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Investigating the Motivators for Physical Exercise Participation among a Sample of South African Women

by

Ereen M. Mitchell

Minor dissertation (article format)

submitted in partial fulfilment of the requirements for the degree of

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in the

FACULTY OF HUMANITIES

at the

UNIVERSITY OF JOHANNESBURG

Supervisor: Dr. M. Card

Co-Supervisor: Dr. C. J. J. van Zyl

Date of submission: 31 October 2018

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1. Preface

1.1. Article Format

This minor-dissertation was completed in article format as indicated by the guidelines of the University of Johannesburg. The guidelines below and throughout are presented verbatim from the *South African Journal of Psychology (SAJP)* and *SAGE Publications Ltd (2018)*.

1.2. Selected Journal

The selected journal for publication is the *South African Journal of Psychology (SAJP)*. A shortened version of the manuscript will be submitted to the journal, and in accordance with the journal's guidelines. The manuscript submitted to the *SAJP* will conform to the SAGE house style (journal guidelines). The *SAJP* adheres to the APA reference style, unless otherwise stated. For purposes of this minor-dissertation, the pages are numbered consecutively.

Journal style

For the submission of research-based manuscripts the following format is used:

- The introductory/literature review section does not require a heading (own discretion used), thereafter the following headings are used: Method with the following subheadings; Participants, Instruments (Measures), Procedure, Ethical Considerations (must include the name of the institution that granted the ethical approval for the study, if applicable) and Data analysis (which includes the statistical techniques or computerized analytic programmes, if applicable) Results, Discussion, Conclusion and References.

1.3. Permission from Co-authors

We, the co-authors, hereby provide consent that Ereen M. Mitchell, may submit the presented manuscript; Investigating the Motivators for Physical Exercise Participation among a Sample of South African Women (consent provided on HDC document). This is in partial fulfilment for the degree Master of Arts in Counselling Psychology, at the University of Johannesburg. The manuscript will also be submitted to the South African Journal of Psychology (SAJP) for review.



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Dr. M. Card

Dr. C. J. J. van Zyl

Co-author and Supervisor

Co-author and Co-supervisor

2. Author Guidelines and the Manuscript

Investigating the Motivators for Physical Exercise Participation among a Sample of South African Women



2.1. Instructions to Authors

Target journal: *South African Journal of Psychology (SAJP)*

Manuscript Submission

If material has been previously published it is not generally acceptable for publication in a SAGE journal. However, there are certain circumstances where previously published material can be considered for publication:

- **Abstracts and posters presented at conferences:** though authors should inform the Editor and acknowledge the first source of publication. Articles that have been presented at a conference but not published by the conference organizers may also be considered. The author should confirm that they have not granted the conference organizers a licence to the work; if the author retains all the rights in the work the journal editor may consider the article for publication based on the fact that articles presented at a conference are unlikely to be the same or substantially the same version as that being accepted by the journal.
- **Raw data** (i.e. this does not include the arrangement or organisation of data) **and clinical trials registries** (i.e. without accompanying context): please note that permission may still be required to re-use these materials.
- **Most dissertations and theses posted in institutional archives:** if the dissertation being presented for publication is the same or substantially the same as any previously published work, it will not be suitable for a SAGE journal.

- **Working papers or versions of the paper posted on a pre-print server:** authors should alert the Editor when submitting their paper if they have posted it on a pre-print server. Authors should not post an updated version of their paper on the pre-print server while it is being peer reviewed for possible publication in the journal. If the article is accepted for publication, the author may re-use their work according to the journal's self-archiving policy. Please note that individual journals may not be accepted for consideration papers that have been posted on pre-print servers.
- In all cases the author should disclose any prior publication or distribution to the Editor and ensure appropriate attribution to the prior distribution and/or publication of the material.

Permissions

Authors wishing to include figures, tables, or text passages that have already been published elsewhere are required to obtain permission from the copyright owner(s) for both the print and online format and to include evidence that such permission has been granted when submitting their papers. Any material received without such evidence will be assumed to originate from the authors.

Online Submission

The South African Journal of Psychology (SAJP) is hosted on SAGE Publications Ltd; it is a web based online submission and peer review system.

Manuscript Structure

New manuscript submissions should be no longer than 5500 words including references, tables and figures. Below are proposed headings required for article format submission:

Covering letter/title page

The covering letter is as follows:

- Full title of the manuscript
- The name(s) of the author(s)
- The postal address and e-mail address of the corresponding author

Abstract

An abstract assists readers with finding the article online. An abstract of no more than 250 words is required.

Keywords

Up to 6 alphabetised keywords are required. The word keyword should appear in bold without a colon at the end. The keywords should start on the next line, separated by commas only and not semi-colons. Only, the first keyword should have an initial capital letter

Funding

The South African Journal of Psychology (SAJP) requires all authors to acknowledge their funding in a consistent fashion under a separate heading. The present research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Acknowledgements

Any acknowledgements should appear first at the end of your article prior to your Declaration of Conflicting Interests (if applicable), any notes and your References.

All contributors who do not meet the criteria for authorship should be listed in the Acknowledgements section.

Text formatting

The preferred format for the article submission is Word. However, LaTeX files are also accepted.

The text should be double-spaced throughout and text should be standard 12 point.

Headings

Headings should have an initial capital with everything else lowercase, unless proper names.

Italics can be included in a heading if needed, e.g. mathematical symbol or genus name.

Headings are unnumbered; the first heading is bold with initial capital letter and all the rest lowercase. The second heading is *italic* with initial capital letter and all the rest lowercase. A third heading is the same as the second heading, but set as first line of paragraph; *italic* with initial capital letter, all the rest lowercase, followed by a full stop and the text following runs on.

When headings are referred in text use section names (i.e. Methods section), as *SAGE* does not use numbers with headings. Lastly, headings for Abstract, Keywords, Funding, Acknowledgements, (in that order), References and Appendices are same as the first heading but smaller font size.

Abbreviations

Define an abbreviation the first time that it is used (except in the Abstract): write the term out in full followed by the abbreviation in parentheses. Use the abbreviation consistently thereafter, including at the start of sentences. The present study uses this instruction throughout however, for readers benefit abbreviations are written out in the beginning of the discussion section and then abbreviations are used throughout.

Footnotes

Footnotes can be used to give additional information. Footnotes to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data) and included beneath the table body.

Citation

All references in the text and notes must be specified by the authors' last names and date of publication together with page numbers for direct quotations from print sources. Some examples:

- (Miller, 2001; Clark, 2000; Smith, 2000)
- Smith, Jones, Clark, Kumar, Green, and Goggins (2000)
- National Institute of Mental Health [NIMH] (2000)

Reference list

The list of references should only include works that are cited in the text and that have been published or accepted for publication.

Reference list entries should be alphabetized by the last names of the first author of each work:

- *Journal article*

Miller, A. J., Thomson, F., & Callagher, D. (1998). Affluence in suburbia. *Suburban Studies*, 12, 9–12.

- *Article by DOI*

Slifka, M. K., & Whitton, J. L. (2000) Clinical implications of dysregulated cytokine production. *Journal of Molecular Medicine*, doi:10.1007/s001090000086

- *Book*

Miller, A. J., Thomson, F., & Callagher, D. (1998). *Affluence in suburbia*. London, UK: BL Books.

- *Chapter in a book*

Miller, A. J., Thomson, F., & Callagher, D. (1998). Epping case study. In C. Carter (Ed.), *Affluence in suburbia* (pp. 200–250). London, UK: BL Books.

- *Website*

Miller, A. J., Thomson, F., & Callagher, D. (1998). Epping case study. *Suburban studies*, 12, 1–9. Retrieved from <http://xxxx.xxxx.xx.xx/xxxx/xxxxxx/>

Tables

Table headings should be left aligned, even when they relate to multiple columns, unless this creates confusion. All tables should be numbered consecutively and cited in the text as Table 1, Table 2 etc. (Table should be spelled out in full, not abbreviated).

English language editing services

All manuscripts should be written in English and writing must be of a high grammatical standard. Manuscripts of poor technical or language quality will be returned without review. Authors seeking assistance with English language editing, translation, or figure and manuscript formatting to fit the journal's specifications should consider using SAGE Language Services.



2.2 Manuscript



**Investigating the Motivators for Physical Exercise Participation among a Sample of
South African Women**

Ereen Mitchell*, Melissa Card & Casper J. J. van Zyl

Department of Psychology, University of Johannesburg, South Africa

* Corresponding author

Ms. E M Mitchell

C/o Dr M Card

Department of Psychology

University of Johannesburg

P O Box 524

Auckland Park

2006

South Africa

ereenmitch@gmail.com



Abstract

In recent years, there are a number of studies that have been conducted on exercise motivation (intrinsic and extrinsic) among western women (i.e. European, American women). These studies suggest that women are more prone to exercise for extrinsic motivators such as physical appearance and health-related reasons. However, this research is limited among South African women as research findings have been predominantly found in western societies. Thus, the aim of the present study was to examine the physical exercise motivators among South African women by specifically hypothesising that physical appearance motivators will positively predict physical exercise participation among South African women ($N = 144$). The hypothesis was evaluated by implementing the Multidimensional Body-Self Relations Questionnaire (MBSRQ; Cash, 2000; Brown, Cash, & Mikulka, 1990) a measure developed to assess body image perceptions. Results of the study supported the research hypothesis. Additionally, results revealed South African women are motivated to exercise for health-related reasons. In conclusion, the findings of the present study are in agreement with previous studies reported among western women suggesting that the reasons for women engaging in exercise may be influenced by urbanisation. Moreover, this study contributed to the understanding of exercise participation among South African women which could be useful in examining ways to encourage exercise compliance.

Word count: 208

Keywords

Physical Appearance, motivators, exercise, women, South Africa

Introduction

In western societies such as some European societies, women with a “slender feminine physique” (Gorman, 2015, p.10), are considered most attractive. More specifically, the most alluring physique is considered one where the woman is slim and thin with a small waistline. Contrarily, men who have a muscular physique are viewed as most appealing (Brennan, Lalonde & Bain, 2010; Grossbard, Lee, Neighbors & Larimer, 2009; Tiggemann & Miller, 2010; Tiggemann & Slater, 2013). These ideals are socially perpetuated in modern society and realised in the expectations of what is considered ideal body shapes by both sexes.

Individuals who depart from these socially constructed ideas of appearance may be vulnerable to body dissatisfaction (Meland, Haugland & Breidablik, 2007). Body dissatisfaction is defined as the difference between the ideal body image and the current body size of an individual (Thompson, 1990, as cited in Šerifović-Šivert & Sinanović, 2008). Body dissatisfaction, negative body image, and concerns with shape and size are all attitudinal factors of body image (Meland et al., 2007). Body image can be described as specific, subjective feelings of satisfaction or dissatisfaction with one’s body (Alsaker, 1992). When individuals feel dissatisfied with their bodies they are more likely to use dieting and exercise to alter their physical appearance (Furnham, Badmin & Sneade, 2002; Meland et al., 2007). Dieting can be considered fashionable and necessary for improved health and physical appearance; however, for some individuals, it can also be associated with the development and maintenance of eating pathologies (Furnham et al., 2002; Mooney, Farley & Strugnell, 2010). In contrast to this, exercise can be a healthier alternative to assist with weight loss and can promote general well-being (Poirel, 2017; Reiner, Niermann, Jekauc & Woll, 2013; Ströhle, 2008; Warburton, Nicol & Bredin, 2006; Zaccagni, Masotti, Donati, Mazzoni & Gualdi-Russo, 2014). Although, common

motivators exist among individuals, motivators to exercise may also vary from individual to individual. In exercise research the Self-Determination Theory (SDT) is used to explore exercise motivators that exist (Deci & Ryan, 1985, as cited in Ryan & Deci, 2000; Louw, Van Biljon, & Mugandani, 2012).

Motivators for physical exercise participation- Modern theories

The SDT describes motivation as an individual being “moved to do something” (Ryan & Deci, 2000, p. 54). Further described by SDT are the different types of motivators that exist namely; extrinsic and intrinsic motivators which shape our behaviours and our actions (Deci & Ryan, 1985, as cited in Ryan & Deci, 2000). According to Deci and Ryan (1985) the role of motivation in determining exercise participation can be placed on a continuum. This continuum ranges “from extrinsic motivation (participating in exercise as a means to an end and not for its own sake) to intrinsic motivation (participating in exercise for its own sake)” (Deci & Ryan, 1985, as cited in Louw et al., 2012, p. 762). Simply put extrinsically motivated individuals participate in exercise for external rewards or due to external pressure whereas; intrinsic motivators for engaging in exercise may be for pleasure and personal satisfaction (Ryan & Deci, 2000; Molanorouzi, Khoo & Morris, 2015). These motivators are influenced by demographic variables such as gender. Johansen, Høigaard & Haugen, (2005) have shown that exercise motivators for men and women differ.

Existing literature indicates that men are motivated to exercise for intrinsic factors (e.g. enjoyment, strength and competition) and women are motivated to exercise for extrinsic factors (e.g. weight, appearance and health) (Egli, Bland, Melton, & Czech, 2011). In other available literature Cerar, Kondrič, Ochiana & Sindik, 2017; Hoare, Stavreski, Jennings & Kingwell,

2017; Molanorouzi et al., 2015; Plonczynski, 2001; Pritchard & Beaver, 2011) found men participate in exercise for enjoyment, endurance, social recognition, challenge, competition and mastery. Alternatively, women exercise to avoid ill-health and to maintain positive health, weight management, and for their physical appearance (Cerar et al., 2017; Mafra, Castro, & Lopes, 2016; Molanorouzi et al., 2015). Another study by Louw et al. (2012) found similar results where appearance (as a motivation to exercise) was more significant for women than for men. These findings indicate that women are more motivated to exercise for extrinsic factors whereas men participate in exercise more for intrinsic factors. Johansen et al. (2005) argue that gender differences reflect the stereotype that women generally use exercise as a way to shape or alter their bodies.

Previous studies have shown that women are more dissatisfied with their bodies than men (Cash, Ancis & Strachan, 1997; Fawkner, 2012; Palmberg, 2012; Tiggemann & Zaccardo, 2015). In fact, women are more likely to inaccurately estimate their body size and perceive themselves as heavier than their actual size. Moreover, they are generally dissatisfied with their weight and lower body areas such as hips, thighs and stomach (Fawkner, 2012; Melching, Green, O'Neal & Renfroe, 2016; Torres-McGehee, Monsma, Dompier & Washburn, 2012).

The sociocultural perspective of body image offers yet another approach to why body dissatisfaction often exists in modern society. This theory proposes that the cultural standards proposed by society for ideal body types place expectation on the sexes for particular body types and this leads to possible body dissatisfaction when the individual does not believe their body image matches that of the “ideal” body type for their sex (Grossbard et al., 2009). For instance, in western societies such as America, a thin figure is considered more attractive in women

(Grossbard et al., 2009). These body image ideals often result in body dissatisfaction because they are often unrealistic and unobtainable (Ryker, 2017; Wynn, 2012).

Motivators for physical exercise participation- The South African perspective

As it has been mentioned throughout the present study, existing literature indicates that women are often motivated to exercise for physical appearance (extrinsic motivator). However, the available literature displays some limitations as it has been predominantly conducted among samples of principally women from western societies such as America, Europe etc. Furthermore, there is little focus on women from other societies such as South Africa. While women in western societies may be motivated to exercise for appearance- related reasons, women from other societies and backgrounds may hold varied ideals of beauty that in turn influence their motivations to exercise differently (Mvo, Dick & Steyn, 1999).

For instance, in South Africa beauty standards differ from western ideals. Mvo et al. (1999) found that among black South African women, a larger female body size is more acceptable and attractive than the slim, slender body size desired by western societies. In South Africa, black women often associate smaller figures with illnesses including HIV/AIDS and Tuberculosis (TB) (Puoane, Tsolekile & Steyn, 2010). Indeed, South African women may hold these body image preferences; however, there is literature that argues that body image preferences among South African women may be changing due to the influence of urbanisation (Szabo & Allwood, 2006).

A study by Szabo and Allwood (2006) investigated the differences in body dissatisfaction among rural black females and urban black and white females. The study found that more urban white females wanted to be smaller, whereas rural black females did not. Additionally, urban

black females were closer to the urban white females in their body dissatisfaction and significantly greater in the desire to be smaller than rural black females. In contrast, rural black females demonstrated a greater desire to be bigger than urban white females and urban black females. The study also assessed body contentment and found a significantly higher prevalence of contentment among rural black females when compared to urban black females. There was no significant difference among urban black females and urban white females for body contentment. These findings indicated that both rural and urban females were dissatisfied with their bodies, as urban females wanted to be smaller and rural females wanted to be bigger. However, overall rural females were more content with their bodies than urban females. It may be argued considering the findings by Szabo and Allwood (2006) the body dissatisfaction found among both urban and rural females may be related to urbanisation.

Recent literature demonstrates how westernised ideals of being thinner when being overweight or obese, may even be influencing the rural females of South Africa. For instance, Prioreshi et al. (2017) found that being overweight and obese is positively related with the desire to be thinner and negatively related with the desire to be heavier among both rural and urban women in South Africa. These findings suggest that westernisation may have an influence on body image satisfaction among South African women, with all women (rural and urban) showing a preference for smaller or normal shape silhouettes, despite the traditional views of rural women historically desiring a larger body size (Prioreshi et al., 2017).

The same study found that body image dissatisfaction in this group of women was significantly associated with moderate to vigorous physical activity. It was also reported that women who had higher moderate to vigorous physical activity had a decreased risk of disordered eating attitudes and less likelihood for wanting to be thinner (Prioreshi et al., 2017). Therefore,

physical exercise may not only provide a means to promote a healthy body image among South African women but, understanding exercise motives among women could assist in ensuring that exercise programmes are built considering motivating factors that may increase exercise compliance for this specific population.

The present study

The present study aims to explore potential motivators for exercise participation among South African women. Considering the copious accounts of research suggesting physical appearance is a strong motivator among women for exercise participation, the current study hypothesised that physical appearance, represented by the body areas satisfaction scale (BASS) (i.e. physical appearance, body satisfaction) will positively predict fitness orientation (FO) (i.e. physical exercise participation) among South African women.

Method

Participants

At the time of the study participants were exposed to an urban environment. The survey questionnaire was distributed to 300 female psychology students at different psychology lectures, on different campuses at the University of Johannesburg. Participation in this study was on a voluntary basis and no compensation was offered for participation. The questionnaire was completed and submitted by 144 respondents, representing a response rate of 48% (144/300). The participants consisted of undergraduate ($N = 118$) and postgraduate students ($N = 12$). There were 14 participants who did not provide their year of study. The mean age of respondents was 20 ($SD = 2.19$) years. Participants identified themselves as Black/African (67.36%), White

(15.97%), Indian/Asian (8.33%), Coloured (6.94%), and other (0.69%). Information on ethnicity was not provided by one participant.

Measures

The questionnaire consisted of two sections; a descriptive and interpersonal characteristics section and the Multidimensional Body-Self Relations Questionnaire (MBSRQ).

Descriptive and intrapersonal characteristics. Participants completed a series of open-ended, self-report questions assessing age, year of study and ethnicity. The biographical information gathered from this measure was used in the interpretation of results.

Multidimensional Body-Self Relations Questionnaire (MBSRQ; Cash, 2000; Brown, Cash, & Mikulka, 1990). Consists of a 69 item self-reported scale that describes body image as a “reflection of affective, cognitive, and behavioural dispositions toward one’s own body” (Cash, 2015, p. 1). The scale requires participants to respond to all items of the MBSRQ using a five-point likert-type scale. Items range from 1 (*strongly disagree*) to 5 (*strongly agree*), from *never* to *very often*, from *very underweight* to *very overweight* and from *very dissatisfied* to *very satisfied*. The MBSRQ includes 10 subscales; seven-factor subscales and three additional subscales. To achieve the set aim of the present study nine of the subscales were assessed and therefore only significant variables will be discussed in the results section. Below are the descriptions of all the sub-scales by Cash (2000), which were measured in the present study:

1. *Appearance Evaluation (AE)*: It measures individual’s feelings of physical attractiveness or unattractiveness and satisfaction or dissatisfaction with their looks. The AE subscale

shows good Cronbach alpha reliability of .88 and one-month retest reliability of .91 for female students.

2. *Appearance Orientation (AO)*: This is the extent of investment in one's appearance. The AO subscale shows good Cronbach alpha reliability of .85 and one-month retest reliability of .90 for female students.
3. *Fitness Orientation (FO)*: The extent of investment by individuals to being physically fit or athletically efficient. The FO subscale shows good Cronbach alpha reliability of .90 and one-month retest reliability of .94 for female students.
4. *Health Evaluation (HE)*: This is where Individuals feel physically healthy and free from physical illness. The HE subscale shows good Cronbach alpha reliability of .83 and one-month retest reliability of .79 for female students.
5. *Health Orientation (HO)*: It is the extent of investment by individuals in a physically healthy lifestyle. The HO subscale shows good Cronbach alpha reliability of .78 and one-month retest reliability of .85 for female students.
6. *Illness Orientation (IO)*: One's reactivity towards being or becoming ill. The IO subscale shows good Cronbach alpha reliability of .75 and one-month retest reliability of .78 for female students.
7. *Body Areas Satisfaction Scale (BASS)*: It is similar to the Appearance Evaluation subscale; however, the Body Areas Satisfaction subscale taps into satisfaction with specific aspects of an individual's appearance (i.e. lower torso, weight, overall appearance etc.). The BASS subscale shows good Cronbach alpha reliability of .73 and one-month retest reliability of .74 for female students.

8. *Overweight Preoccupation (OP)*: For this subscale, individuals may reflect on fat anxiety, weight vigilance, dieting, and eating restraint. The OP subscale shows good Cronbach alpha reliability of .76 and one-month retest reliability of .89 for female students.
9. *Self-Classified Weight (SCW)*: Evaluates how individuals' perceive and label their weight, from very underweight to very overweight. The SCW subscale shows good Cronbach alpha reliability of .89 and one-month retest reliability of .74 for female students.

The MBSRQ is a widely used tool that has shown consistently acceptable Cronbach alpha coefficients (.83 to .93) with women from different racial backgrounds within the social context (Cash, Morrow, Hrabosky, & Perry, 2004; Jung & Lennon, 2003).

Research design

Quantitative research methodologies were used to examine the set aims of this study. Quantitative research is “explaining phenomena by collecting numerical data that are analysed using mathematically based methods” (Aliaga & Gunderson, 2000, p. 1). Quantitative research methodologies do have some potential limitations that need to be examined when utilising this method. For example, there is a limited interpretation and understanding of results and phenomena when utilising quantitative methods, as they do not allow for detailed narratives (Rahman, 2017). In contrast to this limitation, quantitative research is favoured because constructs are independent of the researcher and are therefore studied objectively to gain new insights. Also, the research method allows for faster data collection, particularly when working with a larger sample size (Rahman, 2017). Due to these strengths quantitative research was

implemented as collection was complicated because of the vast number of female psychology students and the limited allocated time for data collection.

Procedure

Psychology lecturers were approached by the researcher, who requested to address and brief students about the study, at the end or beginning of lectures. During the briefing session, the purpose of and ethics regarding the study were described. The questionnaire was then distributed to female students who volunteered to participate. The questionnaire booklets consisted of an information sheet, the descriptive and intrapersonal characteristics section and the MBSRQ. The information sheet detailed that informed consent was assumed by three factors; first by voluntary participation, second the completion of the questionnaire and lastly, by the submission of the questionnaire booklet. On the information sheet, the contact details of the student researcher were provided for any concerns or further information required by participants about the study. The booklets were then collected after 20 minutes or students could drop off questionnaires at the psychology department in a designated pigeon hole. The allocated pigeon hole was assigned and accessible only to the researcher.

Ethical considerations

Approval to conduct this study was obtained from the Faculty of Humanities Committee REC at the University of Johannesburg. The information sheet stated that no harm or risks were associated with participating in the study. Informed consent was obtained prior to participants completing the questionnaire. There was a disclaimer that completion of the questionnaire is seen as consent to participate in the study. Furthermore, consent sought this way ensured anonymity

of participants and it allowed them to withdraw anonymously and without any negative consequences. The confidentiality of participants was protected as there was no identifying information (i.e. student numbers, names, signatures etc.) requested from participants.

Data analysis

Data was first scored manually and then computed to be statistically analysed. Data was analysed using Jamovi version 0.8.0.9. Descriptive statistics, bivariate correlations between subscales and multiple regression analyses of subscales were calculated and used to examine the research hypothesis.

Results

Descriptive statistics and bivariate correlations between subscales

The means and standard deviations of the relevant MBSRQ subscales were assessed (Table 1). The highest mean score was obtained for AO ($M = 3.90$; $SD = .42$) and OP obtained the lowest mean score ($M = 2.64$; $SD = .93$).

Bivariate correlations were measured to determine if significant relationships exist between variables. The most significant positive and negative correlations ($p \leq .001$) are shown in Table 1. The most significant positive correlations ($p \leq .001$) were found for BASS and AE ($r = .503$), BASS and FO ($r = .348$), IO and HO ($r = .310$), IO and HE ($r = .286$), HO and HE ($r = .368$) and AE and FO ($r = .289$). Also the most significant negative correlations ($p \leq .001$) included SCW and OP ($r = -.472$), SCW and BASS ($r = -.338$), SCW and AE ($r = -.325$) and OP and BASS ($r = -.373$).

<Insert Table 1 here>

Hypothesis Testing

Multiple linear regression was computed to determine which of the independent variables including SCW, OP, BASS, IO, HO, HE, AO and AE predicted FO. Although abovementioned subscales were investigated and the regression equation was statistically significant ($F(8, 135) = 4.84$), $p < .001$, with an R^2 of .223, only BASS ($b = .13$, $p < .004$) and IO ($b = .12$, $p < .044$) were found to be statistically significant predictors of FO (Table 2). Due to the significant positive regression found between BASS and FO the hypothesis of this study is thus supported. Furthermore, only significant scales and findings will be discussed further in the present study.

<Insert Table 2 here>

Discussion

The purpose of this study was to investigate the motivators of exercise participation using the MBSRQ among a sample of South African women. Specifically the study examined the MBSRQ subscales [Self-Classified Weight (SCW), Overweight Preoccupation (OP), Body Areas Satisfaction Scale (BASS), Illness Orientation (IO), Health Orientation (HO), Health Evaluation (HE), Appearance Orientation (AO) and Appearance evaluation (AE)] as motivators for exercise participation [Fitness Orientation (FO)]. Although all subscales were statistically assessed; linear regression results indicated that only BASS and IO predicted FO. Subsequently, the regression found between BASS and FO supported the present study hypothesis; physical appearance,

represented by the BASS, will positively correlate with FO (i.e. physical exercise participation) among South African women. These significant findings will be further discussed below.

The association found between BASS and FO suggests that this sample of women may be extrinsically motivated to exercise. This is also supported by previous research which found that women have significantly higher levels of extrinsic motivation based on their desire to exercise to alter their physical appearance (Cerar et al., 2017; Egli et al., 2011; Louw et al., 2012; Hoare et al., 2017; Mafra et al., 2016; Molanorouzi et al., 2015; Plonczynski, 2001; Pritchard & Beaver, 2011). It is suggested by Avelar and Veiga (2013) (as cited in Mafra et al., 2016) that women are generally concerned about their physical appearance due to external pressure from sociocultural standards such as media. It is emphasized in media particular standards of female beauty that are often different from the physical appearance of ordinary women. This results in women negatively evaluating themselves against what is considered the ideal standards of beauty (Grossbard et al., 2009). Among South African studies (Pioreschi et al., 2017; Szabo & Allwood, 2006) it was found that due to increased urbanisation and subsequent exposure to westernised media, South African women, have been shown to desire slimmer and thinner shapes. These desires may have specific effects on women such as low self-esteem and body dissatisfaction (Durkin & Paxton, 2002 cited in Pasha & Golshekoh, 2009; Mafra et al., 2016). This highlights the negative effects of extrinsic motivators for exercise participation among women. Indeed, the relationship found between BASS and FO in the present study supports available literature by indicating that physical appearance serves as a noteworthy motivator for exercise participation among women.

Another possible extrinsic factor that could affect the desire to exercise in women is that of health concerns or illness orientation. The present study found IO predicted FO, which

suggests that health related-reasons are significant motivators for exercise participation in women. This result supports past research which, reported similar findings where women were motivated to exercise for health-related reasons (extrinsic factors) (Egli et al., 2011; Molanorouzi et al., 2015). This illustrates that women are more motivated to exercise as a result of external pressure or reward. In a different study by Johansson and Sjöbom (2015) it was found that women were motivated to exercise due to the benefits of physical activity such as improved health and well-being (instrumental value, i.e. an extrinsic motivator). Therefore, women may be motivated to exercise for health-related reasons due to the proven benefits of exercise participation.

The results of the current study suggest that South African women are more motivated to exercise for extrinsic reasons (i.e. physical appearance and health-related reasons). This is an important finding as health professionals and researchers need to understand exercise motivation to increase the success of physical activity interventions which will entail increase exercise participation among women.

Strengths, limitations and recommendations for potential research

The present study investigated the motivators of physical exercise participation among a sample of women that has not been explored in previous research. By examining exercise motivators among South African women, it may aid health professionals in developing interventions that will encourage individuals to become more physically active and once active individuals may experience the benefits of exercise (i.e. in treating morbid obesity, increasing mental well-being and benefiting individuals overall well-being) (Fonseca-Junior, Sa, Rodrigues, Oliveira & Fernandes-Filho, 2013; Poirel, 2017; Reiner et al., 2013; Ströhle, 2008; Zaccagni et al., 2014).

Although the abovementioned strengths exist there were several limitations noted. The sample was not fully representative of the South African population as the sample only included university students that can be placed within the middle class category and only 25.3% of South Africans place within this status (World Values Survey, 2013). Due to the cross-sectional design of this study, findings may not be as reliable as a longitudinal research design. Therefore, for future research about the cause-and-effect relationships of variables longitudinal studies are recommended for more reliable results. Finally, future research should evaluate the self-esteem of women in South Africa and how this relates to overall body image perceptions.

Conclusion

In conclusion, the results of this study provide some insights into the possible motivators of exercise participation among South African women. In agreement with previous studies it was found that South African women exercise for appearance-related reasons and health-related reasons. Moreover, this study contributes to the understanding of exercise participation among South African women which could be useful in exploring methods to encourage exercise compliance.

References

- Aliaga, M., & Gunderson, B. (2000). *Interactive statistics*. Upper Saddle River, N.J: PrenticeHall.
- Alsaker, D. F. (1992). Pubertal timing, overweight, and psychological adjustment. *Journal of Early Adolescence, 12*(4), 396 – 419. doi: 10.1177%2F0272431692012004004

- Brennan, A. M., Lalonde, E. C., & Bain, L. J. (2010). Body image perceptions: Do gender differences exist? *Journal of Psychological Research, 15*, 130-138. doi: 10.24839/1089-4136.JN15.3.130
- Brown, T., Cash, T., & Mikulka, P. (1990). Attitudinal body-image assessment: Factor analysis of the body-self relations questionnaire. *Journal of Personality Assessment, 55*(1), 135-144. doi: 10.1207/s15327752jpa5501&2_13
- Cash, T. F., Ancis, J. R., & Strachan, M. D. (1997). Gender attitudes, feminist identity, and body images among college women. *Sex Roles, 36*(7), 433-447. doi: 10.1007/BF02766682
- Cash, T. F. (2000). MBSRQ users' manual. (3rd ed.) Norfolk, VA: Old Dominion University Press. ResearchGate. Retrieved from file:///H:/Research%202018/MBSRQManual3rdedition2.pdf
- Cash, T. F. (2003). Body image: Past, present, and future. *Body image, 1*(1), 1-5. doi:10.1016/S1740-1445(03)00011-1
- Cash, T. F., Morrow, J. A., Hrabosky, J. I., & Perry, A. A. (2004). How has body image changed? A cross-sectional investigation of college women and men from 1983 to 2001. *Journal of consulting and clinical psychology, 72*(6), 1081-1089. doi: 10.1037/0022-006X.72.6.1081
- Cash, T. F. (2015). Multidimensional Body–Self Relations Questionnaire (MBSRQ). *Encyclopedia of Feeding and Eating Disorders*, 1–4. doi:10.1007/978-981-287-087-2_3-

- Cerar, K., Kondrič, M., Ochiana, N., & Sindik, J. (2017). Exercise participation motives and engaging in sports activity among University of Ljubljana students. *Journal of Medical Sciences*, 5(6), 794-799. doi:10.3889/oamjms.2017.159
- Egli, T., Bland, H. W., Melton, B. F., & Czech, D. R. (2011). Influence of age, sex, and race on college students' exercise motivation of physical activity. *Journal of American College Health*, 59(5), 399–406. doi: 10.1080/07448481.2010.513074.
- Fawkner, J. H. (2012). Gender. In N. Rumsey & D. Harcourt (Eds.). *The psychology of appearance* (pp. 175-189). Oxford, United Kingdom: Oxford University Press.
- Fonseca-Junior, S., Sá, C., Rodrigues, P., Oliveira, A., & Fernandes-Filho, J. (2013). Physical exercise and morbid obesity: A systematic review. *ABCD. Arquivos Brasileiros De Cirurgia Digestiva (São Paulo)*, 26(1), 67-73. doi: 10.1590/s0102-67202013000600015
- Furnham, A., Badmin, N., & Sneade, I. (2002). Body image dissatisfaction: Gender differences in eating attitudes, self-esteem, and reasons for exercise. *Journal of Psychology*, 136(6), 581–596. doi: 10.1080/00223980209604820
- Gorman, S. (2015). *The effects of media on body image and self-esteem* (Bachelor of Arts degree (Social Science Specialization)). DBS School of Arts, Dublin
- Grossbard, J. R., Lee, C. M., Neighbors, C. & Larimer, M. E. (2009). Body image concerns and contingent self-esteem in male and female college students. *Sex Roles*, 60, 198-207. doi: 10.1007/s11199-008-9535-y

- Hoare, E., Stavreski, B., Jennings, G., & Kingwell, B. (2017). Exploring motivation and barriers to physical activity among active and inactive Australian adults. *Sports*, 5(3), 47. doi: 10.3390/sports5030047
- Johansen, B., Høigaard, R., & Haugen, T. (2005, August). 11th World Congress of Sport Psychology. Exercise motives: gender differences among students, Sydney, Australia. doi: 10.13140/2.1.2319.0408.
- Johansson, K., & Sjöbom, V. (2015). Motivation behind young women's excessive exercise: A qualitative study from a Self-determination perspective (Masters). UMEA University. Retrieved from <https://www.diva-portal.org>
- Jung, J., & Lennon, S. (2003). Body Image, appearance self-schema, and media images. *Family and Consumer Sciences Research Journal*, 32(1), 27-51. doi: 10.1177/1077727x03255900
- Louw, A. J., Van Biljon, A. & Mugandani, S. C. (2012). Exercise motivation and barriers among men and women of different age groups. *African Journal for Physical, Health Education, Recreation and Dance*, 4(1), 759-768. Retrieved from <https://hdl.handle.net/10520/EJC128345>
- Mafra, A. L., Castro, F. N., & Lopes, F. A. (2016). Investment in beauty, exercise, and self-esteem: Are they related to self-perception as a romantic partner? *Evolutionary Psychological Science*, 2(24), 24-31. doi: 10.1007/s40806-015-0032-6
- Meland, E., Haugland, S., & Breidablik, H. J. (2007). Body image and perceived health in adolescence. *Health Education Research*, 22, 342-50. doi:10.1093/her/cyl085

- Melching, L. K., Green, J. M., O'Neal, K. E., & Renfro, L. (2016). Body image dissatisfaction: responses between male and female exercisers and non-exercisers. *International Journal of Exercise Science* 9(3), 249-257. Retrieved from <http://www.intjexersci.com>
- Molanorouzi, K., Khoo, S., & Morris, T. (2015). Motives for adult participation in physical activity: Type of activity, age, and gender. *BMC Public Health*, 15(66), 1-12. doi: 10.1186/s12889-015-1429-7
- Mooney, E., Farley, H., & Strugnell, J. C. (2010) Body dissatisfaction and dieting among adolescent females in the Republic of Ireland (ROI): A quantitative study. *Nutrition & Food Science*, 40(2), 176-185. doi: 10.1108/00346651011029200
- Mvo, Z., Dick, J., & Steyn, K. (1999). Perceptions of overweight African women about acceptable body size of women and children. *Curatonia*, 22(2), 27-31. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/11040616>
- Pasha, G., & Golshekoh, F. (2009). Relationship between socio cultural attitudes, appearance and body dissatisfaction among students of Islamic Azad University. *Journal of Applied Sciences*, 9(9), 1726-1732. doi: 10.3923/jas.2009.1726.1732
- Palmberg, A. (2012). Adolescent girls' experience of binge and loss of control eating (Masters). Virginia Commonwealth University. Retrieved from <https://scholarscompass.vcu.edu/>
- Poirel, E. (2017). Psychological benefits of physical activity for optimal mental health. *US National Library of Medicine National Institutes of Health (PUBMED)*, 42(1), 147-164. doi: 10.7202/1040248ar

- Plonczynski, D. (2001). Measurement of motivation for exercise. *Health Education Research*, 15(6), 695–705. <https://doi.org/10.1093/her/15.6.695>
- Pritchard, E. M & Beaver, L. J. (2011). Do exercise motives predict obligatory exercise? *Eating Behaviors*, 13(2), 139-141. doi: 10.1016/j.eatbeh.2011.11.012
- Prioreschi, A., Wrottesley, S. V., Cohen, E., Reddy, A., Said-Mohamed, R., Twine, R., et al. (2017). Examining the relationships between body image, eating attitudes, BMI, and physical activity in rural and urban South African young adult females using structural equation modelling. *PLoS ONE*, 12(11), 1-16. doi: 10.1371/journal.pone.0187508
- Puoane, T., Tsolekile, L., & Steyn, N. (2010). Perceptions about body image and sizes among black African girls living in Cape Town. *Ethnicity & Disease*, 20, 29-34. Retrieved from <https://www.researchgate.net/publication/41547258>
- Rahman, M. S. (2017). The advantages and disadvantages of using qualitative and quantitative approaches and methods in language “testing and assessment” research: A literature review. *Journal of Education and Learning*, 6(1), 102-112. doi: 10.5539/jel.v6n1p102
- Reiner, M., Niermann, C., Jekauc, D., & Woll, A. (2013). Long-term health benefits of physical activity- A systematic review of longitudinal studies. *Public Health*, 13, 1-9. doi: 10.1186/1471-2458-13-813
- Ryan, M. R., & Deci, L. E. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25, 54–67. doi:10.1006/ceps.1999.1020

- Ryker, C. (2017). The influence of the media regarding the way women perceive their body image. M. A. Technology [Unpublished]: University of Johannesburg. Retrieved from: https://ujcontent.uj.ac.za/vital/access/manager/Index?site_name=Research%20Output (Accessed: 01 June 2018).
- Šerifović-Šivert, Š., & Sinanović, O. (2008). Body dissatisfaction: Is age a factor? *Philosophy, Sociology, Psychology and History*, 7(1), 55-61. Retrieved from <https://scinapse.io/papers/2477795854>
- South African Journal of Psychology (SAJP). (2018). *SAGE Publishing Ltd*. Retrieved from <https://uk.sagepub.com>
- Stathokostas, L., & Jones, R. G. (2016). Exercise modality choices one year after intervention in previously inactive older men and women. *Journal of Aging and Physical Activity*, 24, 435-443. doi: 10.1123/japa.2015-0167
- Ströhle, A. (2008). Physical activity, exercise, depression and anxiety disorders. *Journal of Neural Transmission*, 116(6), 777-784. doi: 10.1007/s00702-008-0092-x
- Szabo, C. P., & Allwood, C. W. (2006). Body figure preference in South African adolescent females: A cross cultural study. *African Health Sciences*, 6(4), 201–206. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1832064/>
- Tiggemann, M., & Miller, J. (2010). The Internet and adolescent girls' weight satisfaction and drive for thinness. *Sex roles*, 63, 79-90. doi: 10.1007/s11199-010-9789-z

- Tiggemann, M., & Slater, A. (2013). Net Girls: The internet, Facebook, and body image concern in adolescent girls. *International Journal of Eating Disorders*, 46(6), 630-633. doi: 10.1002/eat.22141
- Tiggemann, M., & Zaccardo, M. (2015). "Exercise to be fit, not skinny": The effect of fitspiration imagery on women's body image. *Body Image*, 15, 61-67. doi: 10.1016/j.bodyim.2015.06.003.
- Torres-McGehee, T. M., Monsma, E. V., Dompier, T. P., & Washburn, S. A. (2012). Eating disorder risk and the role of clothing in collegiate cheerleaders' body images. *Journal of Athletic Training*, 47(5), 541-548. doi: 10.4085/1062-6050-47.5.03
- Warburton, E. R. D., Nicol, C. W., & Bredin, S. D. S. (2006). Health benefits of physical activity: The evidence. *Canadian Medical Association Journal (CMAJ)*, 174(6), 801-809. doi: 10.1503/cmaj.051351
- World Values Survey. (2013). Retrieved from <http://www.worldvaluessurvey.org/wvs.jsp>
- Wynn, B. (2012). *The Impact of Media on Body Images of Young Women* (Masters). Southern Illinois University. Retrieved from <https://pdfs.semanticscholar.org/f0ff/ff719038420b5cd832db6e59947e614efda3.pdf>
- Zaccagni, L., Masotti, S., Donati, R., Mazzoni, G., & Gualdi-Russo, E. (2014). Body image and weight perceptions in relation to actual measurements by means of a new index and level of physical activity in Italian university students. *Journal of Translational Medicine*, 12(1), 42. doi: 10.1186/1479-5876-12-42

Appendix- Results

Table 1*Descriptive statistics and bivariate correlations between the study variables*

	SCW	OP	BASS	IO	HO	HE	AE	AO	FO
SCW									
OP	.472 ***								
BASS	-.338 ***	-.373 ***							
IO	-.171 *	.063	.100						
HO	-.036	.122	.175 *	.310 ***					
HE	-.173 *	.016	.061	.286 ***	.368 ***				
AE	-.325 ***	-.244 **	.503 ***	.100	.108	.071			
AO	-.076	.157	.161	.106	.266 **	.090	.207 *		
FO	-.078	-.006	.348 ***	.249 **	.242 **	-.064	.289 ***	.227 **	
Mean	3.11	2.64	3.49	2.83	3.05	3.02	3.38	3.90	2.90
SD	.68	.93	.73	.48	.46	.53	.36	.42	.34

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. SCW=Self-classified Weight; OP=Overweight Preoccupation; BASS=Body Areas Satisfaction; IO=Illness Orientation; HO=Health Orientation; HE=Health Evaluation; AE=Appearance Evaluation; AO=Appearance Orientation; FO=Fitness Orientation.

Table 2*Regression estimates for the prediction of Fitness Orientation*

Predictor	B	SE	<i>B</i>	T	p
Intercept	0.9703	0.3878		2.502	0.014
SCW	0.0421	0.0462	0.0841	0.911	0.364
OP	0.0201	0.0346	0.0549	0.582	0.562
BASS	0.1304	0.0445	0.2783	2.932	0.004*
IO	0.1187	0.0585	0.1681	2.029	0.044**
HO	0.0539	0.0644	0.0733	0.838	0.403
HE	0.0379	0.0544	0.0592	0.698	0.486
AE	0.1122	0.0737	0.1378	1.522	0.130
AO	0.0960	0.0778	0.1022	1.234	0.219

Note. SCW=Self-classified Weight; OP=Overweight Preoccupation; BASS=Body Areas Satisfaction; IO=Illness Orientation; HO=Health Orientation; HE=Health Evaluation; AE=Appearance Evaluation; AO=Appearance Orientation; FO=Fitness Orientation.

Annexure A



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Research Questionnaire

Information Sheet

Research Title: Investigating the Motivators for Physical Exercise Participation among a Sample of South African Women

Introduction

I would like to invite you to participate in a research study conducted by myself, Ereen Mitchell, a master's student. This information sheet serves to inform you about the research before you decide to participate or not. Your participation is voluntary and you can withdraw from the study at any point without any consequences. Please take a moment to read through the following and feel free to contact me should you have any queries (contact details provided below).

Purpose of the Study

The purpose of this study is to explore the motivators of exercise participation among South African women.

Procedures

The questionnaire booklets consist of an information sheet, the descriptive and intrapersonal characteristics section and the MBSRQ.

Informed Consent

Informed consent is assumed by three factors; first by voluntary participation, second by completion of this questionnaire and lastly, by submission of the questionnaire booklet. Booklets will be collected after 20 minutes or you can drop off questionnaires at the psychology department at a designated pigeon hole (student assistants will advise you). The allocated pigeon hole is assigned and accessible only to the researcher and all information you provide will remain confidential.

Privacy and Confidentiality

All information obtained in this study will be kept anonymous and confidential. There is no identifying information requested or used. The researcher and the research supervisor will have access to the data. Privacy and confidentiality will be maintained by keeping the data secure with the password protection service. Once the data analysis is complete data will be destroyed.

Potential Risk

No harm or risks are associated with participating in this study. However, should you feel any discomfort participating in this study, please contact the researcher via email. In the case of a crisis, referrals will be made to PsyCad if necessary and should you require immediate assistance please contact SADAG (0800121314) or Lifeline (0861322322) for crisis intervention.

Compensation for Participation

There will be no compensation for participating in this research study.

Participation and Withdrawal

Participation is voluntary; you can withdraw from answering the questionnaire at any moment without giving reasons for doing so.

Rights as a Participant

If you have any questions as a result of reading this information sheet, you should ask the researcher before participating in this study.

Contact Details of Researchers

Researcher

Ereen Mitchell

ereenmitch@gmail.com

Research Supervisor

Melissa Card

Section One

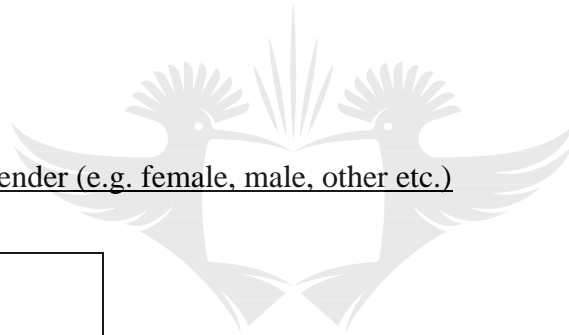
Descriptive and Intrapersonal Characteristics

The following section should take approximately 5 minutes to complete

1. What is your age?

*Only numbers may be entered in this field.

2. Please provide your gender (e.g. female, male, other etc.)



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3. What is your race or ethnicity? (e.g. Indian)

4. Year of study (i.e. 1st, 2nd etc)

Section Two

Multidimensional Body-Self Relations Questionnaire (MBSRQ)

(Available from the Author: Thomas F Cash: <http://www.body-images.com/assessments/mbsrq.html>)

(Approximately 10-15 minutes to complete)

Thank you for your participation.

Once completed please hand questionnaire to the researcher or drop off at Psychology Department no more than seven days from completion.



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