

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

Factors Effecting an Obesity Reduction
Treatment Programme in a
Secondary School

A thesis presented in partial
fulfilment of the requirements for the degree
of Master of Arts in
Applied Psychology
at Massey University

Iain Baird Tennent
1977

The present study examined the effects of a 21 week programme on 9 obese adolescents in a school setting.

The study's theme was chosen because research in the area of adolescent obesity is sparse.

Self monitoring of intake, self monitoring of increased exercise, varying frequency of weighings and continuing instruction in the behavioural control of eating were used.

Varying measures were examined to try to find predictors of the Ss' success probabilities and to describe psychological aspects associated with adolescent obesity.

Significant correlations with weight loss indicated that:

- (a) gains in personal adjustment followed weight loss;
- (b) California Test of Personality Scores and Primary School Record Personal Effort Scores, were good predictors of success;
- (c) degree of self monitoring of intake and degree of family support were closely associated with success;

It was found that:

- (d) increased exercise output was an important factor;
- (e) trends were present showing improved academic performance following weight loss;
- (f) obese adolescents had significantly more absences from school and were high risks for truancy and premature termination of schooling.

These findings were discussed relative to the literature on obesity.

The author wishes to express his appreciation for the guidance and assistance given by Dr D.E. Clark, Senior Lecturer in Psychology at Massey University; Mr D.G. Page, District Psychologist, Department of Education Psychological Service, Palmerston North; and Dr S.B. Malcolm, Paediatrician to the Palmerston North Hospital.

He also expresses his appreciation to Miss M. Goss for typing the manuscript.

TABLE OF CONTENTS

THE PROBLEM.....	1
The Definition and Measuring Instruments of Obesity ...	3
Treatment	5
METHOD	8
Measuring Instruments Used	8
Standardised Tests	9
Other Measures	12
Family Eating Patterns Questionnaire	13
Measures of School Success Prior to Entry to into Secondary School	14
Other Measures	14
School Reports	15
Structured Interviews	16
Weekly Weighings Compared With 4 Weekly, During The School Holiday Period	16
PROCEDURE	17
Description of the Programme	18
ANALYSIS OF DATA	21
CASE NOTES	26
RESULTS	42
California Test of Personality	42
Bristol Social Adjustment Guides	43
Sociogram	44
Measures of School Success Prior to Entry Into Secondary School	44
School Registers	44
Termination of Schooling	45
Academic Performance As Measured by School Reports	45
Holiday Subgroups	45
DISCUSSION	51
Social and Personal Adjustment	51
Improvement in Adjustment Following Weight Loss	52
Predictors of Success in Obesity Reduction With Adolescents	52
Improvement in Academic Performance Following Weight Loss	52
Identification of the Important Factors in The Treat- ment of Obesity in a School Based Programme For Adolescents	53
School Absence, Truancy and Premature Termination of Schooling	55
Other Factors	56
Conclusion	57
RECOMMENDATIONS	60
BIBLIOGRAPHY	61
APPENDICES	66

APPENDICES

APPENDIX A	
Questionnaire - Family Eating Patterns	66
APPENDIX B	
Questionnaire	68
APPENDIX C	
Self Monitoring Sheets	71
APPENDIX D	
Summary of Behavioural Controls of Overeating, As Discussed With Ss and Their Parents	72
APPENDIX E	
Mean Energy Expenditure of Various Activities	75
APPENDIX F	
Dieting Material	76
APPENDIX G	
Individual Graphs For Recording Cumulative Weight Changes	85
APPENDIX H	
Letter Sent to all Ss' Parents	86
APPENDIX I	
Family Eating Patterns Questionnaire Scores	88
APPENDIX J	
Measures of School Success Prior to Entry Into Secondary School	89
APPENDIX K	
Academic Improvement Scores of Third and Fourth Formers Invited to Participate in the Obesity Reduction Programme	90
APPENDIX L	
Pupils Approached Who Did Not Participate or Who Withdrew From The Obesity Reduction Programme	91

LIST OF FIGURES AND TABLES

FIGURES

1	Construction to Show 97th Percentile	10
2	Weekly Weight Graph for R	33
3	Weekly Weight Graph for A	34
4	Weekly Weight Graph for D	35
5	Weekly Weight Graph for S	36
6	Weekly Weight Graph for K	37
7	Weekly Weight Graph for M	38
8	Weekly Weight Graph for L	39
9	Weekly Weight Graph for C	40
10	Weekly Weight Graph for G	41

TABLES

1	Ss in Obesity Reduction Programme	27
2	California Test of Personality Initial Scores ..	46
3	California Test of Personality Final Scores	47
4	California Test of Personality Mean Improvement of Standard Scores	48
5	Bristol Social Adjustment Guides No.2	49
6	Results of Sociogram	50
7	Weight Loss Correlated With Various Measures ...	58
8	Effectiveness of Intake Recording Schedules Compared With Increased Frequency of Weighing Schedules	59