variety of developmental changes and significant life events, such as child-birth, menopause, and weight gain. Such events and life experiences are likely to be experienced differently among women, and the meanings attached to past and present events and circumstances may further influence women’s body image and well-being. A mixed-methodology approach was used in this thesis to examine the relationships between levels of body image and well-being among adult women in a
quantitative study (Study 1), and to describe variations in women’s experiences of body image and well-being using a qualitative study (Study 2).

**Chapter Overview**

In this chapter, the findings from Study 1 and Study 2 will be integrated and discussed to determine the extent to which the results supported the hypotheses developed and presented in Chapter Four, with reference to previous research, where applicable. The chapter is organised under a number of headings. Findings related to how body image attitudes are best conceptualised among adult women is presented under the heading ‘The Body Image Construct’. The validity of Ryff’s model of psychological well-being in the sample of adult women is reviewed under the heading ‘The Well-being Construct’. The chapter then assesses the association between body image and well-being, beginning with an examination of the prediction of psychological well-being by different aspects of body image, followed by a broader review of the direction of associations between the constructs. Following this, the implications of the findings for clinical research and practice are presented. Finally, a review of the study’s limitations, directions for future research, and overall conclusions are outlined.

**The Body Image Construct**

In this section, the results related to the conceptualisation of the body image construct are discussed. Given the exploratory nature of this investigation, preliminary conclusions are made regarding the operation of the body image construct among women throughout adulthood.

The literature clearly indicates that the body image construct is multidimensional and has been conceptualised in a number of ways from different
theoretical perspectives. Previous research has demonstrated difficulties with operationalising cognitive, affective, behavioural and perceptual dimensions, the most commonly utilised conceptualisation of body image (Banfield & McCabe, 2002). An alternative conceptualisation, namely Cash’s (1994) model of evaluative-investment dimensions of body image attitudes, has received empirical support in terms of its application to scale construction/validation (Brown et al., 1990); however, limited studies have examined/tested the conceptual distinction of body image attitudes among middle aged women. Thus, confirmatory factor analysis was performed to determine whether a factor structure incorporating both mode (cognitive, affective, and behavioural) and meaning dimensions (evaluations and investment) underlie women’s body image attitudes.

Two models proposed to represent body image attitudes among adult women were evaluated as part of this exploratory investigation, with the aim to test whether a number of measures clustered according to the proposed conceptualisation. The first model was an adaptation of Cash and his colleagues’ (e.g., Brown et al., 1990; Cash, 1994) conceptual framework that distinguished evaluative and investment dimensions of body image attitudes, and their relation to different somatic domains: appearance and function (referred to in Brown et al., 1990, as separate dimensions of ‘appearance’, ‘health/illness’, and ‘fitness’). The confirmatory factor analysis revealed that the four-factor model, comprising appearance-evaluation, appearance-investment, function-evaluation, and function-investment, was not an adequate conceptualisation of the body image construct. However, similar to the findings of Brown and colleagues (1990), the alternate bi-factor model, distinguishing attitudes about the body’s appearance and attitudes
about the body’s function, provided an adequate representation of the body image construct among adult women.

Examining the body image construct from a perspective related to evaluation or investment, the results of this investigation appear to contrast that of Brown et al. (1990) who found empirical support for grouping body image items according to evaluations or investment. Their study focused solely on the factor structure of one measure of body image attitudes, namely the MBSRQ, and did not contain other/multiple scales or measures as did this study. That is, body image attitudes could not be discretely categorised into the type of attitude they conveyed (i.e., evaluation or investment) when multiple scales of body image were utilised in a single study.

In contrast to the proposition that ideal-discrepancy ratings involve cognitive appraisals that are distinct to affective responses, namely, body satisfaction ratings (e.g., Cafri et al., 2010; Vartanian, 2012), in this study, substantial overlap emerged among cognitive and affective measures, as well as measures evaluating behavioural components of body image. For example, the situational body image distress scale, an affective body image measure, significantly overlapped with the body concealment scale, which is a behavioural body image measure. Furthermore, the findings of confirmatory factor analysis indicated a model delineating global somatic domains of body image (i.e., appearance and function) rather than specific types of attitudes (i.e., evaluation and investment) provided the best fit to the data. Together, these findings support those of previous research indicating significant overlap between attitudinal components of body image (Banfield & McCabe, 2002). Thus, despite the clear conceptual operationalisation of body image attitudes into evaluative-investment,
or cognitive, affective, and behavioural components, the current study did not find empirical evidence to support the delineation among adult women.

Body image attitudes for the women in this study were best conceptualised as an amalgamation of thoughts, feelings, and behaviours about certain somatic domains (i.e., appearance, function, or overall body image). To this end, body image attitudes among adult women may be best conceptualised and empirically investigated according to global/ meta-body image domains (i.e., appearance and function), rather than the type of attitude (i.e., evaluations or investment) under investigation.

**Appearance**

Consistent with prior research (e.g., Andersen & LeGrand, 1991; Cash, 1989), a variety of bodily features and/or characteristics were found to represent women’s attitudes about their appearance. In addition to weight vigilance and associated weight-control behaviours, such as dieting and eating restraint, measures assessing actual-ideal discrepancies and their relative importance, and the affective impact of body image on quality of life also contributed to capturing women’s attitudes about appearance. Furthermore, the extent to which participants focused on appearance was captured by the relative importance and time spent on grooming behaviours (Cash, 2000); however, a number of other behavioural measures, including the tendency to compare one’s appearance with others, and the tendency to conceal the body via clothing choice, were found to more strongly represent a focus on appearance concerns.

The consistency with which body dissatisfaction is reported by women across the lifespan (e.g., Forbes et al., 2005; Montepare, 1996; Webster & Tiggemann, 2003; Runfola et al., 2012) was supported by the results in this study.
Specifically, the extent to which participants perceived a discrepancy between actual and ideal features of appearance, such as facial features, muscularity, skin complexion, and so on, was a strong predictor of overall appearance-related attitudes among adult women. Although some women with high levels of positive body image described “acceptance” that their appearance did not meet, or resemble their ideal, for the majority of women in this study, appearance-related evaluations generated negative affect that impacted, to some degree, on a variety of life domains. The affective impact of body image on the quality of life of women in adulthood will be further discussed in the section titled ‘Prediction of Psychological Well-being by Body Image Variables’.

Although it is important to quantify the magnitude of appearance dissatisfaction among adult women, research must also explore the level of investment in focusing on, or attaining appearance-ideals. The results of the present studies demonstrated that overall, attitudes about appearance were strongly represented by the relative importance attached to attaining a certain body size and weight, the extent to which they engaged in dieting and eating restraint (i.e., overweight preoccupation), and the extent to which women took steps to conceal their bodies from the gaze of others, or avoid social situations (i.e., body concealment). Thus, in contrast to the view that women become less cognizant of their appearance as they age (Tiggemann, 2004), these findings suggest that maintaining a certain weight/shape/standard of appearance is still highly relevant to body image attitudes among middle-aged women.

It is important to place these findings within a social context. In support of the proposition that social or interpersonal contexts may evoke negative appearance-related affect in women due to the potential for social scrutiny or
negative appearance appraisals (Fredrickson & Roberts, 1997; Menzel et al., 2011), a number of participants described feeling “self-conscious” and less confident in public or social situations out of fear of how they were evaluated and perceived by others. Although such negative affect was described by many women to have little impact on their ability to function adequately, the results of the qualitative study revealed that a selection of women with low body image lacked the intra- and inter-personal supports to manage negative affect associated with appearance dissatisfaction and fear of social evaluations. Consistent with previous research (e.g., Tiggemann & Lacey, 2009; Trautmann et al., 2007), they described themselves engaging in maladaptive behaviours, such as excessive time spent on choosing outfits, wearing concealing clothes that were inappropriate for the weather, and complete avoidance of social situations in order to manage such negative affect. These findings highlight the importance of the social context to attitudes about appearance among adult women with low body image, and suggest that attempts to conceal parts of the body and to avoid situations where others may evaluate the body are related to low self-confidence and indicative of dysfunctional body image investment.

Function

The results of the present studies demonstrated that while appearance and function are related dimensions of the body image construct, women’s attitudes about body function are mostly distinguishable from their attitudes about appearance. This finding provides empirical support to the theoretical distinction proposed between these dimensions (e.g., Abbott & Barber, 2011; Reboussin et al., 2000; Roy & Payette, 2012), and extends past research and conceptualisations of body image that have largely focused on appearance-related factors, despite
acknowledging the multi-dimensional nature of the body image construct (e.g., Banfield & McCabe, 2002; Slade, 1994).

A narrow focus on appearance fails to consider the importance of the body’s instrumentality and internal functioning to women’s subjective experiences of the body. Despite the limited use of assessments measuring body function in prior studies of body image among adult women, the results of this investigation demonstrated health/fitness orientation represented the strongest indicator of women’s attitudes about body function. This finding provides empirical support for the contention that body function is of particular importance to women’s body image attitudes in adulthood (Roy & Payette, 2012). The pertinence of health/fitness orientation to participants’ attitudes about body function seemed to reflect the importance attributed to attaining positive body function, rather than behavioural investment in those activities. For example, while participants described “eating a balanced diet and physical activity” as characteristic of, or important to, overall positive functioning, few women described actually engaging in such activities. That is, participants’ views about body functionality appeared to reflect the extent to which they valued or idealised being health conscious and physically competent.

Women with high body image exemplified the role of health/fitness-importance-attributions in attitudes about body function as they described an appreciation for body functioning as shaping their body image positively: “… I often focus on how amazing the human body is and it is necessary to reward it by eating well and exercising often”. The process of reflection and introspection about the nature of one’s physical health and fitness is an aspect of health/fitness orientation (Cash, 2000; Snell, Johnson, Lloyd, & Hoover, 1991) that seemed to
contribute to some participants attributing value to the body’s physical competence, and supports prior research suggesting that a focus on body function can promote body image resilience in women (Choate, 2005).

In addition to the value attributed to, and time and effort invested in, physical fitness and a healthy lifestyle, evaluations of personal health and fitness were also significantly, although weakly, associated with attitudes about body function. Although, intuitively, health and fitness evaluations might be interpreted as representing the body’s perceived wellness, physical capacity, ability, and/ or instrumentality, this measure generated almost equivalent factor loadings on the Appearance and Function factors, indicating that women’s perceptions of their health and fitness reflected not only attitudes about body function, but also about physical appearance. This result may be understood within a sociocultural context, where media portrayals of health and fitness are promoted as synonymous with attractiveness, beauty ideals, and sexiness (e.g., Aubrey, 2010; Barnett, 2007), together with negative stereotypes of aging where the term “old” connotes feeling lethargic, unattractive, and asexual (Chrisler & Ghiz, 1993). Indeed, the qualitative results revealed that negative body image attitudes for women with low levels of body image and well-being, were shaped, in part, by critically comparing current weight and appearance to their younger selves.

The extent to which women focus on body function or appearance is of particular relevance to women in adulthood. Although it has been suggested that a focus on body function may be detrimental to body image attitudes among aging women in the context of a number of age- and health-related changes to the body that result in physical decline (Chrisler, 2007; Chrisler & Ghiz, 1993; Lutze & Archenholtz, 2007; Roberto, 1990), the present findings indicated that the
salience of physical decline to attitudes about body function was limited to women with low body image. Qualitative findings highlighted differences in the conceptualisation of body function between women with low or high body image/well-being. Whereas health and fitness evaluations were either absent from descriptions of body image, impacted by negative appearance-related affect, or reflected evaluations of mental illness and physical illness among women with low body image, for women with high body image, health and fitness evaluations related specifically to physical competence, health, and instrumentality.

Consistent with these qualitative findings, the results of the factor analysis demonstrated that when women evaluated their personal health and fitness negatively, it was indicative of attitudes about appearance; however, when health and fitness were evaluated positively, it reflected women’s attitudes about their body function. In addition to validating previous research showing the functional body is evaluated more positively than the aesthetic body (e.g., Franzoi, 1995), these qualitative and quantitative findings provide empirical support for the notion that an emphasis on body function is conducive to positive body image (Grogan, 2012), and extends the literature by demonstrating that the positive impact may be related to the capacity to distinguish body-related affect from global affect, and the ability to acknowledge, appreciate, and praise the body’s internal functioning.

**General Body Image Factor**

As previously outlined, an objective of this investigation was to extend previous work by exploring the connection between different aspects of body image in order to understand how the multiple components of the construct operate together among a sample of adult women. The majority of appearance-
and function-related measures included in this study loaded significantly onto the general body image factor, with factor loadings ranging in magnitude from $\beta = 0.07$ to $0.82$, and support the notion that overall body image attitudes among middle-aged women comprise thoughts, feelings and behaviours related to the somatic domains of appearance and function.

The strongest indicators of general body image factor were function-related measures, and included health/fitness orientation ($\beta = 0.82$), body improvement ($\beta = 0.70$), and health/fitness evaluation ($\beta = 0.60$), with certain appearance-related measures, including overweight preoccupation and appearance comparison, failing to load significantly to the overall body image factor. That is, when considered among a number of appearance- and function-related aspects of body image, measures of weight preoccupation and comparison tendencies are not good indicators of general body image attitudes among adult women. The extent to which women are health conscious, value physical fitness, and invest time and effort in maintaining a physically healthy lifestyle and physical competence (e.g., via regular physical activity or exercise) may be more indicative of overall body image attitudes among women in adulthood relative to appearance measures. That is, global body image attitudes among adult women largely reflect thoughts feelings and behaviours related to physical health and bodily function, and less so to physical appearance.

**The Well-Being Construct**

In an attempt to move beyond a conceptual framework of mental health where well-being is conceptualised as the absence of disease/illness, researchers have proposed a range of measures to evaluate well-being. The present research was conducted using Ryff’s (1989a) multidimensional formulation and measure
of psychological well-being because of its theoretical focus on defining positive functioning (Deci & Ryan, 2008; Ryff & Keyes, 1995; Ryff & Singer, 2008). There are also strong empirical data for its validity among adults (Keyes & Ryff, 1999; Gallagher et al., 2009; Ryff & Keyes, 1995; van Dierendonck, 2004), and those from different cultural backgrounds (Cheng & Chan, 2005; Clarke et al., 2001; van Dierendonck et al., 2008).

Previous research on the hierarchical structure of the well-being construct has been inconsistent, with some evidence to suggest that Ryff’s model of well-being is best represented by three factors, delineating autonomy, positive relations with others, and a general well-being factor (Abbott et al., 2006; Springer & Hauser, 2006). However, the present findings provide factorial validity for the original six-factor model proposed by Ryff (1989a), a finding that supports a number of previous studies of nationally representative samples of adults (e.g., Clarke et al., 2001; Gallagher et al., 2009; Ryff & Keyes, 1995). Standardised factor loadings for all six aspects of well-being were moderate to strong and significant in the sample of adult women, indicating that at least six aspects of psychological functioning are relevant to defining what it means to live ‘well’. Consistent with an eudaimonic formulation and operationalisation (Ryff & Singer, 1998), psychological well-being among adult women comprised the following criteria: positive evaluations of oneself and one’s past life (Self-acceptance); the possession of quality relations with others (Positive relations with others); the belief that one’s life is purposeful and meaningful (Purpose in Life); a sense of independence and self-determination (Autonomy); a sense of continued growth and development as a person (Personal Growth); and, the
capacity to manage effectively one’s life and surrounding world (Environmental Mastery).

**Meaning of Well-Being for Women**

It has been suggested that measures of well-being that focus on an individual’s feelings (e.g., absence of depressive symptoms, balance of positive and negative emotions), or cognitive appraisals (e.g., life satisfaction) toward a given life domain provides a narrow interpretation of ‘wellness’ and may overlook features of psychological functioning that are characteristic of a positively functioning individual (Ryff & Singer, 1998). Indeed, the qualitative findings of the present study illustrated that well-being involves more than the absence of ill-mental/physical health, with certain psychological qualities, such as persistence and proactive choices, uniquely emerging from the descriptions of positively functioning individuals (i.e., participants with high body image/well-being). Specifically, a focus on the *presence* of positive qualities (e.g., presence of, and appreciation for, physical health, the effort to maintain an optimistic attitude and positive self-appraisals, and investment in mutual positive relationships), rather than a focus on negative qualities, such as illness and poor social skills, separated participants with high well-being from those with low well-being. Consistent with the findings of a recent review of the literature (Deci & Ryan, 2008), the present findings highlight the importance of considering aspects other than balance in affect, life satisfaction, and general happiness, in empirical studies of positive functioning/well-being. In fact, consistent with an international definition of mental health that emphasises the pursuit of realising one’s potential, rather than the affective outcome or appraisal of such pursuits (WHO, 2011), the present findings indicate well-being for adult women involves
women’s efforts and proactive choices to function in a certain way, and their perception that they are functioning at a level satisfactory to their personal standard.

**Role of Different Components of Well-Being**

**Self-acceptance.** Of the multiple indices included in Ryff’s model, self-acceptance was the strongest indicator of psychological well-being for the adult women in this study; an expected finding in the context of research demonstrating that attributions of self-worth (as measured by self-esteem) are associated with other indicators of positive well-being, including happiness (Baumeister et al., 2003) and life satisfaction (Lucas, Diener, Suh, 1996). Although self-esteem per se was not utilised as an objective measure in the current study, findings of the qualitative study revealed that positive self-appraisals, which are part of self-acceptance, emerged as a resource among women with high well-being for managing appearance dissatisfaction. Positive self-appraisals, as described by these women, seemed to contribute to positive functioning through the process of enabling them to identify personal strengths, and in turn experience gratitude, optimism, confidence and resilience. In contrast, women with low well-being had difficulty identifying positive aspects of self. Depressotypic traits, such as self-critical tendencies and rumination, impeded the capacity for positive self-appraisals among women with low well-being, who viewed optimal functioning as conditional upon positive self-ratings (i.e., self-confidence). These findings support the contention that women with low self-esteem may lack the internal resources to buffer the effects of stress-related life events (Corning, 2002), such as poor body image, and so experience low feelings of well-being.
Positive self-appraisals were not only instrumental in preserving well-being among body dissatisfied women; through the process of integrating past adversity with personal strengths, positive self-appraisals appeared to contribute to enhancing well-being among participants. The qualitative findings showed that a point of difference for women with low or high well-being was the tendency of women in the latter group to reflect on values learned from dealing with difficult experiences, which enabled them to generate meaning from adversity. This is consistent with research showing that women who actively review their past in an integrative, rather than ruminative, manner are more likely to experience greater well-being than women who do not engage in such processes (Arkoff et al., 2004; Wong & Watt, 1991). These findings extend previous research (e.g., Dijkstra & Barelds, 2009; Greenleaf et al., 2009) that limit the assessments of well-being to measures of self-esteem. Although self-esteem is empirically related to the construct of self-acceptance (Ryff, 1989a), and often utilised as an indicator of mental-health in well-being research, these constructs are conceptually distinct (O’Kelly, 2013; Ryff & Singer, 2008). Limiting assessments of well-being to measures of self-esteem may overlook the integrative features of self-acceptance that are conducive to sustaining positive affect and effective psychological functioning.

**Environmental mastery.** A key rationale for utilising Ryff’s model to study adult women’s views of well-being is that it accounts for multiple psychological features that have been implicated in theoretical and empirical accounts of positive functioning, and are often missing in empirical assessments of well-being. A theoretically-derived dimension, as defined by Ryff (1989a), found to underpin the well-being construct among adult women in this study was
environmental mastery, which generated a factor loading almost as strong as self-acceptance. However, unlike features of selfhood (e.g., self-esteem), this aspect of well-being (i.e., environmental mastery) has received little attention in studies on well-being.

In describing qualities of the well-adjusted and optimally functioning individual, participants emphasised the ability to adequately manage/adjust to change, particularly challenging events, adversity, and life stressors. Such ‘resilience’ pertained to managing changes within the self, such as body image and mental illness, as well as managing changes in the environment (e.g., occupational identity and family issues), and was identified as important by women with high and low well-being. However, only women with high well-being specified self-regulatory coping strategies, such as gardening, time-management, and self-care, used to manage such environmental demands. These findings extend previous literature on the protective role of self-regulatory behaviours in assisting older adults maintain a sense of self and perceived control in the context of managing change that accompanies aging (Brandtstädter, 1999; Knight, Davison, McCabe, & Mellor, 2011; Ong & Bergeman, 2004; Pham, Taylor & Seeman, 2002; Windle & Woods, 2004) by highlighting that a sense of self-efficacy/control or mastery over environmental demands is conducive to well-being among young and middle-aged women.

Developmentally, the concerns of middle-aged adults and beyond are proposed to shift from a focus on self and identity development to a focus on others, generativity, and meaningful contribution (Erikson, 1959), with parenting and career-building concerns found to be particularly relevant to women in midlife (McAdams & de St Aubin, 1999; Stewart & Vandewater, 1999). Indeed,
women in this study with high and low levels of well-being reported they experienced a sense of fulfillment through their contribution to the external world (i.e., through career and caring for others). Pursuing spheres of endeavor that go beyond the self is considered indicative of active participation in, and mastery of, one’s environment (Ryff & Singer, 2008), and was evident in the narratives of women with high well-being. For example, these women described psychological features, such as openness, optimism, flexibility, experience-seeking (e.g., through travel), and worldly-knowledge/ awareness, as characteristic of a positively-functioning individual. These findings suggest environmental mastery is a key aspect of positive psychological functioning among middle-aged women; however, is often overlooked in the empirical sphere of investigations into women’s well-being (Ryff, 1989a; 1989b; Ryff & Singer, 1998).

### Prediction of Psychological Well-Being by Body Image Variables

The most commonly investigated aspect of body image among women is body (dis)satisfaction, which has consistently been found to be associated with adverse mental health outcomes among women (Cash & Pruzinsky, 2002; Donaghue, 2009; Grilo & Masheb, 2005; Matz et al., 2002; Stice, 2002; Woodside & Staab, 2006). Limited research has investigated the association between body image and indicators of positive functioning. To address this gap in the literature, the prediction of multiple indicators of well-being were tested using a variety of body image variables included in multiple regression analyses. The results indicated multiple aspects of body image and different combinations of variables significantly contributed to the prediction of each aspect of well-being (see Table 9.1). The different aspects of body image predicting well-being were
categorised into three sections, and are discussed below: body image-related quality of life; functional body image; and, appearance-related body image.

**Body Image-Related Quality of Life**

This aspect of body image assesses the impact of body image attitudes on quality of life. Not surprisingly, this dimension of body image contributed to the prediction of almost every aspect of psychological well-being (see Table 9.1) in the sample of young to middle-aged (18 – 59 years) women. That is, body-related affect, experienced in a variety of day-to-day situations and life domains, implicates a broad range of indicators of positive psychological functioning among young to middle aged women.

Among the range of body image variables included in the quantitative study, body image-related quality of life was the strongest unique predictor for three aspects of well-being: self-acceptance, positive relations with others, and environmental mastery. This finding supports previous research that has demonstrated body-related affect, such as appearance (dis)satisfaction, is associated with attitudes toward self (Davison & McCabe, 2005; Green & Pritchard, 2003) and interpersonal relationships (Donaghue, 2009; Tantleff-Dunn & Lindner, 2011). Body-related affect has the potential to impact an individual’s confidence, comfort and competence in interpersonal interactions (Nezlek, 1999; Schutz & Paxton, 2007; Tantleff-Dunn & Lindner, 2011). Indeed participants’ qualitative comments indicated affect and mood as one of the most influential ways in which body image impacted their confidence in day-to-day situations, particularly in public or social contexts. However, for many women, appearance-related affect (e.g., dissatisfaction) was momentary/ fleeting, and did not prevent them from performing tasks or engaging in required activities. For a selection of
### Table 9.1

**Body Image Variables that Uniquely Contributed to the Prediction of Psychological Well-Being (PWB) in Adult Women**

<table>
<thead>
<tr>
<th>PWB Dimension of Body Image</th>
<th>OWP</th>
<th>AO</th>
<th>BI ideal import</th>
<th>Appearance compar</th>
<th>Body conceal</th>
<th>BI related qol of life</th>
<th>BI ideal discrep</th>
<th>Body improve</th>
<th>F/ H orientation</th>
<th>F/ H evaluation</th>
<th>Illness orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Self-acceptance</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Purpose in life</td>
<td>✓</td>
<td></td>
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<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Personal growth</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Pos relations with others</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
</tr>
<tr>
<td>Environment mastery</td>
<td>✓</td>
<td></td>
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</tbody>
</table>

**Note.** OWP = overweight preoccupation; AO = Appearance orientation; BI ideal import = importance of body image ideals; Appearance compar = Appearance comparison; Body conceal = Body concealment; BI related qol of life = Impact of body image on quality of life; BI ideal discrep = body image ideal discrepancy; Body improve = Body improvement; F/ H orientation = Fitness/ health Orientation; F/ H evaluation = Fitness/ health evaluation. N = 717; ✓ p < .05; ✓ ✓ p < .01; ✓ ✓ ✓ p < .001.
women with low body image/well-being, the relative effect of body-related affect on the ability to function was related to poor individual or social resources to manage negative body-related affect. Thus, although women may be dissatisfied with appearance or are concerned about their weight, if these aspects of body image are not viewed as emotionally impactful on functioning, or the individual has sufficient emotion-management strategies to manage unpleasant emotions, then it may have minimal impact on their well-being.

Additional aspects of well-being predicted by body-related quality of life were autonomy and purpose in life; expected results considering the aspects of functioning assessed by this measure. For example, autonomy has been related to an individual’s ability to control eating habits, weight, and exercise (Thøgersen-Ntoumani et al., 2011; Kopp & Zimmer-Gembeck, 2011), all of which were directly assessed by this body image-related quality of life measure. Furthermore, a sense of purpose and meaning in the life of adult women is proposed to be related to feeling useful and needed by others (Hansen, 2011), which was also assessed by this measure in terms of women’s body-related affect in platonic and intimate relationships. These results suggest this measure (i.e., Body Image Quality of Life Inventory; Cash & Fleming, 2002) has clinical utility, and may be useful in settings where quality of life and well-being are targets of treatment evaluations/outcomes. The brevity of this measure, combined with its ability to predict a broad range of dimensions of psychological well-being as demonstrated in this study, suggest it may be useful in providing users with a snapshot of the impact of an individual’s body image attitudes on multiple domains of functioning.
Functional Body Image

Evident from Table 9.1 is the influence of self-evaluated health/fitness on multiple aspects of psychological well-being. This finding, based on data from young to middle aged women, adds to previous research that has found a positive association between self-rated health and indicators of positive functioning among young (Abbott & Barber, 2011; Franzoi, 1995) and older adult women (Jones, Rapport, Hanks, Lichtenberg, & Telmet, 2003; Lennon et al., 1999; Schneider, Driesch, Kruse, Nehen, & Heuft, 2006). Together, these findings suggest that aspects of body image other than appearance, namely body function, are relevant to the well-being of women across adulthood.

Functional aspects of body image may be of greater importance than appearance to the well-being of young to middle-aged women. It has been proposed that appearance is of more importance to women than men, given the higher cultural premium (psychologically and socially) placed on physical attractiveness and appearance among women (Fraznoi & Klaiber, 2007; Townsend & Wasserman, 1997). However, relative to appearance dimensions of body image (see Table 9.1) health and fitness evaluations were found to have a pervasive impact on multiple aspects of psychological well-being in this study. These results add to the growing recognition of the impact of body function on indicators of wellness and overall mental health among adult women (e.g., Reboussin et al., 2000; Waddell & Jacobs-Lawson, 2010).

Unlike women with high body image/well-being, evaluations of the relative importance of body function to well-being and an appreciation for physical abilities (e.g., ability to generate life, mobility) were mostly absent from the narratives of women with low body image/well-being; rather, their
conceptualisation of mental health focused on the absence of illness and negative affect. However, as highlighted by previous research, the absence of ill-health does not equate to the presence of positive functioning (Ryff & Singer, 1998). The recognition of functional capacity and physical competencies, despite an acknowledgment of physical imperfections, signifies an acceptance of physical aspects of self among positively functioning women. In support of previous quantitative data (Avalos & Tylka, 2006; Greenleaf et al., 2009), these qualitative findings suggest that the consideration of body function in evaluations of body image may be conducive to more positive self-attitudes and higher levels of well-being among women. Interestingly, the comments of positively functioning women also highlighted that the process of maintaining positive self-appraisals was effortful; but, as demonstrated by the quantitative findings, such effort invested in maintaining physical competence (i.e., health/fitness orientation) contributed to a sense of realising one’s potential (i.e., personal growth). The presence of positive aspects of body image, such as body functionality, may be overlooked, and/or viewed as requiring too much effort by women with low body image/well-being due to a focus on psychological ill-being.

The comments of participants with high body image/well-being also revealed positive attitudes about body instrumentality (i.e., investment in, and feeling fit and healthy) enabled participation in meaningful activities, such as physical activity, and is consistent with findings of previous research among older adult women (Waddell & Jacobs-Lawson, 2010). For the young to middle aged women in this study, employment and caring for others were areas of life from which participants felt they could derive a sense of meaning and purpose, and body image was viewed as impactful on positive functioning to the extent that it
facilitated or impeded the ability to perform one’s duties, responsibilities and so on. Thus, being in good health has positive implications for believing one has the ability to take part in (i.e., mastery) and pursuing valued activities (i.e., a sense of purpose in life), and in turn well-being, for young to middle aged women.

**Appearance-Related Body Image**

In contrast to the functional aspect of body image attitudes, namely perceived health/fitness, which was broadly related to multiple aspects of well-being, the results revealed greater heterogeneity in the specific aspects of well-being predicted by aspects of appearance-related attitudes. This finding provides partial support for hypothesis 1 that predicted all aspects of body image would be related to all six dimensions of psychological well-being, and will be discussed in detail in this section.

It has been suggested that appearance becomes less central to the self-concept of women as they get older (Tiggemann, 2004). Consistent with this proposition, the success/failure of achieving idealised standards of appearance was of minimal importance to (and significantly predicted) global acceptance of self among young to middle-aged women in this study. The qualitative findings indicated that body-related attitudes are only one aspect of self and mental health for positively-functioning women. From this perspective, whereby positive self-attitudes are not contingent on attaining appearance ideals, the relative importance of different aspects of body image could be evaluated, such that an individual could look beyond aspects of appearance (often accompanied by negative affect), to see value in other aspects of the body and self, such as an appreciation for the body’s instrumental qualities. Thus, low levels of self-esteem proposed to accompany the negative affect (dissatisfaction) associated with weight gain and
physical decline as women age (Wardle et al., 2002) may be counterbalanced by the decreased importance attributed to attaining idealised standards of appearance.

The low level of importance attributed to appearance among adult women may allow for an acceptance of the largely uncontrollable developmental changes to the body with increasing age (Ferraro et al., 2008; Franzoi & Koehler, 1998). Webster and Tiggemann (2003) suggested that women adopt cognitive strategies (e.g., positive reappraisals and adjusting expectations) that increase their acceptance of physical imperfections, and in turn protect/ maintain their self-concept from the increasing deviation of their aging bodies from the thin and youthful ideal. Indeed, relinquishing perceived control over appearance to biological (hereditary) factors, and weighing-up the importance of body function relative to appearance facilitated the acceptance of the body for several participants with positive (high) body image/ well-being. Although these aspects of control and adaptive capacities are proposed to be robust among older adults (Brandstädter & Renner, 1990; Charles & Carstensen, 2010; Heckhausen et al., 2010; Wagner et al., 2013), the findings of the present study suggest that young to middle aged women also adopt adaptive strategies in relation to body image that promote psychological well-being.

In addition to cognitive strategies, a number of appearance-related behavioural strategies were found to be relevant to the well-being of adult women. Specifically, the results revealed a pattern of avoidance of certain behaviours (i.e., low body concealment and low appearance comparisons) predicted some aspects of psychological well-being. The results of previous studies suggest that it is body dissatisfied women who are likely to engage in maladaptive appearance-related behaviours, such as concealing the body through
clothing choice (Trautmann et al., 2007), and using external points of comparison in self-evaluations (Cattarin et al., 2000; Fisher et al., 2002; Leahey et al., 2007). However, for the adult women in this study, engaging infrequently in these appearance-management behaviours occurred despite participants acknowledging some level of body dissatisfaction. That is, minimising one’s engagement in, or refraining from appearance-comparisons and concealing behaviours represented the intentional management of body image and global self.

The intentional avoidance of certain body image behaviours may be understood in terms of the greater individuation of self proposed to increase as women age/m mature (Kozar & Damhorst, 2009). For the adult women in this study, the less frequently participants compared their appearance to that of others, the greater acceptance of self they experienced. Indeed, participants believed positive-self attitudes developed through learning self-awareness (physically and emotionally) and being attuned to personal needs. That is, listening and responding to internal cues, rather than external sources were believed to facilitate self-acceptance. Comments from the qualitative data also highlighted that being able to evaluate the self according to personal standards, rather than the standards of others, such as parents or romantic partners, shaped the well-being of positively functioning women. It is interesting that low appearance comparisons were predictive of a sense of mastery and purpose in life (i.e., feeling directedness and intentionality). Choosing not to compare one’s appearance with that of others may be a strategy used by women with a strong sense of their personal values/goals, to refrain from conforming to external standards. As women begin to realise a coherent and strong sense of self, they may draw on internal resources (personal opinion) instead of external cues to construct their identity. These
findings suggest that body image behaviours associated with dimensions of well-being are those for which women feel engagement is self-governed rather than imposed or represent conformity to external standards.

It has been suggested that low concern for the opinions of others (which may manifest as low appearance comparisons and low body concealment) may allow an individual to dissociate themselves from sociocultural pressures to be thin (i.e., messages received from family, peers, and the media regarding ideal body size and shape) and instead draw on personal standards, values and opinions, in self-evaluations. (Kopp & Zimmer-Gembeck, 2011). If this interpretation is correct, then it could be expected that body image behaviours performed in accordance with personal standards would be related to some aspects of well-being. For example, the positive association found between high investment in weight (as measured by OWP) and levels of environmental mastery among participants may reflect that exercise and dietary restraint (aspects measured by OWP) are behaviours viewed by participants as ways to control/manage body image in a ‘healthy’ way. In other words, exercise and dietary control strategies may promote a sense of competence, control and well-being if these efforts are viewed as relatively independent of assumptions about the instrumentality of appearance-management behaviours in dysfunctional body image attitudes and low self-worth. Given the paucity of research on functional aspects of body image, this hypothesis warrants further investigation.

Global Association Between Body Image and Psychological Well-Being

The findings discussed above demonstrated specific and one-directional associations between body image and psychological well-being. Structural equation modeling was used to test whether hypothesised causal relationships in
opposing directions were statistically supported. The proposed bidirectional nature of the association between body image and well-being (hypothesis 3) was supported. Three body image factors, including appearance, function, and general body image, significantly predicted and accounted for 53% of the variance in overall psychological well-being. This result, while not surprising given the previous discussion on specific associations between body image and well-being, is greater than that found in previous research that has documented individual aspects of body image (e.g., body satisfaction, body shame and body surveillance) contributed to the prediction of single indicators of positive well-being, such as life satisfaction (up to 44%) and positive affect (23%; Choma et al., 2009; Donaghue, 2009; Mercurio & Landry, 2008).

The structural equation model in the reverse direction (i.e., psychological well-being predicting body image attitudes), was found to have adequate fit. General psychological well-being significantly predicted and accounted for over a third of the variance in appearance-related attitudes and general body image attitudes (the latter of which was most strongly represented by functional aspects of body image). That is, low levels of psychological well-being potentially increases an individual’s vulnerability to poor body image and maladaptive attitudes about the body’s appearance and function. This finding adds to the limited literature considering the potential impact of internal psychological resources as protective against maladaptive body image concerns among adult women (e.g., Snapp, Hensley-Choate, & Ryu, 2012), and warrants further exploration for the statistical significance of specific causal pathways and feedback processes that occur, given the complex relationships between different aspects of body image and psychological well-being.
The bidirectional nature of the association between body image and psychological well-being was further supported by the qualitative findings. By-and-large, participants’ comments indicated body image was viewed as one of many components of self, and the two aspects of mental health were interconnected. This holistic view of health is consistent with the view that experiences in a specific domain of self (i.e., physical self) has potential implications for more global experiences like general self-evaluations (Bracken, 1992), and vice versa.

**Moderators of the Associations Between Body Image and Psychological Well-Being**

The associations between body image and well-being were expected to vary (be moderated by) according to an individual’s age and social role involvement (hypothesis 2). The findings of multivariate analyses revealed this hypothesis was not supported. Although it is possible that women who are older and occupy a range of social roles may have resolved the association between body image and psychological functioning, neither being older nor the occupancy of multiple social roles are crucial factors in the prediction of the association between body image and well-being. Rather, the extent to which experiences (body-related or not) at different stages of life have been evaluated and integrated into an individual’s personal view of self appears to contribute to the resolution of different aspects of self (physical and psychological). For example, a participant’s reflection on changes to her well-being over time highlighted that her ability to maintain positive well-being was impacted by the combination of adjusting to physical fatigue that accompanied aging and simultaneously learning to manage (new) multiple social roles (e.g., mother, wife, friend), which required repeatedly
re-evaluating her priorities and time management. That is, the qualitative data indicated that variations in attitudes toward self, including one’s body and well-being, were less likely to be the direct result of chronological age and social role occupancy, so much as the integration of one’s experiences and lessons learned over time into a coherent sense of self.

Although cross-sectional data were used in this study to test for potential moderating effects of age and social role involvement using quantitative analyses, the qualitative findings highlighted the temporal aspects (i.e., life experience and self-development/growth over time) of these associations. For example, a qualitative finding of the current study indicated that well-being was shaped by learning self-worth and developing autonomy over time. The development of self described by participants occurred through learning to recognise and prioritise personal needs within the context of managing one’s multiple roles. That is, the accumulation of lessons learned from day-to-day experiences shaped their current views of self and reflections of well-being; and as one participant commented, these reflections were formed over the period of a decade. Thus, longitudinal data may assist future research efforts in clarifying the temporal associations between body image, well-being and life experience among women throughout adulthood. However, consistent with the notion that ‘life experience’ represents a qualitative aspect well-being evaluations (Keyes & Ryff, 1999), qualitative analyses may be of benefit in future research evaluating the relative influence of ‘life experience’ on the associations between body image and well-being.
What does this Research Contribute to our Understanding of the Association Between Body Image and Psychological Well-Being?

Strengths of this thesis were the large number of body image variables considered, spanning both appearance and functional aspects of body image attitudes, and the use of a model of well-being that provides a measure of psychological features characteristic of positive functioning. The employment of these measures and models allowed for a systematic investigation of the association between body image and women’s psychological functioning, and the intrapersonal strengths that may buffer women from developing/maintaining body image concerns and low quality of life.

The findings of the current study add to the body image and well-being literature in several ways. Among the numerous body image variables hypothesised to be associated with women’s well-being, personal health and fitness evaluation was found to broadly predict multiple aspects of positive psychological functioning among adult women. This is a significant finding considering that appearance-related attitudes are often the focus of investigations on body image in women. Unmet standards of physical ideals, a measure frequently used interchangeably with measures of body dissatisfaction in the literature, did not significantly predict any aspect of well-being among adult women. Furthermore, appearance-related attitudes predicted a limited range of well-being dimensions, and did not contribute to explaining a sense of meaning, personal growth or positive relationships in the lives of adult women. These findings suggest that when assessed in isolation, researchers may overvalue the relative contribution of appearance-related attitudes to adult women’s psychological well-being.
The findings of the current study extend previous research by demonstrating the pertinence of perceived health and fitness to the well-being of young and middle aged women. Unlike older adults (i.e., > 60 years) who experience high prevalence rates of physical illness (Chrisler, 2007; Cigolle et al., 2007), a focus on, and attending to physical illness was not associated with any aspect of well-being in the current sample of women aged 18–59 years. Rather, self-rated body competence (health and fitness) promoted positive psychological functioning for the adult women in this study. The recognition of, and appreciation for the body’s instrumental qualities formed part of the participants’ positive narrative around body competence. Feeling in good health (fit and healthy) may facilitate the performance of various roles occupied by young and middle aged women and promote participation in meaningful activity.

An important contribution of the current study to the broader literature on well-being among women is the significant amount of variance explained in environmental mastery by body image attitudes. This finding is significant because there has been limited research on body image and features of positive psychological functioning, other than self-esteem/ self-acceptance. The findings of the current study suggest that low investment in appearance, both cognitively and behaviourally, is conducive to women’s sense of mastery, perhaps because desiring to care for, and/ or actually caring for one’s appearance are viewed as instrumental to appearance-contingent self-definition/ evaluation. In other words, for the young to middle aged women in this study, body image attitudes for which women endorse independent of sociocultural ideals and perform in a self-governed manner, may promote a sense of empowerment and competence within their environment.
A novel and unexpected finding in the current study was that age and social role involvement did not directly moderate the association between body and well-being in the expected direction. However, the qualitative findings indicated that these variables may operate indirectly, over time, through the complex integration of age-related and role-related experiences into a coherent sense of self, and in turn shapes how an individual resolves/reflects on subsequent body image and well-being issues. This finding supports the contention that investigating the effects of single demographic variables, such as chronological age and marital status, on women’s well-being is too simplistic and further longitudinal studies, using mixed method approaches (i.e., quantitative and qualitative) are needed.

Finally, the inclusion of a qualitative study to this research project provided rich insights into women’s views and experiences of body image and well-being. Noteworthy were the different orientations regarding body image and well-being between women with high (positive) or low (maladaptive) body image/well-being. Unlike positively functioning women, for whom body image and well-being were viewed as multiple aspects of overall mental health, women with low body/well-being adopted a more linear conceptualisation of the association between these constructs. As a result, positive functioning was contingent on having self-confidence or having a positive body image. The pursuit of a positive body image may be difficult for these women with low body image/well-being, given that their body image focus centred on appearance evaluations and significant behavioural investment in appearance without considering the relative importance of appearance in relation to other aspects of the body, such as body function. Furthermore, whereas the capacity for positive
self-appraisals was considered characteristic of optimally functioning individuals, women with low body image/well-being described being unable to maintain the effort required to refrain from being self-critical, particularly in relation to their body. Indeed, poor/limited coping strategies, particularly with emotion regulation, differentiated women with high or low body image/well-being in relation to resolving past and current life challenges or adversities. While autonomy and positive relationships were described as intra- and inter-personal resources from which women with high body image/well-being drew upon in managing such adversity, women with low body image/well-being generally lacked these resources.

**Clinical Implications**

Understanding how different aspects of body image influence women’s psychological well-being provides context for how women perform and engage in the world on a day-to-day basis and a background for understanding their current state of well-being in different psychological domains. The combined present and existing research findings have a number of practical implications for working with women in a therapeutic setting.

Helping women evaluate and reflect on functional aspects of the body and its relative importance to engaging in meaningful activities could help highlight areas of personal strength and an appreciation for the body. Utilising a therapeutic approach that is values-guided and incorporates acceptance as a skill that can be learned (e.g., Acceptance and Commitment Therapy; Pearson, Heffner, & Follette, 2010) may provide women with a more holistic conceptualisation of self and mental health that is not contingent on appearance. Once values are assessed, they can be incorporated into therapeutic goals and treatment planning.
Other interventions in a therapy setting could include: helping women build a repertoire of emotion regulation techniques in order to develop resilience against challenges and adversity (including body-related concerns); and, helping women develop a sense of individuation and cultivate healthy relationships that are perceived as supportive. It should be noted that these targets of intervention are based on the findings of research among young and middle aged women, and may not be relevant to older adult women. The relative utility of such interventions need to be evaluated and modified according to the needs of the presenting individual.

**Limitations**

Although the studies presented in this thesis extend past research by considering a range of body image constructs and indicators of positive psychological functioning among young to middle aged women, several limitations must be noted. As the present study relied on a self-selected sampling method, women with more extreme levels of maladaptive (low) or positive (high) body image and well-being may have chosen not to participate in the study. While women with clinical levels of body dissatisfaction, such as those with an eating disorder, were purposefully screened for and excluded from the present study, it is possible that community-dwelling women experience higher or lower levels of body image and well-being, and the inclusion of such participants may impact the strength and/ or pattern of associations between these constructs.

Adult women who participated in this study were younger than 60 years of age, thereby limiting the generalisability to populations in older adulthood, and limiting the understanding of how body image attitudes are related to psychological well-being during this late stage of adulthood. Combined with the
findings of previous research on older adults (Reboussin et al., 2000; Waddell & Jacobs-Lawson, 2010), the findings of the current study suggest that body function may continue to take precedence over other aspects of body image in relation to well-being as women age. However, further research is needed to validate existing body image measurements among older women, and to develop new measures that are sensitive to the issues among this group of adults (Roy & Payette, 2012).

In some analyses, the current sample was divided into four age groups on the basis of sample characteristics, which potentially diminishes the diversity that exists within and among these categories. Future researchers exploring the association between body image and well-being across the adult lifespan should consider theoretically developed stages of adult development when selecting appropriate age categories to investigate. Smaller, more homogeneous groups may demonstrate differences in the development and experience of body image, and highlight specific associations of body image and well-being at different ages.

An important methodological limitation of the present study was its cross-sectional design. While a number of relationships between the body image and well-being variables were found, no statements about causality can be made. It was also not possible to state how the associations between body image and well-being changes over time. Evidence for change in women’s experience of body image and well-being were clear from the qualitative findings. Additional longitudinal studies are needed to further examine the possible pathways and mechanisms underlying these relationships over time.
Directions for Future Research

As the present study is one of the first empirical investigations of the associations between multiple aspects of body image attitudes, including aspects of appearance and function, and all six of Ryff’s dimensions of psychological well-being, replication of these preliminary findings is required. Further exploration of those dimensions of well-being associated with adaptive aspects of body image attitudes, such as body acceptance and appreciation, is also needed. An important and largely under-researched area is promoting well-being and positive body image among adult women.

More consideration needs to be given to the meaning of body image in the lives of adult women. Although it is clear that body image attitudes are strongly associated with quality of life and positive functioning for women in adulthood, little is known about how women’s subjective health and fitness may promote positive functioning. Interestingly, in this research, subjective health and fitness represented attitudes about appearance as well as functional attitudes; however this variable loaded negatively onto the appearance factor and positively on the function factor. This suggests that for young to middle aged women, when health and fitness is viewed as synonymous with appearance, it is unlikely to promote positive psychological functioning. Conversely, when evaluations of one’s health and fitness are viewed as independent of sociocultural ideals of appearance, and instead seen as instrumental to daily functioning, this may promote the well-being of adult women.

The meaning of perceived health and fitness also needs careful attention to better understand both the antecedents and consequences of this physical aspect of self for older adult women (i.e., > 60 years). Sociocultural ideals of ‘successful
aging’ are portrayed as women remaining youthful and active into old age (Knight, 2012). Promoting a focus on body function may be detrimental to the well-being of older adults as the instrumental aspects of function (i.e., metabolism, mobility, stamina and so on) may decrease with developmental changes to the body. Longitudinal data may help to understand variability in how individuals manage and respond to physical changes over time and how this relates to how well they function in different aspects of their lives. For example, longitudinal data could further address the questions that have arisen from this thesis, such as: do women who maintain positive health and fitness evaluations show a more positive trajectory in terms of well-being and quality of life because they are appreciative of/attribute importance to functional aspects of the body? Does the development of physical illness, disease or a decline in functional ability affect the well-being and quality of life of women as they age?

The current study was limited in scope by not investigating in detail the prediction of body image by well-being. Previous research has been limited and inconsistent with regard to the direction of associations between body image and well-being in adult women (e.g., Baker & Gringart, 2009; Mellor et al., 2010; Wardle et al., 2002). However, the findings of structural equation modeling in this study provide statistical evidence that the associations between these constructs operate bi-directionally among young to middle aged women. Indeed, there is evidence to suggest that aspects of psychological well-being act as moderators of resilience among adult and aging populations (Huppert, 2009). Further investigating the direction of relationships could provide information on potential pathways to the early prevention of body image concerns/low well-being, and the promotion of resilience in mental health.
Given the salience of age-related bodily changes on the adjustment to role transitions among participants’ qualitative descriptions, further qualitative and quantitative research is warranted in this area. Future research in this area may benefit from longitudinal studies that adopt lifespan and developmental theoretical frameworks. This would help determine how women’s experiences over time are integrated into a coherent sense of self, and how this then impacts on their experiences of body image and well-being as adults.


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Appendices
Appendix A: Multidimensional Body-Self Relations Questionnaire

INSTRUCTIONS:
The following pages contain a series of statements about how people might think, feel, or behave. You are asked to indicate the extent to which each statement pertains to you personally. Using the scale below (unless otherwise designated), indicate your answer by entering it to the left of the number of the statement. There are no right or wrong answers. Just give the answer that is most accurate for you.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Definitely disagree</td>
<td>Mostly disagree</td>
<td>Neither agree nor disagree</td>
<td>Mostly agree</td>
<td>Definitely agree</td>
</tr>
</tbody>
</table>

1. Before going out in public, I always notice how I look
2. I am careful to buy clothes that will make me look my best
3. I would pass most physical-fitness tests
4. It is important that I have superior physical strength
5. My body is sexually appealing
6. I am not involved in a regular exercise program
7. I am in control of my health
8. I know a lot about things that affect my physical health
9. I have deliberately developed a healthy lifestyle
10. I constantly worry about being or becoming fat
11. I like my looks just the way they are
12. I check my appearance in a mirror whenever I can
13. Before going out, I usually spend a lot of time getting ready
14. My physical endurance is good
15. Participating in sports is unimportant to me
16. I do not actively do things to keep physically fit
17. My health is a matter of unexpected ups and downs
18. Good health is one of the most important things in my life
19. I don’t do anything that I know might threaten my health
20. I am very conscious of even small changes in my weight
21. Most people would consider me good looking
22. It is important that I always look good
23. I use very few grooming products
24. I easily learn physical skills
25. Being physically fit is not a strong priority in my life
26. I do things to increase my physical strength
27. I am seldom physically ill
28. I take my health for granted
29. I often read books and magazines that pertain to health
30. I like the way I look without my clothes on
31. I am self-conscious if my grooming isn’t right
For the remainder of the items on this scale, use the response scale given with the item, and enter your answer in the space beside the item.

58. I have tried to lose weight by fasting or going on crash diets

59. I think I am:
60. From looking at me, most other people would think I am:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very underweight</td>
<td>Somewhat underweight</td>
<td>Normal weight</td>
<td>Somewhat overweight</td>
<td>Very overweight</td>
</tr>
</tbody>
</table>

61-69. Use this 1 to 5 scale to indicate how **dissatisfied or satisfied you are** with each of the following areas or aspects of your body:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very dissatisfied</td>
<td>Mostly dissatisfied</td>
<td>Neither satisfied nor dissatisfied</td>
<td>Mostly satisfied</td>
<td>Very satisfied</td>
</tr>
</tbody>
</table>

61. Face (facial features, complexion)
62. Hair (colour, thickness, texture)
63. Lower torso (buttocks, hips, thighs, legs)
64. Mid torso (waist, stomach)
65. Upper torso (breasts, shoulders, arms)
66. Muscle tone
67. Weight
68. Height
69. Overall appearance
Appendix B: Body Image Ideals Questionnaire

**INSTRUCTIONS:**
Each item on this questionnaire deals with a different physical characteristic. For each characteristic, think about how you would describe yourself as you actually are. Then think about how you wish you were. The difference between the two reveals how close you come to your personal ideal. In some instances, they may differ considerably. On part A of each item, you will rate how much you resemble your personal physical ideal by circling the number on the 0 to 3 scale. Your physical ideals may differ in how important they are to you, regardless of how close you come to having them. You may feel strongly that some ideals embody the way you want to look or to be. In other areas, your ideals may be less important to you. On part B of each item rate how important your ideal is to you by circling the number on the 0 to 3 scale.

<table>
<thead>
<tr>
<th>Part A: Ideal</th>
<th>Part B: Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My ideal height is:</td>
<td>How important to you is your ideal height?</td>
</tr>
<tr>
<td>0 = Exactly as I am</td>
<td>0 = Not important</td>
</tr>
<tr>
<td>1 = Almost as I am</td>
<td>1 = Somewhat important</td>
</tr>
<tr>
<td>2 = Fairly unlike me</td>
<td>2 = Moderately important</td>
</tr>
<tr>
<td>3 = Very unlike me</td>
<td>3 = Very important</td>
</tr>
<tr>
<td>2. My ideal skin complexion is</td>
<td>How important to you is your ideal skin complexion?</td>
</tr>
<tr>
<td>0 = Exactly as I am</td>
<td>0 = Not important</td>
</tr>
<tr>
<td>1 = Almost as I am</td>
<td>1 = Somewhat important</td>
</tr>
<tr>
<td>2 = Fairly unlike me</td>
<td>2 = Moderately important</td>
</tr>
<tr>
<td>3 = Very unlike me</td>
<td>3 = Very important</td>
</tr>
<tr>
<td>3. My ideal hair texture and thickness are:</td>
<td>How important to you are your ideal hair texture and thickness?</td>
</tr>
<tr>
<td>0 = Exactly as I am</td>
<td>0 = Not important</td>
</tr>
<tr>
<td>1 = Almost as I am</td>
<td>1 = Somewhat important</td>
</tr>
<tr>
<td>2 = Fairly unlike me</td>
<td>2 = Moderately important</td>
</tr>
<tr>
<td>3 = Very unlike me</td>
<td>3 = Very important</td>
</tr>
<tr>
<td>4. My ideal facial features (eyes, nose, ears, facial shape) are:</td>
<td>How important to you are your ideal facial features?</td>
</tr>
<tr>
<td>0 = Exactly as I am</td>
<td>0 = Not important</td>
</tr>
<tr>
<td>1 = Almost as I am</td>
<td>1 = Somewhat important</td>
</tr>
<tr>
<td>2 = Fairly unlike me</td>
<td>2 = Moderately important</td>
</tr>
<tr>
<td>3 = Very unlike me</td>
<td>3 = Very important</td>
</tr>
<tr>
<td>5. My ideal muscle tone and definition is:</td>
<td>How important to you is your ideal muscle tone?</td>
</tr>
<tr>
<td>0 = Exactly as I am</td>
<td>0 = Not important</td>
</tr>
<tr>
<td>1 = Almost as I am</td>
<td>1 = Somewhat important</td>
</tr>
<tr>
<td>2 = Fairly unlike me</td>
<td>2 = Moderately important</td>
</tr>
<tr>
<td>3 = Very unlike me</td>
<td>3 = Very important</td>
</tr>
<tr>
<td>Part A: Ideal</td>
<td>Part B: Importance</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>6. My ideal body proportions are:</td>
<td>How important are your ideal body proportions?</td>
</tr>
<tr>
<td>0 = Exactly as I am</td>
<td>0 = Not important</td>
</tr>
<tr>
<td>1 = Almost as I am</td>
<td>1 = Somewhat important</td>
</tr>
<tr>
<td>2 = Fairly unlike me</td>
<td>2 = Moderately important</td>
</tr>
<tr>
<td>3 = Very unlike me</td>
<td>3 = Very important</td>
</tr>
<tr>
<td>7. My ideal weight is:</td>
<td>How important to you is your ideal weight?</td>
</tr>
<tr>
<td>0 = Exactly as I am</td>
<td>0 = Not important</td>
</tr>
<tr>
<td>1 = Almost as I am</td>
<td>1 = Somewhat important</td>
</tr>
<tr>
<td>2 = Fairly unlike me</td>
<td>2 = Moderately important</td>
</tr>
<tr>
<td>3 = Very unlike me</td>
<td>3 = Very important</td>
</tr>
<tr>
<td>8. My ideal chest size is:</td>
<td>How important to you is your ideal chest size?</td>
</tr>
<tr>
<td>0 = Exactly as I am</td>
<td>0 = Not important</td>
</tr>
<tr>
<td>1 = Almost as I am</td>
<td>1 = Somewhat important</td>
</tr>
<tr>
<td>2 = Fairly unlike me</td>
<td>2 = Moderately important</td>
</tr>
<tr>
<td>3 = Very unlike me</td>
<td>3 = Very important</td>
</tr>
<tr>
<td>9. My ideal physical strength is:</td>
<td>How important to you is your ideal physical strength?</td>
</tr>
<tr>
<td>0 = Exactly as I am</td>
<td>0 = Not important</td>
</tr>
<tr>
<td>1 = Almost as I am</td>
<td>1 = Somewhat important</td>
</tr>
<tr>
<td>2 = Fairly unlike me</td>
<td>2 = Moderately important</td>
</tr>
<tr>
<td>3 = Very unlike me</td>
<td>3 = Very important</td>
</tr>
<tr>
<td>10. My ideal physical coordination is:</td>
<td>How important to you is your ideal physical coordination?</td>
</tr>
<tr>
<td>0 = Exactly as I am</td>
<td>0 = Not important</td>
</tr>
<tr>
<td>1 = Almost as I am</td>
<td>1 = Somewhat important</td>
</tr>
<tr>
<td>2 = Fairly unlike me</td>
<td>2 = Moderately important</td>
</tr>
<tr>
<td>3 = Very unlike me</td>
<td>3 = Very important</td>
</tr>
<tr>
<td>11. My ideal overall physical appearance is:</td>
<td>How important to you is your overall ideal physical appearance?</td>
</tr>
<tr>
<td>0 = Exactly as I am</td>
<td>0 = Not important</td>
</tr>
<tr>
<td>1 = Almost as I am</td>
<td>1 = Somewhat important</td>
</tr>
<tr>
<td>2 = Fairly unlike me</td>
<td>2 = Moderately important</td>
</tr>
<tr>
<td>3 = Very unlike me</td>
<td>3 = Very important</td>
</tr>
</tbody>
</table>
Appendix C: Body Image Behaviour Scale

**INSTRUCTIONS:**
Using the scale below, please indicate which response best describes **how often you currently do these behaviours.**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
<td>Usually</td>
<td>Always</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>I buy products that I hope will give me a better body</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>I wear clothes that hide the parts of my body I don’t like</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>I try hard to improve my body shape</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4.</td>
<td>I avoid physical contact with others</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5.</td>
<td>I wear clothes that will divert attention from my body shape or weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>I avoid wearing ‘revealing’ clothes, like shorts or bathing suits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>I exercise in order to get a better body</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>I avoid situations where people are likely to ‘check out’ my appearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>I try to eat only foods that will help me to improve my body shape or weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>I avoid discussions about weight and body shape with other people</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>11.</td>
<td>I try to make sure people can’t see what my body really looks like</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>I try not to go out socially with people whose bodies are much better than mine</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Appendix D: Situational Inventory of Body Image Dysphoria

INSTRUCTIONS:
At various times and in various situations, people may experience negative feelings about their own physical appearance. Such feelings include feelings of unattractiveness, physical self-consciousness, distress, or dissatisfaction with one or more aspects of one’s appearance. This questionnaire lists a number of situations and asks how often you have uncomfortable feelings about your physical appearance in each of these situations.

Think about times when you have been in each situation and indicate how often you’ve had negative feelings about your physical appearance in that situation. Use the 0 to 4 scale below to indicate HOW OFTEN you have such negative emotional experiences:

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Sometimes</td>
<td>Moderately often</td>
<td>Often</td>
<td>Always/ almost always</td>
</tr>
</tbody>
</table>

There may be situations on the list that you have not been in or that you avoid. For these situations, simply indicate how often you believe that you would experience negative emotions about your appearance if you were in the situation.

How often?

1. At social gatherings where I know few people
2. When I look at myself in the mirror
3. When people see me before I’ve “fixed up”
4. When I am with attractive persons of my sex
5. When I am with attractive persons of the other sex
6. When someone looks at part of my appearance that I dislike
7. When I look at my nude body in the mirror
8. When I am trying on new clothes at the store
9. After I have eaten a full meal
10. When I see attractive people on television or in magazines
11. When I get on the scale to weigh
12. When anticipating or having sexual relations
13. When I’m already in a bad mood about something else
14. When the topic of conversation pertains to physical appearance
15. When someone comments unfavourably on my appearance
16. When I see myself in a photograph or videotape
17. When I think about what I wish I looked like
18. When I think about how I may look in the future
19. When I am with a certain person
20. During certain recreational activities
Appendix E: The Physical Appearance Comparison Scale

INSTRUCTIONS:

Using the following scale, please select a number that comes closest to how you feel:

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
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<tr>
<td>2</td>
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<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

Never | Seldom | Sometimes | Often | Always |

1. At parties or other social events, I compare my physical appearance to the physical appearance of others
2. The best way for a person to know if they are overweight or underweight is to compare their figure to the figure of others
3. At parties or other social events, I compare how I am dressed to how other people are dressed
4. Comparing your “looks” to the “looks” of others is a bad way to determine if you are attractive or unattractive
5. In social situations, I sometimes compare my figure to the figures of other people
Appendix F: The Body Image Quality of Life Inventory

INSTRUCTIONS:
Different people have different feelings about their physical appearance. These feelings are called “body image”. Some people are generally satisfied with their looks, while others are dissatisfied. At the same time, people differ in terms of how their body-image experiences affect other aspects of their lives. Body image may have positive effects, negative effects, or no effect at all. Listed below are various ways that your own body image may or may not influence your life. For each item, indicate how much your feelings about your appearance affect that aspect of your life. Before answering each item, think carefully about the answer that is most accurate about your body image usually affects you.

-3    -2    -1    0    +1    +2    +3

<table>
<thead>
<tr>
<th>Very negative effect</th>
<th>Moderate negative effect</th>
<th>Slight negative effect</th>
<th>No effect</th>
<th>Slight positive effect</th>
<th>Moderate positive effect</th>
<th>Very positive effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My basic feelings about myself – feelings of personal adequacy and self-worth</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2. My feelings about my adequacy as a woman – feelings of femininity</td>
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</tr>
<tr>
<td>3. My interactions with people of my own sex</td>
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<tr>
<td>4. My interactions with people of the other sex</td>
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</tr>
<tr>
<td>5. My experiences when I meet new people</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>6. My experiences at work or at school</td>
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<tr>
<td>7. My relationships with friends</td>
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<tr>
<td>8. My relationships with family members</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>9. My day-to-day emotions</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. My satisfaction with my life in general</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>11. My feelings of acceptability as a sexual partner</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>12. My enjoyment of my sex life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. My ability to control what and how much I eat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. My ability to control my weight</td>
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<td>15. My activities for physical exercise</td>
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<td>16. My willingness to do things that might call attention to my appearance</td>
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<td>17. My daily “grooming” activities (i.e., getting dressed and physically ready for the day)</td>
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<tr>
<td>18. How confident I feel in my everyday life</td>
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<tr>
<td>19. How happy I feel in my everyday life</td>
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</tbody>
</table>
Appendix G: Scales of Psychological Well-Being

**INSTRUCTIONS:**
The following set of questions deal with how you feel about yourself and your life. You are asked to indicate your agreement or disagreement with each statement. Please remember that there are no right or wrong answers.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree somewhat</th>
<th>Disagree slightly</th>
<th>Agree slightly</th>
<th>Agree somewhat</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am not afraid to voice my opinions, even when they are in opposition of most people</td>
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<tr>
<td>2. My decisions are not usually influenced by what everyone else is doing</td>
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<td>3. I tend to worry about what other people think of me</td>
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<td>4. Being happy with myself is more important to me than having others approve of me</td>
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<td>5. I tend to be influenced by people with strong opinions</td>
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<td>6. I have confidence in my opinions, even if they are contrary to the general consensus</td>
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<tr>
<td>7. It’s difficult for me to voice my own opinions on controversial matters</td>
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<td>8. I often change my mind about decisions if my friends or family disagree</td>
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<tr>
<td>9. I judge myself by what I think is important, not by the values of what others think is important</td>
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<tr>
<td>10. In general, I feel I am in charge of the situation in which I live</td>
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<tr>
<td>11. The demands of everyday life often get me down</td>
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<tr>
<td>12. I do not fit very well with the people and the community around me</td>
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<tr>
<td>13. I am quite good at managing the many responsibilities of my daily life</td>
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<td>14. I often feel overwhelmed by my responsibilities</td>
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<td>15. I generally do a good job of taking care of my personal finances and affairs</td>
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<td>16. I am good at juggling my time so that I can fit everything in that needs to get done</td>
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<td>17. I have difficulty arranging my life in a way that is satisfying to me</td>
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<tr>
<td>18. I have been able to build a home and a lifestyle for myself that is much to my liking</td>
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<tr>
<td>19. I am not interested in activities that will expand my horizons</td>
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<td>20. I don’t want to try new ways of doing things – my life is fine the way it is</td>
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<tr>
<td>21. I think it is important to have new experiences that challenge how you think about yourself and the world</td>
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<td>22. When I think about it, I haven’t really improved much as a person over the years</td>
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<td>23. I have the sense that I have developed a lot as a person over time</td>
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<td>24. I do not enjoy being in new situations that require me to change my old familiar ways of doing things</td>
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<tr>
<td>Strongly disagree</td>
<td>Disagree somewhat</td>
<td>Disagree slightly</td>
<td>Agree slightly</td>
<td>Agree somewhat</td>
<td>Strongly agree</td>
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<tr>
<td>25. For me, life has been a continuous process of learning, changing and growth</td>
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<tr>
<td>26. I gave up trying to make big improvements or changes in my life a long time ago</td>
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<tr>
<td>27. There is truth to the saying that you can’t teach an old dog new tricks</td>
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<tr>
<td>28. Most people see me as loving and affectionate</td>
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<td>29. Maintaining close relationships has been difficult and frustrating for me</td>
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<tr>
<td>30. I often feel lonely because I have few close friends with whom to share my concerns</td>
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<tr>
<td>31. I enjoy personal and mutual conversations with family members or friends</td>
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<td>32. I don’t have many people who want to listen when I need to talk</td>
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<tr>
<td>33. It seems to me that most other people have more friends than I do</td>
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<tr>
<td>34. People would describe me as a giving person, willing to share my time with others</td>
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<tr>
<td>35. I have not experienced many warm and trusting relationships with others</td>
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<td>36. I know that I can trust my friends, and they know they can trust me</td>
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<tr>
<td>37. I live life one day at a time and don’t really think about the future</td>
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<td>38. I tend to focus on the present, because the future nearly always brings me problems</td>
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<td>39. My daily activities often seem trivial and unimportant to me</td>
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<td>40. I don’t have a good sense of what it is I’m trying to accomplish in life</td>
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<td>41. I used to set goals for myself, but that now seems like a waste of time</td>
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<tr>
<td>42. I enjoy making plans for the future and working to make them a reality</td>
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<tr>
<td>43. I am an active person in carrying out the plans I set for myself</td>
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<td>44. Some people wander aimlessly through life, but I am not one of them</td>
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<tr>
<td>45. I sometimes feel as if I’ve done all there is to do in life</td>
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<td>46. When I look at the story of my life, I am pleased with how things have turned out</td>
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<tr>
<td>47. In general, I feel confident and positive about myself</td>
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<td>48. I feel like many of the people I know have gotten more out of life than I have</td>
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<td>49. I like most aspects of my personality</td>
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<td>50. I made some mistakes in the past, but I feel that all in all everything has worked out for the best</td>
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<td>51. In many ways, I feel disappointed about my achievements in life</td>
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<tr>
<td>52. My attitude about myself is probably not as positive as most people feel about themselves</td>
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<tr>
<td>53. The past had its ups and downs, but in general, I wouldn’t want to change it</td>
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<td>54. When I compare myself to friends and acquaintances, it makes me feel good about who I am</td>
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</tbody>
</table>
Appendix H: Deakin University Human Ethics Advisory Group Approval

Human Ethics Advisory Group – Faculty of Health, Medicine, Nursing and Behavioural Sciences
221 Burwood Highway,
Burwood VIC 3125 Australia
Telephone +613 9251 7174
Facsimile +613 9251 7425

Memorandum

<table>
<thead>
<tr>
<th>To</th>
<th>Professor Marita McCabe</th>
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<td></td>
<td>School of Psychology</td>
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</tbody>
</table>

| From                | Secretary – HEAG-H      |
|                     | Faculty of Health       |

| Subject             | HEAG-H XX_11: The association between body image and psychological well-being in adult women |

Date 18 October, 2011

Approval has been given for Professor Marita McCabe, School of Psychology, to undertake this project for a period of 3 years from 18 October, 2011.

The approval given by the Deakin University HEAG - H is given only for the project and for the period as stated in the approval. It is your responsibility to contact the Secretary immediately should any of the following occur:

- Serious or unexpected adverse effects on the participants
- Any proposed changes in the protocol, including extensions of time
- Any events which might affect the continuing ethical acceptability of the project
- The project is discontinued before the expected date of completion
- Modifications that have been requested by other Human Research Ethics Committees

In addition you will be required to report on the progress of your project at least once every year and at the conclusion of the project. Failure to report as required will result in suspension of your approval to proceed with the project.

HEAG-H may need to audit this project as part of the requirements for monitoring set out in the National Statement on Ethical Conduct in Human Research (2007). An Annual Project Report Form can be found at http://www.deakin.edu.au/research/admin/ethics/human/forms/ which you will be required to complete in relation to this research. This should be completed and returned to the Administrative Officer to the HEAG-H, Dean’s office, Faculty of Health, Burwood campus by Tuesday 22nd November, 2011 and when the project is completed.

Good luck with the project!

Signature Redacted by Library

Steven Sawyer
Secretary
HEAG-H
Appendix I: Study Advertisement

you are invited to participate in... a research study exploring how adult women experience their bodies and feel about themselves in general

can I participate? We are seeking females aged 18 years or older

what is involved?

Study 1

* Complete a packet of questionnaires regarding body image and well-being
* Questionnaires can be completed online (see link below) or via hard copy (contact researcher to obtain a copy), and should take 45 – 60 minutes to complete.

Study 2

* Women who want to give more detailed information about their experiences and opinions, may be selected to participate in the follow-up study.
* This can be completed at your convenience online (in the form of short-answers) or over the telephone, and will take no longer than 45 minutes, depending on how much you’d like to share.
* If you would like to participate in Study 2, please indicate this on the consent form (for those who receive a hard copy) or tick the appropriate box (for those who complete the online survey).

You are free to participate in Study 1 only! Participation in both studies is voluntary and you can withdraw whenever you like.

interested?

To complete the survey go to: http://www.deakin.edu.au/psychology/research/rachelchung/

For further information, or to participate in this study, please contact Rachel Chung:

Email: rachung@deakin.edu.au

This research project has been approved by the Deakin University Human Ethics Advisory Group (Project Number: HEAG-H 125_2011)
Appendix J: List of websites contacted to advertise the study

Table J1

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Website address</th>
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</thead>
<tbody>
<tr>
<td><strong>Australian websites</strong></td>
<td></td>
</tr>
<tr>
<td>*Women’s Forum</td>
<td><a href="http://www.womensforumaustralia.org/">http://www.womensforumaustralia.org/</a></td>
</tr>
<tr>
<td>Australia</td>
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<tr>
<td>East</td>
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<tr>
<td>Women’s Health in the North</td>
<td><a href="http://www.whin.org.au/">http://www.whin.org.au/</a></td>
</tr>
<tr>
<td><strong>International websites</strong></td>
<td></td>
</tr>
<tr>
<td>About-Face</td>
<td><a href="http://www.about-face.org/">http://www.about-face.org/</a></td>
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<tr>
<td>Adios Barbie</td>
<td><a href="http://www.adiosbarbie.com/">http://www.adiosbarbie.com/</a></td>
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<tr>
<td>Betty</td>
<td><a href="http://www.bettyconfidential.com/">http://www.bettyconfidential.com/</a></td>
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<tr>
<td>Confidential.com</td>
<td></td>
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<tr>
<td>BizzieLiving</td>
<td><a href="http://www.bizzieliving.com/">http://www.bizzieliving.com/</a></td>
</tr>
<tr>
<td>Count me in</td>
<td><a href="http://www.makemineamillion.org/">http://www.makemineamillion.org/</a></td>
</tr>
<tr>
<td>Divine Caroline</td>
<td><a href="http://www.divinecaroline.com/">http://www.divinecaroline.com/</a></td>
</tr>
<tr>
<td>Home-based</td>
<td><a href="http://www.hbwm.com/">http://www.hbwm.com/</a></td>
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<tr>
<td>working moms</td>
<td></td>
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<tr>
<td>Inquisitive Mind</td>
<td><a href="http://beta.in-mind.org/online-research">http://beta.in-mind.org/online-research</a></td>
</tr>
<tr>
<td>Lab-United</td>
<td><a href="http://www.w-lab.de/lab-united/submit.php">http://www.w-lab.de/lab-united/submit.php</a></td>
</tr>
<tr>
<td>Mommy tracked</td>
<td><a href="http://www.mommytracked.com/">http://www.mommytracked.com/</a></td>
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<tr>
<td>My Body My Image</td>
<td><a href="http://mybodymyimage.com/">http://mybodymyimage.com/</a></td>
</tr>
<tr>
<td>Our Bodies</td>
<td><a href="http://www.ourbodiesourselves.org">http://www.ourbodiesourselves.org</a></td>
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<tr>
<td>Ourselves</td>
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</tbody>
</table>
*Psychological Research on the Net
http://psych.hanover.edu/research/exponnet.html

*Social Psychology Network
http://www.socialpsychology.org/addstudy.htm

Society for Women’s Health Research
http://www.womenshealthresearch.org/site/PageServer?pagenamctora

Blog pages

Big Fat Deal http://www bfdblog.com/
Care.com Sheila’s Blog http://blog.care.com/

Fat chicks rule http://fatchicksrule.blogs.com/fat_chicks_rule/

From the gen y perspective http://www.emilyjasper.com/

Jane has a job http://www.janehasajob.com/

Jezebel http://jezebel.com/

Lindsey Pollak http://www.lindseypollak.com/

Luvin’ My Curves http://www.luvinmycurves.com/

Moms Rising http://www.momsrising.org/

*Our Bodies Ourselves
http://www.ourbodiesourselves.org/default.asp

Parents Connect http://www.parentsconnect.com/parents/your-life/

Peak 313 Fitness http://peak313.com/

Savvy Miss http://www.savvymiss.com/body-spirit.html

Self http://www.self.com/health

She Takes on the World http://www.shetakesontheworld.com/

Women Living Well ministries http://womenlivingwell.org/blogs-i-love/

* Denotes websites that agreed to display a link to the questionnaires
Table J2

List of Social Media Websites that Displayed URL Link to Questionnaires

<table>
<thead>
<tr>
<th>Name of Page</th>
<th>Website address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everyday Health</td>
<td><a href="https://www.facebook.com/everydayhealth">https://www.facebook.com/everydayhealth</a></td>
</tr>
<tr>
<td>Creating Well-Being</td>
<td><a href="https://www.facebook.com/4creatingwellbeing">https://www.facebook.com/4creatingwellbeing</a></td>
</tr>
<tr>
<td>Deakin University</td>
<td><a href="https://www.facebook.com/DeakinUniversity">https://www.facebook.com/DeakinUniversity</a></td>
</tr>
<tr>
<td>Miss Representation</td>
<td><a href="https://www.facebook.com/MissRepresentationCampaign">https://www.facebook.com/MissRepresentationCampaign</a></td>
</tr>
<tr>
<td>Adios Barbie</td>
<td><a href="https://www.facebook.com/pages/Adios-Barbie/25567278752">https://www.facebook.com/pages/Adios-Barbie/25567278752</a></td>
</tr>
<tr>
<td>Any-Body</td>
<td><a href="https://www.facebook.com/pages/Any-Body/110917209795">https://www.facebook.com/pages/Any-Body/110917209795</a></td>
</tr>
<tr>
<td>Body Gossip</td>
<td><a href="https://www.facebook.com/bodygossip">https://www.facebook.com/bodygossip</a></td>
</tr>
<tr>
<td>Beautiful You</td>
<td><a href="https://www.facebook.com/pages/Beautiful-You/138233422368">https://www.facebook.com/pages/Beautiful-You/138233422368</a></td>
</tr>
<tr>
<td>The Wellness of Women Clinic</td>
<td><a href="https://www.facebook.com/pages/The-Wellness-of-Women-Clinic/218800151480524">https://www.facebook.com/pages/The-Wellness-of-Women-Clinic/218800151480524</a></td>
</tr>
<tr>
<td>Fit and Fabulous- supporting health and positive body image</td>
<td><a href="https://www.facebook.com/fitfabulous.supporting.health.positive.bodyimage">https://www.facebook.com/fitfabulous.supporting.health.positive.bodyimage</a></td>
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<tr>
<td>FASHION FASHION FASHION</td>
<td><a href="https://www.facebook.com/pages/FASHION-FASHION-FASHION/346427549922">https://www.facebook.com/pages/FASHION-FASHION-FASHION/346427549922</a></td>
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<td>YOGA</td>
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<td>Yoga</td>
<td><a href="https://www.facebook.com/CostaRicaYoga">https://www.facebook.com/CostaRicaYoga</a></td>
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<tr>
<td>NCAA Women's Basketball</td>
<td><a href="https://www.facebook.com/NCAAWomensBasketball">https://www.facebook.com/NCAAWomensBasketball</a></td>
</tr>
<tr>
<td>Craft Couture</td>
<td><a href="https://www.facebook.com/CraftCouture">https://www.facebook.com/CraftCouture</a></td>
</tr>
<tr>
<td>Cooking Light magazine</td>
<td><a href="https://www.facebook.com/CookingLight">https://www.facebook.com/CookingLight</a></td>
</tr>
<tr>
<td>Body and Soul Clothing</td>
<td><a href="https://www.facebook.com/bodyandsoulclothing">https://www.facebook.com/bodyandsoulclothing</a></td>
</tr>
<tr>
<td>International</td>
<td></td>
</tr>
<tr>
<td>Bath &amp; Body Works</td>
<td><a href="https://www.facebook.com/bathandbodyworks">https://www.facebook.com/bathandbodyworks</a></td>
</tr>
<tr>
<td>360 fitness Club</td>
<td><a href="https://www.facebook.com/360FitnessClub">https://www.facebook.com/360FitnessClub</a></td>
</tr>
</tbody>
</table>
Appendix K: Landing Page for Online Survey

Researchers at Deakin University are conducting a study looking at women’s body image and psychological well-being. The aim of the study is to better understand how women’s experiences of their body may be related to their sense of well-being.

We are seeking any woman aged 18+

The questionnaire will ask you about how you feel about your body, some of the behaviours you do related to your body, and how you feel about yourself in general. The questionnaire is completed online so you can do it whenever suits you and should take no more than 45-60 minutes to complete.

If you are interested in completing the questionnaire please click on the link below.

If you would like to offer some more detailed answers about your experiences, you may like to participate in the follow-up study. If you are selected to participate in the follow-up study, it will involve providing some short answers to questions about your body image and well-being, and give you the opportunity to freely express your opinions on the topic. The questions for the follow-up study can also be completed online, but you will be contacted to when these questions are available. Please indicate your name and preferred contact details (email or phone) if you would be interested in participating in the follow-up study.
Appendix L: Plain Language Statement for Participants (Study 1)

PLAIN LANGUAGE STATEMENT

TO: Participants of Study 1

Date: 1st October, 2011

Full Project Title: Investigation into the association between body image and psychological well-being in adult women.

Principal Researcher: Professor Marita McCabe

Student Researcher: Rachel Chung

This information is for you to keep. If you have any questions about the information outlined in this Plain Language Statement please do not hesitate to ask the researchers responsible for this study. Further contact details are presented at the end of this paper.

Your Consent

You are invited to take part in this research project. This Plain Language Statement contains detailed information about the research project. Its purpose is to explain to you as openly and clearly as possible all the procedures involved in this project so that you can make a fully informed decision as to whether you would like to participate. Please read this Plain Language Statement carefully. Feel free to ask questions about any information in the document. Also feel free to discuss the project with a relative or friend or your local health worker.

Once you understand what the project is about and if you agree to take part in it, you will be asked to complete the enclosed questionnaire. Completing and returning the questionnaire is considered to be your consent for participating in Study 1 of the research project.

Note: Further information about what is involved in Study 1 is outlined below. If you decide to participate in Study 1, you do not have to participate in Study 2.

Purpose and Background

The purpose of Study 1 is to gather information on adult women’s experiences of their bodies and how they feel about themselves in general. This information will be used to help researcher Rachel Chung obtain a Doctorate of Psychology (Clinical). You are invited to participate in this research project because you are a woman aged 18 years or above.

What does the research involve?

Participating in Study 1 will involve taking some time to complete a packet of questionnaires on the topic of body image and how you feel about yourself (personal well-being). Some of the questions will ask you to indicate the extent to which you agree with a statement about your body image; for example, “I like my looks just the way they are” (definitely disagree, mostly disagree, mostly agree, definitely agree). Other questions will ask you indicate the extent to which you
agree with a statement about your well-being; for example, “Being happy with myself is more important to me than having others approve of me”.

The questionnaires can be completed at your own convenience and will take no longer than 45 to 60 minutes to complete. When you complete the questionnaires, you will be asked to mail the packet in a self-addressed envelope (no stamp required) to the primary researchers at Deakin University.

**Potential benefits**

The main potential benefit of participating in the study will be to increase our understanding of the association between body image and psychological well-being in adult women. Your personal experiences will help advance the knowledge in this area and may help to improve women’s experiences in the future.

**Potential risks**

The completion of this study may result in increased self-awareness regarding your attitudes and feelings about your body, yourself, and your life. For some individuals, this self-awareness may produce momentary discomfort. However, no considerable adverse effects to your health or well-being are expected. If you do participate and find that you are uncomfortable, overly worried about your responses to any of the questionnaire items, or if you find participation in the project is distressing, you should contact Lifeline on 13 11 14.

**Privacy and Confidentiality**

Any information gained in this study is strictly confidential: your answers will not be revealed to anyone except the primary researchers at Deakin University. Once the completed questionnaires have been received, and any information that identifies yourself, such as your name, will be replaced with a code. Your personal information (e.g., name and phone number) and the corresponding code will only be kept if you agree to participate in Study 2 (see enclosed Plain Language Statement, Study 2), otherwise it will be deleted.

Information obtained during the course of this study will be stored in locked cabinets (for paper copies or audio tapes) or on password accessible computers, for a minimum of six years. Access to this information will only be given to researchers involved in this project. After six years, the information will be deleted from the computer and audio tapes, and paper copies shredded.

In the event that this study is published, all information provided about individuals will be anonymous and unidentifiable. All measures will be taken to ensure maximum confidentiality and protection of privacy.

In accordance with the *Freedom of Information Act* 1982 (Vic), you have the right to access and to request information held about you by Deakin University.

**Results of Project**

Please contact us if you would like a summary of the findings to be sent to you at no cost.

**Participation is Voluntary**

Participation in any research project is voluntary. **If you do not wish to take part you are not obliged to do so.** If you decide to take part and later change your mind, you are free to withdraw from the project at any stage. Any information obtained from you to date will not be used. Your decision whether to take part or not to take part, or to take part and then withdraw, will not affect your relationship with Deakin University.

Before you make your decision, a member of the research team (Rachel Chung) will be available to answer any questions you have about the research project. You can ask for any information you want. Please complete and return the questionnaires only after you have had a chance to ask your questions and have received satisfactory answers.
If you decide to withdraw from Study 1, please do not return your packet of questionnaires.

**Ethical Guidelines**

This project will be carried out according to the *National Statement on Ethical Conduct in Human Research* (2007) produced by the National Health and Medical Research Council of Australia. This statement has been developed to protect the interests of people who agree to participate in human research studies.

The ethics aspects of this research project have been approved by the Human Research Ethics Committee of Deakin University.

**Complaints**

If you have any complaints about any aspect of the project, the way it is being conducted or any questions about your rights as a research participant, then you may contact: The Manager, Office of Research Integrity, Deakin University, 221 Burwood Highway, Burwood Victoria 3125, Telephone: 9251 7129, Facsimile: 9244 6581; research-ethics@deakin.edu.au

Please quote project number HEAG-H 125/2011

**Costs/ Payments**

There are no costs or payments associated with participation in this research.

**Further Information, Queries or Any Problems**

If you require further information, or if you have any problems concerning this project (for example, any side effects), you can contact the principal researchers.

**Prof. Marita McCabe** (Researcher)

Deakin University,  
Faculty of Health,  
School of Psychology,  
221 Burwood Hwy, Burwood, 3125  
marita.mccabe@deakin.edu.au

**Ms Rachel Chung** (Student researcher)

Deakin University,  
Faculty of Health,  
School of Psychology,  
221 Burwood Hwy, Burwood, 3125.  
rachung@deakin.edu.au

Thank you for your time in reading this information. If you wish to participate in Study 1, please complete and return the enclosed packet of questionnaires.
Appendix M: Mean Scores for Body Image Variables by Age Group

<table>
<thead>
<tr>
<th>Body image variable</th>
<th>18 – 29 (n = 433)</th>
<th>30 – 39 (n = 158)</th>
<th>40 – 49 (n = 87)</th>
<th>50 – 59 (n = 44)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range of total score</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>BIIQ-D</td>
<td>0 to 3</td>
<td>1.23</td>
<td>.52</td>
<td>1.24</td>
</tr>
<tr>
<td>BIIQ-I</td>
<td>0 to 3</td>
<td>1.66</td>
<td>.60</td>
<td>1.48</td>
</tr>
<tr>
<td>BIQLI</td>
<td>-3 to +3</td>
<td>.16</td>
<td>1.31</td>
<td>&lt; .01</td>
</tr>
<tr>
<td>AO</td>
<td>1 to 5a</td>
<td>3.62</td>
<td>.69</td>
<td>3.48</td>
</tr>
<tr>
<td>OP</td>
<td>1 to 5a</td>
<td>2.92</td>
<td>1.05</td>
<td>2.73</td>
</tr>
<tr>
<td>BC</td>
<td>8 to 48</td>
<td>23.97</td>
<td>9.32</td>
<td>23.49</td>
</tr>
<tr>
<td>BI</td>
<td>3 to 18</td>
<td>10.58</td>
<td>3.79</td>
<td>10.03</td>
</tr>
<tr>
<td>PACS</td>
<td>4 to 20</td>
<td>12.79</td>
<td>3.71</td>
<td>12.28</td>
</tr>
<tr>
<td>HFeval</td>
<td>1 to 5a</td>
<td>3.43</td>
<td>.71</td>
<td>3.41</td>
</tr>
<tr>
<td>HForient</td>
<td>1 to 5a</td>
<td>3.35</td>
<td>.74</td>
<td>3.31</td>
</tr>
<tr>
<td>IO</td>
<td>1 to 5a</td>
<td>3.19</td>
<td>.82</td>
<td>3.22</td>
</tr>
</tbody>
</table>

Note. BIIQ-D – Body Image Ideals Discrepancy; BIIQ-I – Importance of Body Image Ideals; BIQLI – Body Image Quality of Life Inventory; AO – Appearance Orientation; OP – Overweight Preoccupation; BC – Body Concealment; BI – Body Improvement; PACS – Physical Appearance Comparison Scale; HFeval – Health/ Fitness evaluation; HForient – Health/ Fitness orientation; Illness Orientation; aRange of total score is derived from the mean of items.
Appendix N: Mean Scores for Well-Being Dimensions by Age Group

<table>
<thead>
<tr>
<th>Well-being variable</th>
<th>18 – 29 (n = 429)</th>
<th>30 – 39 (n = 156)</th>
<th>40 – 59 (n = 129)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range of total score</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>A 1 to 6</td>
<td>4.13</td>
<td>.81</td>
<td>4.25</td>
</tr>
<tr>
<td>SA 1 to 6</td>
<td>4.21</td>
<td>1.11</td>
<td>4.22</td>
</tr>
<tr>
<td>PL 1 to 6</td>
<td>4.61</td>
<td>.90</td>
<td>4.71</td>
</tr>
<tr>
<td>PG 1 to 6</td>
<td>4.96</td>
<td>.72</td>
<td>5.07</td>
</tr>
<tr>
<td>PR 1 to 6</td>
<td>4.54</td>
<td>.99</td>
<td>4.58</td>
</tr>
<tr>
<td>EM 1 to 6</td>
<td>4.13</td>
<td>.91</td>
<td>4.27</td>
</tr>
</tbody>
</table>

Note. A – Autonomy; SA – Self-Acceptance; PL – Purpose in Life; PG – Personal Growth; PR – Positive Relations with Others; EM – Environmental Mastery
Appendix O: Age Differences in Well-Being: Data Plots

**Figure M1.** Mean difference values representing autonomy ratings among a sample of adult women \((N = 488)\) within different age categories.

**Figure M2.** Mean difference values representing self-acceptance ratings among a sample of adult women \((N = 488)\) within different age categories.
Figure M3. Mean difference values representing purpose in life ratings among a sample of adult women \((N = 488)\) within different age categories.

Figure M4. Mean difference values representing personal growth ratings among a sample of adult women \((N = 488)\) within different age categories.
Figure M5. Mean difference values representing ratings of positive relations with others among a sample of adult women ($N = 488$) within different age categories.

Figure M6. Mean difference values representing environmental mastery ratings among a sample of adult women ($N = 488$) within different age categories.
### Appendix P: Pearson Correlations of Aspects of Well-Being with Body Image Variables for the Sample

<table>
<thead>
<tr>
<th>Body image variable</th>
<th>Autonomy</th>
<th>Self accept</th>
<th>Purpose in life</th>
<th>Personal growth</th>
<th>PR with others</th>
<th>Environ mastery</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI ideal discrepancy</td>
<td>-.27**</td>
<td>-.50**</td>
<td>-.32**</td>
<td>-.31**</td>
<td>-.32**</td>
<td>-.39**</td>
</tr>
<tr>
<td>BI ideal importance</td>
<td>-.19**</td>
<td>-.20**</td>
<td>-.06</td>
<td>-.11**</td>
<td>-.12**</td>
<td>-.17**</td>
</tr>
<tr>
<td>Appearance orientation</td>
<td>-.22**</td>
<td>-.06</td>
<td>.07</td>
<td>-.04</td>
<td>.04</td>
<td>-.02</td>
</tr>
<tr>
<td>Overweight preoccupation</td>
<td>-.27**</td>
<td>-.30**</td>
<td>-.12**</td>
<td>-.20**</td>
<td>-.18**</td>
<td>-.18**</td>
</tr>
<tr>
<td>Body concealment</td>
<td>-.32**</td>
<td>-.50**</td>
<td>-.33**</td>
<td>-.35**</td>
<td>-.39**</td>
<td>-.37**</td>
</tr>
<tr>
<td>Body improvement</td>
<td>-.06</td>
<td>.03</td>
<td>.18**</td>
<td>.08*</td>
<td>.07</td>
<td>.08*</td>
</tr>
<tr>
<td>BI impact on quality of life</td>
<td>.34**</td>
<td>.60**</td>
<td>.39**</td>
<td>.33**</td>
<td>.41**</td>
<td>.49**</td>
</tr>
<tr>
<td>Appearance comparison</td>
<td>-.39**</td>
<td>-.39**</td>
<td>-.22**</td>
<td>-.24**</td>
<td>-.23**</td>
<td>-.29**</td>
</tr>
<tr>
<td>Perceived fitness/health</td>
<td>.21**</td>
<td>.49**</td>
<td>.42**</td>
<td>.34**</td>
<td>.35**</td>
<td>.46**</td>
</tr>
<tr>
<td>Fitness/health orientation</td>
<td>.13**</td>
<td>.33**</td>
<td>.39**</td>
<td>.30**</td>
<td>.23**</td>
<td>.31**</td>
</tr>
<tr>
<td>Illness orientation</td>
<td>.09*</td>
<td>.20**</td>
<td>.24**</td>
<td>.15**</td>
<td>.13**</td>
<td>.14**</td>
</tr>
</tbody>
</table>

*Note.* BI ideal discrepancy = body image ideal discrepancy; BI ideal importance = importance of body image ideals; Self accept = Self-acceptance; PR with others = Positive relations with others; Environ Mastery = Environmental Mastery. *N* = 717; *p* < .05; **p* < .01; ***p < .05 two-tailed
Appendix Q: Body Image Variables that Uniquely Contributed to the Prediction of Well-Being in Adult Women

<table>
<thead>
<tr>
<th>Dimension of Body Image</th>
<th>Appearance</th>
<th>Function</th>
<th>Age*BI interaction</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>OWP</td>
<td>AO</td>
<td>BI ideal import</td>
</tr>
<tr>
<td>Autonomy</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Self-acceptance</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Purpose in life</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Personal growth</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Pos relations with others</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Environment mastery</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Note. OWP = overweight preoccupation; AO = Appearance orientation; BI ideal import = importance of body image ideals; Appear compar = Appearance comparison; Body conceal = Body concealment; BI impact qol of life = Impact of body image on quality of life; BI ideal discrep = body image ideal discrepancy; Body improve = Body improvement; F/ H orientation = Fitness/ health Orientation; F/ H evaluation = Fitness/ health evaluation; Age*BI interaction = interaction term between age and body image; Age*BI import = interaction between age and body image importance; Age*Body improve = interaction between age and body improvement. N = 717; ✓ p < .05; ✓✓ p < .01; ✓✓✓ p < .001.
Appendix R: Questions for Study 2

The term ‘body image’ can mean different things to different people. Sometimes it refers to what a person thinks and feels about their physical appearance or certain body parts. Other times, body image might refer to the amount of time and effort a person puts in to their health and/or fitness.

When answering the questions below, please use your interpretation of your body image and well-being, and let us know what these concepts mean to you.

We are really interested in your personal experiences, and the aim of this survey is to understand body image and well-being from your perspective. So, please write as much as you need to in order to express your views.

1. How would you describe your body image?
2. What has shaped your body image? (e.g., psychological, biological, social factors).
3. To what extent (if at all) does your body image impact your everyday life? Give some examples.
4. How would you describe your sense of personal well-being (that is, how well you function in different aspects of your everyday life)?
5. a) What do you consider as important to your sense of well-being?
   b) Why are these things important?
6. a) How (if at all) has your sense of well-being changed over the years?
   b) What has influenced it to stay the same or change?
7. How would you describe a person who is well-adjusted/ functioning positively?
8. When you think about how you function in everyday life, how important is your body image? Give some reasons to explain your answer.
9. How (if at all) do your views about your personal well-being relate to how you feel about your body?
10. Please comment on any other thoughts you have about the connection between your body image and well-being?
Appendix S: Plain Language Statement and Consent Form (Study 2)

PLAIN LANGUAGE STATEMENT

TO: Participants of Study 2

<table>
<thead>
<tr>
<th>Plain Language Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date:</strong> 30th July, 2012</td>
</tr>
<tr>
<td><strong>Full Project Title:</strong> Investigation into the association between body image and psychological well-being in adult women.</td>
</tr>
<tr>
<td><strong>Principal Researcher:</strong> Professor Marita McCabe</td>
</tr>
<tr>
<td><strong>Student Researcher:</strong> Rachel Chung</td>
</tr>
</tbody>
</table>

This information is for you to keep. If you have any questions about the information outlined in this Plain Language Statement please do not hesitate to contact the researchers.

Your Consent

You are invited to take part in this research project.

This Plain Language Statement contains detailed information about the research project. Its purpose is to explain to you as openly and clearly as possible all the procedures involved in this project so that you can make a fully informed decision as to whether you would like to participate.

Please read this Plain Language Statement carefully. Feel free to ask questions about any information in the document. Also feel free to discuss the project with a relative or friend or your local health worker.

Once you understand what the project is about and if you agree to take part in it, you will have the option of clicking “continue” below. By clicking the “continue” button, you indicate that you understand the information and that you give your consent to participate in Study 2 of the research project.

Note: Further information about what is involved in Study 2 is outlined below. If you participated in Study 1, you do not have to participate in Study 2

Purpose and Background

The purpose of Study 2 is to gain a deeper understanding of your unique thoughts and opinions in regards to your bodily experiences and how you feel about yourself. This information will be used to help researcher Rachel Chung obtain a Doctorate of Psychology (Clinical).

What does the research involve?

Study 2 is a follow-up of the first study, and will be conducted once all questionnaires have been returned from the first study. A number of women were selected from the pool of other participants who also indicated they would like to participate in the second study.

Study 2 involves providing short-answers to some set questions, which allows you to elaborate on body image experiences and your views and thoughts about your well-being. The short-answer questions are now available online to be completed.
Some of the questions that you will be asked include: “How would you describe your body image?”; “How would you describe your personal well-being?” Although there will be set questions for you to answer, you will be given the opportunity to express freely your thoughts and opinions. It is expected that the short-answer questions will take no longer than 45 minutes to complete, but this may vary for each individual, depending on how much information you would like to share.

If you are interested in participating in this follow-up study, please click on the button below “continue”. If you are not interested in participating in the follow-up study, you are not required to do anything.

**Potential benefits**

The main potential benefit of participating in the study will be to increase our understanding of the association between body image and psychological well-being in adult women. Your personal experiences will help advance the knowledge in this area and may help to improve women’s experiences in the future.

**Potential risks**

The completion of this study may result in increased self-awareness regarding your attitudes and feelings about your body, yourself, and your life. For some individuals, this self-awareness may produce momentary discomfort. However, no considerable adverse effects to your health or well-being are expected. If you do participate and find that you are uncomfortable, overly worried about your responses to any of the questionnaire items, or if you find participation in the project is distressing, you should contact Lifeline on 13 11 14.

**Privacy and Confidentiality**

Any information gained in this study is strictly confidential: your answers will not be revealed to anyone except the primary researchers at Deakin University. Once the completed questionnaires have been received, and any information that identifies yourself, such as your name, will be replaced with a code. Your personal information (e.g., name and phone number) and the corresponding code will only be kept if you agree to participate in Study 2.

Your code will only be used to link up with your identifying information (e.g., your name and phone number) if you have indicated that you would like to participate in Study 2 and if you have been selected to participate in Study 2. The only reason for linking your code with your identifiable information is to inform you that the questions for Study 2 are available to be completed (online), or to contact you and arrange a suitable time to complete Study 2 (via telephone).

Information obtained during the course of this study will be stored in locked cabinets (for paper copies or audio tapes) or on password accessible computers, for a minimum of six years. Access to this information will only be given to researchers involved in this project. After six years, the information will be deleted from the computer and audio tapes, and paper copies shredded.

In the event that this study is published, all information provided about individuals will be anonymous and unidentifiable. All measures will be taken to ensure maximum confidentiality and protection of privacy.

In accordance with the Freedom of Information Act 1982 (Vic), you have the right to access and to request information held about you by Deakin University.

**Results of Project**

Please contact us if you would like a summary of the findings to be sent to you at no cost.
Participation is Voluntary

Participation in any research project is voluntary. **If you do not wish to take part you are not obliged to do so.** If you decide to take part and later change your mind, you are free to withdraw from the project at any stage. Any information obtained from you to date will not be used. If you are completing this survey online, please do not click ‘submit’ if you do not want your data to be used in the study. Your decision whether to take part or not to take part, or to take part and then withdraw, will not affect your relationship with Deakin University.

If you take part in the study and then decide to withdraw, please notify Rachel Chung via email (see below).

Ethical Guidelines

This project will be carried out according to the *National Statement on Ethical Conduct in Human Research* (2007) produced by the National Health and Medical Research Council of Australia. This statement has been developed to protect the interests of people who agree to participate in human research studies.

The ethics aspects of this research project have been approved by the Human Research Ethics Committee of Deakin University.

Complaints

If you have any complaints about any aspect of the project, the way it is being conducted or any questions about your rights as a research participant, then you may contact: The Manager, Office of Research Integrity, Deakin University, 221 Burwood Highway, Burwood Victoria 3125, Telephone: 9251 7129, Facsimile: 9244 6581; research-ethics@deakin.edu.au

Please quote project number HEAG-H 125/2011

Costs/ Payments

There are no costs or payments associated with participation in this research.

Further Information, Queries or Any Problems

If you require further information, wish to withdraw your participation or if you have any problems concerning this project (for example, any side effects), you can contact the principal researchers.

**Prof. Marita McCabe** (Researcher)  
Deakin University,  
Faculty of Health,  
School of Psychology,  
221 Burwood Hwy, Burwood, 3125  
marita.mccabe@deakin.edu.au

**Rachel Chung** (Student researcher)  
Deakin University,  
Faculty of Health,  
School of Psychology,  
221 Burwood Hwy, Burwood, 3125.  
rachung@deakin.edu.au

Thank you for your time in reading this information. If you wish to participate in Study 2, please complete the enclosed consent form and mail back to Deakin University in the attached reply-paid envelope.