An investigation into the relationship between physical activity and happiness in adults.

by Anne Turner

A dissertation submitted in accordance with the requirements of the University of Chester for the degree of Master of Science.

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Dedication

This work is dedicated to my dad, Jack Turner, 1928 – 2007.
Student Declaration

This work is original and has not been submitted previously in support of a degree qualification or other course.

Signed……Anne Turner……………………………………

Date………17/10/2008……………………………………
Abstract.

An investigation into the relationship between physical activity levels and happiness in adults.

The main purpose of the study was to investigate if there was a relationship between daily physical activity levels and self reported happiness. The design of the study was cross-sectional. Fifty-one university employees, comprising of twenty-eight males and twenty three females (mean age = 47 years) each completed a three-day physical activity diary and a self administered happiness questionnaire. 67% of the employees were academic and the remainder were administration or technical staff. Correlation analyses were used to assess the relationship between happiness and activity levels in total, occupational and leisure-time activity. The results of the study show the null hypotheses to be correct, as there was no significant relationship between total activity levels and happiness. (p > 0.05). Results also identified that there was no significant relationship between happiness and occupational or leisure-time activity. Happiness scores were associated with gender, and females were found to have a significantly happier than males (p=0.001), although the reason for this was not identified in this study. Participants with low activity levels were found to have a lower mean happiness score than more active participants but his was not statistically significant. Forty-four participants (86%) were found to meet current government guidelines for recommended levels of daily activity. The study concluded that higher levels of activity were not directly associated with increase happiness. It also supports previous research identifying happiness as a multidimensional concept dependant on many social and environmental factors.
I would like to thank Dr Stephen Fallows for all his help, guidance and encouragement.

I would also like to thank Michael Jeffrey and the staff at the Hollings Faculty, Manchester Metropolitan University for willingly and enthusiastically taking part in my study. In particularly, I would like to thank Emma, Maurice and Steve for always being prepared to listen and advise, and the staff in the department office for putting up with my endless requests.

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Contents

i) Glossary 11

ii) List of abbreviations 12

iii) List of tables 13

iv) List of figures 14

Chapters

1. Introduction 15

2. Literature Review 19

2.1 Introduction to the Literature Review 19

2.2. Physical Activity 20

2.2.1. Recommended levels of physical activity 21

2.2.2. Trends in physical activity 21

2.2.3. Current levels of physical activity 23

2.2.3.1. Activity levels according to gender 23

2.2.3.2. Activity levels according to age 24

2.2.3.3. Activity levels and social class 25

2.2.4. Leisure time activity 26

2.2.5. Occupational activity 28

2.3. Activity and mental health 31

2.3.1. Physical activity and depression 32

2.3.2. Physical activity, anxiety and stress 34

2.3.3. Physical activity and self esteem 35

2.3.4. Physical activity, psychological wellbeing and mood 36
# Contents

2.4. Mechanisms relating activity to improved mental wellbeing 38
   2.4.1. Biochemical mechanisms 38
   2.4.2. Physiological mechanisms 39
   2.4.3. Psychological mechanisms 40
      2.4.3.1. Self-efficacy hypothesis 40
      2.4.3.2. Mastery hypothesis 41
      2.4.3.3. Distraction hypothesis 42
      2.4.3.4. Social interaction hypothesis 42

2.5. Physical activity and happiness 43
   2.5.1. The concept of happiness 44
   2.5.2. Causes of happiness 44
   2.5.3. The relationship between happiness and activity 47

3. Methodology
   3.1. Participants 51
   3.2. Study design 52
   3.3. Measures 54
      3.3.1. Physical Activity Diary 54
         3.3.1.1 Calculation of physical activity levels 55
      3.3.2. Motion Sensor Armband 57
      3.3.3. The Oxford Happiness Questionnaire 58
   3.4. Data Analysis 60
4. **Results**

4.1. **Baseline data**

4.2. **Health Characteristics of the participants**

4.3. **Employment characteristics of participants**

4.4. **Activity levels of participants**

4.4.1 Occupational activity

4.4.2. Non-occupational activity

4.4.2.1. Non-occupational leisure-time activity

4.4.2.2. Non-occupational household activity

4.4.3. Transport

4.5. **Comparison of SWA’s and PAD’s**

4.6. **Happiness scores**

4.6.1. Happiness and gender

4.6.2. Happiness and activity

4.6.3. Happiness and activity level groups

4.6.4. Happiness and age

5. **Discussion and Conclusion**

5.1. **Study limitations**

5.2. **Areas for future research**

5.3. **Conclusion**

6. **References**
7. Appendices

7.1 Approval Documents

7.2 Participant Information Pack

7.2.1 Participant Consent Form

7.2.2 Participant Information Sheet

7.2.3 SenseWear Armband Instruction Sheet

7.2.4 Physical Activity Diary

7.2.5 Oxford Happiness Questionnaire

7.3 Example of a completed Physical Activity Diary

7.4 Microsoft Excel Spreadsheets used for analysis of results

7.4.1 Examples of participant spreadsheets showing calculations in each domain and for each intensity of activity.

7.4.2 Happiness Consolidation Sheet for all participant scores.

7.5 SPSS Calculations.

7.5.1 Descriptive statistics – Happiness

7.5.2 Descriptive statistics – Physical Activity

7.5.3 Independent t-test between happiness scores and gender

7.5.4 Correlations to investigate relationship between happiness and energy expenditure (EE)

7.5.5 Correlations to investigate the relationship between happiness and minutes of activity per day

7.5.6 Independent t-test between leisure-time activity and happiness

7.5.7 Correlations to investigate the relationship between happiness and moderate/vigorous and vigorous activity
7.5.8 One way ANOVA to investigate the difference between the happiness scores in each of the three age groups.

7.5.9. One way ANOVA to investigate the difference between the happiness scores in each of the three age groups.

7.5.10. Correlation to investigate the relationship between daily energy expenditure (kcals) when taken from the PAD's and SWA's.

7.6. **Comparison of SWA Armband and Physical Activity Diaries**

7.7. **Example of Sensewear Armband individual report.**

7.8. **Sensewear Armband product information.**
Glossary

Body Mass Index (BMI)  Weight in kilograms divided by height in metres squared: kg/m²

Exercise  Exercise includes bouts of physical activity which is volitional, planned, structured, and repetitive. It is aimed at improvement or maintenance of any aspect of fitness or health and therefore forms only part of the overall measurement of physical activity. (Caspersen, Powell and Christenson, 1985)

Fitness  A set of attributes that people have or achieve which relates to the ability to perform physical activity, and maybe used to determine general health or physical performance. (Caspersen, Powell and Christenson, 1985)

MET  Metabolic equivalent, 1 MET equals a person’s metabolic rate of energy expenditure when at rest.

Physical Activity  Any force exerted by skeletal muscle that result in energy expenditure above resting level. This includes all human movement including work and leisure time activity, walking, transportation, exercise and sport. (Caspersen, Powell and Christenson 1985).
### ii) List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation given in text</th>
<th>Full title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACSM</td>
<td>American College of Sports Medicine</td>
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<tr>
<td>BHF</td>
<td>British Heart Foundation</td>
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<tr>
<td>BMI</td>
<td>Body Mass Index</td>
</tr>
<tr>
<td>CDCP</td>
<td>Center for Disease Control and Prevention (USA)</td>
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<tr>
<td>cm</td>
<td>Centimetres</td>
</tr>
<tr>
<td>CVD</td>
<td>Cardio Vascular Disease</td>
</tr>
<tr>
<td>DH</td>
<td>Department of Health (UK)</td>
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<tr>
<td>GHQ</td>
<td>General Health Questionnaire</td>
</tr>
<tr>
<td>HDA</td>
<td>Health Development Agency</td>
</tr>
<tr>
<td>HSE</td>
<td>Health And Safety Executive (UK)</td>
</tr>
<tr>
<td>IC</td>
<td>Information Centre</td>
</tr>
<tr>
<td>IOM</td>
<td>Institute Of Medicine (USA)</td>
</tr>
<tr>
<td>kg</td>
<td>kilogram</td>
</tr>
<tr>
<td>kcals</td>
<td>kilocalories</td>
</tr>
<tr>
<td>LEAP</td>
<td>Local Exercise Action Plans</td>
</tr>
<tr>
<td>MIND</td>
<td>National Association for Mental Health (UK)</td>
</tr>
<tr>
<td>NHS</td>
<td>National Health Service</td>
</tr>
<tr>
<td>NICE</td>
<td>National Institute of Clinical Excellence</td>
</tr>
<tr>
<td>OA</td>
<td>Occupational Activity</td>
</tr>
<tr>
<td>OHQ</td>
<td>Oxford Happiness Questionnaire</td>
</tr>
<tr>
<td>ONS</td>
<td>Office for National Statistics</td>
</tr>
<tr>
<td>PADs</td>
<td>Physical Activity Diaries</td>
</tr>
<tr>
<td>POMS</td>
<td>Profile of Mood States</td>
</tr>
<tr>
<td>POST</td>
<td>Parliamentary Office of Science and Technology (UK)</td>
</tr>
<tr>
<td>Std Dev</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>SWA</td>
<td>Sensewear Armband</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
<tr>
<td>yrs</td>
<td>years</td>
</tr>
</tbody>
</table>
List of Tables

iii) List of Tables.

Table 2.1. Mean Scores of life satisfaction and happiness as a function of exercise participation, gender and age.

Table 3.1. Oxford Happiness Questionnaire – Example questions and scores.

Table 3.2. Review of studies using the Oxford Happiness Questionnaire.

Table 4.1. Health characteristic of the participants.

Table 4.2. Percentage of participants in each BMI category, based on NHS groupings.

Table 4.3. MET scores and intensity levels applied to activities.

Table 4.4. Percentage of participants who were 'Inactive' 'Active' and 'Very Active' in accordance with DH guidelines.

Table 4.5. Levels of happiness based on mean happiness scores for males and females.

Table 4.6. Correlation values showing the strength of the relationship between happiness and energy expenditure.

Table 4.7. Mean happiness scores for each activity group.

Table 4.8. Mean happiness scores for each age group.

Table 7.1. Daily expenditure levels (kcals) from PAD's and SWA's.

Table 7.2. A comparison of over and under estimation values in daily energy expenditure taken from PAD’s and SWA’s.
iv) List of Figures.

Figure 4.1. Employment characteristics of all participants.

Figure 4.2. Daily moderate/vigorous activity levels of participants compared to DH recommendations.

Figure 4.3. Mean daily energy expenditure spent in each activity domain by male and females.

Figure 4.4. Types of exercise defined by popularity within the sample group.

Figure 4.5. Graph to show daily energy expenditure (kcals) using data from PAD’s and SWA’s.