

**An Exploratory Internet Study:
The Relationships Between Men's Self-Reported Physical
Attributes, Body Image, Self-Esteem, and Internet Dating**

Annabel Chan Feng Yi, BSc (Hons) Psychology

School of Social Sciences and Psychology

Faculty of Arts, Education and Human Development, Victoria University

Submitted in fulfilment of the requirements of the degree of Doctor of Psychology

(Clinical Psychology)

March, 2011

Abstract

The majority of research over the past several decades in the area of body image, evaluations of physical appearances, and implications of eating disorders, has largely focused on women. In the late 80s, some researchers challenged the conceptualisation of body image dissatisfaction as a uni-gender problem and pioneered a series of studies, which found that men have succumbed to societal pressures of the idealised body and experience greater prevalence of body concerns and resultant negative implications than previously reported. While the focus of body image studies have included male participants since then, many of them were flawed by using measures that were originally intended to measure body concerns among women. The current study aimed to examine the relationships between men's self-reported physical attributes of men including; weight, body image, penis size and satisfaction, general psychological health, and Internet dating behaviours using measures that have been specifically developed to measure male concerns. 738 men aged between 18 and 76 years old participated in the study. The results of this research were compared and contrasted to other relevant studies in the field. Data analysis indicated that poor male body image was predicted by BMI, drive for muscularity, and penis size dissatisfaction. The strongest contributors to the prediction of online dating and socialising behaviours were found to be age (younger), sexual orientation (homosexuality), aroused penis length (shorter), lower self-esteem, and poorer body image. Another noteworthy finding of the study was the discrepancy in men's level of body dissatisfaction in context and comparison with other men (i.e., "locker room syndrome") and when they were evaluating their bodies on their own merit and as a sexual partner. The lack of support for some hypotheses was discussed and recommendations were made for future research. Being one of the first large-scale studies of men's body image and online dating using an Internet sample, this research contributes new understanding about the experience of body concerns for men and implications for treatment.

Student Declaration

I, Annabel Chan Feng Yi, declare that the Doctor of Psychology (Clinical Psychology) thesis entitled An Exploratory Internet Study: The Relationships between Men's Self-Reported Physical Attributes, Body Image, Self-Esteem, and Internet Dating is no more than 40,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references, and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

Signature:

Date: 13th September 2012

Acknowledgements

This thesis, along with my entire existence and subsequent achievements, would not have happened without the relentless generosity from my parents, who supported me financially and emotionally throughout my decades of study. So thank you, mum and dad (Ivy and Jimmy), for everything this is and everything I am.

Secondly, to my supervisor and my academic knight in shining armour, A/Prof. Gerard Kennedy – thank you for minimising the soul-crushing aspects of thesis-writing and for not letting me give up when I was two seconds from pursuing a career in McDonald's.

Thirdly, I dedicate this thesis to the best brother in the world, Jimson, for being my rock through the turbulent journey into the fiery pits of clinical doctorate study. I am so proud of you and I miss you every second we are apart.

To my gall bladder and stress-induced gall stones – Thanks for taking one for the team.

To my girls – Hege, Mad Julie, Larissa, Justyna – thank you for being there for me when I needed to rant, drink myself silly, be cheered on, have emotional melt downs, be in denial, or focus on my thesis. Also cheers to my study buddy, Clare. To my dance teacher and friend, Etoile Marley – you will never know how many times you saved my life in 2010.

Most importantly, to my best friend, soul mate, and husband, Luke Bartlett, who I incidentally met online through my thesis – I would never have done this without your limitless support, your humbling love, and your unquestioning faith in me. I would gladly write another trillion theses if that's what it takes to be with you. I love you T-Rex much.

And finally – to dreams.

Table of Contents

Title	i
Abstract	ii
Student Declaration	iii
Acknowledgements	iv
Table of Contents	v
List of Tables	ix
List of Figures	xi
Introduction	1
Research on Body Image	1
Rise of male body image.....	2
Shortcomings of male body image research.	3
History of male body image research.....	4
Developmental factors in male body image.....	6
Perception of the ideal body.	8
Measurements of male body image.....	9
Drive for muscularity.	11
Impact of male body image on men’s psychological functioning.	13
Drive for thinness.	14
Sexuality and male body image.	17
Male body image across cultures.	20
Penis Size Satisfaction	22
Research on penis size measurements.....	24
Research on men’s attitudes toward penis sizes.....	25
Research on penis size satisfaction..	26
Relationship between penis size and male body image.	28
Internet Dating, Body Image, and Social Anxiety	30
The rise of internet dating..	31
The pros and cons of internet dating.	32
Relationship between internet dating and social anxiety.	33

Impact of body image and self-esteem on internet dating.	34
Demographic differences in internet dating.	37
Summary	38
Aims and Hypotheses of Present Study	40
Method	40
Participants.....	42
Demographic characteristics.	42
Physical characteristics.	42
Mental health history.....	43
Materials.....	43
Demographics questionnaire.	43
Age.....	43
Sexual orientation.....	43
Country of origin.....	43
Marital status.....	43
Occupation.	43
Physical attributes measures.	43
Chest measurement.	43
Waist measurement.	44
Body mass index (BMI).	44
Penis size satisfaction measures.....	44
Internet socialisation and online dating behaviours measure.....	45
Male body image measure.	45
Drive for muscularity scale (DMS).....	45
Male figure drawings (MFD).	46
General psychological functioning measure.	47
Rosenberg self-esteem scale (RSES).	47
General health questionnaire (GHQ-12).	47
Mental health history.....	48
Participants' comments.	48
Plain language statement and consent form.	49
Internet and computer software resources.....	49

Procedure.....	49
Ethics approval.....	49
Recruitment.....	49
Data collection..	50
Results	52
Data Handling	52
Tests of Reliability	53
Variables.....	53
Demographic characteristics of the participants	56
Physical measurements.....	57
Country of origin.....	58
Ethnic groups..	60
Sexuality.....	60
Relationship status..	61
Occupation.....	61
Mental health history.....	62
Internet socialisation and online dating behaviours..	63
Penis size measurements and satisfaction..	65
Male figure rating and body size perceptions.....	67
Data Analysis	69
Research Design.....	71
Predictors Of Self-Esteem.....	73
Predictors Of Male Body Image	74
Predictors Of Men’s Tendency To Use Internet For Socialising And Dating	75
Predictors Of General Health Functioning.....	76
Participants’ Comments.....	77
Feedback.....	78
Penis size and body image.....	78
Penis size and sex life.....	79
Sexuality, race, and body image.....	79
Impact on mental health.....	79
Impact of physical health.....	80
Lack of focus on obesity issues for men.....	81

Discussion	84
Review Of Rationale And Aims Of The Study	84
Evaluation Of Hypotheses And Results Findings	84
Demographic Findings	85
Age.....	85
Physical measurements..	86
Country of origin and ethnicity.	88
Relationship status..	89
Sexual orientation.....	90
Occupation.	91
Mental health history.....	92
Internet Socialisation And Online Dating Behaviours Findings	92
Penis Size Satisfaction And Measurements Findings	95
Male Body Image Findings	97
Self-Esteem And General Functioning Findings.....	100
Participants' Comments Findings.....	101
Limitations Of The Present Study	101
Problems with Internet research.....	101
Problems with questionnaire design.....	102
Problems with measures.....	103
Problems with sampling.....	105
Suggestions For Future Research.....	106
Strengths And Contributions Of The Present Study.....	108
New knowledge.....	108
Advantages of online data collection.	109
Strengths in questionnaire design.....	110
Summary of Findings.....	111
Conclusion And Implications	112
References	115
Appendix A	135

List of Tables

Table 1: Reliability Coefficients of Self-esteem, General Health Functioning, Drive for Muscularity, Male Figure Drawings, Penis Length, Penis Size Satisfaction; and Internet Socialisation and Online Dating Behaviours	53
Table 2: Number and Percentages of Participants in Each Life Stage Age Range (N = 738).....	57
Table 3: Demographic Physical Characteristics of Participants.....	57
Table 4: Body Mass Index of Participants.....	58
Table 5: Participants' Countries of Origin.....	59
Table 6: Participants' Ethnic Groups.....	60
Table 7: Participants' Relationship Statuses	61
Table 8: Participants' Sexual Orientations.....	61
Table 9: Participants' Occupations	62
Table 10: Participants' Mental Health Histories.....	63
Table 11: Participants' Frequency of Internet Use and Online Socialising and Dating Behaviours .	64
Table 12: Participants' Percentage of Relationships Online and Hours Spent Online.....	65
Table 13: Participants' Self-Reported Penis Sizes and Penis Size Perceptions	66
Table 14: Participants' Penis Size Satisfaction.....	67
Table 15: Participants' Penis Size Satisfaction Scale Scores	67
Table 16: Participants' Self-Reported Mean Figure Rating and Body Size Perceptions	68
Table 17: Participants' Self-Reported Figure-Comparison Rating Scores.....	69
Table 18: Means and Standard Deviations for Self-Esteem, General Health Functioning, Drive for Muscularity, Male Figure Drawings, Penis Length, Penis Size Satisfaction, and Internet Socialisation and Online Dating Behaviours.....	70

Table 19: Correlation Matrix for all Predictors and Dependent Variables for Standard Multiple Regression Analyses	72
Table 20: Standard Multiple Regression of Men’s Physical Attributes, and Body and Penis Dissatisfaction on Men’s Self-Esteem.....	74
Table 21: Standard Multiple Regression of Men’s Physical Attributes, Body and Penis Dissatisfaction, and Self-Esteem on Men’s Body Image	75
Table 22: Standard Multiple Regression of Men’s Physical Attributes, Body and Penis Dissatisfaction, Self-Esteem and Men’s Body Image on Internet Socialising and Dating Behaviour	76
Table 23: Standard Multiple Regression of Men’s Physical Attributes, Body and Penis Dissatisfaction, Self-Esteem and Men’s Body Image on General Health	77

List of Figures

Figure 1. Male figure drawings originally used in Winitch (1993), drawn by Barbara Alexander, and reprinted with permission from Lynch and Zellner (1999).47

1 Introduction

1.1 Research on Body Image

While there is debate about the definition of beauty, the importance of physical appearance has been highly emphasised and valued throughout history, and this is especially so for women (Millett, 1970). From a practical perspective, more attractive women (based on definitions appropriate for the era) have had a better chance of securing a mate and successfully reproducing in comparison to less attractive women (Grogan, 2008). Women's bodies have historically been depicted more frequently in the media than men's, and descriptions of the female form tend to be more embodied than those of men (Vartanian, Giant, & Passino, 2001). As such, it is not difficult to make the case that compared to women; men have a much easier time when it comes to body image. In fact, until the 1980s, the study of body image was largely restricted to women (Millett, 1970).

Lee and Owens (2002) suggested that different factors need to be considered in comparing men with women in terms of body image issues: "Women are implicitly positioned as 'other,' as objects to be looked at rather than as individuals whose subjectivity is of equal value to that of men" (p. 55). Rothblum (1994) proposed that the majority of female-oriented magazines feature pictures of women that depict, either purposely, or not, a desirable image to which women should aspire. Women's endless struggle to meet a physical ideal as reinforced by the media is then further complicated by the development and maintenance of body image disturbances and disordered eating as supported by a growing number of studies (Chambers & Alexander, 2007; Twamley & Davis, 1999; Lee & Owens, 2002). In 2007, Chambers and Alexander found that between 11 and 20 percent of young women today suffer from an eating disorder. In contrast, magazines that target men typically contain advertisements and other images

of idealised women rather than men (Frederick, Fessler, & Haselton, 2005).

The basic message being communicated by the mainstream media concerning the relative importance of women's physical appearance compared to that of men can be summed up by Green (1998) as follows; "In a phallogentric civilisation in which women are always the passive objects of the active male gaze and of male desire, the spectator is necessarily interpolated as a man, or men; the structure of a culture in which men look and women are looked at is reified and preserved by cinematic structure that 'men look, and women are looked at'" (p. 155). Thus, it is reasonable to assume that appearance-related issues will be more concerning for women, but relatively unproblematic for men

Evidence suggests that in comparison to women, men view their physical appearance in a more positive light and experience much less anxiety and involvement in physical appearance maintenance (Green & Pritchard, 2003). The studies to date indicate that men are typically more satisfied with their body weight (Deewnowski & Yee, 1987), shape (Fallon & Rozin, 1985), and their overall appearance (Thompson & Cafri, 2007) in comparison to women. For this reason, the study of body image problems and disordered eating has been largely addressed as female-specific concerns (Millett, 1970).

1.1.1 **Rise of male body image.** If the message is as simple as it seems, that men look and women are looked at, then one might expect that men would be free from body image issues. However, more recently, researchers have argued that men also experience worries about their weight and shape, but their plight have largely been overshadowed by societal attention focused on women with weight and eating problems. As Lee and Owens (2002) have succinctly put, "In an age where masculinity has become synonymous with muscularity, there is a growing and understandable

concern among men regarding their physical appearance, making them equally vulnerable targets of the diet and health-related campaigns that have plagued women for years” (p. 71).

Some studies have suggested that, while it may manifest itself in different ways, the rates of body image concerns in men are comparable to those reported by women (Davis & Cowles, 1991; Drownowski & Yee, 1987). The small, but growing body of literature on male body dissatisfaction has focussed on known issues of primary concerns to men, in particular baldness, height, and muscularity (McDonald & Thompson, 1992; Furnham, Badmin, & Sneade, 2002). Fallon and Rozin (1985) noted that pioneering research in male body image disturbances has challenged the conceptualisation of body image dissatisfaction as a uni-gender problem, which suggests that men have slowly succumbed to societal pressures of the idealised body and experience greater prevalence of body concerns and related negative implications than previously reported (Drownowski & Yee, 1987; Drownowski, Kurth, & Krahn, 1995; Gettelman, & Thompson, 1993). Such evidence was ground-breaking for its time and highlights a more complex relationship between men, their bodies, and sociocultural expectations than previously assumed. Thus, body image issues cannot be ignored when studying the male population and their psychological functioning.

1.1.2 Shortcomings of male body image research. It should be pointed out that not only is there limited research on male body image and its implications, the available studies, especially early reports, are flawed in several ways that limit generalisability to the larger population. For example, much of the past and a notable percentage of current research on male body image have been based on magazine survey results, content analyses, or other forms of anecdotal research methods that often lacked the credibility, validity, and clinical usefulness of thoughtful studies using

reliable and verifiable methods (Lee & Owens, 2002). Moreover, the research to date has been flawed by using survey instruments and rating scales that were based on female norms and were intended to identify body image issues among women (McCabe & Ricciardelli, 2004). A 10-year review revealed that over 92% of body image studies that included men were correlational and only two included an all-male sample (Grogan, 2008). Although many of these studies offer some insight into male concerns about their appearance and weight management methods, the majority of established body image questionnaires, rating scales, and other assessment apparatuses were normed on female samples and expectedly designed to examine female body image issues. Not surprisingly, the majority of the studies to date using these female-targeted metrics were unable to identify specific areas of concern among male respondents simply because they failed to include issues that were relevant to them, which led to an incomplete and a sometimes misleading understanding of male body dissatisfaction (McCabe & Ricciardelli, 2004).

The limited research available on men's body image attempts and continues to explore issues such as concerns men have about their body image, how the idealised male body as depicted in media affects their satisfaction with their own bodies, factors that produce and/or predict body image concerns in men, similarities and differences between men's and women's body image, and clinical implications of men's body dissatisfaction; that is, how such concerns can be addressed and alleviated.

1.1.3 History of male body image research. The studies of body image issues among women have typically focused on the impact of various societal factors and the one that has received most research attention is that of the prevalence of idealised role models in the media emphasising the importance and value of thinness (Rothblum, 1994). Because of the asymmetries of a patriarchal society, it would not be appropriate

to draw exact parallels between men and women's experience of body-obsessed messages in the media, but it is not difficult to see how societal role models can also lead men to have concerns about where their bodies fall short of the ideal. Lee and Owens (2002) noted that;

“Men are presented with the concept that a real man is large, hard and strong. Physical role models for men are not as prevalent as for women, but they are just as unhealthy and unrealistic: from the Charles Atlas physiques of the 1940s and 1950s, through the massive bodies of body-builders like Arnold Schwarzenegger to the hyper-muscularity of present-day body-builders. With such images, men are presented with two clear messages as regards to physical appearance; a low percentage body fat is seen as good, and a low muscle bulk is seen as bad.” (2002, p. 65)

Grogan (2008) highlighted that masculinity is increasingly becoming associated with muscularity in ways that are making men vulnerable to the same types of media messages that have long been blamed for women's eating disorders and social anxieties about their physical appearance. Modern views of what factors constitute an “ideal man” may be different from ancient times, but there are some interesting commonalities involved that indicate physical appearance remains a primary element in societal and individual perception of what it means to be considered a “real man”. Culturally favoured models of the ideal male body type have pointed to a mesomorphic body shape, which is one that is athletic, muscular, and low in body fat (Petersen, 1998).

To answer the age old questions of what a “real man” is, Lee and Owens (2002) put, “He is expected to compete with other men, not only in the formal sense of activities like sport and employment, but also informally for status within a social group. He is expected to be self-confident, at ease with himself. He is expected to be

successful romantically, and in some social groups his status will be assessed at least in part by his success in attracting partners, whose social value is enhanced by their own level of attractiveness. Put simply, a man should aim to be one who is envied by other men” (p. 66). While some men are rationally aware that idea of the perfect body has been perpetuated by media and should not be a detrimental reflection on their own bodies, other men may internalise these idealised body image messages and thus put themselves at risk of developing a health and/or psychological problems (Jones, Vigfusdottir, & Lee, 2004).

However, it is important to note that not all men develop body image concerns, just like not all women suffer from disordered eating due to pressures to be thin. In order to understand why some men struggle with body image issues more than others, it is crucial to examine the factors that make them more susceptible to societal expectations and harsh self-evaluations.

1.1.4 Developmental factors in male body image. Concepts about an ideal body shape tend to change as people grow older and mature, and researchers have examined the social factors that tend to be more prevalent during a given period in the developmental milestones of men. The research to date indicates that younger people are more concerned with what their peers perceive as a desirable body image rather than the society as a whole (Wilcox, 1997). Given that pre-pubertal boys are biologically unlikely to develop a notably muscular physique; young boys are unlikely to perceive themselves as being not muscular enough since none of their peers are developing muscle mass. At that age, body dissatisfactions and unfavourable comments about the body tend to be more about adiposity rather than lack of muscularity (Lee & Owens, 2002). For pre-pubertal children, both male and female, the main concern about physical appearance is the desire to be thin. In a rare study of boys’ body image, A

group of researchers (Maloney, McGuire, Daniels, & Specker, 1989) discovered that 31% of 9-year-olds, 22% of 10-year-olds, 44% of 11-year-olds, and 41% of 12-year-olds wanted to be thinner. The findings indicated that 31% of boys had tried to lose weight, 14% had dieted, and 37% had exercised for the main purpose of losing weight. A more recent study also found that dieting is common even in preadolescent boys (Ricciardelli, McCabe, Lillis, & Thomas, 2006).

As they get older and enter the confusing times of adolescence and pubertal changes, boys may become more aware of the variability among their peers. They start to gain body mass and acquire physical traits that are celebrated as “manly”, such as height, muscles, broad shoulders, increase in genital size (Wilcox, 1997). Boys who are slower to develop may compare themselves with their more developed same-aged peers and become dissatisfied with their smaller stature (Lee & Owens, 2002). Thus, as young boys develop from pre-pubescence through puberty to young adulthood, their body concerns may shift from desire for thinness to a wish to be more muscular. There is extremely limited research on body image of young males, but some research in this area has confirmed the aforementioned shift. A British study of 11- and 13-year-old boys by Conner, Martin, Silverdale, and Grogan (1996) examined body esteem, current ideal body discrepancy, and dieting in 128, 11-year-olds (61 boys, 67 girls) and 103, 12–14-year-olds (52 boys, 51 girls). The 13-year-old boys were significantly less satisfied with their body shape and weight than the 11-year-olds. While the reasons for their body dissatisfaction were not explored in the study, it was hypothesized that the shift is due to a change from wanting to be thin to a desire to achieve the “ideal male” physical, that is, bigger and stronger (Grogan, 2006). This drive for a bigger physique appears to continue through adulthood for men. A study by Raudenbush and Zellner (1997) determined that although overweight men and women wanted to be thinner,

almost 42% of men of appropriate weight wanted to be heavier, while the majority (88%) of women who were of appropriate weight wanted to be thinner.

1.1.5 Perception of the ideal body. As Lee and Owens (2002) stated previously, competition with other men and the desire to be seen as being more successful are key factors in their perception of their own manliness, whether it is to do with physical strength, size, or attractiveness to partners. Research has highlighted men's misguided body perceptions with exaggerated beliefs concerning what they think women are looking for in men. For example, Lynch and Zellner (1999) found that college men were more likely to select a hyper-muscular body size as being preferred by women. However, these researchers found that although college women preferred a body size that was larger than average, this preference level was far lower than the perceptions held by college men. Comparable differences between expectations by women and the perceptions held by men in terms of preferred body size was shown to diminish with older men, supporting the contention that body esteem problems and related unhealthy weight-changing behaviours are more pronounced among younger age groups (Lynch & Zellner, 1999).

While limited, the evidence does point to a degree of discrepancy between men's perception of their ideal body size versus their actual body size (Lee & Owens, 2002). This phenomenon is common in women as well; however while majority of women wish to be thinner (Lee, 2001), men typically wish to be heavier. For instance, Abell and Richards (1996) found significantly higher levels of body dissatisfaction in young men in comparison to young women, and also found that men tended to desire a heavier and larger body type than women. This is in contrast with the previously mentioned results of studies of children where both sexes expressed a wish to be thinner (Garder, Friedman, & Jackson, 1999; Thompson, Corwin, & Gargent, 1997).

Brownell and Rodin (1994) suggest the notion that the human body has limitless possibilities in the quest for perfection and that willpower alone is enough to sculpt a body to any shape may be responsible for the notable level of anxiety and disordered behaviours among both men and women. For women, the main focus of body issues tended to be about the desire for less body fat (Lee, 2001) whereas for men, both fat and muscle play a part in the perception of an ideal body. That is, it is possible to be too thin and too fat at the same time as he may have less muscle and more fat than he ideally would like to have (Lee & Owens, 2002). Based on a questionnaire administered to 226 college students (98 males and 128 females) concerning weight, body shape, dieting, and exercise history, the authors found that 26% of the men and 48% of the women described themselves as overweight. Women controlled their diets to lose weight whereas men usually exercised (Drewnowski, Kurth, & Krahn, 1995). While studies have established that men's body image concerns may be as great, or even greater than those of women's, it may also be more complex as they are motivated to not only to reduce body fat, but also to increase muscle bulk, leading to a wider range of weight-changing strategies that may be employed that could have detrimental effects on physical and mental health.

1.1.6 Measurements of male body image. As highlighted, the vast majority of research concerning body image has historically been focused on women and their desire to become thinner (Pope, Phillips, & Olivardia, 2000), but in recent years many researchers (e.g., Andersen, Cohn, & Holbrook, 2000; Leit, Pope, & Gray, 2001; Jones, Vigfusdottir, & Lee, 2004) have advanced the argument that many men also experience body image concerns and findings indicate that men experience qualitative differences to women in terms of their perceptions of an ideal body shape and what areas of the body demand specific attention to bring their bodies in line with the ideal. The general

pattern is that women want to be thinner from the waist down and men want to be heavier with more musculature from the waist up (McCabe & Ricciardelli, 2001). However, in spite of the increased research attention in the field of male body image, there is a lack of appropriate assessment instruments for measuring body dissatisfactions that have been developed based on male body image literature or standardised and validated using male samples. Most of the male body image studies have resorted to using measures and norms that were originally designed for use with women and therefore inaccurately assess dissatisfaction with weight and body areas below the waist (Cohane & Pope, 2001).

Cafri and Thompson (2004) summarised and critiqued the current instruments grounded in theoretical models of male body image and suggested that in order for an instrument to be a valid measure of male body image perceptions, it must meet the following criteria:

1. The instrument must contain several items that address men's attitudes towards their muscularity;
2. If the instrument contains items that focus on features only indirectly related to body appearance (e.g., exercise), the items should be related to muscularity;
3. If the instrument contains items exploring attitudes toward body regions, the upper torso should be included within these items.

Based on the above criteria, Cafri and Thompson (2004) concluded that only two measures demonstrated suitability, albeit with certain limitations, for assessing male body image, namely the Drive for Muscularity Scale (McCreary & Sasse, 2000) and the somatomorphic matrix (Gruber, Pope, Borowiecki, & Cohane, 1999). The former is used in the current study.

Items on the Drive for Muscularity Scale (DMS) instrument are designed to (a)

gauge the motivation men possess that drives them to increase their muscle mass; (b) assess behavioural activities that are used to achieve or sustain a muscular appearance, such as lifting weights and the use of protein supplements. It should be noted that the DMS is not a strictly attitudinal measure of body image because of its inclusion of behavioural items (Cafri & Thompson, 2004). Factor analyses have shown that the DMS contains two factors; a drive for muscularity factor and a behavioural factor (McCreary, Sasse, Saucier, & Dorsch, 2004). In addition, a further shortcoming of the DMS is that none of the items measure men's desire to decrease body fat while concomitantly increasing muscle mass (Cafri & Thompson, 2004).

1.1.7 Drive for muscularity. McCreary, Sasse, Saucier and Dorsch (2004) defined "drive for muscularity" as "an individual's perception that he or she is not muscular enough and that bulk should be added to his or her body frame in the form of muscle mass" (p.50). Similarly, Chandler, Grieve, Derryberry, and Pegg (2009) suggested, "A drive for muscularity underlies the behavioural symptoms of muscle dysmorphia (MD) in that people with the disorder want to be larger and more muscular than what they actually are" (p. 143). For instance, a study by Pope and his associates (2000) found that men were more likely to select a muscular body shape over a thinner, less muscular shape as their ideal body type. Other research have shown that men prefer body sizes that were between 8 and 13 kilograms more in muscle mass more than their current physique (Cafri, Strauss, & Thompson, 2002; Pope et al., 2000). Some studies also indicate that men believe women prefer men who have muscular physiques (Cohn & Adler, 1992; O'Dea & Abraham, 1999). Research in this area has further confirmed a correlation between MD and the "drive for muscularity" and that people who suffer from MD tend to engage in a number of behaviours that manifest as compulsive behaviours targeted at keeping track of their body shape and size, such as examining

their bodies in mirrors (Chandler et al., 2009). This is congruent with other studies that have found that many appropriate-weight males seek to modify and accelerate the weight-gaining process by manipulating the macro-nutrient content of the foods they eat, even if there are no other health-related reasons for doing so (Jones, 2001; McCreary, 2002). Nemeroff, Stein, Diehl, and Smolak (1994) suggest that men may be receiving increasing media messages about ideal muscularity and plastic surgery options, such as pectoral and calf implants. The results of these studies not only highlight men's drive for muscularity, but also open a window for the exploration of the methods, whether unhealthy or not, and lengths that men would go to in order to achieve their ideal body. .

It is common knowledge that the development of muscles is a complex process involving interactions between exercise, diet, and physiology, and to some extent muscularity is limited by genetic factors that cannot be changed. Thus, individuals who desire extreme muscle growth and/or individuals who are genetically less predisposed to gaining muscle mass began to look beyond diet and exercise at ways of enhancing their physiology. At the opposite end of the thriving industry of weight loss pills for women is the rise of muscle building supplements. During the mid-20th century, athletes began engaging in anabolic steroid regimens in an effort to maximise their training efforts; however, by the mid-1970s, international regulatory organisations for sports such as the International Olympic Committee began to recognise the practice and have outlawed the use of such substances as part of a legitimate training program (Drewnowski, Kurth, & Krahn, 1995). Despite these efforts, the use of anabolic steroids and other muscle-building substances continues to take place in a wide range of amateur and professional sporting venues as evident by the number of athletes who have been disqualified from participation because of detected steroid use (Lee & Owens, 2002). While the main

users of steroids are body-builders and professional athletes, many other men may also use them to enhance their musculature simply for cosmetic reasons as the cultural value placed on male muscularity is as inflated as that placed on thinness in women which drives the billion dollar weight loss industries (Davis & Katzman, 1998).

Determining accurate estimates of anabolic steroid use has been tricky for researchers because they are illegal in most places, but studies suggest that use is widespread. In 1995, Blouin and Goldfield found that more than three-quarters (78%) of their sample of competitive body-builders reported anabolic steroid use, as did 20% of their recreational body-builders. Another study of 16- to 19-year-old Swedish male students conducted by Kindlundh and colleagues (1999) found that 2.7% of the sample had used anabolic-androgenic steroids. However, other researchers found significantly lesser rates of use (Drewnowski, Kurth, & Krahn, 1995). Whatever the true percentages, the studies to date do suggest that there are significant numbers of mainly young men engaging in musculature-building regimens that include steroids use that may carry severe healthcare consequences, including both physical and mental health issues, such as liver problems, changes in lipid metabolism leading to increased risk of cardiovascular disease, prostatic enlargement and development of breast tissue in men (gynecomastia), and increased risk of aggressive behaviour (Lee & Owens, 2002).

1.1.8 Impact of male body image on men's psychological functioning.

Blouin and Goldfield (1995) reported that psychological and body image variables are significant predictors of steroid use and noted that their profile of body-related attitudes and psychological characteristics were similar to those of eating disordered patients. Adverse side-effects from steroid use aside, the results of some recent studies have also indicated that body dissatisfaction among both men and women can contribute to other adverse physical and mental health outcomes. A number of studies (Abell & Richards,

1996; Davis & Katzman, 1997; McDonald & Thompson, (1992) have demonstrated that body image and self-esteem are moderately correlated among both men and women. On the other hand, some studies have found that the relationship between body image and self-esteem is greater for men than for women. For example, a study of Australian children by Tiggemann and Wilson-Barrett (1998) failed to identify a relationship between self-esteem and body dissatisfaction among girls, but identified a significant negative correlation for boys.

Citing the relative dearth of relevant research concerning male body image, Bottamini and Ste-Marie (2002) report that the studies to date have found that diminished body image perceptions among men can have some profound clinical implications. According to them, "Again in line with the female literature on this topic, accompanying male body dissatisfaction as a function of desiring the mesomorphic ideal has been identified, as well as adverse psychosocial consequences, including depression and low self-esteem" (p. 109). Based on their qualitative analysis of 13 male participants, Bottamini and Ste-Marie identified three influences on the perception of an ideal physique: (a) the media, (b) potential mates, (c) and peers. The extent to which men are able to satisfy their increasing desire for muscle mass and muscularity has been shown to be related to lowered self-esteem, heightened depression, body dissatisfaction, and body image disturbances among adolescent men (Labre, 2002; McCreary & Sasse, 2000; Ricciardelli & McCabe, 2004; Smolak & Stein, 2006).

1.1.9 **Drive for thinness.** There is certainly no lack of research in the field of clinical eating disorders, such as anorexia nervosa and bulimia nervosa; however due to the disparities between the incidence of reported eating disorders between men and women with men being grossly underrepresented, eating disorder research efforts have mostly been concentrated on women. In a rare study of disordered eating that included

male sample by Hsu (1990), the prevalence rate of men with eating disorders was found to be significantly far lower than their female counterparts (i.e., rarely more than 10% of anorexics and 20% of bulimia cases being men). Nevertheless, the existence of men who suffered from disordered eating while vastly less in number than for women cannot be ignored, especially since some studies have found significant numbers of men suffering from anorexia and bulimia (Buckley, Freyne & Walsh, 1991; Carlat & Carmargo, 1991). As explored previously, men are more likely to desire thinness before adolescence. Boys with high BMI levels have been found to be more likely to engage in weight loss strategies during preadolescence (McCabe & Ricciardelli, 2005; Saling, Ricciardelli, & McCabe, 2005) and adolescence (Neumark-Sztainer, Story, Falkner, Beuhring, & Resnick, 1999). In two longitudinal studies of boys aged between 6 and 14 years old, weight gain was found to be a significant predictor for increased disordered eating in the third year of the studies (Gardner, Friedman, & Jackson, 1999; Gardner, Stark, Friedman, & Jackson, 2000). The average percentage of boys who indicated a desire to lose weight was 10% higher (Jones, Bain, & King, 2008) than that of samples from 1998 in a study by Middleman, Vazquez, and Durant. Even though there is a shift from drive for thinness to drive for muscularity after puberty, some men continue to suffer from eating disorders and this is made evident by the fact that approximately 10% of eating disordered individuals coming to the attention of mental health professionals are male (Wolf, 1991; Fairburn & Beglin, 1990). It should also be noted that studies using pre-adolescent and adolescent participants cited here, due to limited adult research, are not meant to be used for generalising to adults, rather as implications of various factors during early developmental stages that can potentially lead to detrimental outcomes in adulthood.

Gymnasts, runners, body builders, rowers, wrestlers, jockeys, dancers, and

swimmers appear to be particularly vulnerable to eating disorders possibly due to the fact that their sports necessitate weight restriction (Andersen, Bartlett, Morgan, & Brownell, 1995). The factors that contribute to the development of eating disorders in men appear to be similar to those in women. Research with adult men who suffered from eating disorders has identified several similarities between genders (Olivardia, Pope, Mangweth, & Hudson, 1995). In their study of 25 American men with eating disorders (anorexia nervosa, bulimia nervosa, or a combination), Olivardia et al. (1995) found specific similarities with similarly situated females concerning factors such as age of onset, co-morbidities, body dissatisfaction, and overall attitudes towards the eating disorders. These researchers also found that women in their study were significantly more likely than men to have sought treatment. A subsequent replication of this study using a sample of Austrian men (Mangweth, Pope, Hudson, Olivardia, Kinzl, & Biebl, 1996) yielded similar results.

It should be pointed out, though, that the lower prevalence of eating disorders among men, especially heterosexual men, may be attributable to under-reporting due to social stigmas associated with male eating disorders and men not wanting to be seen as having a “female problem (Lee & Owens, 2002). Some researchers have argued that contemporary medical discourses concerning eating disorders have become so strongly gendered that men are much less likely to receive a diagnosis despite displaying objectively identical behaviours (Hepworth & Griffin, 1995). In fact, there is a broad consensus that eating disorders in men are clinically similar to, if not indistinguishable from, eating disorders in women (Schneider & Agras, 1987; Vandereycken & Van der Broucke, 1984). However, men are more likely to receive a diagnosis of depression with associated changes in appetite or compulsive behaviours in exercising rather than an eating disorder diagnosis (Grogan, 2008). In addition, while the acceptance of

disordered eating behaviours as reasonably common appears to be true for women, it is largely absent in the cultural and social experiences of men, which results in limited forums in which they feel safe to talk about such issues and there are inadequate venues in which they can seek help (Lee & Owens, 2002). Any or all of the previously mentioned factors can play a part in underreporting, which suggests the possibility that the prevalence of disordered eating in men, while still below that of women, may be much higher than is presently estimated.

1.1.10 Sexuality and male body image. Women's long struggle with body image issues has been attributed to being 'the passive objects of the active male gaze' (Green, 1998). In the same vein, men in the occupations that are constantly exposed to public scrutiny, such as modelling and performance arts, are also subjected to the male gaze and may then be more prone to develop disordered eating (Atkins, 1998). Siever (1994) found that gay men and heterosexual women have shown the highest levels of body image issues. In his study, homosexual men were even less satisfied with their bodies compared to heterosexual women. Siever (1994) proposed that this could be because gay men can be unhappy with their bodies on two dimensions. Like heterosexual men, they can be preoccupied with the inadequacy of their bodies in terms of athletic prowess, and like heterosexual women, they can also rate themselves on an aesthetic level. It is an accepted notion that the gay men's subculture places an elevated importance on the appearance of the body (Lakoff & Scherr, 1984; Signorile, 1997; Grogan, 2008). In fact, Rotello (1997) describes the gay male culture as a "powerful, even merciless system of rewards and penalties based on body image" (pp. 254). While the percentage of male homosexuals in the general population cross-culturally is estimated to be from 3% to 5% (Whitman, 1983), samples of eating-disordered men are commonly twice as high or more in this population (Harmatz, Gronendyke, & Thomas,

1985).

Studies of eating disorders in homosexual men seem to support the notion that the male gaze has a significant impact on men's body image. Bulimia was found to be more prevalent among homosexual than heterosexual men (Carlat & Carmargo, 1991). In a recent study by Feldman and Myer (2007), they found that over 15 % of homosexual or bisexual men experienced anorexia, bulimia or binge-eating disorder at certain periods of their lives, in a severe or partial form (subclinical eating disorder), while less than 5% of heterosexual men experienced the same. Homosexual men may be at an increased risk for developing an eating disorder and high levels of body dissatisfaction because of cultural pressures within the homosexual community to be slender and muscular (Schneider & Agras, 1987; Morrison, Morrison, & Sager, 2004; Levesque & Vichesky, 2006). British studies found that gay men are more likely to diet and exercise for appearance reasons than heterosexual men (Conner, Johnson, & Grogan, 2004; Grogan, Conner, & Smithson, 2006). Herzog, Newman, and Warshaw (1991) found that homosexual men weighed significantly less than heterosexual men, were more likely to be underweight and to desire an underweight ideal weight. They also found that compared to the heterosexuals, homosexual men were less satisfied with their body build, and scored significantly higher on the "Drive for Thinness" scale of the Eating Disorders Inventory (EDI). Similar results were found in later studies by Yelland and Tiggemann (2003) and Fawkner (2004) who investigated body concerns in a community sample of Australian participants. The findings indicated that homosexual men were less satisfied with their appearance, more preoccupied with being overweight, and scored higher than heterosexual men and women on drive for muscularity, and higher than heterosexual men on drive for thinness.

Given the harshness of the gay culture on body ideals, a group of researchers hypothesized that men who are more strongly affiliated with the gay community would express higher levels of body dissatisfaction (Beren, Hayden, Wilfley, & Grilo, 1996). Their findings supported the claim and they concluded that exposure to the gay community increases vulnerability to poor body image. However, the data should be interpreted more cautiously as the study was based on a small sample (58 homosexual and 58 heterosexual men) using self-report measures, and the results merely demonstrated an association between the two variables. The causal link may run in the opposite direction, in that men who have high body esteem are more likely to interact within the body-conscious gay culture, and the gay community may provide protective factors, such as social support and resources, that were not examined by the study.

On top of the pressures within the gay community to conform to the male body ideal, gay men also have to contend with the cultural stereotype of homosexual men being physically fit and attractive and being known to “look after their bodies” (Grogan, 2008). A recent Australian study found that adolescent males were reluctant to talk about their bodies and body image issues as they perceived that to be a “gay issue” (Hargreaves & Tiggemann, 2006). Portrayal of homosexual men in mainstream media also buy into the stereotype of gay men looking “buff” and “well-kept” (Grogan, 2008). A good example of this is the television program “Queer Eye for a Straight Guy” that shot to fame in 2004, which featured five physically attractive homosexual men who specialized in helping heterosexual men improve on their appearance.

Grogan (2008) proposes that more work is needed in the study of homosexual men and body image to compare men of different ages (as most work has focused on men under 30 years of age), and to compare men involved in the gay community versus those who are not because choosing samples from “gay venues” as most researchers

have done may not yield results that can be generalized to the general homosexual population. At present, however, research does suggest that men who have sexual relationships with men generally express more body image dissatisfaction than heterosexual men.

1.1.11 **Male body image across cultures.** The lack of research in male body image and disordered eating has not been consistent across various groups of men. Research efforts have been more prominent in studying the disordered eating and weight patterns of male athletes (Brownell & Rodin, 1992), overweight men (Raudenbush & Zeller, 1997) and homosexual men (Gettelman & Thompson, 1993; Beren et al., 1996), which have been explored above.

Some cross-cultural differences have also been found with regards to male body dissatisfaction. Studies that have investigated body image in African-American groups have tended to find that black men are more satisfied with their bodies than white men (Miller et al., 2000; Aruguete, Nickleberry, & Yates, 2004) and are more likely to select a heavier ideal weight for themselves as well as identifying themselves as heavier than their Caucasian peers (Welch, Gross, Bronner, Dewberry-Moore, & Paige, 2004; Yates, Edman, & Aruguete, 2004), although some have failed to find differences between ethnic groups (Nishina, Ammon, Bellmore, & Graham, 2006). For example, Harrison and Bond (2007), in a study of 104 black and 77 white pre-adolescent boys, found that exposure to idealised hyper-muscular image of male bodies contained in gaming magazines resulted in an increased drive for muscularity after one year for the white adolescent boys, but not for black adolescent boys. The researchers attributed the findings to the fact that the overwhelming majority of men featured in gaming magazine advertisements were white and so there will be more characters for white readers to identify with than there will be for black readers. Interestingly, exposure to the images

in gaming magazines also predicted an increased in perceived adiposity among black adolescent boys without predicting an increase in drive for muscularity, which may suggest that for black adolescent boys, a heavier boy may serve as a substitute for increased muscularity, despite the source of the increase in size being from added body fat and not muscle (Harrison & Bond, 2007). Studies of female body image have also replicated similar findings with black women possessing better body positive image and valuing a heavier body weight and shape than white women (Molloy & Herzberger, 1998; Rothblum, 2002; Schwartz, 2004).

Studies on Hispanic men have not found significant differences in body size preferences and satisfaction (Miller et al., 2000; Ericksen, Markey, & Tinsley, 2005), while research on Asian men yielded inconsistent findings with some studies reporting no differences in body satisfaction (Franzoi & Chang, 2002) and others finding that Asian men experience more body dissatisfaction than white men (Kowner, 2002; Harris, Walters, & Waschull, 1991). A study by Barry and Grilo in 2002 highlighted an interesting phenomenon; while research findings seem to point to white men having poorer body image than men from other cultural groups, men from non-white ethnic groups have a higher tendency to engage in more extreme body change and weight management strategies, such as purging, use of laxatives and diuretics, and chronic dieting, than white men. Obviously, the matter is complex and many factors are at play in determining male body image across cultures. In a review of the role of ethnicity and culture on male body image, Ricciardelli, McCabe, Williams, and Thompson (2007, in press) suggested that the factors that play important roles in determining the relationship between ethnicity and male body image include body build, level of acculturation, media exposure, socioeconomic status, and internalization of the male body ideal.

Taken together, the studies published to date suggest that women are driven to

be thinner, while the majority of men are driven by their desire to both increase their muscle mass and decrease body fat. In both genders the behaviours associated with trying to reduce or increase body mass can lead to disordered eating, dysfunctional behaviour, and poor general functioning. For men, body image problems can in one direction lead (though less frequently than for women) to eating disorders such as anorexia nervosa and bulimia nervosa; in the opposite direction (and more frequently than for women) to unhealthy weight gain practices such as steroid use and overexercising (Lee & Owens, 2002).

1.2 Penis Size Satisfaction

Closely linked to male body image are men's perceptions of the size of their penis in comparison to other men's and the psychological implications of their perceptions. Any discussion on male body image would be incomplete without some discussion of the body part that has been deemed so important that it has been referred to as "manhood" – the very essence of what it means to be a man (Lee, 1996). Walker (1970) even went as far as to say, "It was once widely believed that a magical power resided in the male organ of sex. The powers of reproduction were thought to be among the fundamental potencies of the universe. From earliest times, men have been aware of the numerous mysteries of sexual intercourse and have idealised the sexual apparatus as the seat of pleasurable experience, the fount of all creative activity, and the origin of all of the manifold pageantry of the life around them" (p. 2173). McDonagh, Morrison and McGuire (2008) recently noted that, "A growing area of research points to the role of body image attitudes in human sexual functioning. In this regard, body image may include an evaluation of one's overall physical attractiveness as well as evaluations of various parts of the body (e.g., genitals and buttocks)" (p. 253). Thus, it is not unreasonable to assume a close relationship between male body image and penis size

satisfaction. Yet, there remains a void of empirical studies assessing the association between men's beliefs about their penis size and the level of satisfaction they experience with regards to their penis and the implications with respect to body image, and psychological well-being. Assessment and clinical measures for penis size satisfaction have also been resultantly limited. To the writer's knowledge, the only available empirical assessment of male genital satisfaction is the "Male Genital Image Scale" designed by Winter in 1989.

Some research has pinpointed the source of men's worries about their penis size is about whether they are able to satisfy their sexual partners (Baumeister & Tice, 2001). This finding may be attributable to the fact that many men regard the size of their penis as a significant factor in proving their virility and sexual prowess, and therefore their "manliness" (Stein, Baer, & Bruemmer, 2008). Lever, Frederick, and Peplau (2006) suggest that men's preoccupation with their penis size is exacerbated by pervasive cultural messages that equate the size of the penis with masculinity. Kilmartin (2000, pp. 215–216) noted, "Real men are described as having huge penises". Lehman (1999) also stated, in the Western society, "The small penis is somehow a sign of weakness and failure" (p. 10). A clinician interviewed by Lehman indicates that a number of men are concerned about their masculinity and that "one frequent manifestation of this is a preoccupation with the size of their penis" (quoted at p. 23).

Similarly, messages communicated by popular media, particularly television and men's magazines, tend to emphasise the relationship between penis size and masculinity (Lehman, 1999). Pornography, magazines, and countless Web sites that feature men with very large penises have further reinforced the cultural message that large penis size means more masculinity (Lever et al., 2006). In addition, the manner in which these media sources portray women's exaggerated sexual responses to large penises seem to

confirm the belief that most women prefer men with large penises, making the attribute all the more desirable for men of average and even above-average endowment. While most men are rationally aware that the penises in pornography are exceptionally large, constant exposure to these images may result in men overestimating the average penis size and underestimating the size of their own penis (Lee, 1996) thus resulting in penis size dissatisfaction.

1.2.1 Research on penis size measurements. Available research in the field of penis size to date has focused mostly on establishing human variation in actual penis length. Controversial for his time, Kinsey (1948) reported that the average length of erect penis is between 5 and 6.5 inches, and the average circumference of erect penis is between 4 and 5 inches. A summary of findings from 25 sources compiled by Templer (2002) determined that the average penis was approximately 3.5 inches (8.9 cm) long when flaccid and 6 inches (15.2 cm) long when it was erect.

Interestingly, though perhaps not surprisingly, measurements of penis size compiled by sex researchers are typically smaller than self-reports provided by male respondents. For example, taking the results of two carefully controlled studies wherein researchers measured penis size after self-stimulated and/or the ingestion of pharmaceutical drugs to induce erections (Senegezer, Ozturk, & Deveci, 2002; Wessells, Lue, & McAninch, 1996), Lever and colleagues (2006) analysed the aggregated data and reported that the mean erect penis length was 5.3 inches (13.5 cm), with 68% of the males measuring between 4.6 and 6.0 inches (11.7 cm and 15.2 cm), 13.5% between 3.8 and 4.5 inches (9.7 cm and 11.4 cm), 13.5% between 6.1 and 6.8 inches (15.5 cm and 17.3 cm), and only 2.5% of men had a penis length more than 6.9 inches (17.5 cm) or less than 3.7 inches (9.4 cm) long (Lever et al., 2006).

A wide range of folk beliefs surround concepts of desirable penis size, with foot

and hand size, and height and weight being frequently cited as being related to penis size (Paley, 1999). While there is some evidence that height is positively correlated with larger penis sizes (Edwards, 1998; Ponchiatti, Mondaini, Massimiliano, Di Loro, Biscioni, & Masieri, 2001) and weight is negatively correlated (Ponchiatti et al., 2001), in two small scale studies penis size was found to have no correlation to age, height and foot size (Siminoski & Bain, 1993).

1.2.2 Research on men's attitudes toward penis sizes. From a psychological viewpoint, the most important issue involved in the analysis of the impact of penis size on body image perceptions is a man's perception of his penis size relative to other men rather than the actual size of the organ itself. Winter (1989) noted that men who reported large penis sizes also demonstrated more positive genital and body images, and held more positive beliefs concerning their sexual prowess compared to men who reported an average or smaller than average penis size. A study by Lee (1996) involving 112 single male participants' (aged between 18 and 28 years old) self-reported estimates of their penis sizes compared the data to a range of related concepts and behaviours. The participants in the Lee (1996) study voluntarily and anonymously completed surveys concerning their concepts of physical appearance, physique, body hair, penis size, circumcision status, sexual orientation, and their use of public restrooms. In addition, the participants were queried about their experiences with sexually explicit materials and heterosexual intercourse, and whether they had seen their brothers and/or fathers nude. The findings have shown that while most of the participants (69%) believed they possessed an average-sized penis, the rest of the men were more likely to believe that they were smaller (26%) or larger (5%) than average. In addition, Lee (1996) noted that male participants who self-reported smaller than average penis sizes were more likely to be concerned about homosexual tendencies and that comparisons were more likely to be

made between flaccid or erect penises while viewing sexually explicit material. Comparable results were found in another study of 123 young men serving in the Korean military (Son, Lee, Huh, Kim, & Paick, 2003). This suggests that no matter how an individual “measures up” in terms of how their penis size compares to the average, some men continue to believe they they possess smaller than average penises resulting in a negative impact on self-esteem.

1.2.3 Research on penis size satisfaction. There have been a few studies attempting to relate penis size to satisfaction. A recent study examining genital perceptions among groups of Canadian post-secondary students by Morrison, Bearden, Ellis and Harriman (2005) highlighted that “attitudes toward the genitals are an important facet of human sexual experience” (p. 164). The findings by Morrison et al. suggested that a majority of men (83%) are satisfied with their penis size when it is erect, but the percentage drops to 71% for overall penis size and just over half (51%) for when it was flaccid. In their item analysis, Morrison and colleagues discovered that, for men, the local of genital dissatisfaction was penis size. Furthermore, a correlation between men’s global satisfaction with their genitals (e.g., size, shape, colouration, testicles, etc.) and increased body satisfaction was found. It is worth noting that the majority of participants in Morrison et al’s study completed the survey in a mass testing situation, which could significantly lowered external validity as it may have created social desirability pressures against reporting dissatisfaction with penis size. Similarly, in another study conducted by Edwards (1998), only 10% of men who described their penis size as being “modest” were found to be satisfied with their penis size, compared to 40% of the men who described themselves as average-sized and 70% of the men who described themselves as “endowed”. However, it should be pointed out that the findings were based on responses of men ($M = 30$ years old) who elected to participate in an

online survey posted on a website relating to penis size and men's issues (<http://www.sizesurvey.com>) and may therefore be more reflective of the views of men who have notably more preoccupations with this issue.

Based on a significantly larger Internet sample of 52,031 heterosexual men and women, Lever and his associates (2006) analysed the views concerning penis size across the developmental milestones and found that a majority of men (66%) described their penis as being average, 22% as large, and 12% as small. Self-reported penis sizes positively correlated with height and negatively correlated with the level of body fat. Findings also indicated that men with higher body mass index (BMI) experienced lower penis size satisfaction than thinner men, perhaps due to heavier men being more likely to view their penises as smaller than average when seen in proportion to the rest of their bodies. In the same vein, level of body fat was found to be a good predictor of penis size satisfaction (Lever et al., 2006). A positive highlight of the study was the inclusion of female perceptions on penis size. The findings indicated that 85% of women were satisfied with their partners' penis sizes, while only 55% of men were satisfied with their own penis size. In addition, 45% of the total sample indicated desire for a larger penis, in particular those who perceived their penises as smaller than average (91%) or average sized (46%). Based on their findings, Lever and colleagues (2006) noted, "To put this prevalence of dissatisfaction in perspective, this exceeds the percentage of men in our sample who were dissatisfied with their height (38%) or their weight (41%). Our data suggests that dissatisfaction with penis size diminishes only slightly as men age, indicating that the symbolism of having a large penis holds its value across the life span" (p. 37). Moreover, men who reported having a larger-than-average sized penis in the Lever et al. (2006) study evaluated their physical appearance more favourably than their less-endowed counterparts, suggesting a possible confidence effect of perceived

large penis size (i.e., higher penis size satisfaction).

1.2.4 Relationship between penis size and male body image. A study by Cash, Maikkula, and Yamamiya (2004) examined the relationship between body image and sexual functioning in a group of male and female college students. In this study, dispositional and situational body images were measured. Dispositional body image was defined as the degree of satisfaction (or dissatisfaction) with an individual's physical appearance as a global trait, while situational body image related to experiences within specific contexts, such as during sexual intimacy. Cash et al. found that participants' general level of body satisfaction negatively correlated with their levels of anxiety about the exposure of certain body parts during sexual activity (i.e., situational body image). One of the noteworthy findings of the study revealed in the multiple regression analysis have shown that situational body image was the most significant predictor of sexual functioning for male and female participants. Simply put, an individual experiencing high level of anxiety about their body during sexual activity will have a higher likelihood of suffering from poorer sexual functioning. This finding suggests that self-perceptions of the body during sexual activity may play a more important role in sexual functioning than self-evaluations of physical appearance that is not context specific (Cash et al., 2004).

The above findings are congruent with the results of a recent survey conducted in 2009 by Male Edge (<http://www.maleedge.com>), a company specialising in "male enhancement" products. The results of this survey of 290 men from several popular online forums, such as Men's Health magazine and Cosmopolitan magazine, determined that more than half (58%) of men reported feeling self-conscious about the size of their penis when disrobing in front of other men, in settings such as locker rooms and communal showers, but only 44% expressed concerns about their penis size when

undressing in front of a partner. The survey also found that 40% of men had an erect penis size between 6.1 and 7 inches, 34% of men had penises that were 5.1 to 6 inches when erect, but only 9% of the male participants reported that they had received complaints about their penis size from their partners. In spite of that, a large majority (81%) of the participants would consider penis enlargement procedures if they believed they were safe, cost effective, and reliable. Klaus Pedersen (2009), Managing Director of Male Edge, stated that, "There's a common misconception that men want a larger penis simply to impress a partner. As this survey has revealed, that's simply not true. The pressure to look good in the competitive environment of the gym is much more intense than it is in the bedroom. In fact, it is fair to say that women tend to care less about penis size than men do." What the study neglected to explore was whether homosexual men would experience similar levels of anxieties about their penis sizes in locker room situations and with their partners, given that they will be subjected to the competitive male gaze in both contexts.

In view of that, the current study hypothesised that heterosexual men's level of penis size satisfaction and body image will be lower when rated in comparison to other men than when rated against their own expectations, while homosexual men would report lower body esteem and penis size satisfaction in both contexts. This study also proposes that if men believe a large penis to be the cultural ideal, self perceptions of penis size will relate to self evaluations of their general physical attractiveness. Men with an actual or perceived larger-than-average penis size may experience a confidence boost leading them to rate their body more positively. Conversely, men with poor penis size satisfaction may experience an insecurity effect that might lead them to rate their body less favourably.

1.3 Internet Dating, Body Image, And Social Anxiety

The research to date has identified a significant correlation between poor body image and social anxiety; findings have been consistent for both men and women across the lifespan among clinical as well as non-clinical populations in different countries (Pinto & Phillips, 2005; Liao, Knoesen, Deng, Tang, & Castle, 2010). The results of a recent study have shown that ratings of general attractiveness for adolescent males were highly predictive of their self-esteem (Davison & McCabe, 2006). They further discovered that male teenagers who held negative body images also had a higher tendency of experiencing poor opposite-sex peer relations. Other researchers (Stevens & Morris, 2007) have highlighted the importance of social relationships for healthy development. This is due to evidence that individuals suffering from social and/or dating anxiety are more likely to experience current and future difficulties in developing normal relationships because of their fear of negative evaluation by others. For these individuals, the Internet can be both a blessing and a curse. The ability to connect to the World Wide Web has open potential avenues of communication and provides a new platform upon which relationships can be established and preserved without the need for face-to-face contact that can prove daunting for individuals with social anxiety. Research has also shown that Internet communications can significantly decrease loneliness and depression, and increase perceived social support and self-esteem (Shaw & Gant, 2002; Stevens & Morris, 2007). On the other hand, some findings have indicated notable correlations between Internet use and decreased levels of self-esteem (Armstrong, Phillips, & Saling, 2000; Niemz, Griffiths, & Banyard, 2005). However, it should be noted that the majority of these studies have mostly been conducted with college students and have not differentiated between those participants who used the Internet for communicative purposes (i.e., social networking sites such as SecondLife,

Facebook, chat rooms, online forums, multiplayer gaming sites, etc.) and those who used it for non-communicative purposes (i.e., surfing the Web, single-player gaming sites, academic research, etc.).

1.3.1 **The rise of internet dating.** In spite of early fears that the introduction of the Internet would lead to people embracing isolation and becoming socially awkward (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, 1998), it has instead become a choice medium for social communications (D'Amico, 1998) and personal interactions have been found to be the primary purpose of home computer use (Moore, 2000). The potential of the internet to foster new relationships has sparked recent interest in both the academic literature and the popular press. Hardey (2004) described the internet providing both men and women with drastically different opportunities to form and maintain relationships, noting that new information and communication technologies are supplementing or replacing traditional routes to potential romantic encounters in both Australia and overseas. eHarmony.com, Match.com, Okcupid.com, and RSVP.com.au are among the most well-known online dating sites that have gained immense popularity over the recent years. According to the Internet Security Systems database (2006), the number of dating sites has increased by 17% globally since 2005 (cited in Madden & Lenhart, 2006). Slightly more than one-third of single Internet users in the United States in search of a romantic partner have used an Internet dating site (Frienden, 2007). In fact, the Internet has become the fourth most popular approach to finding dates or romantic partners, next to "work or school" (38%), "family or friends" (34%), and "nightclubs, bars, cafés, or other social gatherings" (13%) (Madden & Lenhart, 2006). In a recent newspaper report describing research commissioned by an online dating service, www.parship.co.uk, it was reported that 3.6 million Britons used online dating services in 2005 (The Age 12/1/2006 'Online

dating reaches critical mass'). According to the article, this represents 65% of the 5.4 million Britons who were seeking relationships via a dating service in 2005. It was also reported that about one in two British singles believe they will meet a potential mate online, while 42% of European singles believe the same. In 2006, researchers from Swinburne University conducted a telephone survey of 1013 Australian adults and found that 78% had used the Internet of which 13% had successfully formed online social relationships (Hardie & Buzwell, 2006). Much of the research to date on online relationships has been based on data from the United States and United Kingdom, but relatively little has been explored on the use of Internet for dating and socialising in Australia.

Despite popular opinion about the role of the Internet in facilitating interpersonal relationships, most research in this area has focused on the Internet as a means of transmitting information rather than as an instrument for social interaction because researchers have considered computer-mediated-communication to be impersonal, and thus neglected the possible social implications (Donn & Sherman 2002). However, in light of the vastly increasing number of reports of relationships that are initiated online (e.g., McCown, Fischer, Page, & Homant 2001; Parks & Roberts 1998, Whitty & Gavin 2001), there is an urgent and strong need for researchers to explore the social and personal implications of these new technologies (Whitty, 2004), especially for mental health clinicians confronted with patients who require therapeutic interventions with regards to their Internet behaviours and relationships.

1.3.2 The pros and cons of internet dating. Although there is a need for more research in this area, some authorities maintain that Internet dating sites are being increasingly viewed as a superior and preferred alternative for meeting potential partners compared to their offline alternatives. Internet dating sites not only provide

initial anonymity, they offer the opportunity for more detailed personal information in dating profiles that is believed to help identify potential mates with compatible “core” values and beliefs in a fast and efficient way as compared to more traditional dating methods, such as meeting strangers at a bar or getting to know a person over several dates (Valentine, 2006). According to Valentine, “As such rather than merely listing an inventory of personal attributes, online dating profiles are less formulaic, creating a reflexively organised story about the advertiser-which reflects not only a self-definition of how they see themselves in the present but also their life choices and who they have the potential to become” (p. 365). Although the saying that “online, no one can tell if you’re a dog” remains true, Internet dating sites do provide the advantage of exchanging personal information without the concomitant initial awkwardness and possible embarrassment associated with first-time face-to-face meetings (Valentine, 2006). In this regard, Valentine adds that, “Indeed, the Internet provides a space for a huge range of specialist sites dedicated, for example, to particular sexual practices, minority ethnic groups, or vegetarians, which means that individuals have more opportunity to meet the ‘type’ of person they are looking for online than they would through more generic newspaper dating columns or chance meetings in everyday life (Valentine, 2006, p. 365).

1.3.3 Relationship between internet dating and social anxiety. Indeed, the absence of face-to-face social anxiety has proven to be a big draw card in choosing Internet dating over traditional offline methods. Some research has suggested that individuals with social anxiety and lower body esteem may be more inclined to seek out personal relationships over the Internet (Ward & Tracey, 2004). In a study of 300 college and graduate students Donn and Sherman (2002) explored young adults’ attitudes and practices regarding internet use to facilitate romantic relationships and

determined that 7.7% of college students and almost one in five (19.7%) of the graduate students they surveyed had used this approach. Their study also illustrated that the main reason for Internet use was anxiety reduction, with participants indicating that they felt less shy online than in person, which made the 'getting to know you' process less intimidating. Similarly, Knox, Daniels, Sturdivant, and Zusman (2001) reported that two-fifths of their sampling of college students had used an online resource to locate peer groups and establish new friendships; however, only 7% had found a romantic partner using this approach. Similarly, the Knox et al. study found that the primary reason college students were turning to online resources for establishing connections with others with the possibility of romantic involvement related to initial anxiety reduction based on the "comfort zone" afforded by the online environment. The limited studies in this area do suggest that people with social or dating anxiety are more likely to make use of online avenue to explore relationships in a less threatening manner than traditional face-to-face meetings (Joinson, 2004).

1.3.4 Impact of body image and self-esteem on internet dating. The socially anxious are not the only ones who may benefit from the "comfort zone" provided by the Internet when it comes to seeking relationships. Individuals suffering from poor self and body image and people who experience high anxiety levels in relation to fear of negative judgment by others due to perceived undesirable physical traits may also take comfort in being able to form friendships and relationships online with the absence of physical evaluations. In 1999, McKenna and Bargh conducted two laboratory studies at Ohio University involving a survey of more than 600 Internet newsgroups and determined that because of so-called "gating features" (i.e., "first impression" factors including physical appearance variables such as weight and height, personality, speech, self-presentation, and so on, that may deter initial positive evaluation by a potential

friend or partner), many individuals with performance or evaluation anxiety were more likely to use the Internet as a means to establish peer and/or romantic connections. The anonymity provided by the Internet eliminated or otherwise mitigated the relative importance of these gating features on Internet users in developing relationships with others, particularly during the early stages of the process (McKenna & Bargh, 1999). However, there are arguments about the quality and honesty of connections established in the absence of face-to-face interactions. Stevens and Morris (2007) found that the accuracy of individual descriptions of online users concerning their physical appearance was related to the level of anxiety they were experiencing, suggesting that those with lowered body image perceptions would be more likely to exaggerate or prevaricate compared to their less anxious peers as a way of advancing online relationships. This could lead to relationships formed online to stay in cyberspace where individuals are safe to hide behind their online personas and not have these relationships be established offline. For instance, in Whitty's (2004) survey of over 5000 chat-room users (62% female, 38% male; mean age = 23 years), a staggering 74% of respondents said they had at some stage formed a romantic relationship with someone they had met online, but only 35% of them reported that they had physically met with someone they met on the internet.

The recent study conducted by Kim, Kwon, and Lee (2009) examined the three primary characteristics that underlie the use of Internet dating services: (1) self-esteem; (2) involvement in romantic relationships; and (3) sociability. Kim et al. (2009) found a significant three-way interaction effect among these factors. Sociable individuals with high self-esteem were found to be more likely to turn to Internet dating during periods in their lives when they are involved in intense romantic relationships. Conversely, participants with low self-esteem were found to be more likely to use an Internet dating

service when romantic relationships were not important. Besides sociability, sexuality was also shown to be an important factor in the individual decision to use an online service (Kim et al., 2009). For example, the results of a 2004 online survey of 15,246 individuals concerning their use of Internet personal advertisements and adult-oriented Web sites found that gay men, lesbians, and bisexuals (GLBs) were more likely than their heterosexual counterparts to have used online services to communicate with others, to have met with their online contacts in real life, and to have engaged in sexual contact with them (Lever, Grov, Royce & Gillespie, 2008). Qualitative findings of this study suggest that not only does the Internet serve as a way for those with social anxieties to avoid challenging initial face-to-face interactions and as a mean of screening for desired characteristics, it also serves as a buffer for real-life prejudices that might not be otherwise discernible (Lever et al., 2008). The researchers propose that while both GLBs and heterosexuals use the Internet as a medium for “sexual identity development, sexual exploration, and community building”, GLBs may be more likely to use online media for such purposes due to the aforementioned safety buffer from prejudices and ease of finding individuals on similar sexual orientations and preferences.

Based on their analysis of recent trends in Internet dating service usage, Peter and Valkenburg (2007) proposed the ‘compensation hypothesis’ in their study which speculates that individuals who experience high levels of dating anxiety and low physical self-esteem will tend to search for casual partners using online resources more frequently than those with lower dating anxiety and higher physical self-esteem levels. This compensation hypothesis offered by Peter and Valkenburg (2007) is based on an assumption that decreased social cues, increased sense of anonymity, and ability to control the exchange of online communication provided a more comfortable environment allow people who suffered from the above conditions to compensate for

the deficits that they encounter in traditional offline dating methods where physical appearance is more of a determining factor in attraction and attention. Since people only get one chance to make a good first impression and an attractive physical appearance highly affects initial evaluations of others, it is not surprising that people who believe themselves to be inferior in terms of body image and physique would be more comfortable in an online setting than in face-to-face interactions (Levine, 2000; McKenna & Bargh, 2000). However, the compensation hypothesis was refuted by the results of their own study (Valkenburg & Peter, 2007), an outcome that was explained by these researchers as follows; “By now, the Internet is so widely used that the online population increasingly resembles the offline population. As a result, patterns that occur in the offline world also increasingly emerge in online life. For example, the extroverted make more friends online than the introverted; the non-lonely communicate more frequently on the Internet than the lonely; and those low in dating anxiety are more likely to turn to online dating than those high in dating anxiety” (p. 277).

1.3.5 Demographic differences in internet dating. Given that sexual orientation plays a part in the likelihood of Internet use for dating and socialising purposes, it would also be interesting to investigate other demographic differences in individuals who engage in online relationships. Parks and Floyd (1996) indicated that while women are generally more inclined to form offline relationships than men, no gender, age, or marital status bias was found in their study when it comes to online relationships. McKenna, Green, and Gleason (2002) also discovered that men and women were equally likely to engage in platonic relationships with someone they met on the Internet. Use of the Internet for social interactions may be particularly important for young adults and adolescents. In a study by the Pew Internet and American Life Project in 2001, 754 telephone interviews were conducted with Internet users aged

between 12 and 17 years and it was found that online communication was an essential feature of their lives and had partially replaced offline interactions. For adults, an important use of the internet appears to be the formation of romantic relationships. Press release information of various internet dating sites indicates that their membership consists primarily of singles aged 21 – 49 years (Donn & Sherman, 2002). As can be seen, while the impact of the Internet on social interactions has been openly acknowledged as significant and worthy of further research, studies in this area remain limited and under-explored.

1.4 Summary

The research showed that throughout history, physical appearance has been an important factor in how humans went about selecting mates for reproduction. Over time, the attributes that contributed to a perception of physical desirability have changed, but physical appearance has remained a consistent feature of human sociality over the ages. The results of many of the studies to date concerning men's perceptions of body image and the corresponding impact on self-esteem were shown to be flawed in several ways, including the use of anecdotal accounts, non-scientific magazine surveys and content analyses that failed to provide the appropriate and validated male-specific findings needed to formulate informed opinions and identify new insights into these issues. Despite the lack of research in this area, the themes that emerge from the studies to date confirm the significance of the impact of body image on the way individuals perceive themselves and the way they conduct their romantic relationships, as well as self-esteem and overall general functioning. In summary, male body image was found to be just as complex and dynamic as that of women's; perhaps even more so, given the disparities in female body image researches, resources, and available help being significantly more communicated throughout modern society compared to male body

image. The present study aims to add to the limited body of literature in further investigating the links between male body image, self-esteem, reported physical traits, general functioning, and use of Internet for dating and socialising.

2 Aims and Hypotheses of Present Study

The aim of the present study was to determine the relationships among self-reported physical attributes of men (i.e., penis size and weight), body satisfaction (drive for muscularity and body size perceptions), penis size satisfaction (satisfaction with penis size and length when either flaccid or erect), self-esteem, and the psychological implications of poor body image in men, using measures that have been specifically developed to measure male body image concerns. This study differed from most of the research to date in that most previous studies have been flawed by using measures that were originally intended to measure body image dissatisfaction among women as well as norms that were based on these findings. This study also offered a chance to explore possible relationships among the independent variables and other factors such as age, occupation, sexuality, etc., on a substantial International sample size of more than 500 men via an online medium. The study further aimed to investigate the association between male body image and the preference for Internet dating and online socialising – an area that appeared to be under-researched. The results of this study would add to the knowledge base and make a contribution to the literature on male body image.

The following hypotheses were proposed:

1. Men who perceive themselves as less muscular may have lower self-esteem and poorer body image and mental health than men who perceive themselves as more muscular.
2. Men who are overweight may have lower self-esteem and poorer body image and mental health than men who are not overweight.
3. Men who reported satisfaction with their penis size may have higher self-esteem and better body image and mental health and men who are dissatisfied with their penis size.

4. Men who are overweight, who perceive themselves as less muscular, who report dissatisfaction with their penis size, and report lower self-esteem and poorer body image may use the Internet for socialising and dating more frequently than men who are not overweight and more muscular, have higher self-esteem, report satisfaction with their penis size, and report more favourable body images.

3 Method

3.1. Participants

3.1.1. **Demographic characteristics.** The participants were 738 men aged between 18 and 76 years. The men were recruited via an online survey. The mean age was 32.49 years ($SD = 11.91$). The participants originated from 43 different countries, with the majority coming from Australia (48.8%), followed by United States of America at 26.4%. One-fifth of the sample (20.5%) reported being currently married, 53.8% recorded their relationship status as single, 11.7% reported being in a relationship, 6% reported being in a de facto relationship. A further 8.11% reported being widowed, separated or divorced, and 4.7% did not record their relationship status. Participants' responses to the occupation question were grouped into 23 different job group categories, such as Medical, Retail and Student, for ease of data analysis. Nearly one-quarter of the participants were students (23.2%). A further 11.8% of the sample was employed in the Information Technology field and 11.5% worked in areas of Business / Marketing / Advertising. Forty-seven participants did not indicate their occupation. The majority of participants (63.8%) identified themselves as heterosexual compared to 25.2% as homosexual, 9.2% as bisexual, 0.1% as transsexual, 0.5% as asexual, and 1.2% as Other.

3.1.2. **Physical characteristics.** The weight across the sample ranged from 44 to 300 kilograms ($M = 88.59\text{kg}$, $SD = 1.16$). The height of the men in the sample ranged from 1.36 metres to 2.00 metres ($M=1.79\text{m}$, $SD = 0.002$). Body Mass Index (BMI) levels ranged from 14.2 to 89.6 with a mean of 27.65 ($SD = 0.34$). The majority of the sample was classified as either overweight or obese. The proportion of the sample overweight (BMI = 25-29.99) was 27.3 %, moderately obese (BMI 30 – 34.99) 9.5%, severely obese range (BMI 35 – 39.99) 3.7% and very severely obese (BMI > 40) 6.1%.

Slightly less than half (41.7%) were in the normal BMI range (BMI = 18.51 – 24.99), and 1.7 % of the participants were underweight (BMI < 18.5). The mean waist measurement was 89.26 cm (*SD* = 0.53), with measurements ranging from 32 cm to 152 cm. The mean chest measurement was 102.4 cm (*SD* = 0.72), with chest sizes ranging from 51 cm to 188 cm.

3.1.3. **Mental health history.** The majority of men (67.4 %) reported no history of mental health issues with 23.4 % reported having some form of mental health issue at some point in their lives. The majority of these participants indicated that they had suffered from depression, anxiety or both.

3.2. Materials

3.2.1. Demographics questionnaire.

3.2.1.1 **Age.** To measure age, participants were required to record their dates of birth. Age, in years, was subsequently calculated.

3.2.1.2 **Sexual orientation.** Participants were asked to indicate if they identified themselves as: (a) heterosexual; (b) homosexual; (c) bisexual; (d) transsexual; (e) Asexual; or (f) Other.

3.2.1.3 **Country of origin.** Participants were also asked to record their country of origin.

3.2.1.4 **Marital status.** Participants were required to report their marital status. Possible responses were; 'married', 'single', 'defacto relationship', 'other relationship', 'divorced', 'separated', and 'widowed'.

3.2.1.5 **Occupation.** Participants were asked to report their current occupation.

3.2.2. Physical attributes measures.

3.2.2.1 **Chest measurement.** Participants were asked to report their

chest measurements in either centimetres or inches. All the data were subsequently converted to centimetres for data analysis.

3.2.2.2 **Waist measurement.** Participants were asked to report their waist measurements in either centimetres or inches. All the data were subsequently converted to centimetres for data analysis.

3.2.2.3 **Body mass index (BMI).** Height and weight as reported by the participants were used to calculate participants' BMI according to Australian Institute of Health and Welfare guidelines (<http://www.aihw.gov.au/riskfactors/faqs.cfm>). A person's BMI is equal to their weight in kilograms divided by the square of their height in metres.

3.2.3. **Penis size satisfaction measures.** Given that there were no published measures of penis size satisfaction available to the author's knowledge, four questions relating to participants' attitudes about penis size were included in the study as follows: "I wish I had a bigger penis.", "I think I would feel better about myself if I had a bigger penis.", "I think I would be a better sexual partner if I had a bigger penis.", "I have tried/have thought about trying other methods to increase the size of my penis." Responses were recorded on a 6-point Likert type scale from 1 = Never to 6 = Always. Scores for each item were summed and the mean score was calculated. Higher scores reflected higher dissatisfaction with penis size. Participants were also asked to respond 'Yes' or 'No' to a question to assess whether they had ever used Viagra. Participants were also asked to indicate the following: (a) the length of their penis when flaccid; (b) the length of their penis when aroused; (c) the diameter of their penis when flaccid; (d) the diameter of their penis when aroused; (e) their ideal length of penis when flaccid; (f) their ideal length of penis when aroused; (g) what they think the average penis length is when flaccid; and (h) what they think the average penis length is when aroused.

Participants' own responses to penis length were subtracted from participants' responses to ideal penis length in the flaccid and aroused states respectively. Higher scores indicated higher dissatisfaction with penis length.

3.2.4. Internet socialisation and online dating behaviours measure. To the author's knowledge, there are no published measures on Internet dating behaviours available. Therefore, this variable was measured using the following five questions: "Have you ever used Internet dating sites to meet people?", "Have you ever been in a relationship with someone you met on the Internet?", "Have you ever been in a long-distance Internet relationship?", "Do you find it easier to talk to people on the Internet rather than face-to-face?", "Are you more confident online than face-to-face?" Items were rated on a 5-point Likert type scale ranging from 1= Never to 6= Always. Responses for each item were aggregated and the mean was calculated to generate a composite score for Internet socialisation and dating behaviours. Higher scores reflect a higher tendency to socialise and form relationships via the Internet. Participants were also asked to record how many hours they spend on the Internet every week for leisure (i.e., not work or school related)? Possible responses were 'Less than 7 hours per day', '7-14 hours per day' and 'more than 14 hours per day'.

3.2.5. Male body image measure.

3.2.5.1 Drive for muscularity scale. The Drive for Muscularity Scale (DMS) (McCreary & Sasse, 2000) is a 15-item questionnaire that is freely available from the World Wide Web (<http://spartan.ac.brocku.ca/~dmccreary/muscularity.html>). It is designed to assess attitudes and behaviours in relation to muscularity and motivation to become more muscular. Items include, "I wish I were more muscular" and "I feel guilty if I miss a weight training session." Responses are scored on a 6-point Likert-type scale ranging from 1 (Always) to 6 (Never). Responses were reverse-scored so that

higher scores reflected a higher drive for muscularity. The overall score is yielded by calculating the mean of the sum of all the items, except for item 10, according to the scoring instructions. Recent factor analytic work has shown that the DMS has a two-factor, lower order structure for men, representing the attitudinal and behavioural items namely the DMS Muscle Development Behaviours Subscale (DMSbeh) and the DMS Muscularity-Oriented Body Image Attitudes Subscale (DMSatt) (McCreary, Sasse, Saucier, & Dorsch, 2004). DMSbeh is derived by calculating the mean of the scores for items numbered 2, 3, 4, 5, 6, 8 and 12. DMSatt is scored by calculating the mean of the scores for items numbered 1, 7, 9, 11, 13, 14 and 15. The DMS has good construct, convergent, and discriminant validity (McCreary et al., 2000; 2002).

3.2.5.2 Male figure drawings (MFD). Body Image was also measured using the Male Figure Drawings (MFD) Scale. The MFD is a silhouette scale consisting of nine adult male figure drawings that increase in muscularity from the first figure to the last numbered 10 to 90 with increments of 10 points per figure (see Fig. 1) (Lynch & Zellner, 1999). Participants were asked to indicate which drawing is most similar to their own bodies (OWNBODY), which drawing they would choose to represent what the ideal male body should look like (IDEALBODY), which drawing they think other men would choose to represent the ideal male body (OTHERIDEAL), and which drawing would be most attractive to potential partners (PARTNERIDEAL). Participants chose any drawing numbered between 10 and 90. Body satisfaction was scored by subtracting the scores on OWNBODY from IDEALBODY, OTHERIDEAL, and PARTNERIDEAL, and the scores on IDEALBODY from OTHERIDEAL and IDEALBODY from PARTNERIDEAL. Higher scores indicated higher body dissatisfaction. For example, if Subject A rated his IDEALBODY as 80 and OWNBODY as 30, his score would be 50 (80 minus 30). If Subject B rated his

IDEALBODY as 80 and OWNBODY as 60, his score would be 30 (80 minus 60).

Comparatively, Subject A, with the higher score, has lower body satisfaction than Subject B. The scale has acceptable test-retest reliability for current body rating ($r=.88$) and ideal body rating ($r=.71$) (Cafri & Thompson, 2004; Lynch & Zellner, 1999).

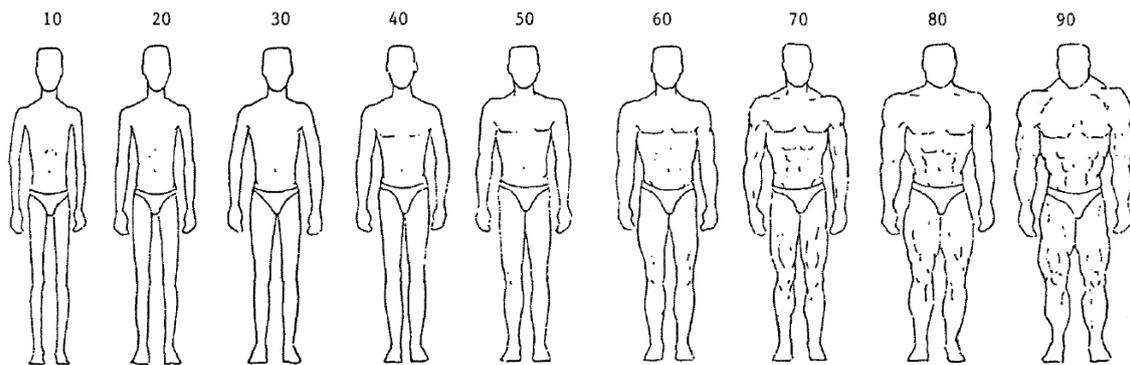


Figure 1. Male figure drawings originally used in Winitch (1993), drawn by Barbara Alexander, and reprinted with permission from Lynch and Zellner (1999).

3.2.6. General psychological functioning measure.

3.2.6.1 Rosenberg self-esteem scale (RSES). The RSES is a 10-item self-report questionnaire assessing global self-esteem that has high reliability for a short scale and good construct validity (Blascovich & Tomaka, 1991; Rosenberg, 1965). It consists of 10 statements, such as "On the whole I am satisfied with myself.", "I am able to do things as well as most other people.", and "All in all I am inclined to feel that I am a failure.", that are rated on a 4-point Likert scale ranging from strongly agree (3) to strongly disagree (0). Items 2, 5, 6, 8, and 9 were reverse-scored (i.e., 0 for strongly agree and 3 for strongly disagree). The sum of all ten items gives the RSES score. The scale score ranges from 0-30. Scores between 15 and 25 are within normal range; scores below 15 suggest low self-esteem. Rosenberg (1965) reported that the scale had high internal consistency ($r= .80$) and high test-retest reliability ($r = .85$; 2-week interval).

3.2.6.2 General health questionnaire (GHQ-12). The GHQ is a self-

report questionnaire that was designed to be used as a screening instrument to identify psychological distress and short-term changes in mental health of patients in community and primary care settings (Goldberg, 1978; Goldberg & Williams, 1988). GHQ was originally designed in a 60-item format, from which several shorter versions (GHQ-30, GHQ-28, GHQ-20 and GHQ-12) have been derived. The validity and multidimensionality of the GHQ have been extensively assessed in various studies covering identifiable elements of psychological distress, such as depression, anxiety, social dysfunction and psychosomatic symptoms (Goldberg & Williams, 1988). The short twelve-item version of the GHQ (GHQ-12) is the most widely used screening instrument for psychological distress (Penninkilampi-Kerola, Miettunen, & Ebeling, 2006). Its brevity has made it attractive for use in clinical settings and in large epidemiological studies, where it has typically been used as a unidimensional measure (French & Tait, 2004). The GHQ-12 includes 12 items and uses a four-point Likert scale (More than usual – 0; Same as usual – 1; Less than usual – 2; Much less than usual – 3) to assess general health at the present time. Example items include: “Have you recently been able to enjoy your normal day-to-day activities?,” “Have you recently been able to concentrate on whatever you’re doing?,” and “Have you recently been losing confidence in yourself?”. The GHQ is scored by adding up the total score from all 12 items ranging from 0 to 36. Lower scores indicate better general health status. The scale has been shown to have satisfactory reliability values (internal consistency, $r=0.85-0.93$; retest reliability, $r=.73$) (Hardy & Shapiro, 1999; McCabe, Thomas, Brazier, & Coleman, 1996).

3.2.7. **Mental health history.** Participants were asked to report if they have any history of mental health issues, and if yes, to specify them.

3.2.8. **Participants’ comments.** Participants had the opportunity to make open-

ended comments at the end of the questionnaire.

3.2.9. **Plain language statement and consent form.** This statement was designed to explain the aims of the research, the requirements of participation and the possible risks of participating in the research. Participants were also required to click on a button to indicate their consent before proceeding with the questionnaire.

3.2.10. **Internet and computer software resources.** QuestionPro (www.questionpro.com), a server dedicated to hosting user-created online surveys, was used for data collection. Yahoo! Groups™, Google Groups™ and Livejournal™ were used for gathering participants. Yahoo! also provided a free mailing list for participants to sign up anonymously at the end of the survey should they wish to be informed of the results of the study. In addition, Email.com™ provided an anonymous email address (men@representative.com) for signing up to mailing lists and message boards. The Statistical Package for the Social Sciences (SPSS) program (Version 17) was used to analyse data.

3.3. Procedure

3.3.1. **Ethics approval.** Prior to conducting the study, ethical approval was obtained from the Faculty of Arts, Education, and Human Movement Ethics Committee at Victoria University, Melbourne, Australia.

3.3.2. **Recruitment.** The target population sample was men at least 18 years of age with access to the Internet and basic literacy in English. The questionnaire was hosted with a student account on the QuestionPro website (www.questionpro.com). A redirecting URL (www.men.andmuchmore.com) was registered for free with The Wealias Network (<http://wealias.com/>) for promotional purposes. The study was advertised on the Victoria University Bulletin Board, in local magazines and newspapers (such as The MX), on a GLBTI radio station (Joy FM), and via flyers

distributed on the streets in the city centre and various Melbourne suburbs. After gaining permission and assuring anonymity to relevant parties and forum moderators, the link to the questionnaire together with information for potential participants, which included a brief summary of the study, the aims, and instructions, were posted on over 100 online mailing lists, message boards, and forums on Yahoo! Groups™ (<http://groups.yahoo.com/>), Google Groups™ (<http://groups.google.com/>), and Livejournal™ (<http://www.livejournal.com>) that were dedicated to the discussion of men's interests (such as cars, computer games, sports), men's body image issues (such as weight-lifting, dieting, protein shakes), Internet-dating, and academic psychological and social work research.

3.3.3. **Data collection.** Men participated in the study via an online questionnaire that was hosted by QuestionPro at the address, <http://www.men.andmuchmore.com>. Prior to completing the questionnaire, men were requested to read the Participation Information, which provided a summary of the aims and rationale of the research, and their rights to withdraw from the voluntary study at any stage. If they wished to take part in the research, they were required to click a button to express their consent before proceeding to complete the questionnaire. At the end of the questionnaire, participants were provided with information and resources about body image and eating disorders associations as well as websites of counselling agencies. These included international listings (see Appendix). The contact details of the principal researcher were also listed for further assistance if it was required. Participants were also given the option of indicating their interest in receiving a summary of the results by joining an anonymous mailing list hosted by Yahoo!. Upon completion of the questionnaire, the responses were sent electronically by QuestionPro to the student researcher for data analysis. The questionnaire was online for six months and removed

when more than 500 responses were received. At the end of the data collection period, posts were made to all the message boards, forums, and online communities to thank the participants and moderators for their time and cooperation. The study aimed to recruit up to 500 male participants. The final sample was made up of 738 men, out of which 448 completed all the non-optional questions in the questionnaire.

4 Results

4.1. Data Handling

To ensure integrity of the data, responses from duplicate ISP (Internet Service Provider) addresses were eliminated from the study to prevent spam participation. QuestionPro provided a log of which countries the respondents were from and these were used to compare with the actual responses of the participants to the Country question. Responses that did not tally with the log were removed from the dataset to minimise incidence of fake responses. The data were then entered into the Statistical Package for Social Sciences Version 17.0 (SPSS). Scores on all variables were then examined in SPSS to identify missing data and outliers, and to test the assumptions of normality, homoscedasticity and linearity.

There was a high number of missing values for waist measurement, chest measurement, and the use of Viagra. Given the high number of missing values for these variables, they were excluded from the analyses, but kept for demographic statistics. Responses to the question relating to penis diameter were inconsistent as many participants appeared to record diameter instead of circumference. As such, data on penis diameter will not be used in the study.

For multivariate analysis, categorical variables were dummy coded. These included marital status (0 = married, defacto, relationship; 1 = other); mental health history (0 = No history of mental health conditions; 1 = 1 or more conditions); sexual orientation (0 = heterosexual; 1 = other); and hours of internet use (0 = less than 7 hours per day; 1 = more than 7 hours per day).

Mahalanobis distance was used to test for multivariate outliers during the SPSS REGRESSION procedure. Any outliers that exceeded the critical χ^2 value, with degrees of freedom equal to the number of independent variables at $p < .001$ were deleted from

the analysis. An examination of the REGRESSION residuals and normality probability plots was also carried out to test the assumptions of normality, linearity and homoscedasticity. Upon inspection of histograms it was observed that there were no gross violations of the assumptions. 2 outliers were found.

4.2. Tests of Reliability

The reliability of the measures was assessed by the computation of reliability coefficients using Cronbach's alpha. The results are shown in Table 1. The obtained reliability coefficients ranged from .75 to .90, indicated high internal consistency.

Table 1

Reliability Coefficients of Self-Esteem; General Health Functioning; Drive for Muscularity; Male Figure Drawings; Penis Length, Penis Size Satisfaction; and Internet Socialisation and Online Dating Behaviours

Measure	Cronbach's alpha
General Health Functioning	.90
Reliability Coefficients of Self-Esteem	.90
Drive for Muscularity	.88
Male Figure Drawings	.75
Penis Length, Penis Size Satisfaction	.90
Internet Socialisation and Online Dating Behaviours	.79

4.3. Variables

Self-esteem was computed from the Rosenberg Self-Esteem Scale and the Cronbach's alpha was 0.90 in the current sample. General Psychological Functioning was measured using the General Health Questionnaire (GHQ-12). In the current sample, Cronbach's alpha was 0.90. Body Image was measured using the Drive for Muscularity Scale (DMS) and Male Figure Drawings (MFD). The DMS was divided into two subscales, namely the DMS Muscle Development Behaviours Subscale (DMSbeh) and

the DMS Muscularity-Oriented Body Image Attitudes Subscale (DMSatt). Cronbach's alpha was 0.88 in the current sample. For the MFD, participants were asked to indicate which drawing (a) was most similar to their own body (OWNBODY); (b) they would choose as what the ideal male body should look like (IDEALBODY); (c) they think other men would choose as the ideal male body (OTHERIDEAL); (d) would be most attractive to potential partners (PARTNERIDEAL). In the present sample, Cronbach's alpha was 0.75.

Penis Size Satisfaction was measured using the following four questions that were scored according to a 6-point scale (Cronbach's alpha .90): (a) I wish I had a bigger penis; (b) I think I would feel better about myself if I had a bigger penis; (c) I think I would be a better sexual partner if I had a bigger penis; (d) I have tried/have thought about trying other methods to increase the size of my penis. Participants were also asked to indicate (a) the length of their penis when flaccid; (b) the length of their penis when aroused; (c) the diameter of their penis when flaccid; (d) the diameter of their penis when aroused; (e) their ideal length of penis when flaccid; (f) their ideal length of penis when aroused; (g) what they think the average penis length is when flaccid; and (h) what they think the average penis length is when aroused. The data on diameter were excluded from analysis due to inconsistency of participants' responses.

Internet Socialisation and Online Dating Behaviours were measured using the following seven questions that were scored according to a 3-point Likert scale (Cronbach's alpha .79): (a) How many hours do you spend on the Internet every week for leisure (i.e., not work or school related)?; (b) Have you ever used Internet dating sites to meet people?; (c) Have you ever been in a relationship with someone you met on the Internet?; (d) Have you ever been in a long-distance Internet relationship?; (e) Do you find it easier to talk to people on the Internet rather than face-to-face?; (f) Are you

more confident online than face-to-face?; and (g) What percentage of your friendships and relationships are made over the Internet?

To ascertain whether patterns of body image problems, penis size dissatisfaction, self-esteem issues, and Internet dating behaviours existed in and/or differed within particular life stages, weight categories, ethnic groups, sexuality, physical measurements, marital status, occupation, and mental health history, additional variables were created and statistically analysed accordingly as detailed below.

Data on ages of participant (years) was collected. Ages of participants were further split into four categories according to developmental stages to aid in data analysis: (a) 18 - 25 (Young adult); (b) 26 - 40 (Middle age adults); (c) 41 - 65 (Older adults); and (d) 66 onwards (Seniors).

Data on sexuality of participants were collected. Participants were asked to indicate if they identified themselves as follows: (a) heterosexual; (b) homosexual; (c) bisexual; (d) transsexual; (e) Asexual; or (f) other.

Data on the marital status of participants were collected and split into the following categories: (a) single; (b) married; (c) in a relationship; (d) de facto; (e) widowed; (f) separated/divorced; and (g) did not state.

Participants' countries of origins were also used as a variable and their ethnicity were categorised as followed: (a) White; (b) Asian; (c) mixed heritage; (d) Indigenous; (e) Black; (f) Middle Eastern; (g) Hispanic; (h) Mediterranean; and (i) Did not state.

Participants' physical measurements were also used as variables, namely weight, height, and Body Mass Index (BMI). Chest and waist measurements were omitted in analysis due to high number of missing values. BMI of participants were further split into six groups according to the categories provided by the Australian Institute of Health and Welfare (<http://aihw.gov.au/riskfactors/faqs>. Cfm): (a) less than 18.5 (Underweight);

(b) 18.5 to less than 25 (Normal weight); (c) 25 to less than 30 (Overweight); (d) 30 to less than 35 (Moderately Obese); (e) 35 to less than 40 (Severely Obese); and (f) 40 or more (Very Severely Obese).

Data on participants' occupations were sorted into the following job groups for meaningful statistical analysis: (a) Mental Health; (b) Student; (c) Medical; (d) Engineering; (e) Information Technology; (f) Academic/Researcher; (g) Retired; (h) Public Servant; (i) Art/Media/Performing Arts; (j) Hospitality; (k) Unemployed; (l) Business/Advertising/Marketing; (m) Retail; (n) Health and Fitness; (o) Trades Person; (p) Education; (q) Science; (r) Transportation; (s) Self-employed; (t) Finance/ Banking/ Accounting; (u) Religious; (v) Law/Politics; and (w) Did not state.

Data on participants' mental health history and use of Viagra were also collected but only mental health history was used as a variable for statistical analysis as there was a high number of missing values for Viagra use.

4.4. Demographic characteristics of the participants

Participants consisted of 738 men, out of which 448 completed all the questions. The age ranges were categorised according to theoretically-based developmental life stages that might influence weight cycles, relationship status, and work situation, namely young adulthood, 18 – 25 years; middle adulthood, 26 – 40 years; older adulthood, 41 – 65 years, and seniors, 66 onwards (see Table 2). The men's ages ranged from 18 - 76 years, with a mean of 32.49 years ($SD = 11.91$; see Table 3).

Table 2

Number and Percentage of Participants in Each Life-Stage Age Range (N = 738)

Age range	<i>n</i>	%
18–25	271	36.7
26–40	298	40.4
41–65	164	22.2
66+	5	0.7

4.4.1. **Physical measurements.** The mean weight across the sample was 88.59 kg ($SD = 1.16$; see Table 3) ranging from 44 to 300 kg. The mean height was 1.79 m ($SD = 0.002$; see Table 3), which ranged from 1.36 to 2.00 metres. Participants were asked for their waist and chest measurements (see Table 3). The mean waist measurement for the sample was 89.26cm ($SD = 0.53$), ranging from 32cm to 152cm. The mean chest measurement was 102.4cm ($SD = 0.72$), ranging from 51cm to 188cm.

Table 3

Demographic Physical Characteristics of Participants (N = 738)

Characteristic	<i>M</i>	<i>SD</i>	<i>N</i>
Age	32.49	11.91	736
Height (m)	1.79	0.00	733
Weight (kg)	88.59	1.16	732
Body mass index	27.65	0.34	728
Waist (cm)	89.26	0.53	627
Chest (cm)	102.40	0.72	457

Given that participants inevitably vary in height and weight, BMI levels [(kg) / height (m)²] were calculated to ensure a universal and consistent measurement in body

mass. Participants' BMI levels ranged from 14.2 to 89.6 with a mean of 27.65 ($SD = 0.34$; see Table 4). BMI levels were divided into six groups according to the Australian Institute of Health and Welfare website (<http://www.aihw.gov.au/riskfactors/faqs.cfm>). Table 4 shows that 2% of the participants were underweight (BMI < 18.5), 42% were in the normal range (BMI = 18.51 – 24.99), 27% were overweight (BMI = 25 – 29.99), 10% were moderately obese (BMI 30 – 34.99), 4% fell within the severely obese range (BMI 35 – 39.99), and 6% were very severely obese (BMI > 40). This procedure was performed in order to determine there were differences between BMI groups with regard to body image, penis size satisfaction, general psychological functioning, self-esteem, and internet socialisation and online dating behaviours.

Table 4

Body Mass Index of Participants (N = 738)

Body mass index	<i>n</i>	%
Underweight	14	1.7
Normal	337	41.7
Overweight	221	27.3
Obese – moderate	77	9.5
Obese – severe	30	3.7
Obese – very severe	49	6.1
Total	728	90.0

4.4.2. **Country of origin.** The participants came from 43 different countries, with the majority coming from Australia (48.8%), followed by United States of America at 26.4%. The rest of the participants came from countries listed in Table 5.

Table 5

Participants' Countries of Origin (N = 738)

Country	<i>n</i>	%
Australia	360	48.8
United States	195	26.4
United Kingdom	32	4.3
Canada	21	2.8
New Zealand	21	2.8
Singapore	20	2.7
India	14	1.9
Germany	9	1.2
Malaysia	9	1.2
China	5	0.7
Chile	4	0.5
South Africa	4	0.5
France	3	0.4
Philippines	3	0.4
Austria	2	0.3
Belgium	2	0.3
Ireland	2	0.3
Korea	2	0.3
Netherlands	2	0.3
Sri Lanka	2	0.3
Taiwan	2	0.3
Yugoslavia	2	0.3
Bahamas	1	0.1
Brazil	1	0.1
Bulgaria	1	0.1
Cambodia	1	0.1
Croatia	1	0.1
Holland	1	0.1
Hong Kong	1	0.1
Hungary	1	0.1
Indonesia	1	0.1
Italy	1	0.1
Lebanon	1	0.1
Macedonia	1	0.1
Malta	1	0.1
Mexico	1	0.1
Norway	1	0.1
Southeast Asia: Other	1	0.1
Russia	1	0.1
Spain	1	0.1
USSR	1	0.1
Venezuela	1	0.1
Vietnam	1	0.1
Zimbabwe	1	0.1

4.4.3. **Ethnic groups.** Participants were asked to indicate the ethnic groups they identify themselves with (Table 6). 41.7% of the sample were reported as White, 7.3% identified as Asian, 2.8% were Hispanic, 2.6% identified as mixed race, 0.7% as Mediterranean, 0.5% were from Middle Eastern background, 0.3% were Black, and 0.1% identified as Indigenous. 40% of participants did not indicate their ethnicity.

Table 6

Participants' Ethnic Groups (N = 738)

Ethnicity	<i>n</i>	%
White	308	41.7
Asian	54	7.3
Hispanic	21	2.8
Mixed race	19	2.6
Mediterranean	5	0.7
Middle Eastern	4	0.5
Black	2	0.3
Indigenous	1	0.1
Unknown	324	40.0

4.4.4. **Relationship status.** Participants were requested to report on relationship status in the questionnaire and the responses indicated that 53.8% of the sample were single, 20.5% were married, 11.7% were in a relationship, 6% were in a de facto relationship, 0.3% were widowed, 3.1% were separated or divorced, and 4.7% did not respond to the question (see Table 7).

Table 7

Participants' Relationship Statuses (N = 738)

Relationship status	<i>n</i>	%
Single	397	53.8
Married	151	20.5
In a relationship	86	11.7
De facto relationship	44	6.0
Widowed	2	0.3
Divorced/separated	23	3.1
Unknown	35	4.7

4.4.5. **Sexuality.** The participants reported their sexual orientation and preferences with 63.8% of participants identifying themselves as being heterosexual, 25.2% were homosexual, 9.2% were bisexual, 0.1% were transsexual, 0.5% were asexual, and 1.2% identified themselves as Other (see Table 8). Participants who indicated their sexuality as Other elaborated on it with terms such as “polymorphously perverse”, “normal”, “gay”, “tentacle sexual”, and “queer”.

Table 8

Participants' Sexual Orientations (N = 738)

Sexual orientation	<i>n</i>	%
Heterosexual	471	63.8
Homosexual	186	25.2
Bisexual	68	9.2
Transsexual	1	0.1
Asexual	4	0.5
Other	8	1.2

4.4.6. **Occupation.** Participants' responses to the occupation question were grouped into 23 different job group categories, such as Medical, Retail and Student, for

ease of data analysis. Majority of the participants were students (23.2%). 11.8% of the sample were employed in the Information Technology field and 11.5% worked in areas of Business / Marketing / Advertising. 47 participants did not indicate their occupation.

The rest of the information is illustrated in Table 9.

Table 9

Participants' Occupations (N = 738)

Job groups	<i>n</i>	%
Student	171	23.2
Information technology (IT)	88	11.8
Business/advertising/marketing	85	11.5
Performing arts/media	33	4.5
Medical	32	4.3
Tradesperson	31	4.2
Finance/accounting/banking	29	3.9
Engineering	26	3.5
Public servant	26	2.2
Retail	24	3.3
Academics/researcher	20	2.7
Hospitality	19	2.6
Mental health	18	2.4
Education	16	2.2
Transportation	14	1.9
Law/politics	7	0.9
Science	7	0.9
Religious	3	0.4
Fitness/health	2	0.3
Self-employed	11	1.5
Unemployed	13	1.8
Retired	16	2.2
Unknown	47	6.4

4.4.7. **Mental health history.** Of the 738 participants, 67.4 % reported no history of mental health issues with 23.4 % report having some form of mental health issue at some point in their life. As illustrated in Table 10, the majority of these

participants indicated that they suffered from depression (44.5%), anxiety (16.7%) or both (15.6%).

Table 10

Participants' Mental Health Histories (N = 173)

Mental health history	<i>n</i>	%
Attention deficit hyperactive disorder (ADHD)	2	1.2
Post traumatic stress disorder (PTSD)/Abuse	1	0.6
Eating disorders (ED)	1	0.6
Bipolar disorder	9	5.2
Bipolar disorder and sleep disorder	1	0.6
Bipolar disorder and PTSD	1	0.6
Social phobia	3	1.7
Anxiety	29	16.7
Anxiety and obsessive compulsive disorder (OCD)	1	0.6
Anxiety and epilepsy	1	0.6
Anxiety and social phobia	1	0.6
Depression	77	44.5
Depression and anxiety	27	15.6
Depression and ED	2	1.2
Depression and OCD	1	0.6
Depression and ADHD	1	0.6
Depression and psychosis	1	0.6
Depression and social phobia	2	1.2
Depression and bipolar disorder	3	1.7
Depression, anxiety, and OCD	1	0.6
Depression, anxiety, and sleep disorder	2	1.2
Depression, anxiety, and bipolar disorder	2	1.2
Depression, anxiety, and PTSD	1	0.6
Depression, social phobia, and PTSD	1	0.6
Depression, anxiety, bipolar disorder, and ADHD	1	0.6
Depression, anxiety, ED, and psychosis	1	0.6

4.4.8. **Internet socialisation and online dating behaviours.** A series of questions pertaining to Internet use and online social and dating behaviours were asked. The information is tabulated in Table 11. Out of the 736 participants who responded,

25% of them indicated that they spend less than 7 hours on the Internet every week for leisure, 47% spend between 7 – 21 hours weekly on the Internet, and 28% spend more than 21 hours online per week. When asked if participants had ever used Internet dating site to meet potential partners, 436 men reported that they had never done so, 109 stated 'Rarely', 134 said 'Sometimes', 45 replied with 'Often', and 12 indicated that they had always used Internet dating sites. 59% of the sample reported never having been in a relationship with someone they had met on the Internet while 2% indicated that they have always had online relationships. Five hundred and four participants reported never having been in long distance relationship (LDR) whereas five of them reported always been in long distance relationships. 41% of participants reported that they found it easier at times to talk to people on the Internet rather than face-to-face. A relatively high percentage of participants (34%) also reported sometimes feeling more confident online than face to face. When asked what percentage of their friendships and relationships were made over the Internet, 216 participants replied zero, 364 replied less than 15%, 97 replied with 25 – 50%, 49 replied with 50 – 75%, and 9 reported more than 75% (Table 12).

Table 11

Participants' Frequency of Internet Use and Online Socialising and Dating Behaviours

Question	N	M	SD	Never		Rarely		Sometimes		Often		Always	
				n	%	n	%	n	%	n	%	n	%
Dating sites	736	1.76	1.05	436	59.2	109	14.8	134	18.2	45	6.1	12	1.6
Online relationship	736	1.73	1.02	436	59.2	129	17.5	120	16.3	39	5.3	12	1.6
Long-distance relationship	732	1.48	0.81	504	68.9	125	17.1	87	11.9	11	1.5	5	0.7
Easier online	732	2.62	1.09	140	19.1	164	22.4	299	40.8	89	12.2	40	5.5
Confident online	733	2.65	1.18	158	21.6	157	21.4	251	34.2	116	15.8	51	7.0

Table 12

Participants' Percentage of Relationships Online and Hours Spent Online

Item	<i>n</i>	%	<i>N</i>	<i>M</i>	<i>SD</i>
Percentage of relationships			735	2.01 ^a	0.9
0%	216	29.4			
> 15%	364	49.5			
25–50%	97	13.2			
50–75%	49	6.7			
Over 75%	9	1.2			
Hours online per week			736	2.03 ^b	0.73
< 7 hours	184	25.0			
7–21 hours	348	47.3			
Over 21 hours	204	27.7			

^a Mean based on a scale from 1 (0%) to 5 (over 75%). ^b Mean based on a scale from 1 (< 7 hours) to 3 (> 21 hours).

4.4.9. **Penis size measurements and satisfaction.** Participants were asked to measure and report the measurements of their penises when flaccid and aroused, and to indicate their ideal length and what they perceived as the average length (Table 13). Of the 520 participants who indicated the length of their penises when flaccid, the mean length was 8.49 cm ($SD = 2.81$), ranging from 1 cm to 25 cm. The average self-reported penis length when aroused was 16 cm ($SD = 3.1$), ranging from 4 cm to 30 cm. Penis girth measurements were requested in the survey; however, due to confusion with the definition of ‘circumference’, the data will not be used for analysis. 465 participants indicated their ideal penis length when flaccid with the mean being 11.48 cm ($SD = 3.18$), ranging from 2 – 20 cm. Participants were also asked their ideal penis length when aroused. Of the 497 men who responded, the mean length was 19.16 cm ($SD = 3.19$), ranging from 6 – 38 cm. The mean length of an average flaccid penis was perceived by the sample to be 9.25 cm ($SD = 2.63$), ranging from 2.5 – 19 cm. Five

hundred and nine participants reported what they thought the average penis length was when aroused with a mean of 15.76 cm ($SD = 2.27$), ranging from 5 – 25 cm.

Table 13

Participants' Self-Reported Penis Sizes and Penis Size Perceptions

Size	<i>M</i>	Min	Max	Mode	<i>SD</i>	<i>N</i>
Penis length flaccid (cm)	8.49	1.0	25	8	2.81	520
Penis length Aroused (cm)	16.00	4.0	30	15	3.10	532
Ideal length flaccid (cm)	11.48	2.0	20	10	3.18	465
Ideal length aroused (cm)	19.16	6.0	38	20	3.19	497
Average length flaccid (cm)	9.25	2.5	19	10	2.63	489
Average length aroused (cm)	15.76	5.0	25	15	2.27	509

A series of questions were asked in regards to participants' level of satisfaction with their penis sizes (Table 14). 36% of participants reported they often wished they had a bigger penis. 33% of the sample did not think they would feel better about themselves if they had a bigger penis while the rest (67%) indicated that they would at various degrees. Out of 603 participants, 215 of them did not think that they would be a better sexual partner if they had a bigger penis while 64% of them thought that they would be a better sexual partner, to a certain extent, if they had a bigger penis. 60% of the respondents have never thought or tried methods of increasing their penis size. 86 participants have, at some stage in their lives, used Viagra.

Table 14

Participants' Penis Size Satisfaction

Question	N	M	SD	Never		Rarely		Often		Very often		Always	
				n	%	n	%	n	%	n	%	n	%
I wish I had a bigger penis.	600	3.28	1.70	126	21.0	131	21.8	217	36.2	41	6.8	85	14.2
I think I would feel better about myself if I had a bigger penis.	606	2.97	1.77	198	32.7	106	17.5	191	31.5	40	6.6	71	11.7
I think I would be a better sexual partner if I had a bigger penis.	603	2.78	1.71	215	35.7	121	20.1	175	29.0	35	5.8	57	9.5
I have tried/have thought about trying other methods to increase the size of my penis.	605	1.97	1.46	362	59.8	103	17.0	96	15.9	24	4.0	20	3.3
I take Viagra.	602	1.31	0.89	516	85.7	41	6.8	37	6.1	5	0.8	3	0.5

Overall, according to their scores on the four Penis Size Satisfaction scale questions and taking the average score (10.99) as cut off, 57% of the respondents were comparatively satisfied with their penis sizes and 43% of them were relatively unsatisfied with the size of their penises, as illustrated in Table 15.

Table 15

Participants' Penis Size Satisfaction Scale Scores

Score	n	%
Satisfied	337	45.7
Unsatisfied	256	34.7

Note. N = 593, M = 10.99, SD = 5.95.

4.4.10. **Male figure rating and body size perceptions.** Responses from the Male Figure Rating scales (see Tables 16 and 17) revealed that, compared to their own perceived ideal body size, 6% of the respondents were satisfied with their body size,

84% wanted to be bigger and 11% of them wanted to be smaller. When comparing themselves to what they think other men consider the ideal body size, 4% of the respondents were satisfied with where they stand, 90% think they are smaller than the ideal of others, and 7% think they are bigger than others' ideal. When comparing themselves to what they think potential partners' ideals are, 7% were satisfied, 83% think they are smaller than their potential partners' ideal body size, and 10% of the sample thinks their bodies are bigger than what they perceive their potential partners to prefer. When comparing their ideal body size with their perceived ideals of others, 26% had the same ideals, 65% of them think their ideal size is smaller than the perceived ideal body size of other men, and 9% think their ideal size is bigger than what they perceive other men would prefer. Lastly, when comparing participants' ideal body size with their perceived potential partners' ideal body size, 51% rated the same, 35% of respondents think their ideal size is smaller than their perceived potential partners' ideal, and 15% think their ideal body size is bigger than what they perceive their potential partners would prefer.

Table 16

Participants' Self-Reported Mean Figure Rating and Body Size Perceptions

Item	<i>M</i>	Min	Max	Mode	<i>SD</i>	<i>N</i>
Own body	49.5	10	90	50	13.06	572
Ideal body	60.7	10	90	60	10.77	580
Perceived others' ideal body	67.9	10	90	70	9.18	574
Perceived partners' ideal body	62.4	10	85	70	10.19	570

Table 17

Participants' Self-Reported Figure-Comparison Rating Scores

Item	Satisfied/same		Smaller than ideal		Bigger than ideal	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Own body – Ideal body	33	5.8	478	83.7	60	10.5
Own body – Others' ideal	21	3.7	506	89.7	37	6.6
Own body – Partners' ideal	37	6.6	467	83.2	57	10.2
Own ideal – Others' ideal	150	26.2	373	65.1	50	8.7
Own ideal – Partners' ideal	289	50.7	194	34.6	87	15.3

4.5. Data Analysis

Means and standard deviations for the RSES, GHQ, DMS, MFD, Penis length, Penis Size Satisfaction questions (PSS), and Internet Socialisation and Online Dating Behaviours responses (ISODB) were computed and descriptive tables were produced (see Table 18).

The results in Table 18 show that men reported good general functioning, with a low mean score on the GHQ-12. The results also indicate that on average, men reported relatively high self-esteem (RSES), although the large standard deviation indicates diversity among the men surveyed.

Responses to the DMS yielded low mean scores for behavioural drive for muscularity, but relatively higher scores for motivational drive for muscularity. In relation to scores on the MFD, the average man assessed his own body as being comparable to the fifth figure drawing on the scale, and perceived the ideal body and the body most attractive to partners as one comparable to 10 points higher on the scale (i.e. the sixth figure drawing on the scale). On average, men selected the body ranked between the sixth and seventh figure drawing on the scale as the ideal body other men would choose.

Table 18

Means and Standard Deviations for Self-Esteem, General Health Functioning, Drive for Muscularity, Male Figure Drawings, Penis Length, Penis Size Satisfaction, and Internet Socialisation and Online Dating Behaviours

Measure	<i>M</i>	<i>SD</i>
General Health Questionnaire	12.24	5.99
Rosenberg Self-Esteem Scale	19.99	5.62
Drive for Muscularity	2.66	0.91
Muscle development behaviours	2.05	1.02
Muscularity-oriented body image attitudes	3.45	1.19
Male figure drawings		
Own body	49.54	13.06
Ideal body	60.70	10.77
Perceived others' ideal	67.90	9.18
Perceived partners' ideal	62.41	10.19
Internet Socialisation and Online Dating Behaviours	2.05	0.73
Penis length		
Length of your penis when flaccid	8.49	2.81
Length of your penis when aroused	16.03	3.10
Ideal length of flaccid penis	11.48	3.18
Ideal length of aroused penis	19.16	3.19
Average length of flaccid penis	9.25	2.63
Average length of aroused penis	15.76	2.27
Penis size satisfaction	2.75	1.46

In comparison to the average length of a penis, men assessed the length of their own as shorter when flaccid, but longer when aroused. Men perceived the ideal penis to be much longer than their own in both the flaccid and aroused states. In relation to penis size satisfaction, on average, men in the current sample reported being between 'rarely' and 'sometimes' dissatisfied with their penis sizes.

With a mean score of 2.05, men's use of the Internet for socialisation and dating

was fairly infrequent.

4.6. **Research Design**

To test the relationships between multiple independent variables on one or more dependent variables, a series of standard regression analyses were performed (Howitt & Cramer, 2008). The dependent variables were self-esteem, body image, Internet socialising and dating, and general health functioning. In all analyses, the control variables of age, sexual orientation, marital status, and mental health history were included.

A correlation matrix of all predictors and dependent variables in all of the regression analyses is presented in Table 19 as follows.

Table 19

Correlation Matrix for all Predictors and Dependent Variables for Standard Multiple Regression Analyses

Item	Body mass index	Muscle development behaviours	Muscularity oriented attitudes	Length of penis flaccid	Length of penis aroused	Penis size dissatisfaction	Body image	Flaccid penis length dissatisfaction	Aroused penis length dissatisfaction	Self-esteem	General health
Muscle development behaviours	-.05										
Muscularity-oriented attitudes	-.04	.45**									
Length of penis flaccid	-.19**	.04	-.09								
Length of penis aroused	-.06	.03	-.09*	.60**							
Penis size dissatisfaction	.13**	.19**	.41**	-.21**	-.39**						
Body image	-.16**	.11**	.37**	-.03	-.10*	.07					
Flaccid penis length dissatisfaction	.19**	.06	.30**	-.44**	-.34**	.48**	.07				
Aroused penis length dissatisfaction	.10*	.05	.30**	-.35**	-.49**	.61**	.12**	.65**			
Self-esteem	-.06	-.08	-.32**	.12**	.15**	-.30**	-.09	-.22**	-.21**		
General health	.06	.05	.20**	-.06	-.03	.23**	-.13**	.20**	.18**	-.63**	
Internet socialising and dating	.14**	.06	.20**	-.06	-.03	.23**	-.13**	.17**	.18**	-.35**	.19**

* $p < .05$. ** $p < .01$.

4.7. Predictors Of Self-Esteem

In addition to the control variables, the independent variables for this analysis included body mass index, muscle development behaviours, muscularity-oriented body image attitudes, penis size dissatisfaction, and penis length flaccid, penis length aroused, and penis length satisfaction in both the aroused and flaccid states.

The results of the regression analysis summarised in Table 20 show that the combination of the independent variables in the equation significantly predicted self-esteem ($R^2 = 0.26$, $F(12, 402) = 11.57$, $p < .0001$). The strongest predictors of higher self-esteem were older age, holding fewer muscularity-oriented body image attitudes, an absence of a history of mental health concerns, and lower penis size dissatisfaction. The negative relationship between body mass index and self-esteem neared significance ($p = .08$).

Table 20

Final Summary: Standard Multiple Regression of Men's Physical Attributes and Body and Penis Dissatisfaction on Men's Self-Esteem

Predictor	<i>B</i>	<i>Beta</i>	<i>r</i>	<i>sr</i>	<i>pr</i>	<i>Tol</i>	<i>t</i>	<i>p</i>
Age	-0.49	0.11	.18	.09	.11	.77	2.17	.03
Sexual orientation	0.13	0.01	.00	.01	.01	.94	0.25	.80
Marital status	-0.58	-0.05	-.10	-.05	-.06	.91	-1.13	.26
Mental health history	-3.49	-0.28	-.34	-.27	-.30	.95	-6.24	.0005
BMI	-0.05	-0.08	-.08	-.07	-.09	.87	-1.71	.09
Muscle development behaviours	0.30	0.05	-.08	.05	.05	.77	1.08	.28
Muscularity oriented attitudes	-1.02	-0.22	-.34	-.17	-.20	.62	-4.01	.0005
Penis size dissatisfaction	-0.50	-0.13	-.31	-.09	-.11	.48	-2.18	.03
Penis length satisfaction flaccid	0.04	0.02	.23	-.02	-.02	.52	-0.36	.72
Penis length satisfaction aroused	0.05	0.03	.23	-.02	-.02	.41	-0.44	.66
Penis length flaccid	-0.04	-0.02	.14	-.01	-.02	.55	-0.32	.75
Penis length aroused	0.14	0.08	.19	.06	.06	.49	1.27	.21
(Constant)	23.40	2.09					11.21	.0005

Note. Multiple $R = 0.51$, $R^2 = 0.26$, adjusted $R^2 = 0.24$, $F(12, 402) = 11.21$, $p < .0001$.

4.8. Predictors Of Male Body Image

Table 21, as shown below, illustrates the control variables, body mass index, muscle development behaviours, muscularity-oriented body image attitudes, penis size dissatisfaction, penis length flaccid, penis length aroused, penis length dissatisfaction in both the aroused and flaccid states, and self-esteem were significantly related to men's body image ($R^2 = 0.25$, $F(13, 371) = 8.77$, $p < .0001$). The main contributors to the prediction of poorer body image were body mass index, muscle development behaviours, muscularity-oriented body image attitudes, and dissatisfaction with length of aroused penis. Penis size dissatisfaction neared significance ($p = .06$), indicating that

it was also a relatively strong predictor of men's body image.

Table 21

Final Summary: Standard Multiple Regression of Men's Physical Attributes, Body and Penis Dissatisfaction, and Self-Esteem on Men's Body Image

Predictor	<i>B</i>	<i>Beta</i>	<i>r</i>	<i>sr</i>	<i>pr</i>	<i>Tol</i>	<i>t</i>	<i>p</i>
Age	0.00	0.00	-.11	.00	.00	.73	0.03	.98
Sexual orientation	-1.83	-0.08	-.08	-.07	-.08	.93	-1.58	.11
Marital status	-1.91	-0.08	-.05	-.07	-.08	.90	-1.62	.11
Mental health history	0.48	0.02	.05	.02	.02	.85	0.36	.72
BMI	-0.20	-0.13	-.15	-.12	-.14	.86	-2.67	.01
Muscle development behaviours	-1.38	-0.12	.09	-.10	-.11	.75	-2.20	.03
Muscularity oriented attitudes	5.04	0.50	.41	.38	.40	.56	8.28	.0005
Penis size dissatisfaction	-1.05	-0.13	.12	-.09	-.10	.46	-1.89	.06
Penis length satisfaction flaccid	-0.43	-0.10	.07	-.07	-.08	.49	-1.47	.14
Penis length satisfaction aroused	0.75	0.16	.19	.10	.11	.38	2.16	.03
Self-esteem	0.13	0.06	-.09	.05	.06	.72	1.12	.26
Penis length flaccid	-0.01	-0.00	-.07	-.00	-.00	.58	-0.05	.96
Penis length aroused	-0.30	-0.07	-.13	-.05	-.06	.51	-1.16	.25
(Constant)	8.13	5.65					1.44	.15

Note. Multiple $R = 0.49$, $R^2 = 0.24$, adjusted $R^2 = 0.21$, $F(13, 371) = 8.77$, $p < .0001$.

4.9. Predictors Of Men's Tendency To Use Internet For Socialising And Dating

Standard regression was again used to assess the contribution of the control variables, men's physical attributes, their body and penis satisfaction, self-esteem and body image to the prediction of Internet socialising and dating behaviour. The results summarised in Table 22 show that the 14 variables significantly predicted Internet socialising and dating ($R^2 = 0.28$, $F(14, 362) = 10.01$, $p < .0001$). The strongest contributors to the prediction of Internet socialising and dating were age, sexual

orientation, self-reported aroused penis length, self-esteem, and body image. Other variables that neared significance included body mass index ($p = .093$) and penis dissatisfaction ($p = .084$).

Table 22

Final Summary: Standard Multiple Regression of Men's Physical Attributes, Body and Penis Dissatisfaction, Self-Esteem and Men's Body Image on Internet Socialising and Dating Behaviour

Predictor	<i>B</i>	<i>Beta</i>	<i>r</i>	<i>sr</i>	<i>pr</i>	<i>Tol</i>	<i>t</i>	<i>p</i>
Age	-0.01	-.13	-.09	-.11	-.13	.72	-2.41	.02
Sexual orientation	0.46	.31	.29	.28	.33	.93	6.66	.0005
Marital status	0.03	.02	.09	.02	.02	.89	0.35	.73
Mental health history	0.12	.07	.21	.07	.08	.85	1.47	.14
BMI	0.01	.08	.11	.08	.09	.84	1.68	.93
Muscle development behaviours	-0.00	-.01	.06	-.01	-.01	.74	-0.11	.91
Muscularity oriented attitudes	0.04	.06	.18	.04	.05	.48	0.89	.38
Penis size dissatisfaction	0.06	.11	.22	.08	.09	.47	1.70	.08
Penis length satisfaction flaccid	0.00	.01	.16	.01	.01	.55	0.11	.915
Penis length satisfaction aroused	0.03	.09	.15	.06	.07	.42	1.28	.20
Penis length flaccid	-0.01	-.05	-.05	-.04	-.04	.57	-0.78	.44
Penis length aroused	0.03	.12	-.02	.09	.10	.50	1.98	.05
Self-esteem	-0.04	-.27	-.34	-.23	-.26	.74	-5.14	.0005
Body image	-0.01	-.16	-.08	-.14	-.16	.74	-3.05	.002
(Constant)	1.98	.34					5.82	.0005

Note. Multiple $R = 0.53$, $R^2 = 0.28$, adjusted $R^2 = 0.25$, $F(14, 362) = 10.01$, $p < .0001$.

4.10. Predictors Of General Health Functioning

Table 23 shows that the independent variables in the regression equation significantly predicted men's general health ($R^2=0.44$, $F(14,358)=20.39$, $p<.0001$).

Altogether, 44% of the variability in men's general health status was predicted by

knowing scores on each of these 14 independent variables. Self-esteem was the strongest predictor of general health.

Table 23

Final Summary: Standard Multiple Regression of Men's Physical Attributes, Body and Penis Dissatisfaction, Self-Esteem and Men's Body Image on General Health

Predictor	<i>B</i>	<i>Beta</i>	<i>r</i>	<i>sr</i>	<i>pr</i>	<i>Tol</i>	<i>t</i>	<i>p</i>
Age	0.02	0.04	-.08	.03	.05	.72	0.86	.39
Sexual orientation	-0.05	-0.00	-.06	-.00	-.01	.91	-0.10	.92
Marital status	-0.62	-0.05	.01	-.05	-.07	.89	-1.25	.21
Mental health history	0.81	0.06	.27	.06	.08	.85	1.43	.16
BMI	0.03	0.04	.07	.04	.05	.86	0.88	.38
Muscle development behaviours	-0.08	-0.01	.07	-.01	-.02	.75	-0.31	.76
Muscularity oriented attitudes	0.29	0.06	.29	.04	.06	.48	1.05	.29
Penis size dissatisfaction	0.27	0.07	.26	.05	.06	.49	1.18	.24
Penis length satisfaction flaccid	-0.07	-0.04	.13	-.03	-.04	.52	-0.69	.49
Penis length satisfaction aroused	-0.11	-0.05	.15	-.03	-.05	.41	-0.86	.39
Penis length flaccid	-0.03	-0.02	-.10	-.01	-.02	.55	-0.28	.78
Penis length aroused	-0.06	-0.03	.15	-.02	-.03	.51	-0.52	.61
Self-esteem	-0.65	-0.61	-.65	-.52	-.58	.75	-13.29	.0005
Body image	0.03	0.05	.15	.04	.06	.75	1.06	.29
(Constant)	23.51	2.41					9.77	.0005

Note. Multiple $R = 0.67$, $R^2 = 0.44$, adjusted $R^2 = 0.42$, $F(14, 358) = 20.39$, $p < .0001$.

4.11. Participants' Comments

Participants had the opportunity to leave comments at the end of the questionnaire. One hundred and forty three participants (19% of the sample) made comments, which included appreciation and feedback about the survey (40 participants), impact of penis size issues on body image (3 participants) and sex life (7 participants), impact of mental health (27 participants) and physical health (12 participants) on body

image and general well-being, highlighting the need for more focus on obesity rather than just muscularity in male body image studies (26 participants), relationship between sexuality and race on body image (2 participants), and 25 participants left miscellaneous comments that were not related to the study.

4.11.1. **Feedback.** Noteworthy feedback regarding the survey design included, “You should take into account education status which may well be a causative factor either directly or indirectly”, “It would be useful for participants to see their final set of answers before they submit”, “The only other questions I would have liked to have seen asked were circumcision status and whether respondents were happy with the intactness (or not). I for one was circumcised at birth and hate it -- this is my biggest body/self esteem issue; I am restoring my foreskin and this is helping a lot.”, “You need to address the difference between penile diameter and circumference when asking questions about 'thickness'. A bit of a sloppy job in framing the question, I fear.”, “Perhaps you could also ask about overall package size (testicles and penis), as I think the way you fill out underwear is a daily reminder/marker of the size issue. Perhaps questions like, are you embarrassed to have other men see you naked (e.g., showers, urinal, etc.)”, “Some of the questions were particularly general and I find it hard to generalise. For example the question on what 'most men think as ideal' for me this was dependent on culture, generation, background etc.”, and “What about ball size?”

4.11.2. **Penis size and body image.** Participants commented on the impact of their perception of their penis sizes on their body image. One said, “All my life I have worried about the size of my penis (too small) and excessive body hair. It has caused me to be shy and held me back from relationships and taking part in social and sporting activities. As I approach 35 years of age I feel very low about my body. I try

very hard to hide my lack of self confidence. I am now overweight which also depresses me a lot.”, and another stated, “I can say that I am extremely displeased with my penis and openly mocked in a public shower. I have quit sports in which I excelled because of showering. What I mean is that my nakedness, my physical appearance looking like a child/boy is 'Hazardous to my Health' I can not and do not see myself as whole. Regardless of muscle mass, masculine apparel or any other form of Manhood, self perception will never be whole until I find healing for my small penis.”

4.11.3. **Penis size and sex life.** Participants commented on the negative impact of penis dissatisfaction on their sex lives and sexual confidence; however, one participant noted, “I must say when I was younger I had stronger feelings about penis size but as I had relations with women I became more confident with what I was doing and realise that it is the quality that the women appreciate.”

4.11.4. **Sexuality, race, and body image.** Other than penis size, participants also commented on the relationships between sexuality, race, and body image. For example, “Being gay, it feels there are many pressures in life to look a certain way and achieve certain things. It gets really tough and I would love to see more support networks for young gay guys.”, and “I think Australian society is too obsessed with race, I feel like I hate myself because I am Asian. The standard of male beauty is so focused on the Caucasian standards, in Australian society I feel like I'm of lower standard (aesthetically and physically) because I am Asian, if there was something I could change it would be my Asian (Vietnamese) heritage.”

4.11.5. **Impact on mental health.** The impact of mental health on body image, self-esteem, and general well-being were highlighted in the comments. Based on the 27 responses, major factors that increased the level of stress in male participants

included **work** (e.g., “I work a full time job, a part time job, and several casual jobs. A typical week sees me under slept by several hours a day, and chronically tired on the weekend. I am aware that my work regime is causing a high level of mental and physical stress.”), “I resigned from a job I hated, which resulted in a degree of lost confidence.”), **relationships** (e.g., “Getting over a long term relationship break up has been hard, but also an exciting new relationship is going well. What would make me truly happy would be if my ex was happier. He is still my best friend and knowing that he is still missing me does cause an ache.”), “I'm a very positive person for the most part, but lately, because of certain situations involving dating, I've been more depressed and worrisome I believe.”), “The status of my relationship with my girlfriend makes me feel useless. I feel guilty and entirely to blame. It isn't helping my mood and only encourages dissatisfaction with myself.”), and **family** problems (e.g., “Just a few problems with my dad that's shaking my life up a bit. One of those things that you don't know how to fix or what to do.”), “My father was next to useless. He left when I was 9 and really wasn't much of a father at all. Although it is true and right to place basically all of the blame on my father for what I went through, eventually I figured out that I could blame him all I wanted but I was never going to improve if I didn't take responsibility for my own future. I have taken charge of my own life.”

4.11.6. **Impact of physical health.** Participants also shed some light on the impact of physical well-being (both health and fitness-wise) on body image, penis size satisfaction, and self-esteem. In terms of medical health issues that have an adverse effect on body esteem, some noteworthy comments included, “I had prostate removal almost 3 years ago. They don't tell you that it usually makes your penis shorter to go along with the usual impotence. That's hardly a confidence builder.”, “I have relatively

horrible skin right now, although I think I'm an attractive guy in general, and as a result, I feel so much less confident in public.”, “I am in a wheelchair due to post-polio syndrome.”, “I get sick regularly and can't do as much sport/weights as I would like, and this makes me feel skinnier.”, “Have been receiving TRT (testosterone replacement therapy since 1991.”, “I have hypogonadism and am discovering just how much I have missed in building up my personality and strength when I was in my teens, twenties and early thirties. I only received adequate treatment 4 years ago. I lost a very good job after suffering from anxiety related to hypogonadism treatment with HCG without Arimidex which you don't want to do. Now I focus only on what a piece of shit I really am, the brain damage low testosterone has created in fundamental years of my youth, and think that there is nothing I can do to be happy or compete at the same level as other men. I have no dignity and think about suicide a lot lately. There is no awareness about this condition but it seems like more kids are treated for it. If anything I would like young guys to be treated EARLY so they do not go through life being losers.”, and “I have peyronies, which causes the penis to become misshapen and shorter. I lost 15mm diameter and 80mm of length when I contracted this condition at age 43. I have a spare tyre caused by inactivity, which affects my self esteem more than penis issues. I feel disappointed for my girlfriend, who I believe would have enjoyed sex much better if I had retained my former glory, although she is very kind and does not refer to what might have been.”

4.11.7. **Lack of focus on obesity issues for men.** A notable portion of the responses (18.2% of the participants who commented) highlighted the need for male body image studies and measures to not only focus on drive for muscularity, but also the very pertinent issue of obesity for men. Noteworthy responses included, “I hope you

take into consideration gentlemen who eat with their feelings. I am a slightly larger male than my counterpart, and I hope your study addresses all the issues, not just the gym junkies.”, “I thought the questions about body size and shape were a bit skewed towards muscle size and shape. I'm far more concerned about weight and fat than muscle. The diagrams of the bodies did not match my body shape so it was hard to choose which shape was closest.”; “This study has its head in the right place, but focuses far too much on muscularity. A lot of men stress out far more over simply being overweight, including me. I don't feel pressured to be muscular, but I certainly feel the pressure to be thin.”, “The body size should be a grid, not just basic bulk, none to muscles, but (I think) should also have a flab index as well. (i.e., 6-30% body fat)”, and “My 'body issues' (minor dissatisfactions) are more to do with excess weight and abdominal girth (again relatively minor) than muscle mass – a sign of age! I do no weight training at all, so some of the questions were not relevant.” Respondents also commented on the impact of body image issues on their eating and exercise regime, such as, “Before I started on Fluoxetine I would punish myself for eating meat. I became a vegan, but I really think I was using it to mask a fear of eating.”, “I do Kung Fu, not weight training. At least 12 hours a week in 5 sessions (and casual home practise). I let nothing interfere with it unless I feel I need a break.”, “I started on a weight loss program a month ago because I was not happy with my body image in the gay community and felt my extra weight made my already small penis look smaller than it is. While your survey talked about muscle gain it did not cover weight loss which I think is a big issue for men (especially gay) in today's social scene.”, and “I would like once in my life to have that 'Beach Body' that in my 20's I never knew how to get. I only started the gym in my mid 30's. Now at 45 and undergoing TRT, I find myself gaining at

the gym for the first time. Many of my friends see me as a big man with large biceps and a good overall physique for a man of my age, but I want more. I suppose the only strange thing is that I just don't see me as big as many others seem to see me. I see my arms as average and my belly to be large. Others see me being well proportioned with 19' arms. At the same time I like my leg size and shoulders.”

5 Discussion

5.1. Review Of Rationale And Aims Of The Study

The rationale of this study was to contribute to the current limited knowledge base in the research of male body image and its implications. It also aimed to add to the literature by studying the relationships among different variables and their correlation to male body image using measures specifically developed to ascertain male body image concerns on a relatively large sample size. This approach was deemed appropriate because many of the studies in the field of male body image that have been conducted to date have used measures that were originally designed to measure body image dissatisfaction in women. The study aimed to deliver a review of the current literature and to link its findings in exploring the relationships between self-reported physical attributes of men (i.e., penis size, chest, and waist measurements), body satisfaction (drive for muscularity and body size perceptions), self-esteem, and the psychological implications of poor body image in men. In addition, based on the dearth of relevant research to date, the study sought to provide new insights concerning the relationship between male body image and the preference for Internet dating and online socialising.

5.2. Evaluation Of Hypotheses And Results Findings

This study was guided by the following hypotheses:

1. Men who perceive themselves as less muscular may have lower self-esteem and poorer body image and mental health than men who perceive themselves as more muscular.
2. Men who are overweight may have lower self-esteem and poorer body image and mental health than men who are not overweight.
3. Men who reported satisfaction with their penis size may have higher self-esteem

and better body image and mental health and men who are dissatisfied with their penis size.

4. Men who are overweight, who perceive themselves as less muscular, who report dissatisfaction with their penis size, and report lower self-esteem and poorer body image may use the Internet for socialising and dating more frequently than men who are not overweight and more muscular, have higher self-esteem, report satisfaction with their penis size, and report more favourable body images.

The data analyses carried out and described in Chapter 4 produced a number of findings concerning these hypotheses. However, the last hypothesis was invalid as the data on Viagra use could not be used due to high number of missing values. The following sections attempt to interpret the results by placing them in context and evaluating them against previous research.

5.3. Demographic Findings

Participants in this study consisted of 738 men, with 448 providing responses to all the questions in the survey.

5.3.1. **Age.** The ages of the participants ranged between 19 and 76 years old with a mean age of 32.49. The age ranges were categorised according to theoretically-based developmental life stages that might influence weight cycles, relationship status, and work situation, namely young adulthood, 18 – 25 years; middle adulthood, 26 – 40 years; older adulthood, 41 – 65 years, and seniors, 66 onwards. Majority of the participants (40.4%) were in the middle adulthood range.

It was hypothesised in the current research that older men may have better reported body image and penis size satisfaction than younger men. Results did not

support the hypothesis; however, findings indicated that age was a good predictor of self-esteem (which was found to be predicted by body image) and men's tendency to use the Internet for socialising and dating. That is, older men were more likely to have better self-esteem and younger men are more likely to socialise and date online. The latter will be further discussed below.

While research has shown that body image concerns increases notably through early developmental stages (i.e., from childhood to puberty) to early adulthood (Lee & Owens, 2002; Wilcox, 1997; Conner et al, 1996; Grogan, 2006), to the author's knowledge, there is a lack of studies on male body image of men in their later stages of life. To explain current results which indicate that men's self-esteem improving with age, the author theorised that it could be due to (a) a decrease in societal pressure for older men to look like underwear model and (b) appearance being less of a concern for older men as impressing potential sexual partners become less of a priority and thus body image increases and subsequently, self-esteem does to. Lynch and Zellner's (1999) study have shown that the difference between men's perception of their own body size as compared to their ideal diminished with age. Lever and associates (2006) also found that dissatisfaction with penis size diminishes, though only slightly, as men age. Further research is needed to examine factors that affect body image, self-esteem, and psychological functioning in older men.

5.3.2. **Physical measurements.** Participants' weight ranged from 44 – 300 kg with a mean of 88.59 kg. Their mean height was 1.79 m, which ranged from 1.36 to 2.00 m. Their mean waist measurement for the sample was 89.26 cm, ranging from 32cm to 152cm, and their mean chest measurement was 102.4 cm, ranging from 51cm to 188cm. Due to the high number of missing values, the waist and chest measurement

data were not used for statistical analysis. While there is some evidence from past research that height is positively correlated with larger penis sizes (Edwards, 1998; Ponchietti, Mondaini, Massimiliano, Di Loro, Biscioni, & Masieri, 2001) and weight is negatively correlated (Ponchietti et al., 2001), weight and height were not found to have any significant correlations to the other variables in the current study, which is similar to the findings by Siminoski and Bain in 1993 who found no correlation between penis size, age, height and foot size.

Using the participants' weight and height, their BMI was calculated [(kg) / height (m)²] and divided into six groups according to the Australian Institute of Health and Welfare website (<http://www.aihw.gov.au/riskfactors/faqs.cfm>). Participants' BMI levels ranged from 14.2 to 89.6 with a mean of 27.65. 2% of the participants were underweight (BMI < 18.5), 42% were in the normal range (BMI = 18.51 – 24.99), 27% were overweight (BMI = 25 – 29.99), 10% were moderately obese (BMI 30 – 34.99), 4% fell within the severely obese range (BMI 35 – 39.99), and 6% were very severely obese (BMI > 40).

The current study hypothesised that men who are overweight would report lower self-esteem, general functioning, body image, and penis size satisfaction, and may use the Internet for socialising and dating more frequently than men who are not overweight, which was partially supported by the data analysis. The results revealed that overweight men were more likely to socialise and date online and have lower self-esteem as BMI was found to be a relatively significant predictor of Internet dating behaviours and self-esteem. This is similar to the results by McKenna and Bargh in 1999 which indicated that because of “gating features” (i.e., first impression factors such as height and weight), many individuals with evaluation anxiety were more likely

to use the Internet to establish new relationships.

However, contrary to the hypothesis, the findings indicated a significant negative relationship between BMI and male body image; that is, men who were overweight were found to have better body image than men who were not overweight. This is likely a reflection of a methodological limitation in the drawings on the Male Figure Rating Scale in that the drawings only depicted male bodies ranging from skinny to muscular without taking in consideration fat content. As such, overweight men would likely select a muscular drawing as their own body type and a skinnier drawing as their ideal body type. The lack of representation of fat body types is problematic in male body image studies, particularly because the majority of current sample was overweight or obese according to BMI (56.6%) and more generally because the National Health and Wellbeing Surveys carried out by the Australian Bureau of Statistics (2008) have shown that nearly 60% of the Australian male population is now overweight or obese, though there are arguments that BMI may not be the best assessment of obesity (Devlin, 2009). As such, body image concerns among men may become increasingly more focused on trying to lose weight rather than gaining muscles, which ironically may be better examined by assessments used to measure body image issues in women. Development of male body image measures that assess both muscularity and obesity concerns will be vital in advancing research in this area.

5.3.3. **Country of origin and ethnicity.** The participants came from 43 different countries, with the majority coming from Australia (48.8%), followed by United States of America at 26.4%. Data analysis did not reveal any variable differences among participants of different country of origins. The ethnic groups of the participants were difficult to determine because a significant percentage (40%) did not respond to

this survey question; however, of those participants providing a response, the percentages were 41.7% White, 7.3% Asian, 2.8% Hispanic, 2.6% mixed race, 0.7% as Mediterranean, 0.5% Middle Eastern, 0.3% Black, and 0.1% Indigenous. Statistical analysis also failed to identify any significant relationships between ethnicity and the variables examined.

The current study failed to replicate the findings in cross-cultural examination of male body image whereby black men were shown to be more satisfied with their bodies than white men (Miller et al., 2000; Aruguete, Nickleberry, & Yates, 2004; Welch, Gross, Bronner, Dewberry-Moore, & Paige, 2004; Yates, Edman, & Aruguete, 2004). The current results also did not reveal any differences among other ethnicities in spite of participation by men from 43 different countries. This is likely because majority of the sample were White men from Australia and America with inadequate representation of men from other ethnic groups and culture.

5.3.4. **Relationship status.** 53.8% of the sample were single, 20.5% were married, 11.7% were in a relationship, 6% were in a de facto relationship, 0.3% were widowed, 3.1% were separated or divorced, and 4.7% did not respond to the question. Again, statistical analysis failed to identify any significant relationship between marital status and the variables examined. While not hypothesised in the current study, if men's chase for a larger body and penis size is linked to their desire to be perceived as a better lover (Baumeister & Tice, 2001; Francken, van de Wiel, van Driel, & Weijmar Schultz, 2002), one might expect that married men and men in long term relationships would report better body image and penis size satisfaction than single men since the need to look good for a potential mate becomes less of a priority. However, the current results did not reveal any correlations between relationship status and male body concerns. The

author proposed two of many possible explanations for this: (a) regardless of relationship status, men perceive pressure (whether real or imagined) from their partners to be bigger; and/or (b) men's drive for the ideal body is more about competition with other men rather than for themselves or their partners (i.e., "locker room syndrome", which will be further discussed later).

5.3.5. **Sexual orientation.** 63.8% of participants identified themselves as heterosexual, 25.2% as homosexual, 9.2% as bisexual, 0.1% as transsexual, 0.5% as asexual, and 1.2% as Other. Participants who indicated their sexuality as Other elaborated on it with terms such as "polymorphously perverse", "normal", "gay", "tentacle sexual", and "queer".

It was hypothesised in the current study that homosexual and bisexual men would report poorer body image and use the Internet for socialising and dating more frequently than heterosexual men. The results supported the hypothesis that homosexual men and bisexual men were more likely to socialise and date online, which replicates the findings by Lever and colleagues (2008). The ratio of homosexual to heterosexual men in this online study being relatively higher than that of the general public, which is between 3 – 5% (Whitman, 1983), also seem to support the hypothesis that homosexual and bisexual men are more active online than heterosexual men. This could be due to the ease in which homosexual and bisexual men can identify potential partners via the Internet as compared to dating in offline venues where it could be difficult and awkward trying to determine the sexual orientations of potential partners. The Internet could also offer a safe solace in which gay and bisexual men can date and socialise away from homophobia that may take place more frequently in face to face encounters (Lever et al., 2008).

However, data analysis did not support the hypothesis that homosexual and bisexual men may suffer from poorer body image compared to heterosexual men. This goes against the results of most of the major findings in this area where gay men have been found to have more body image issues than heterosexual men due to being subjected to the 'male gaze' and the harsh ideals of a body-obsessed gay culture (Siever, 1994; Feldman & Myer, 2007; Schneider & Agras, 1987; Levesque & Vichesky, 2006; Yelland & Tiggemann, 2003; Fawkner, 2004). The author proposed that the contradictory findings in this study could be due to the differences in sampling. Most of the established studies used samples that were obtained from "gay venues" and with gay men under the age of 30 (Grogan, 2008) whereas the current sample consisted of gay men from all walks of life and across ages and thus may be more representative of the general homosexual population. Findings that denote the higher rates of body image issues in gay men may have been inflated as men who frequent "gay venues" may be more exposed to pressures to conform to body ideals than gay men who do not.

5.3.6. **Occupation.** Majority of the participants were students (23.2%). 11.8% of the sample were employed in the Information Technology field and 11.5% worked in areas of Business / Marketing / Advertising. 6.4% of the participants did not indicate their occupation. The current study hypothesised that men with occupations that require strength, physical fitness, and attractiveness (such as Performing Arts and Health and Fitness) may have poorer body image (Atkins, 1998), but data analyses failed to identify any significant relationships between occupational group and the variables examined. This is likely due to the fact that men from said the aforementioned occupations were grossly underrepresented in the current sample (e.g., only 2 participants were from the Fitness/Health industry).

5.3.7. **Mental health history.** Of the 738 participants, 67.4 % reported no history of mental health issues with 23.4 % report having some form of mental health issue at some point in their life. The results indicated that a history of mental health issues was a good predictor of lower self-esteem. Given that low self-esteem is a common comorbid presentation in mental health issues as well as a result of the social stigma of mental illnesses (Link, Struening, Neese-Todd, Asmussen, Phelan, 2001), this result is not surprising. While other variables were found to have a significant relationship with participants' mental health history, the author suggested that individuals with current or past mental health issues may benefit from using the Internet to establish and maintain relationships (e.g., through online support groups for mental illnesses) as past research has also shown that Internet communications can significantly decrease loneliness and depression, and increase perceived social support and self-esteem (Shaw & Gant, 2002; Stevens & Morris, 2007).

5.4. **Internet Socialisation And Online Dating Behaviours Findings**

The findings suggested that the use of dating sites and online forums for romantic encounters was relatively commonplace for many of the respondents, at least on occasion, but success stories that resulted from online relationships were less common. Out of the 736 participants who responded, 25% of them indicated that they spend less than 7 hours on the Internet every week for leisure, 47% spend between 7 – 21 hours weekly on the Internet, and 28% spend more than 21 hours online per week.

When asked if participants had ever used Internet dating site to meet potential partners, 59.2% men reported that they had never done so, 14.8% stated 'Rarely', 18.2% said 'Sometimes', 6.1% replied with 'Often', and 1.6% indicated that they had always used Internet dating sites. 59% of the sample reported never having been in a

relationship with someone they had met on the Internet while 2% indicated that they have always had online relationships. 68.9% of the participants reported never having been in long distance relationship (LDR) whereas 0.7% of them reported always been in long distance relationships.

41% of participants reported that they found it easier at times to talk to people on the Internet rather than face-to-face. A relatively high percentage of participants (34%) also reported sometimes feeling more confident online than face to face. When asked what percentage of their friendships and relationships were made over the Internet, 216 participants replied zero, 364 replied less than 15%, 97 replied with 25 – 50%, 49 replied with 50 – 75%, and 9 reported more than 75%. With a mean score of 2.05, men's use of the Internet for socialisation and dating was overall fairly infrequent in spite of the relatively high number of participants who enjoy the ease of online communication. This could be due to the present, though quickly waning, stigma associated with Internet users being socially awkward nerds (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, 1998).

The current study hypothesised that men who use the Internet for socialising and dating more frequently would report poorer self-esteem, general functioning, body image, and penis size satisfaction. Statistical findings indicated that the strongest contributors to the prediction of online dating and socialising behaviours were age (younger), sexual orientation (homosexuality), aroused penis length (shorter), lower self-esteem, and poorer body image. Higher BMI and penis size dissatisfaction were also relatively good predictors of men's tendency to use the Internet for socialising and dating. In other words, men who socialise and date online more frequently are more likely to be younger, homosexual, have shorter reported aroused penis length, lower

self-esteem, poorer body image, higher BMI, and be less satisfied with their penis size. The hypothesis was thus supported.

It would be reasonable to expect the younger generation who have always lived in a world where the Internet was available would be more likely to use the Internet for socialising and dating compared to their older counterparts who may be less well-versed in Internet protocol and forum use to rely on these settings as viable alternatives for their social and dating needs. Press release information of various internet dating sites indicates that their membership consists primarily of singles aged 21 – 49 years (Donn & Sherman, 2002). The possible reasons for homosexual men to be more likely to socialise and date online than heterosexual men were discussed above.

Men with higher BMI, penis size dissatisfaction, lower self-esteem, and poorer body image all have one thing in common – the dating world can be a cruel place. For these men who are unhappy with their appearance and are worried about negative evaluations by others, social anxiety can be a major hurdle in the quest for a romantic and/or sexual partner (McKenna, 1999; Stevens & Morris, 2007; Ward & Tracey, 2004) and as such are more likely to use the Internet for dating as the anonymity can buffer individuals from instant face-to-face rejections based purely on physical traits (Levine, 2000; McKenna & Bargh, 2000; Peter & Valkenburg, 2007).

However, while overweight men with low self-esteem, body image, and penis size satisfaction are more likely to date online, data from the current study indicates that majority of the participants who have used Internet dating sites have never had a successful relationship with somebody they met online. This is similar to the results of several studies (Hardie & Buzwell, 2006; Whitty, 2004; Knox et al., 2001) where majority of respondents said they had at some stage formed a romantic relationship with

someone they had met online, but only a very small percentage of them reported having found a romantic partner using this approach. The author hypothesised that individuals who are more prone to Internet dating due to dissatisfaction with their physical appearances may be more likely to lie about their physical traits online in order to attract potential partners. Stevens and Morris' study in 2007 found that people with poor body image were more likely to exaggerate their physical appearances online as a way of advancing relationships. The downfall of that is in pretending to be someone they are not may have perpetuated their self-esteem and body image issues (Armstrong, Phillips, & Saling, 2000; Li & Zhao, 2002; Niemi, Griffiths, & Banyard, 2005) as they may feel unable to live up to the fantasy ideal they have created. It would seem plausible that such an eventuality would result in a corresponding decrease in the number of real-life encounters because these individuals would avoid face-to-face meetings in order not to shatter the image of their fantasy self and/or to revel in living out their fantasy life on the Internet and not have these relationships be established offline.

5.5. Penis Size Satisfaction And Measurements Findings

Of the 520 participants who indicated the length of their penises when flaccid, the mean length was 8.49 cm, ranging from 1 cm to 25 cm. The average self-reported penis length when aroused was 16 cm, ranging from 4 cm to 30 cm. This is similar to the summary of findings from 25 sources on penis size measurements compiled by Templer (2002). 465 participants indicated their ideal penis length when flaccid with the mean being 11.48 cm, ranging from 2 – 20 cm. In general, men perceived the ideal penis to be notably longer than their own in both the flaccid and aroused states. The mean ideal penis length when aroused was 19.16 cm ($SD = 3.19$), ranging from 6 – 38 cm. The mean length of an average flaccid penis was perceived by the sample to be 9.25

cm, ranging from 2.5 – 19 cm. 509 participants reported what they thought the average penis length was when aroused with a mean of 15.76, ranging from 5 – 25 cm. This pattern is similar to the findings by Lee (1996) and Son et al. (2003) who found that while most of the participants believed they possessed an average-sized penis, the rest of the men were more likely to believe that they were smaller than average.

Majority (79%) of participants reported they wished they had a bigger penis, to varying extents. Only 33% of the sample did not think they would feel better about themselves if they had a bigger penis while the rest (67%) indicated that they would at various degrees. Out of 603 participants, 64% of them thought that they would be a better sexual partner, to a varying extent, if they had a bigger penis. 60% of the respondents have never thought or tried methods of increasing their penis size. 86 participants have, at some stage in their lives, used Viagra. Overall, 57% of the respondents were comparatively satisfied with their penis sizes and 43% of them were relatively unsatisfied with the size of their penises.

It was hypothesised in the current study that men who report lower penis size satisfaction would report poorer self-esteem, body image, and general functioning, and may use the Internet for socialising and dating more frequently than men who report higher penis size satisfaction. The hypothesis was supported by the findings, which indicated that penis size satisfaction is a strong predictor of self-esteem and a relatively good predictor of body image and Internet socialising and dating behaviours. In other words, men who are less satisfied with the penis sizes are significantly more likely to have poorer self-esteem and reasonably more likely to have poorer body image and use the Internet for socialising and dating. This is similar to findings of other studies in this area (Winter, 1989; Pedersen, 2009; Cash, Maikkula, & Yamamiya, 2004; Lever et al.,

2006) where men who were unhappy with the size of their penises were found to have lower self-esteem and poorer body image. The data also suggest that many of the same men who are otherwise satisfied with their penis size were dissatisfied when they compared their size to other men and what they think the cultural ideal size is (otherwise known as “locker-room syndrome”). This suggests that to the degree that men are able to reconcile any differences between their physical attributes (including penis size) and the cultural ideal and comparisons made with their peers is the degree to which they will enjoy improved relationships and quality of life factors. While self-esteem is comprised of a number of variables, it is clear that an individual’s satisfaction with the size of their penis plays a major part. In this regard, McDonagh, Morrison and McGuire (2008) noted, “Sexual functioning entails an intricate interplay of thoughts, feelings, physical processes and behaviours. It encompasses one's experience and how well one functions within a particular episode of sexual activity. [There is] a direct relationship between body satisfaction and sexual experience” (p. 254).

5.6. Male Body Image Findings

Consistent with many of the body image studies (Lee & Owens, 2002; Grogan, 2008), the results of the data analysis have shown that few people are truly satisfied with their physical appearance and most would like to change something about their body. In fact, just 5.8% of the participants reported being satisfied with their body size, with the vast majority (83.7%) desiring a bigger body while the rest (10.5%) wanted to be smaller. This result is noteworthy when bearing in mind that majority of the participants are overweight or obese. Instead of choosing a smaller ideal body shape to indicate their desire to lose weight, participants selected a larger figure drawing as their ideal, denoting their preference for a muscular body type over a slender one. This is consistent

with past research that found that men were more likely to select a muscular body shape over a thinner, less muscular shape as their ideal body type (Pope et al., 2000; Cafri, Strauss, & Thompson, 2002).

Interestingly, according to the responses on the Male Figure Rating scale, participants' perception of their bodies varied significantly based on the context in which such comparisons were being made, with even fewer participants reporting being satisfied with their bodies compared to what they believed other men and potential partners considered to be the popular body ideal. Majority (90% and 83% respectively) of the respondents think they are physically smaller than other men's and their potential partners' ideal body size. Interestingly, while 65% of respondents think their ideal size is smaller than the perceived ideal body size of other men, only 35% think their ideal size is smaller than their potential partners' perceived ideal, indicating men's desire for a larger physique is stronger in context of comparisons with other men and less so in the bedroom. On average, participants assessed their own body as being comparable to the fifth figure drawing on the scale, the perceived ideal body and the body most attractive to partners as one comparable to 10 points higher on the scale (i.e., the sixth figure drawing on the scale), and the perceived ideal body other men would choose ranked between the sixth and seventh figure drawing on the scale. Again, this is consistent with the "locker room syndrome" previously discussed in the context of penis size dissatisfaction, whereby men who are relatively content with their bodies for themselves and their partners become dissatisfied when comparing their bodies with other men.

Responses on the Drive for Muscularity Scale yielded low mean scores for behavioural drive for muscularity, but relatively higher scores for motivational drive for muscularity, which suggests that while participants had high levels of desire for a more

muscular body, they did not engage in much muscle development behaviours, such as diet management and exercise. The author proposed the fact that the men's level of discontentment with their bodies did not translate into equal level of muscle development behaviours could suggest that (a) their discontentment is not significant enough to spur a change in behaviours, (b) the measure failed to include other aspects of the weight-changing and/or muscle-development or compulsive behaviours employed by the men, such as purging, excessively checking their reflections, etc., (Chandler et al., 2009; Jones, 2001; McCreary, 2002) and/or (c) that the men perceive it impossible to attain their ideal body and thus have made no effort in doing so. The first being a positive protective sign and the latter two being more dangerous as they could likely spiral into consequential psychological issues such as depression, low self-esteem, social anxiety, and relationship problems as demonstrated by other studies (Labre, 2002; McCreary & Sasse, 2000; Ricciardelli & McCabe, 2004; Smolak & Stein, 2006).

The current study hypothesised that men who report poorer body image would report higher drive for muscularity, poorer self-esteem, penis size satisfaction, and general functioning, and may use the Internet for socialising and dating more frequently than men who have better body image. The hypothesis was partially supported by the data analysis which revealed that the main contributors to the prediction of male body image were BMI, drive for muscularity (both muscle development behaviours and muscularity-oriented body image attitudes), and dissatisfaction with length of aroused penis. Penis size dissatisfaction was also found to be a relatively strong predictor of male body image. In other words, men with poorer body image are more likely to have higher drive for muscularity and engage in muscle development behaviours, and are relatively more likely to be unhappy with the size of their penis. This relationship

between body image and drive for muscularity has been replicated in several established research (Cafri, Strauss, & Thompson, 2002; Pope et al., 2000; Jones, 2001; McCreary, 2002).

While poorer self-esteem was a good predictor of Internet socialising and dating behaviours, tendency to date online was not found to predict poor body image, which suggests that while men with poor self-esteem are drawn to the benefits of Internet dating but just because an individual enjoys online dating does not necessarily mean they suffer from low self-esteem. This is an important distinction as it serves to dispel the myth and unfounded stereotype of all Internet users being socially awkward geeks with poor self-esteem. Lessening the stigma of online dating may have long term benefits in decreasing loneliness and depression (Shaw & Gant, 2002; Stevens & Morris, 2007) for individuals who struggle with forming relationships offline.

5.7. Self-Esteem And General Functioning Findings

On the whole, participants' mean scores on the GHQ-12 and RSES suggest overall good general functioning and relatively high self-esteem. It was hypothesised that men with lower reported self-esteem may have poorer body image, general functioning, and penis size satisfaction, and may use the Internet for socialising and dating more frequently than men with higher reported self-esteem. Statistical findings partially supported the hypothesis; the strongest predictors of higher self-esteem were older age, holding fewer muscularity oriented body image attitudes, an absence of mental health history, and higher penis size satisfaction. Possible explanations for these findings have been explored in the previous sections. It was also hypothesised that men with poorer reported general functioning may have poorer body image, penis size satisfaction, and self-esteem, and may use the Internet for socialising and dating more

frequently than men with better reported general functioning. Data analysis failed to identify any significant relationship between general functioning and the variables examined, except for self-esteem which was revealed to be the strongest predictor of general functioning.

5.8. Participants' Comments Findings

While not explored statistically, comments from participants shed interesting light on their experiences of the impact of penis size issues on their body image and sex life, the impact of emotional and physical health on their body image and general well-being, and the relationship between sexuality and race on body image. Participants also highlighted the need for more focus on obesity issues rather than just muscularity in male body image studies and provided helpful feedback in improving the survey design. Respondents indicated that there are three main factors that affected their mental health, namely work, relationship, and family problems. Qualitative research in this area would contribute valuable insights into the workings of male body image.

5.9. Limitations Of The Present Study

5.9.1. Problems with Internet research. As with any research that takes place outside of a laboratory, the drawback is that it is difficult for the researcher to control the environment in which the individual is completing the study. Fatigue, Internet connection speeds, and external distractions (such as noise, input from friends or family members, multi-tasking on the Internet while completing the survey) are just some of the possible factors that could confound standard stimulus presentation. It is impossible to ensure that all participants who were unsure of the terms used in the questionnaire were able to get clarification from reliable sources. Moreover, Joinson

(1999) suggests that lying may be increased by the anonymity, increased disinhibition, and increased de-individuation experienced on the Internet. As such, the researcher has no means of detecting if respondents sabotaged the study by lying about basic demographic information such as gender, age, and physical measurements, thereby threatening the validity of the data. The survey was also kept necessarily short and relied heavily on single-item measures of key variables to increase participant rates. This was especially important on the Internet where people often multi-task in short bursts of attention and thus would struggle to finish a questionnaire that was long and lengthy. Quality of findings, however, was expectedly compromised as a result. Anonymity of the Internet can also give rise to “manufactured identities”, which are characters created by users to present themselves to others on the Internet for purposes such as boosting self-esteem and exploring other facets of their personalities that they feel unable to express in real life (Rheingold, 1993). Given the sensitive and potentially emotionally invasive nature of this study, men who wish to feel more masculine may decide to answer the questions to make them appear so. This has obvious detrimental effects on the representativeness of the sample.

5.9.2. **Problems with questionnaire design.** Based on some of the noteworthy feedback received from participants at the end of the questionnaire, one possible improvement to the questionnaire design is to have a confirmation page after all the responses have been entered so that participants can view their final set of answers before submitting. This could minimise missing data, allow participants the chance to edit their answers, and perhaps encourage more thoughtful input. Some of the questions can benefit from better phrasing and/or elaboration with examples. The question asking for participants' ethnicity, for example, would have yielded better and

more statistically meaningful results if it was presented as a multiple choice question with fixed responses for participants to choose from or with examples so as to reduce the number of ambiguous answers such as “Aussie”. Additionally, questions that started with “Have you ever” such as “Have you ever been in a relationship with someone you met on the Internet?” could be reworded to “Do you-” or “How often do you-” to make more sense when they are answered by “Never/Rarely/Sometimes/Often/Always”.

Another participant noted difficulties in trying to generalise their answers to some of the questions. One participant said, “The question on what 'most men think as ideal' for me was dependent on culture, generation, background, etc., so I find it hard to generalise.”

In that particular example, the questionnaire can be improved by elaborating on various context and scenarios. For instance, participants can be asked what other men perceive as the ideal body type for different age groups, ethnicity, in the locker room, in the bedroom, etc. This may also allow the researcher to explore the varying levels of body image concerns of men in different context and social expectations.

5.9.3. **Problems with measures.** Data on penis girth measurements had to be removed from statistical analysis due to confusion with interpretation of the question. The instructions on measuring penile circumference could have been made clearer as participants were unsure if they needed to measure the circumference or diameter of their penises. It would have been helpful to include pictorial instructions and diagrams to indicate the areas to be measured. This would also increase the validity of the responses for length measurements as some participants may be measuring from the bottom of their testicles to the tip of their penises thus inflating their sizes. The questions pertaining to penis size satisfaction neglected to include circumcision status and how respondents felt about the intactness of their foreskin or the lack thereof. One

participant commented that his biggest body image issue stems from the lack of his foreskin which was circumcised at birth. He indicated that he has had surgical procedures to restore his foreskin which has helped his self-esteem. While this may just be one lone example, it is not far-fetched to hypothesize a link between circumcision status and penis satisfaction. To the researcher's knowledge, there has not been any research done on the relationship between male body image and circumcision status. Studies on circumcision appeared to be predominantly focused on the impact on HIV prevention (Westercamp & Bailey, 2007; Weiss, Halperin, Bailey, Hayes, Schmid, & Hankins, 2008). Another factor of penis size satisfaction is participants' satisfaction with the size and shape of their testicles, which was neglected in the current study. According to literature searches to date, there have not been any studies in the area of male body image and testicles size and shape. One of the respondents also suggested that questions pertaining to participants' satisfaction with their overall package size (i.e., penis and testicles), how they fill out their underwear, and whether they experience concerns with exposing themselves to other men in locker rooms should be included. This would allow the penis size satisfaction measure to tap into participants' concerns about their penis size in context of other men. The current study did not fully explore the obvious link between penis size satisfaction and sex lives. Even though the questionnaire asked if participants felt they would be a better lover if they had a bigger penis, more questions could have been asked about their current sex lives (such as how often they are having sex, how many sexual partners have they had and wish to have, how satisfied they are with the quality of their sex lives, etc.) so as to allow for statistical exploration of the extent to which self-reported penis measurements and penis satisfaction impact in the bedroom. This could also shed some light on whether there is any truth in the myth of

“small man syndrome” whereby men with small penises (whether perceived or actual) overcompensate for the shortcoming by having more sex partners than the average man.

Another significant flaw in the study was neglecting to include measures that assessed concerns of overweight men. This was a common complaint from participants when expressing feedback for the study. One said, “This study has its head in the right place, but focuses far too much on muscularity. A lot of men stress out far more over simply being overweight, including me. I don't feel pressured to be muscular, but I certainly feel the pressure to be thin.” This failing is also reflective of the failing in most of the male body image research as there are very limited measures that have been designed specifically for assessing male body image, and the ones that are available had the tendency to focus on drive for muscularity. At the time of data collection, the researcher was unable to locate an appropriate measure that included both concerns about obesity and muscle mass. Overweight participants found it especially difficult to answer the questions in the Figure Rating Scale as the diagrams did not depict increase in fat, only muscles, thus affecting the validity and representativeness of the results.

5.9.4. **Problems with sampling.** Even though the sample size of the study was comparably large and the participants came from many different countries world wide, it was not nationally representative. Majority of the respondents came from Australia and America, thus the results cannot be generalised to men of all ethnicity since the ones from Asian and European countries were under-represented. Moreover, only 448 participants out of the 738 men who responded to the survey completed all the questions in the survey, again altering the accuracy and validity of the results yielded. Additionally, the sample was gathered via referral recruitment (snowballing) as the targeted group was community-specific (i.e., people who frequented online message

boards focussed on discussion about male issues and interests) and therefore may not be representative of the general public.

5.10. Suggestions For Future Research

As explored above, there are several aspects of the study that can be improved to yield more statistically significant and representative results as well as to explore in-depth and other dimensions of male body image. Succinctly, future research in this area would benefit from focussing on the body image concerns of older men, the impact and psychological implications of testicle size and circumcision status, the relationship between penis size satisfaction and sex life satisfaction as well as number of sexual partners, cross-cultural differences in male body image (especially given racial stereotypes about ethnic differences in penis sizes, how satisfied a person is with his penis size may be influenced by his perception of what is typical for his ethnic group.), and the impact of obesity on male body image and the need for more measures specific to male body issues targeting both drive for muscularity and thinness. In addition, it would be beneficial to obtain data on both men's and women's views on penis size to examine in greater detail the degree to which men overestimate the importance of penis size to women and the reasons for this discrepancy.

The need for gender-specific survey instruments and measures of body image is clear, given that the same instruments and methods used to measure female body image likely do not apply to male subjects. Future research undoubtedly will be devoted to the development, perfection, and standardization of male body image measures. Since conducting this research several new instruments targeted at measuring male body image have been developed. One attempts to go beyond muscularity, including categories such as body fat, youthfulness, body hair, and penis characteristics. The

instrument is called the Multidimensional Male Body Concerns Questionnaire (MMBCQ), and includes more than 30 different items along five dimensions. The MMBCQ was developed by Rusticus (2010). A second instrument that has recently been developed is called the Male Body Dissatisfaction Scale (MBDS). Proposed by Ochner, Gray & Brickner (2009), the MBDS enables the correlation of body image variables with other psychological variables like self-esteem. Moreover, the MBDS is important in that it allows men to rank specific body image variables as being important to them. This makes the MBDS applicable to diverse populations. Future research should substantiate the efficacy of these new survey instruments.

Future research might also explore the differences between gay and straight men with regards to body image and/or body dysmorphia. Differences between straight and gay men have already been substantiated in the literature, but future research might address differential methods of intervention. Exploring the variables that lead to unrealistic body image might fall within the realm of social sciences other than psychology: such as anthropology and sociology. Research in the area of male body image is multidisciplinary. Anthropology and sociology offer fruitful avenues of research, yielding potentially rich data on the differences between men of various cultures and ethnic groups. However, psychological approaches to male body image offer the unique opportunity to explore links between body image issues and pathologies. It would be important to know, for example, if there are correlations between male body dysmorphia and depression or anxiety. Future research may also explore the ways that therapists can incorporate male-specific body image counseling techniques.

An exploration of the differences between different age groups might also yield fruitful data. Height, head hair, tanned skin, muscularity, youthfulness, clear complexion, and Caucasian facial features may be among the “ideal physique” designations (Rusticus, 2010). Other variables such as testicle size and overall shape of the penis should also be taken into account. Circumcision status may also be an important variable in determining male body image and self-perception. Whether these variables remain constant among different ethnic groups should be discussed in future research. Moreover, variables should also be correlated with social class status.

Future research could also explore reported sex life satisfaction between the male subjects and their partners. For example, do men who report self-consciousness related to their penis size also experience less satisfaction in bed? Do the partners of men correspondingly report less satisfaction? The relationship between body image and other psychological variables such as personality test scores might also yield information helpful for therapists. Future research might also show whether gay men are more critical of their male partners versus straight women of their male partners.

Finally, not all future research should be quantitative. Qualitative research offers rich opportunities for in-depth exploration of issues related to male body image. Interviews and case studies may highlight the complexity of the variables that impinge on negative male body image.

5.11. Strengths And Contributions Of The Present Study

5.11.1. **New knowledge.** Firstly, it should be emphasised that this is one of the first large-scale study of the associations among men’s self-reported penis size, penis size satisfaction, physical traits, Internet dating behaviours, self-esteem, and body

image. An important contribution to the study of male body image by this research is highlighting the “locker room syndrome” experienced by men, which indicates that men's dissatisfaction with their body are higher when in context and comparison with other men than when they are evaluating their bodies on their own merit and as a sexual partner. This has noteworthy implications in the detrimental effects of societal pressures on men by other men and bringing this awareness to the general public may not only normalise and shed some understanding about the experience of body image issues for men and also allow them to seek treatment if needed.

5.11.2. **Advantages of online data collection.** Using a purely Internet-based sample increases external validity in that the demographic variability of participants in online research has been found to be greater than in most laboratory studies (Reips, 2000). According to the Pew Internet & American Life Project (2005), differences between the demographics of Internet users and non-Internet users have been diminishing over time as Internet use becomes more common, and the percentage of minorities and older individuals using the Internet has increased. The current sample was substantially larger and more diverse than previous studies, which have often relied on small convenience or college student samples. The breadth of the sample provided an opportunity for detailed comparisons of men across a wide age spectrum from various continents and to compare respondents who differed substantially in height and weight. Moreover, the possibility of biases occurring was reduced by recruiting respondents from a vast number of mediums, such as message boards, online communities, newspaper and radio advertisements, and word of mouth.

Internal validity is also increased with use of online sample as assurances of anonymity reduce discomfort and attempts to manage impression (Agnew & Loving,

1998). The internal validity of net research may also be improved by the removal of interviewer effects (sex, race, sexual orientation, etc.), which is particularly useful for sensitive research areas such as penis size. Research has found that participants using the Internet respond with less social desirability and social anxiety (Joinson, 1999), thus increasing the potential for honest self-report. Exaggerated reported measurements of penis sizes was anticipated, however the data indicated that participants were mostly honest in their responses as their measurements fell well within the average as established by previous research. The current study methods provided considerable protection of anonymity and allowed individuals to participate from the privacy of their home or workplace. The ease of participation may have further reduced some of the bias introduced when volunteers must travel to a research setting to participate.

5.11.3. **Strengths in questionnaire design.** The aesthetic of the web page for the questionnaire is important for convincing participants that the research is legitimate and important. Therefore, the current study adopted a simple, easy-to-follow, and formal style with a link back to the Victoria University web site to provide increased confidence. At the end of the questionnaire, participants were also provided with additional information and links to relevant websites pertaining to male body image as well as contact details to international mental health agencies and to the thesis supervisor should they experience distress after completing the survey. The questionnaire page was also tested across different computer platforms (PC, Linux, and Macs), software (Internet Explorer, Firefox, Opera, Chrome, etc) and resolution sizes to prevent alienation of any potential respondent. Questions were kept as concise and short as possible, within five browser pages, so as not to deter people from participating or quitting mid-way due to boredom or time-constrain. IP addresses of all respondents

were also noted to ensure no one is filling out the survey multiple times.

While the current study failed to include measures that tapped into obesity concerns in male body image much like most male body image studies to date, the survey included questions pertaining to BMI, height, weight, and chest and waist measurements which aimed to incorporate weight issues other than muscularity. The study also included questions relating to how men perceive themselves in comparison to other men, their ideal selves, and their partners' ideals, which allowed for deeper exploration of men's body concerns in relation to self-perception and societal pressures. Some past research has indicated that men's concerns with their flaccid penis size differ from their concerns with their erect penis size (Morrison et al., 2005). This survey allowed for the examination of men's concerns with other aspects of their genitalia. It is also one of the first studies to explore relationships between male body image, Internet dating, and general functioning.

5.12. **Summary Of Findings**

The key findings of the current study are as follows:

- The mean self-reported length of penis when flaccid was 8.49 cm, ranging from 1 cm to 25 cm. The average self-reported penis length when aroused was 16 cm, ranging from 4 cm to 30 cm.
- Participants perceived the ideal penis to be notably longer than their own in both the flaccid and aroused states. Majority (79%) of participants reported they wished they had a bigger penis.
- Many of the same men who are otherwise satisfied with their penis size were dissatisfied when they compared their size to other men and what they think the cultural ideal size is (otherwise known as “locker-room syndrome”).

- Majority of the respondents rated themselves as physically smaller than other men's and their potential partners' ideal body size.
- Men who are less satisfied with the penis sizes are significantly more likely to have poorer self-esteem and reasonably more likely to have poorer body image and use the Internet for socialising and dating.
- The strongest predictors of higher self-esteem were older age, holding fewer muscularity-oriented body image attitudes, an absence of a history of mental health concerns, and lower penis size dissatisfaction. The negative relationship between BMI and self-esteem neared significance.
- Men with poorer body image are more likely to have higher drive for muscularity and engage in muscle development behaviours, and are relatively more likely to be unhappy with the size of their penis.
- Men who socialise and date online more frequently are more likely to be younger, homosexual, have shorter reported aroused penis length, lower self-esteem, poorer body image, higher BMI, and less satisfied with their penis size.
- Self-esteem was the strongest predictor of general health.

5.13. Conclusion And Implications

This thesis aimed to examine the relationships between self-reported physical attributes of men (i.e., penis size and weight), body satisfaction (drive for muscularity and body size perceptions), penis size satisfaction (satisfaction with penis size and length when either flaccid or erect), self-esteem, and the psychological implications of poor body image in men, using measures that have been specifically developed to measure male body image concerns. The present study contributed to the area of male body image as it is one of the first large scale studies exploring factors related to male

body image with a substantial International sample size of more than 700 men via an online medium. It is also a pioneer study in investigating the link between male body image and Internet dating.

The current study was consistent in showing that men may suffer from body image issues more frequently than previously thought, and that the effect of these concerns can have many of the same adverse outcomes in males as in females, including health-related problems that are related to their perceptions of inadequacy based on a wide range of body image factors. Some interesting insights into the importance of male body image and its relationship to perceptions of self-esteem and overall well-being emerged from the research that bear mentioning. A noteworthy finding of the study is the discrepancy in men's level of body dissatisfaction when in context and comparison with other men (i.e., "locker room syndrome") than when they are evaluating their bodies on their own merit and as a sexual partner. This has remarkable implications in bringing awareness of the detrimental effects of societal pressures within the male culture to strive for an unhealthy and potentially unattainable body ideal.

Continued research in the area of male body image is of importance as body dissatisfaction has obvious negative implications for the men's general functioning, self-esteem, and relationships. The research is important for a number of reasons, including the costs associated with the inordinately high prevalence of adverse healthcare outcomes among individuals with lowered self esteem and body image issues, but perhaps even more importantly, this research is needed to help understand why the chase for the ideal body is of such importance important to some men while others are comparably more content with what they have been blessed.

Future research needs to take into consideration both drive for muscularity and

obesity issues. A greater understanding of male body concerns may assist professionals working with men. The findings may also normalise and shed some understanding about the experience of body image issues for men and allow and encourage them to seek treatment when necessary, especially for adolescent boys. As Davidson (2000) noted, “There is a great deal of silence around men, their body image, and masculine identity. The fear of not ‘being’ and embodying the masculine ‘norm’ is reinforced in public schools. And learning to ‘fit’ into hegemonic masculinity, by definition, requires that young men accept and participate in homophobia, sexism, misogyny, and violence as everyday masculine practice” (p. 193). It is hoped that with further research, training, and education, boys and men with body image concerns, who may otherwise turn to self-destructive and anti-social ways to cope, will be provided with adequate and appropriate support.

6 References

- Abell, S. C., & Richards, M. H. (1996). The relationship between body shape dissatisfaction and self-esteem: An investigation of gender and class differences. *Journal of Youth and Adolescence*, 25, 691-703.
- Adams, G., Turner, H., & Bucks, R. (2005). The experience of body dissatisfaction in men. *Body Image*, 2(3), 271-283.
- Anderson, R. E., Barlett, S. J., Morgan, G. D., & Brownell, K.D. (1995). Weight loss, psychological, and nutritional patterns in competitive male body builders. *International Journal of Eating Disorders*, 18(1), 49-57.
- Andersen, A., Cohn, L., & Holbrook, T. (2000). *Making weight: Men's conflicts with food, weight, shape and appearance*. Carlsbad, CA: Gurze Books.
- Aruguete, M.S., Nickleberry, L.D. and Yates, A. (2004). Acculturation, body image, and eating attitudes among black and white college students. *North American Journal of Psychology*, 6, 393-404.
- Atkins, D. (ed.) (1998) *Looking queer: Body image and identity in lesbian, bisexual, gay and transgender communities*. New York: Harrington Park Press.
- Australian Bureau of Statistics. (2008). More than half of adults are overweight and the numbers are increasing. Retrieved from:
<http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/4719.0Media%20Release12004-05?opendocument&tabname=Summary&prodno=4719.0&issue=2004-05&num=&view=>
- Blascovich, J., & Tomaka, J. (1991). Measures of self-esteem. In J. P. Robinson, P. R. Shaver & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 115-160). New York: Academic.

- Barry, D. T. & Grilo, C. M. (2002) Eating and body image disturbances in adolescent psychiatric inpatients: Gender and ethnicity patterns. *International Journal of Eating Disorders*, 32, 335–343.
- Baumeister, R. F., & Tice, D. M. (2001). *The social dimension of sex*. Boston: Allyn & Bacon.
- Beren, S., Hayden, H., Wilfley, D. and Grilo, C. (1996). The influence of sexual orientation on body dissatisfaction in adult men and women. *International Journal of Eating Disorders*, 2, 135–41.
- Blouin, A. G. & Goldfield, G. S. (1995). Body image and steroid use in male bodybuilders. *International Journal of Eating Disorders*, 18, 159–165.
doi: 10.1002/1098-108X(199509)18:2<159::AID-EAT2260180208>3.0.CO;2-3
- Bottamini, G. & Ste-Marie, D. M. (2006). Male voices on body image. *International Journal of Men's Health*, 5(2), 109-110.
- Brownell, K. D. & Rodin, J. R. (1994). The dieting maelstrom: Is it possible and advisable to lose weight? *American Psychologist*, 49, 781–91
- Buckley, P., Freyne, A., & Walsh, N. (1991). Anorexia nervosa in males. *Irish Journal of Psychological Medicine*, 8, 15-18.
- Cafri, G., Strauss, J., & Thompson, J. K. (2002). Male body image: satisfaction and its relationship to well-being using the Somatomorphic Matrix. *International Journal of Men's Health*, 1, 215–231.
- Cafri, G., & Thompson, J. K. (2004). Evaluating the convergence of muscle appearance attitude measures. *Assessment*, 11(3), 224-229.
- Cafri, G., & Thompson, J. K. (2004). Measuring Male Body Image: A review of the current methodology. *Psychology of Men and Masculinity*, 5(1), 18-29.

- Carlat, D. J., & Carmargo, C. A. (1991). Review of bulimia nervosa in males. *American Journal of Psychiatry*, *148*, 831-843.
- Cash, T. F., Maikkula, C. L., & Yamamiya, Y. (2004). Baring the body in the bedroom: Body-image, sexual self-schemas, and sexual functioning among college women and men. *Electronic Journal of Human Sexuality*, *7*. Retrieved from <http://www.ejhs.org/volume7/bodyimage.html>
- Chambers, K. L. & Alexander, S. M. (2007). Media literacy as an educational method for addressing college women's body image issues. *Education*, *127*(4), 490-491.
- Chandler, C. G., Derryberry, W. P., Grieve, F. G., & Pegg, P. O. (2009). Are anxiety and obsessive-compulsive symptoms related to muscle dysmorphia? *International Journal of Men's Health*, *8*(2), 143-154. doi: 10.3149/jmh.0802.143
- Cohane, G. H., & Pope, H. G. (2001). Body image in boys: A review of the literature. *International Journal of Eating Disorders*, *29*, 373–379.
- Cohn, L. D., & Adler, N. E. (1992). Female and male perceptions of ideal body shapes: Distorted views among Caucasian college students. *Psychology of Women Quarterly*, *16*, 69–79.
- Conner, M., Martin, E., Silverdale, N., & Grogan, S. (1996). Dieting in adolescence: An application of the theory of planned behaviour. *British Journal of Health Psychology*, *1*, 315–325.
- Conner, M., Johnson, C., & Grogan, S. (2004). Gender, sexuality, body image and eating behaviors. *Journal of Health Psychology*, *9*(4), 505-515.
- D'Amico, M. (1998, December 7). Internet has become a necessity, US poll shows [Online]. *CNN Interactive*. Retrieved from <http://cnn.com/tech/computing/9812/07/neednet.idg/index.htm>

- Davis, C., & Cowles, M. (1991). Body image and exercise: A study of relations and comparison between physically active men and women. *Sex Roles, 25*(1-2), 33-44.
- Davis, C., & Katzman, M. (1997). Charting new territory: body esteem, weight satisfaction, depression, and self-esteem among Chinese males and females in Hong Kong. *Sex Roles, 36*, 449-459.
- Davis, C., & Katzman, M. (1998). Chinese men and women in the United States and Hong Kong: body and self-esteem ratings as a prelude to dieting and exercise. *International Journal of Eating Disorders, 23*, 99-102.
- Davison, T. & McCabe, M. P. (2006). Adolescent body image and psychosocial functioning. *Journal of Social Psychology, 146*(1), 15-30. doi: 10.3200/SOCP.146.1.15-30
- Deewnowski, A., & Yee, D. K. (1987). Men and body image: are males satisfied with their body weight? *Psychomatic Medicine, 49*, 626 – 634.
- Devin, K. (2009). Top 10 reasons why the BMI is bogus. NPR. Retrieved from: <http://www.npr.org/templates/story/story.php?storyId=106268439>
- Donn, J. & Sherman, R. (2002) Attitudes and practices regarding the formation of romantic relationships on the internet. *CyberPsychology & Behaviour, 5*, 107-123.
- Drewnowski, A., Kurth, C. L., & Krahn, D. D. (1995). Effects of body image on dieting, exercise, and anabolic steroid use in adolescent males. *International Journal of Eating Disorders, 17*(4), 381 – 386.
- Edwards, R. (1998). *The definitive penis size survey results* (6th ed.). Retrieved from <http://www.sizesurvey.com/result.html>

- Ericksen, A.J., Markey, C.N. and Tinsley, B.J. (2005) 'Familial influences on Mexican-American and Euro-American preadolescent boys' and girls' body dissatisfaction. *Eating Behaviours*, 4, 245–255.
- Fairburn, C. G., & Beglin, S. J. (1990). Studies of the epidemiology of bulimia nervosa. *American Journal of Psychiatry*, 147, 401-408
- Fawkner, H. J. (2004). Body image attitudes in men: An examination of the antecedents and consequent adjustive strategies and behaviours. (Doctoral dissertation, University of Melbourne, 2004). *Body Image Dissertation Abstracts and Summaries*, 3(1).
- Fallon, A. E., & Rozin, P. (1985). Sex differences in perceptions of desirable body shape. *Journal of Abnormal Psychology*, 94, 102-105.
- Feldman, B. M, & Meyer, I. H. (2007). Eating disorders in diverse lesbian, gay, and bisexual populations. *International Journal of Eating Disorders*, 40(3), 218 – 226.
- Francken, A. B., van de Wiel, H. B. M., van Driel, M. F., & Weijmar Schultz, W. C. M. (2002). What importance do women attribute to size of the penis? *European Urology*, 42, 426–431.
- Franzoi, S.L. and Chang, Z. (2002). The body esteem of Hmong and Causasian young adults. *Psychology of Women Quarterly*, 26, 89–91.
- Frederick, D. A., Fessler, D. M. T., & Haselton, M. G. (2005). Do representations of male muscularity differ in men's and women's magazines? *Body Image: An International Journal of Research*, 2, 81-86.
- French, D., & Tait, R. J. (2004). Measurement invariance in the General Health Questionnaire-12 in young Australian adolescents. *European Child and*

Adolescent Psychiatry, 13, 1-7.

Furnham, A., Badmin, N., & Sneade, I. (2002). Body Image Dissatisfaction: Gender differences in eating attitudes, self-esteem and reason for exercise. *The Journal of Psychology*, 136(6), 581 – 596.

Gardner, R. M., Friedman, B. N., & Jackson, N. A. (1999). Body size estimations, body dissatisfaction, and ideal size preferences in children six through thirteen. *Journal of Youth and Adolescence*, 28, 603-618.

Gardner, R. M., Stark, K., Friedman, B. N., & Jackson, N. A. (2000). Predictors of eating disorder scores in children ages 6 through 14: A longitudinal study. *Journal of Psychosomatic Research*, 49, 199–205.

Gettelman, T. E., & Thompson, J. K. (1993). Actual difference in stereotypical perceptions in body image and eating disturbance: A comparison of male and female heterosexual and homosexual samples. *Sex Roles*, 29(7-8), 545-565.

Goldberg, D. P. (1978). *Manual of the General Health Questionnaire*. Windsor, United Kingdom: NFER.

Goldberg, D., & Williams, P. (1988). *A user's guide to the General Health Questionnaire*. London: NFER-Nelson.

Green, P. (1998). *Ideology and gender in Hollywood. Cracks in the pedestal*. Amherst, MA: University of Massachusetts Press.

Green, S. P., & Pritchard, M. (2003). Predictors of body image dissatisfaction in adult men and women. *Social Behaviour and Personality: An International Journal*, 31(3), 215–222.

Grogan, S. (2008) *Body image: Understanding body dissatisfaction in men, women and children*. Routledge, London.

- Gruber, A. J., Pope, H. G., Borowiecki, J., & Cohane, G. (1999). The development of the somatomorphic matrix: A bi-axial instrument for measuring body image in men and women. In T. S. Olds, J. Dolloman, & K. I. Norton (Eds.), *Kinanthropometry VI* (pp. 217–232). Sydney: International Society for the Advancement of Kinanthropometry.
- Hardey, M. (2004) Mediated relationships, authenticity and the possibility of romance. *Information, Communication & Society*, 7, 207-222.
- Hardie, E., & Buzwell, S. (2006). Finding love online: The nature and frequency of Australian adults' Internet relationships. *Australian Journal of Emerging Technologies and Society*, 4(11), 1–14.
- Hardy, G. E., & Shapiro, D. A. (1999). Validation of the General Health Questionnaire-12 using a sample of employees from England's Health Care Service. *Psychological Assessment*, 11(2), 159-165.
- Hargreaves, D., & Tiggemann, M. (2006). Body image is for girls: A qualitative study of boys' body image. *Journal of Health Psychology*, 11, 567–576.
- Harmatz, M. G., Gronendyke, J., & Thomas, T. (1985). The underweight male: The unrecognized problem group of body image research. *Journal of Obesity and Weight Regulations*, 4, 258-267.
- Harris, M. B., Walters, L. C., & Waschull, S. (1991). Gender and ethnic differences in obesity-related behaviours and attitudes in a college sample. *Journal of Applied Social Psychology*, 21, 1545-1566.
- Harrison, K., & Bond, B. J. (2007) Gaming magazines and the drive for muscularity in preadolescent boys: a longitudinal examination. *Body Image*, 4(3), 269-277.
- Hepworth, J., & Griffin, C. (1995). Conflicting opinions? 'Anorexia nervosa', medicine

and feminism. In S. Wilkinson & C. Kitzinger (Eds.), *Feminism and Discourse: Psychological Perspectives*. London: Sage.

Henriques, G. R., & Calhoun, L. G. (1999). Gender and ethnic differences in the relationship between body esteem and self-esteem. *Journal of Psychology*, 133, 357-368.

Herzog, D. B., Newman, K. L., & Warshaw, M. (1991). Body image dissatisfaction in homosexual and heterosexual males. *Journal of Nervous and Mental disease*, 179(6), 356 – 359.

Howitt, D., & Cramer, D. (2008). *Introduction to SPSS Statistics in Psychology: For Version 16 and earlier* (4th ed.). Harlow: Pearson.

Hsu, L. K. G. (1990). *Eating Disorders*. New York: Guilford Press.

Jones, D. C. (2001). Social comparison and body image: Attractiveness comparison to models and peers among adolescent girls and boys. *Sex Roles*, 45, 645–664.

Jones, D. C., Bain, N., & King, S. (2008). Weight and muscularity concerns as longitudinal predictors of body image among early adolescent boys: A test of the dual pathways model. *Body Image*, 5, 195-204.

Jones, D. C., Vigfusdottir, T. H., & Lee, Y. (2004). Body image and the appearance culture among adolescent girls and boys: An examination of friend conversations, peer criticism, appearance magazines, and the internalization of appearance ideals. *Journal of Adolescent Research*, 19, 323–339.

Kilmartin, C. T. (2000). *The masculine self* (2nd ed.). Boston: McGraw-Hill.

Kim, M., Kwon, K. N., & Lee, M. (2009). Psychological characteristics of Internet dating service users: The effect of self-esteem, involvement, and sociability on the use of Internet dating services. *CyberPsychology & Behavior*, 12(4). doi:

10.1089=cpb.2008.0296

- Kinsey, A. (1948). *Sexual behaviour in the human male*. Indiana University Press.
- Kowner, R. (2002). Japanese body image: Structure and esteem scores in a cross-cultural perspective. *International Journal of Psychology, 37*, 149–59.
- Knox, D., Daniels, V., Sturdivant, L., & Zusman, M. (2001). College student use of the Internet for mate selection. *College Student Journal, 35*(1), 23-41.
- Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukopadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being? *American Psychologist, 53*, 1017-1031.
- Labre, M. P. (2002). Adolescent boys and the muscular male body ideal. *Journal of Adolescent Health, 30*, 233–242.
- Lakoff, R. T., & Scherr, R. L. (1984). *Face value: The politics of beauty*, Boston: Routledge and Kegan Paul.
- Lee, C. (2001). *Women's health Australia: What do we know? What do we need to know?* Brisbane: Australian Academic Press.
- Lee, C., & Owens, R. G. (2002). *The psychology of men's health*. Buckingham; Philadelphia, PA: Open University Press.
- Lee, P. A. (1996). Survey report: concept of penis size. *Journal of Sex and Marital Therapy, 22*, 131-135.
- Lehman, P. (1999). *Running scared: Masculinity and the representation of the male body*. Philadelphia: Temple University Press.
- Leit, R. A., Pope, H. G., & Gray, J. J. (2001). Cultural expectations of muscularity in men: The evolution of Playgirl centrefolds. *International Journal of Eating Disorders, 29*, 90–93.

- Lever, J., Frederick, D., & Peplau, L. (2006). Does size matter? Men's and women's views on penis size across the lifespan. . *Psychology of Men & Masculinity*, 7(3), 129-143
- Lever, J., Grov, C., Royce, T., & Gillespie, J. (2008). Perceived consequences of casual online sexual activities on heterosexual relationships: A U.S. online survey. *Archives of Sexual Behaviour*, 40(2), 429-439. doi: 10.1007/s10508-010-9598-z
- Levesque, M. J., & Vichesky, D. R. (2006). Raising the bar on the body beautiful: An analysis of the body image concerns on homosexual men. *Body Image*, 3, 45-55.
- Liao, Y., Knoesen, N. P., Deng, Y., Tang, J., & Castle, D. J. (2010). Body dysmorphic disorder, social anxiety and depressive symptoms in Chinese medical students. *Social Psychiatry and Psychiatric Epidemiology*, 45(10), 963-971.
- Link, B. G., Struening, E. L., Neese-Todd, S., Asmussen, S., Phelan, J. C. (2001). Stigma as a barrier to recovery: The consequences of stigma for the self-esteem of people with mental illnesses. *Psychiatric Services*, 52, 1621-1626.
- Lynch, S. M., & Zellner, D. A. (1999). Figure preferences in two generations of men: The use of figure drawings illustrating differences in muscle mass. *Sex Roles*, 40, 833–843.
- Madden & Lenhart. (2006). How the Internet has woven itself into American life. *Pew Internet & American Life Project*. Retrieved from http://www.pewinternet.org/pdfs/Internet_Status_2005.pdf
- Male Edge. (2009, January 5). Men are more self-conscious in the locker room than the bedroom. (2009). Retrieved from <http://www.indy.com/posts/men-are-more-self-conscious-in-the-ocker-room-than-the-bedroom>.
- Maloney, M. J., McGuire, J, Daniels, S. R., & Specker, B. (1989). Dieting behaviour

and eating attitudes in children. *Pediatrics*, 84, 482-489.

- Mangweth, B., Pope, H. G., Hudson, J. I., Olivardia, R., Kinzl, J., & Biebl, W. (1996). Eating disorders in Austrian men: an intra-cultural and cross-cultural comparison study. *European Psychiatry*, 11(4), 371-377. doi: 10.1016/0924-9338(96)89186-3
- McCabe, M. P., & Ricciardelli, L. A. (2001). Body image and body change techniques among young adolescent boys. *European Eating Disorders Review*, 9, 335-347.
- McCabe, M. P., & Ricciardelli, L. A. (2004). Body image dissatisfaction among males across the lifespan: A review of past literature. *Journal of Psychosomatic Research*, 56, 675-685.
- McCabe, M. P., & Ricciardelli, L. A. (2005). A longitudinal study of body image and strategies to lose weight and increase muscles among children. *Applied Developmental Psychology*, 26, 559-577.
- Mccabe, C. J., Thomas, K. J., Brazier, J. E., & Coleman, P. (1996). Measuring the mental health status of a population: a comparison of the GHQ-12 and the SF-36 (MHI-5). *British Journal of Psychiatry*, 169, 517-521.
- McCown, J.A., Fischer, D., Page, R. & Homant, M. (2001) Internet relationships: People who meet people. *CyberPsychology & Behavior*, 4, 593-596.
- McCreary, D. R. (2002). Gender and age differences in the relationship between body mass index and perceived weight: Exploring the paradox. *International Journal of Men's Health*, 1, 31-42.
- McCreary, D. R., Holden, R., & Davis, C. (2002). *Predicting the drive for muscularity in young men*. Paper presented at the presented at the annual meetings of the American Psychological Association. Chicago, IL, USA.

- McCreary, D. R., & Sasse, D. K. (2000). An exploration of the drive for muscularity in adolescent boys and girls. *Journal of American College Health, 48*, 297-304.
- McCreary, D. R., Sasse, D. K., Saucier, D. M., & Dorsch, K. D. (2004). Measuring the drive for muscularity: Factorial validity of the Drive for Muscularity Scale in men and women. *Psychology of Men and Masculinity, 5*, 49-58.
- McDonald, K., & Thompson, J. K. (1992). Eating disturbance, body image dissatisfaction, and reasons for exercising: gender difference and correlational findings. *International Journal of Eating Disorders, 11*(3), 289 – 292.
- McDonagh, L. K., Morrison, T. G. & McGuire, B. E. (2008). The naked truth: Development of a scale designed to measure male body image self-consciousness during physical intimacy. *The Journal of Men's Studies, 16*(3), 253-254.
- McKenna, K. Y. A., & Bargh, J. A. (1999). Causes and consequences of social interaction on the Internet: A conceptual framework. *Media Psychology, 1*, 249-269.
- McKenna, K. Y. A., & Bargh J. (2000). Plan 9 from Cyberspace: The implications of the Internet for personality and social psychology. *Personality and Social Psychology Review, 4*, 57-75.
- McKenna, K. Y. A., Green, A. S., & Gleason, M. J. (2002). Relationship formation on the Internet: What's the big attraction? *Journal of Social Issues, 58*(1), 9-31.
- Middleman, A. B., Vazquez, I., & Durant, R. H. (1998). Eating patterns, physical activity, and attempts to change weight among adolescents. *Journal of Adolescent Health, 22*, 37–42.

- Miller, K. J., Gleaves, D. H., Hirsch, T. G., Green, B. A., Snow, A. C., & Corbett, C. C. (2000). Comparisons of body image dimensions by race/ethnicity and gender in a university population. *International Journal of Eating Disorders*, 27, 310–316.
- Millett, K. (1970). *Sexual politics*. New York: Ballantine.
- Molloy, B. L. & Herzberger, S. D. (1998). Body image and self-esteem: A comparison of African-American and Caucasian women. *Sex Roles*, 38,(7-8), 631 – 643.
- Moore, D.W. (2000, November 23). American's say that the internet makes their lives better [Online]. *Gallup News Service*. Retrieved from <http://www.gallup.com/poll/releases/pr000223.asp>
- Morrison, T. G., Bearden, A., Harriman, R., Morrison, M. A. & Ellis, S. R. (2004). Correlates of exposure to sexually explicit material among Canadian post-secondary students. *The Canadian Journal of Human Sexuality*, 13(3-4), 143-144.
- National Heart Foundation of Australia. (1983). Risk Factor Prevalence Study No. 2. Canberra: NHFA.
- Nemeroff, C.J., Stein, R. I., Diehl, N. S., & Smolak, K. M. (1994). From the Cleavers to the Clintons: Role choices and body orientation as reflected in magazine article content. *International Journal of Eating Disorders*, 16, 167-176
- Neumark-Sztainer, D., Story, M., Falkner, N. H., Beuhring, T., & Resnick, M. D. (1999). Sociodemographic and personal characteristics of adolescents engaged in weight loss and weight/muscle gain behaviours: Who is doing what? *Preventive Medicine*, 28, 40–50.
- Niemz, K., Griffiths, M. D., & Banyard, P. (2005). Prevalence of pathological Internet use among university students and correlations with self-esteem, GHQ and

- disinhibition. *CyberPsychology and Behavior*, 8, 562-570.
- Nishina, A., Ammon, N.Y., Bellmore, A.D. and Graham, S. (2006). Body dissatisfaction and physical development among ethnic minority adolescents. *Journal of Youth and Adolescence*, 35(2), 189–201.
- Ochner, C.N., Gray, J.A. & Brickner, K. (2009). The development and initial validation of a new measure of male body dissatisfaction. *Eating Behaviors* 10(4): 197-201.
- O’Dea, J. A., & Abraham, S. (1999). Onset of disordered eating attitudes and behaviours in early adolescence: Interplay of pubertal status, gender, weight, and age. *Adolescence*, 34, 671–679.
- Olivardia, R., Pope, H. G., Mangweth, B., & Hudson, J. I. (1995). Eating disorders in college men. *American Journal of Psychiatry*, 152, 1279-1285.
- Paley, M. (1999). *The book of the penis*. New York: Grove Press.
- Parks, M. & Floyd, K., (1996) Making friends in cyberspace. *Journal of Communication*, 46. Retrieved from <http://www.ascusc.org/jcmc/vol1/issue4/parks.html>
- Parks, M. & Roberts, L. (1998) ‘Making MOOsic’: The development of personal relationships online and a comparison to their off-line counterparts. *Journal of Social & Personal Relationships*, 15, 517-538.
- Penninkilampi-Kerola, V., Miettunen, J., & Ebeling, H. (2006). A comparative assessment of the factor structures and psychometric properties of the GHQ-12 and the GHQ-20 based on data from a Finnish population-based sample. *Scandinavian Journal of Psychology*, 47(5), 431-440.
- Petersen, A. (1998). *Unmasking the Masculine: 'Men' and 'Identity' in a Sceptical Age*.

London: Sage.

- Pew Internet and American Life Project. (2001). Teenage life online: The rise of the instant-message generation and the internet's impact on friendships and family relationships. Retrieved from [http://www.pewinternet.org/reports/pdfs/PIP Teens Report.pdf](http://www.pewinternet.org/reports/pdfs/PIP%20Teens%20Report.pdf)
- Pinto, A., & Phillips, K. A. (2005). Social anxiety in body dysmorphic disorder. *Body Image: An International Journal of Research*, 2, 401-405.
- Ponchietti, R., Mondaini, N., Massimiliano, B., Di Loro, F., Biscioni, S., & Masieri, L. (2001). Penile length and circumference: A study on 3,300 young Italian males. *European Urology*, 39, 183–186.
- Pope, H. G., Phillips, K. A., & Olivardia, R. (2000). *The Adonis complex: How to identify, treat, and prevent body obsession in men and boys*. New York: Touchstone.
- Raudenbush, B., & Zellner, D. (1997). Nobody's satisfied: Effects of abnormal eating behaviours and actual and perceived weight status on body image satisfaction in males and females. *Journal of Social and Clinical Psychology*, 16, 95–110.
- Ricciardelli, L. A., & McCabe, M. P. (2004). A biopsychosocial model of disordered eating and the pursuit of muscularity in adolescent boys. *Psychological Bulletin*, 130, 179–205.
- Ricciardelli, L. A., McCabe, M. P., Lillis, J., & Thomas, K. (2006). A longitudinal investigation of the development of weight and muscle concerns among preadolescent children. *Journal of Youth and Adolescence*, 35, 177–187.

Ricciardelli, L. A., McCabe, M. P., Williams, R. J., & Thompson, J. K. (2007, in press).

The role of ethnicity and culture in body image and disordered eating among males. *Clinical Psychology Review*.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Rotello, G. (1997) *Sexual ecology: AIDS and the destiny of gay men*. New York: Dutton.

Rothblum, E. D. (1994). 'I'll die for the revolution but don't ask me not to diet': Feminism and the continuing stigmatization of obesity. In P. Fallon, M. A. Katzman & S. C. Wooley (Eds.), *Feminist perspectives on eating disorders*. New York: Guilford.

Rusticus, S.A. (2010). Going beyond muscularity: developing a multidimensional measure of male body concerns. Retrieved online:
<https://circle.ubc.ca/handle/2429/23469>

Saling, M., Ricciardelli, L. A., & McCabe, M. P. (2005). A prospective study of individual factors in the development of weight and muscle concerns among preadolescent children. *Journal of Youth and Adolescence*, 34, 651–661.

Sengezer, M. Ozturk, S., & Deveci, M. (2002). Accurate method for determining functional penile length in Turkish young men. *Annals of Plastic Surgery*, 48, 381–385.

Shaw, L.H. & Gant, L.M. (2002). In defense of the Internet: The relationship between internet communication and depression, loneliness, self-esteem and perceived social support. *CyberPsychology & Behavior*, 5, 157-217.

- Siever, M. (1994). Sexual orientation and gender as factors in socioculturally acquired vulnerability to body dissatisfaction and eating disorders. *Journal of Consulting and Clinical Psychology, 62*, 252–260.
- Signorile, M. (1997). *Life outside: The Signorile report on gay men*. New York: Harper.
- Siminoski, K., & Bain, J. (1993). The relationships among height, penile length, and foot size. *Annals of Sex Research, 6*, 231-235.
- Smolak, L., & Stein, J. A. (2006). The relationship of drive for muscularity to sociocultural factors, self-esteem, physical attributes gender role, and social comparison in middle school boys. *Body Image, 3*, 121–129.
- Stein, D. S., Baer, M. A. & Bruemmer, N. C. (2008). Sexual and emotional health in men. *Annals of the American Psychotherapy Association, 11*(2), 20-21.
- Striegel-Moore, R H, Silberstein, L. R., & Rodin, J. (1986). Toward an understanding of risk factors for bulimia. *American Psychology, 41*, 246 – 263.
- Stevens, S. B., & Morris, T. L. (2007). College dating and social anxiety: Using the Internet as a means of connecting to others. *CyberPsychology & Behavior, 10*, 680-688.
- Templer, D. I. (2002). *Is size important?* Pittsburgh, PA: CeShore.
- The Age. (2006, January 5) Online dating reaches critical mass. Retrieved from <http://www.theage.com.au /articles/2006/01/12/1136956283178.html>
- Thompson, J. K., & Cafri, G. (2007). *The muscular ideal: psychological, social, and medical perspectives*. Washington, DC: American Psychological Association.
- Thompson, S. H., Corwin, S. J., & Sargent, R. G. (1997). Ideal body size beliefs and weight concerns of fourth-grade children. *International Journal of Eating Disorders, 21*, 279-284.

- Tiggemann, M., & Wilson-Barrett, E. (1998). Children's figure ratings: relationship to self-esteem and negative stereotyping. *International Journal of Eating Disorders*, 23, 83-88.
- Twamley, E. W. and Davids, M. C. (1999). The sociocultural model of eating disturbance in young women: The effects of personal attributes and family environment. *Journal of Social & Clinical Psychology*, 18(4), 467-489.
- Valentine, G. (2006). Globalizing intimacy: the role of information and communication technologies in maintaining and creating relationships. *Women's Studies Quarterly*, 34(1/2), 365-366.
- Valkenburg, P. M., & Peter, J. (2007). Preadolescents' and adolescents' online communication and their closeness to friends. *Developmental Psychology*, 43, 267-277.
- Vartanian, L. R., Giant, C. L., & Passino, R. M. (2001). “Ally McBeal vs. Arnold Schwarzenegger”: Comparing mass media, interpersonal feedback and gender as predictors of satisfaction with body thinness and muscularity. *Social Behavior and Personality*, 29, 711–723.
- Walker, B. (1970). Phallic symbolism. In *Man, myth & magic: An illustrated encyclopedia of the supernatural*, vol. 16. New York: Marshall Cavendish Corp.
- Ward, C. C., & Tracey, T. J. G. (2004). Relation of shyness with aspects of online relationship involvement. *Journal of Social and Personal Relationships*, 21, 611-623. doi:10.1177/0265407504045890
- Welch, C., Gross, S.M., Bronner, Y., Dewberry-Moore, P., & Paige, D.M. (2004). Discrepancies in body image perception among fourth-grade public school

- children from urban, suburban, and rural Maryland. *Journal of the American Dietetic Association*, *104*, 1080–1085.
- Weiss, H. A., Halperin, D., Bailey, R. C., Hayes, R. J., Schmid, G., & Hankins, C. A. (2008). Male circumcision for HIV prevention: From evidence to action? *AIDS*, *22*, 567–574.
- Wessells, H., Lue, T. F., & McAninch, J. W. (1996). Penile length in the flaccid and erect states: Guidelines for penile augmentation. *Journal of Urology*, *156*, 995–997.
- Westercamp, N., & Bailey, R. C. (2007). Acceptability of male circumcision for prevention of HIV/AIDS in sub-Saharan Africa: A review. *AIDS and Behaviour*, *11*, 341–355.
- Whitty, M. (2004) Cyberflirting: An examination of men's and women's flirting behaviour both offline and on the internet. *Behaviour Change*, *21*, 115-126.
- Whitty, M. & Gavin, J. (2001) Age/sex/location: Uncovering the social cues in the development of online relationships. *CyberPsychology & Behavior*, *4*, 623-30.
- Wilcox, S. (1997). Age and gender in relation to body attitudes: is there a double standard of aging? *Psychology of Women Quarterly*, *21*, 549-565.
- Winitch, R. F. (1993). *Male body image dissatisfaction*. Unpublished Master's thesis. Shippensburg University, Shippensburg, PA.
- Winter, H. (1989). An examination of the relationships between penis size and body image, genital image, and perception of sexual competency in the male. *Dissertation Abstracts International*, *50*, 1225.
- Wolf, N. (1991). *The beauty myth: How images of beauty are used against women*. New York: William Morrow.

Yates, A., Edman, J. and Aruguete, M. (2004). Ethnic differences in BMI and body/self dissatisfaction among whites, Asian subgroups, Pacific Islanders, and African Americans. *Journal of Adolescent Health, 34*, 300–307.

Yelland, C., & Tiggemann, M. (2003). Muscularity and the gay ideal: Body dissatisfaction and disordered eating in homosexual men. *Eating Behaviours, 4*, 107-116.

7 Appendix A

7.1 Victoria University Human Research Ethics Committee Approval

7.2 Information For Participants

7.3 Questionnaire

7.1 Victoria University Human Research Ethics Committee Approval

MEMO



**VICTORIA
UNIVERSITY**

**A NEW
SCHOOL OF
THOUGHT**

TO	Dr. Gerard Kennedy School of Psychology St Albans Campus	DATE	13/06/2008	
FROM	Dr. Harriet Speed Acting Chair Arts, Education & Human Development Human Research Ethics Subcommittee			
SUBJECT	Ethics Application – HRETH 07/259			

Dear Dr. Kennedy,

Thank you for submitting this application for ethical approval of the project:

HRETH07/259 An Exploratory Internet Study: The relationships between men's self-reported physical attributes, body image, self-esteem and internet dating.

The proposed research project has been accepted and deemed to meet the requirements of the National Health and Medical Research Council (NHMRC) 'National Statement on Ethical Conduct in Human Research (2007)', by the Acting Chair, Faculty of Arts, Education & Human Development Human Research Ethics Subcommittee. Approval has been granted from 13 June 2008 to 13 June 2010.

Please note that the Human Research Ethics Committee must be informed of the following: any changes to the approved research protocol, project timelines, any serious or unexpected adverse effects on participants, and unforeseen events that may effect continued ethical acceptability of the project. In these unlikely events, researchers must immediately cease all data collection until the Committee has approved the changes.

Continued approval of this research project by the Victoria University Human Research Ethics Committee (VUHREC) is conditional upon the provision of a report within 12 months of the above approval date (by **13 June 2009**) or upon the completion of the project (if earlier). A report proforma may be downloaded from the VUHREC web site at: <http://research.vu.edu.au/hrec.php>

If you have any queries, please do not hesitate to contact me on 9919 5412.

On behalf of the Committee, I wish you all the best for the conduct of the project

Dr. Harriet Speed

Acting Chair

Faculty of Arts, Education & Human Development Human Research Ethics Subcommittee

7.2 Information For Participants

INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH

You are invited to participate in a research project entitled “**An Exploratory Internet Study: The relationships between men’s self-reported physical attributes, body image, self-esteem and internet dating**”.

Project explanation

The majority of research over the past several decades in the area of body image, evaluations of physical appearance, and the implications of eating disorders, has focussed women. Little research has been carried out to determine how these factors impact on men.

Very few studies have assessed the association between men’s beliefs about their penis size and satisfaction with their body image or psychological wellbeing. Some studies have found that men’s satisfaction with their genitals was linked to increased body satisfaction. If men believe that a large penis is the cultural ideal, self-perceived penis size may relate to men’s perception of their general physical attractiveness.

A recent study proposed that people with poorer body image may be more likely to use the Internet as a means of dating and socialising due to the anonymity and control the Internet provides them. Given that first impressions during dating situations are largely dependent on physical attractiveness, individuals with low physical self-esteem may find it easier to use the Internet for dating and socialising purposes.

The aims of the present study are to determine the relationships between men’s self-reported physical attributes, body satisfaction, self-esteem, the psychological implications of poor body image, and preference for Internet dating.

500 male participants will be recruited for this study. The participants will be requested to complete a questionnaire consisting of measures that have been specifically developed to examine male body image, perception of ideal male body types, self-esteem and general psychological functioning.

The results of this study will add to the knowledge base and make a contribution to the literature on male body image by improving on earlier studies, many of which examined male body image concerns from a perspective that mostly focused on female body image concerns.

What will I have to do?

If you are male and above the age of 18, and decide to volunteer and participate in the study, you will be required to complete an online questionnaire. The questionnaire consists of 62 mostly multiple-choice questions and will take approximately 15 minutes

to complete. Your responses will remain anonymous and no identifying information will be collected. We do not anticipate any significant physical or psychological risks associated with the proposed survey; however, should you become distressed after participation, contact details of the researcher as well as links to relevant body image organisations will be provided for further information and assistance. The results from this study will be used strictly for research purposes only. You are free to withdraw from this study at any time.

What will I gain from participating?

While there are no immediate gains to participation in the research, your contribution will add to the limited research on male body image that may aid better understanding of the adverse psychological consequences of poor body image in men. This information could be used to assist men to cope better with issues arising from body image problems. At the end of the survey, you will be provided with the option of anonymously joining a mailing list to receive the summary of the study results, if interested.

How will the information I give be used?

The data collected will be strictly for research purposes and the completion of a Doctor of Psychology degree.

What are the potential risks of participating in this project?

Some participants may become aware of issues relating to their attitudes, behaviours and/or knowledge of factors relating to body image that may result in some level of concern or distress. At the end of the questionnaire, you will be provided with information about body image and eating disorders associations, counselling agencies, and resources. These will include international listings. Should you require further assistance; the contact details of the principal researcher will also be listed.

How will this project be conducted?

The participants will be recruited from Internet advertisements through mailing lists, message boards, forums and blogs. The study will also be advertised via flyers located strategically around the campuses of Victoria University. Participants will be requested to read the information provided on the website where the questionnaire will be anonymously hosted, and to click a button to express consent to participation in the study. Participants can indicate, at the end of the questionnaire, if they would like to receive a summary of the results. Upon completion of the questionnaire, the responses will be sent electronically to the student researcher for data analysis.

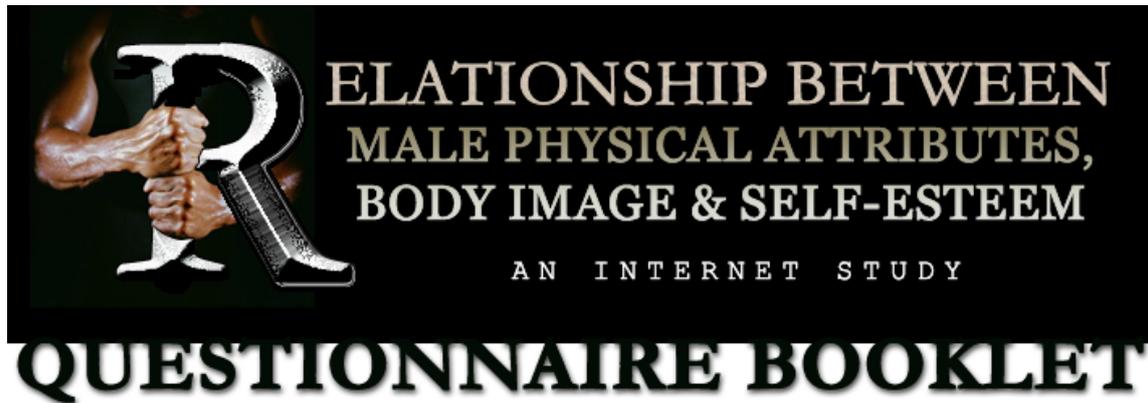
Who is conducting the study?

Any questions or queries about your inclusion in this research-study may be directed to principal researcher, Dr. Gerard Kennedy. His contact details are +61 3 9919 2481 or gerard.kennedy@vu.edu.au. Alternatively, you can contact student researcher, Annabel Chan on fengyi.chan@students.vu.edu.au

Any queries about your participation in this project may be directed to the Principal Researcher listed above.

If you have any queries or complaints about the way you have been treated, you may contact the Secretary, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001, telephone: +61 3 9919 4781.

7.3 Questionnaire



Research team contact details:

Principal Researcher:

Dr. Gerard Kennedy
Telephone: +61 3 9919 2481
Mobile: +61 41 831 2160
Email: Gerard.Kennedy@vu.edu.au



There has been quite a lot of research conducted on women's body image and we have a reasonable understanding of the types of factors that impact on women's body image and that ultimately lead to disorders like Anorexia and Bulimia Nervosa. However, we know very little about men's body image and the factors that impinge on the way males think about their bodies. Consequently we also know very little about how this impacts on men's health.

Do you want to do something about it?

If so, you are invited to take part in a research project that will focus exclusively on

men's body image. Previous research has highlighted the impact of men's physical attributes on body image and how men perceive their own body. The purpose of this study is to further explore the relationship between physical qualities of men, their body image and self-esteem, using an Internet sample.

All men above the age of 18, who have at least basic literacy in English, are invited to participate in this study. If possible, please have a tape measure ready.

The questionnaire consists of 62 mostly multiple-choice questions and should take approximately 15 minutes to complete. Your responses will remain anonymous and no identifying information will be collected. You are free to withdraw from this study at any time.

If you understand the information stated above and would like to participate in this study, please click on the button below:



SECTION A

Please answer the following questions as truthfully as possible. All your responses will be confidential.

Date of Birth:

Age in years:

Sexual Orientation: Heterosexual Homosexual Bisexual Asexual
 Others: _____

Country of Origin:

Ethnic group you identify with (if any):

Weight:

Height:

BMI (if known):

Waist measurement:

Chest measurement:

Marital Status:

Occupation:

1) Do you have any history of mental health issues?

- a) No
- b) Yes; please specify: _____

2) How many hours do you spend on the Internet every week for leisure?

- a) Less than 7 hours (1 hour daily)
- b) Between 7 to 21 hours
- c) More than 21 hours (3 hours daily)

- 3) Have you ever used Internet dating sites to meet people?**
- a) Never
 - b) Rarely
 - c) Sometimes
 - d) Often
 - e) Always
- 4) Have you ever been in a relationship with someone you met on the Internet?**
- a) Never
 - b) Rarely
 - c) Sometimes
 - d) Often
 - e) Always
- 5) Have you ever been in a long-distance Internet relationship?**
- a) Never
 - b) Rarely
 - c) Sometimes
 - d) Often
 - e) Always
- 6) Do you find it easier to talk to people over the Internet than face-to-face?**
- a) Never
 - b) Rarely
 - c) Sometimes
 - d) Often
 - e) Always
- 7) Are you more confident online than face-to-face?**
- a) Never

- b) Rarely
- c) Sometimes
- d) Often
- e) Always

8) What percentages of your friends are made over the Internet?

- a) 0%
- b) Less than 15%
- c) 25% to 50%
- d) 50% to 75%
- e) More than 75%

SECTION B

Please read each item carefully then, for each one, choose the answer that best applies to you.

1. I wish I were more muscular.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

2. I lift weights to build up muscles.

- (a) Always
- (b) Very Often
- (c) Often

- (d) Sometimes
- (e) Rarely
- (f) Never

3. I use protein or energy supplements.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

4. I drink weight gain or protein shakes/drinks.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

5. I try to consume as many calories as I can in a day.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

6. I feel guilty if I miss a weight training session.

- (a) Always

- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

7. I think I would feel more confident if I had more muscle mass.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

8. Other people think I work out with weights too often.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

9. I think that I would look better if I gained 10 pounds (5 kilograms) in bulk.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

10. I think about taking anabolic (muscle-building) steroids

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

11. I think that I would feel stronger if I gained a little more muscle mass.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

12. I think that my weight-training schedule interferes with other aspects of my life.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

13. I think that my arms are not muscular enough.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely

(f) Never

14. I think that my chest is not muscular enough.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

15. I think that my legs are not muscular enough.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

16. I wish I had a bigger penis.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

17. I think I would feel better about myself if I had a bigger penis.

- (a) Always
- (b) Very Often
- (c) Often

- (d) Sometimes
- (e) Rarely
- (f) Never

18. I think I would be a better sexual partner if I had a bigger penis.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

19. I take supplements to increase the size of my penis.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

20. I take Viagra.

- (a) Always
- (b) Very Often
- (c) Often
- (d) Sometimes
- (e) Rarely
- (f) Never

21. Please indicate the length of your penis when flaccid (unaroused, soft):

22. Please indicate the length of your penis when aroused (hard): _____

23. Please indicate the circumference of your penis when flaccid (unaroused, soft):

24. Please indicate the circumference of your penis when aroused (hard): _____

25. Please indicate your ideal length of penis flaccid (unaroused, soft): _____

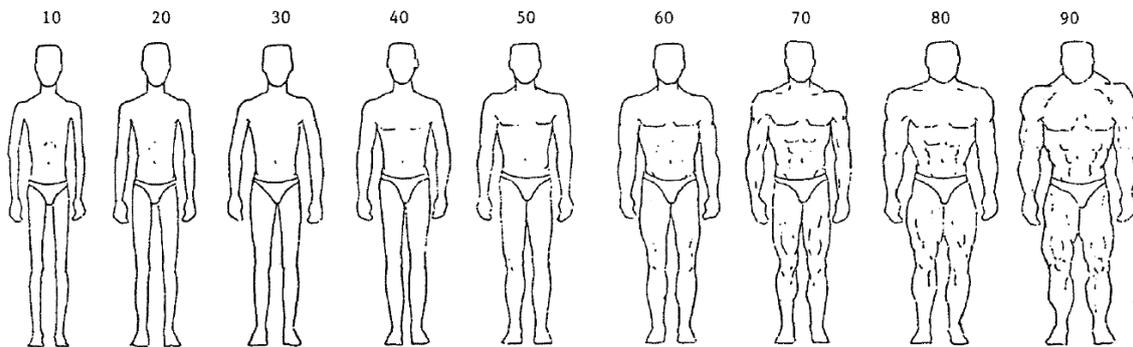
26. Please indicate your ideal length of penis when aroused (hard): _____

27. Please indicate what you think the average penis length is when flaccid (unaroused, soft): _____

28. Please indicate what you think the average penis length is when aroused (hard):

SECTION C

In the following, you will be presented with a series of male drawings of different sizes. The drawings are labelled 10 to 90. You can give any number in that range. For example, if you think your answer is between 40 and 50, you can give 45 as your answer. There is no right answer, just type the numbers that are the most accurate representations of your answers to the following 4 questions in the spaces provided.



- 1) Please indicate which drawing is **most similar to your own body**: _____

- 2) Please indicate which drawing **you would choose as the ideal male body should look like**: _____

- 3) Please indicate which drawing **other men would choose as the ideal male body**:

- 4) Please indicate which drawing would be **most attractive to potential partners**:

SECTION D

Below is a list of statements dealing with your general feelings about yourself. Please read the questions below and each of the four possible answers. Select the response that best applies to you. Thank you for answering all the questions.

1. On the whole, I am satisfied with myself.
 - (a) Strongly Agree
 - (b) Agree
 - (c) Disagree
 - (d) Strongly Disagree

2. At times, I think I am no good at all.
 - (a) Strongly Agree
 - (b) Agree
 - (c) Disagree
 - (d) Strongly Disagree

3. I feel that I have a number of good qualities.
 - (a) Strongly Agree
 - (b) Agree
 - (c) Disagree
 - (d) Strongly Disagree

4. I am able to do things as well as most other people.
 - (a) Strongly Agree
 - (b) Agree
 - (c) Disagree
 - (d) Strongly Disagree

5. I feel I do not have much to be proud of.
 - (a) Strongly Agree
 - (b) Agree
 - (c) Disagree
 - (d) Strongly Disagree

6. I certainly feel useless at times.
 - (a) Strongly Agree
 - (b) Agree
 - (c) Disagree
 - (d) Strongly Disagree

7. I feel that I am a person of worth, at least on an equal plane with others.
 - (a) Strongly Agree
 - (b) Agree
 - (c) Disagree
 - (d) Strongly Disagree

8. I wish I could have more respect for myself.
 - (a) Strongly Agree
 - (b) Agree
 - (c) Disagree
 - (d) Strongly Disagree

9. All in all, I am inclined to feel that I am a failure.
 - (a) Strongly Agree
 - (b) Agree
 - (c) Disagree
 - (d) Strongly Disagree

10. I take a positive outlook toward myself.

- (a) Strongly Agree
- (b) Agree
- (c) Disagree
- (d) Strongly Disagree

SECTION E

We want to know how your health has been in general over the last few weeks. Please read the questions below and each of the four possible answers. Select the response that best applies to you. Thank you for answering all the questions.

1. Have you recently been able to concentrate on what you are doing?

- (a) Better than usual
- (b) Same as usual
- (c) Less than usual
- (d) Much less than usual

2. Have you recently lost much sleep over worry?

- (a) Not at all
- (b) No more than usual
- (c) Rather more than usual
- (d) Much more than usual

3. Have you recently felt that you are playing a useful part in things?

- (a) More than usual
- (b) Same as usual
- (c) Less than usual
- (d) Much less than usual

4. Have you recently felt capable of making decisions about things?
 - (a) More than usual
 - (b) Same as usual
 - (c) Less than usual
 - (d) Much less than usual

5. Have you recently felt constantly under strain?
 - (a) Not at all
 - (b) No more than usual
 - (c) Rather more than usual
 - (d) Much more than usual

6. Have you recently felt you couldn't overcome your difficulties?
 - (a) Not at all
 - (b) No more than usual
 - (c) Rather more than usual
 - (d) Much more than usual

7. Have you recently been able to enjoy your normal day to day activities?
 - (a) More than usual
 - (b) Same as usual
 - (c) Less than usual
 - (d) Much less than usual

8. Have you recently been able to face up to your problems?
 - (a) More than usual
 - (b) Same as usual
 - (c) Less than usual
 - (d) Much less than usual

9. Have you recently been feeling unhappy or depressed?
- (a) Not at all
 - (b) No more than usual
 - (c) Rather more than usual
 - (d) Much more than usual
10. Have you recently been losing confidence in yourself?
- (a) Not at all
 - (b) No more than usual
 - (c) Rather more than usual
 - (d) Much more than usual
11. Have you recently been thinking of yourself as a worthless person?
- (a) Not at all
 - (b) No more than usual
 - (c) Rather more than usual
 - (d) Much more than usual
12. Have you recently been feeling reasonable happy, all things considered?
- (a) More than usual
 - (b) Same as usual
 - (c) Less than usual
 - (d) Much less than usual

Please indicate if you would like to receive a general summary of the results of the study upon completion:

~ Thank you for your kind participation. Your input is greatly appreciated. ~

Should you have any questions or concerns about body image or self-esteem and would like to speak to a professional or find out more about the topic, please see below for some agencies and resources that you may find helpful:

[Body Image Links](#)

[National Eating Disorders Association](#)

[Men, Body Image and Eating Disorders Counselling Services](#)

[Body Image and Eating Disorder Websites and Books](#)

[Enhancing Male Body Image](#)

[How to Help a Friend with Eating and Body Image Issues](#)

[Association of Body Image and Disordered Eating](#)

Should you require further assistance, please contact the Principal Researcher at Gerard.Kennedy@vu.edu.au