A South African study of the association between global self-esteem and Body Mass Index (BMI) scores, in adolescent females: An investigation of differences in perceived weight problems, racial identity, physical exercise, weight control behaviour and stage of pubertal development.

BRONWYN ANNE WEBBER

A Research Report submitted to the
FACULTY OF HUMANITIES-DISCIPLINE OF SPECIALISED EDUCATION
at the
UNIVERSITY OF THE WITWATERSRAND
In partial fulfillment of the requirements for the degree of
MASTERS OF EDUCATION
in
EDUCATIONAL PSYCHOLOGY

December 2004
ABSTRACT

The purpose of this study was to examine whether: actual and ideal body mass index (BMI) scores, perception of a weight problem, racial identity, physical exercise, weight control behaviour and stage of pubertal development predict levels of global self-esteem in average academic achieving English speaking middle-class adolescent females. The sample consisted of 90 females, ranging in age from 13 years 3 months to 18 years 7 months who were attending Benoni High School. BMI was measured and desired BMI based on self-reported weight and height. Self-perception of having a weight problem was evaluated by one question: “Do you see yourself as having a weight problem?” Self-esteem was measured in two ways: firstly participants completed the Rosenberg Self-esteem Scale and secondly homeroom teachers were asked to give a score of global self-esteem. A significant association was found between global self-esteem and: a perceived weight problem, actual BMI and race. No significant association was found between global self-esteem and: weight control behaviour; physical exercise, age of menarcheal onset and ideal BMI.

KEY WORDS

Global self-esteem, adolescent females, BMI, racial identity, weight control behaviour, physical exercise and pubertal development
DEDICATION

I wish to dedicate this research to the loving memory of Mr B.C Lotter, Headmaster Benoni High School, who passed away very sadly and unexpectedly during the course of this study.
ACKNOWLEDGEMENTS

- I wish to thank Mr Kenneth Wilson for agreeing to supervise my research. I am so very grateful to you. Your positive and supportive attitude carried me a long way in motivating the completion of this work.

- Mr Joseph Seabi for his patient assistance with my Statistical Analysis.

- To my mom and dad who have done everything in their power to support me unequivocally in my academic studies. I am eternally grateful and hope that I have made you very proud of me.

- To my sister Megan and my brothers Craig and Mark. This is proof that despite popular belief I am not ‘the village idiot’ but actually the most highly qualified sibling. I love you all very much.

- My little brown boy, Brajahari – you are the absolute light of my life.

- Alastair Wade Dooley, my husband to be. You are the most amazing man I have ever known and I am thrilled to be spending the rest of my life with you. Thank you for always being so proud of me and for supporting and encouraging me regardless.

- To Nirosha and Karen- without you my internship year would have been so very much more difficult. Thank you for all the ‘debriefing sessions’ and laughs that we have shared.

- Lastly but most importantly to God my absolute pillar of strength and constant support. Thank you for making this opportunity to become a psychologist possible and for laying the way for me to complete this research.
DECLARATION

I hereby declare that this thesis is my own unaided work. It is being submitted for the degree of Master of Education (Educational Psychology) at the University of Witwatersrand, Johannesburg. It has not been submitted for any other degree or examination at any other university.

____________________________
Bronwyn Anne Webber

____________________________
Date
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHAPTER 1- INTRODUCTION</strong></td>
<td></td>
</tr>
<tr>
<td>1.1 Introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Aims</td>
<td>2</td>
</tr>
<tr>
<td>1.3 Rationale</td>
<td>3</td>
</tr>
<tr>
<td><strong>CHAPTER 2- LITERATURE REVIEW</strong></td>
<td></td>
</tr>
<tr>
<td>2.1 Definitions of Self-Esteem</td>
<td>5</td>
</tr>
<tr>
<td>2.2 The Development of Self-Esteem</td>
<td>6</td>
</tr>
<tr>
<td>2.3 Self-Esteem and the Physical-Self</td>
<td>8</td>
</tr>
<tr>
<td>2.4 Effects of Racial Identity</td>
<td>9</td>
</tr>
<tr>
<td>2.5 Self-Esteem and Body Weight</td>
<td>10</td>
</tr>
<tr>
<td>2.6 Self-Esteem and Gender</td>
<td>11</td>
</tr>
<tr>
<td>2.7 Self-Esteem and Chronological Age</td>
<td>12</td>
</tr>
<tr>
<td>2.8 Self-Esteem and Weight Loss Behaviour</td>
<td>14</td>
</tr>
<tr>
<td>2.9 Summary</td>
<td>14</td>
</tr>
<tr>
<td><strong>CHAPTER 3- METHODOLOGY</strong></td>
<td></td>
</tr>
<tr>
<td>3.1 Sample</td>
<td>16</td>
</tr>
<tr>
<td>3.2 Measures</td>
<td>17</td>
</tr>
<tr>
<td>3.3 Procedure</td>
<td>19</td>
</tr>
<tr>
<td>3.4 Research Design</td>
<td>20</td>
</tr>
<tr>
<td><strong>CHAPTER 4- RESULTS</strong></td>
<td></td>
</tr>
<tr>
<td>4.1 Quantitative Results</td>
<td></td>
</tr>
<tr>
<td>4.1.1 Descriptive Statistics</td>
<td>23</td>
</tr>
<tr>
<td>4.1.2 Tests of Significance</td>
<td>27</td>
</tr>
</tbody>
</table>
4.2 Qualitative Results

CHAPTER 5 - DISCUSSION
5.1 Interpretation and Implications of findings

CHAPTER 6 - CONCLUSIONS
6.1 Summary and Conclusions
6.2 Limitations and Shortcomings of the Study
6.3 Suggestions for Further Research

REFERENCES

APPENDICES
Appendix A: Consent letter to parents
Appendix B: Consent letter to learners
Appendix C: Information Sheet
Appendix D: Rosenberg Self-esteem Scale
Appendix E: Letters of request and consent for research
LIST OF TABLES

Table 3.1 School Grades of Participants 23
Table 3.2 Age of Participants 24
Table 3.3 Race and Self-esteem 24
Table 3.4 Age of onset of Menstruation and Self-esteem 25
Table 3.5 Actual and Ideal BMI and Self-esteem Scores 25
Table 3.6 SES (Self-esteem Scores) 25
Table 3.7 Exercise and Self-esteem 26
Table 3.8 Weight Control Behaviour 26
Table 3.9 Perception of Weight Problem 26
Table 3.10 Analysis of Variance: Perceived Weight Problem and Self-esteem 27
Table 3.11 Analysis of Variance: Actual and Ideal BMI and Self-esteem 28
Table 3.12 Analysis of Variance: Onset age of Menstruation and Self-esteem 28
Table 3.13 Analysis of Variance: Participation in Exercise and Self-esteem 29
Table 3.14 Analysis of Variance: Weight Control Behaviour and Self-esteem 29
Table 3.15 Analysis of Variance: Race and Self-esteem 30

LIST OF FIGURES

Figure 3.1 Pie-graph of School Grades of Participants 23