MSN Research Projects

MSN Research

7-1-1984

The Relationship Between Locus Of Control And Body Weight Utilizing The Weight Locus Of Control Table

M.A. Bailey

Follow this and additional works at: https://athenacommons.muw.edu/msn-projects

Part of the Nursing Commons

The Relationship Between Locus of Control

and Body Weight Utilizing the Weight

Locus of Control Table

By

Martha Ann Bailey

Phyllis W. Werner
Professor of Nursing
Director of Thesis

Mary Patricia Curtis
Assistant Professor of Nursing
Member of Committee

Mlandis
Assistant Professor of Nursing
Member of Committee

Ralph Elliott
Director of the Graduate School

The Relationship Between Locus of Control

and Body Weight Utilizing the Weight

Locus of Control Table

By

Martha Ann Bailey

ProQuest Number: 27919834

ProQuest 27919834

Acknowledgments

The writer wishes to acknowledge Dr. Phyllis Werner, Professor, Mississippi University for Women, for her support and guidance in the completion of this study. Also, appreciation to Mary Pat Curtis, B. J. Landis, and Nancy Herban for repeated readings, writing revisions, and encouragement.

My sincere appreciation to Phyllis McCorkle for her patience, accuracy, and talent in typing this study.

Especially my appreciation and love to my husband, Henry, for his help, support, encouragement and prayers, without which this study could not have been completed.

Abstract

This was a descriptive study designed to
correlate the Weight Locus of Control scale with
body weight. The researcher hypothesized that
there would be no significant correlation between
body weight and the scores on the Weight Locus of
Control scale.

The Weight Locus of Control scale and a
researcher-designed demographic tool were administered
to 50 subjects between the ages of 18 and 65.

Data were analyzed utilizing Pearson Product
Moment correlation coefficient. The r value obtained
was not significant at the .05 level. The researcher
failed to reject the null hypothesis.

Table of Contents

Page

List of Tables

CHAPTER I

The Research Problem

The United States has been blessed with plenty, and this is reflected in the fact that more than 30% of the adult population is more than 20% overweight or obese. Weight control concerns 20 to 40 million Americans. Some experts in obesity have stated that the number of obese people might be as high as 80 million. Therefore, it is easy to see why obesity is seen as a major health problem (White, 1982). There are 7 million Americans that are severely obese, 13 million Americans that are moderately obese, and 80 million Americans considered just overweight (Adler & Gosnell, 1982).

Obesity affects all ages. Studies of 6,500 elderly individuals over 60 years of age indicated 40%-50% of the females were obese, and 15%-20% of the males were obese. Obesity also affects children. As many as 40% of school age children in the United States may be considered obese (Hagenbuch, 1982; Price & Pritts, 1980).

The relationship of obesity and health is described frequently in the literature. Of 21 studies reviewed, it showed that being severely overweight is clearly associated with premature mortality. Statistics indicate there is approximately a 15% increase in mortality for every 10% above desirable weight. There is a 100% higher mortality rate in people with coronary heart disease who are 40% or more overweight (Stewart & Brook, 1983; Price & Pritts, 1980).

Obesity adversely affects every system in the body. Weighing 20%-30% above ideal weight increases morbidity from all causes by 50%, cardiovascular and renal disease by 50%, diabetes by 283%, cirrhosis by 150%, and gallbladder and billiary tract disease by 52% (Fogel & Woods, 1981). The obese person is more susceptible to colds, coughs, and bronchitis. Obesity makes breathing more difficult and increases the work of keeping the body oxygenated. Obesity is strongly associated with a higher risk of coronary heart disease because the obese are predisposed to atherosclerosis, hypertension, and hyperlipidemia. There is a significant relationship between obesity and gallbladder disease, such as cholecystitis and gallstones. Arthritis, low back pain, foot problems,

and intervertebral disc problems are aggravated by excessive weight. Cancer of the breast and uterus in women is associated with obesity, and cancer of the colon and rectum is associated with obesity in males (White, 1982; Price & Pritts, 1980; Fogel & Woods, 1981; Troupe, 1981).

There are also psychological consequences of obesity. A study by Stewart and Brook (1983) demonstrated that severely overweight people have more limitations in role functioning and personality functioning, and have more pain, worry, and restricted activity than people who maintain normal weight or are only moderately overweight. The obese exhibit personality traits similar to those who have been subjected to prejudice: heightened sensitivity, obsessive concern with weight, passivity, withdrawal, and expectation of rejection. The obese often suffer from distorted body image, alienation, and feelings of despondency, dependency, and manipulation (Fogel & Woods, 1981).

Practically every type of device and method of treatment has been used to initiate weight loss in the obese, but there continues to be a failure rate as high as 95%. From 60%-75% of those who seriously try to lose weight have a fair degree of success, but only

5% maintain weight loss. Various treatments include diet, exercise, behavior modification, hypnosis, psychotherapy, drug therapy, hormone therapy, and/or various types of bypass surgery. At this time there is still not one effective treatment for obesity. There continues to be a need for research in the etiology and treatment of obesity (Ackerman, 1983; Fogel & Woods, 1981).

Research utilizing the construct of locus of control has shown it to be a useful predictor variable in obesity therapy. The locus of control concept is based on the social learning theory of Rotter (1966). This concept of internal versus external control of reinforcement refers to the extent to which an individual feels that he has control over the reinforcements that occur relative to his behavior. Internals tend to feel that they control their own destiny and are the effective agents in determining the occurrence of reinforcements. Externals, however, tend to see forces beyond their control as being the essential factors in determining the occurrence of reinforcements (such forces as fate, chance, powerful others). Such a concept refers to a continuum of individual differences that cut across specific social needs areas (Phares, 1968). Internal persons

seek more information and take more action to bring about change than persons with external locus of control. Therefore, the internals could be enrolled in more independent, self-regulated reduction programs while externals would profit most from programs that rely on more guidance and group support.

During her educational program as a Family Nurse Clinician, the researcher became aware of the effect of personal control on health behavior whether internal or external. This initiated the researcher's interest in further study of the locus of control scale as a tool to determine personal control of health behavior. The researcher is interested in using this tool with the specific health behavior of weight control. Previous studies state that in predicting specific health behavior (e.g., diabetes, hypertension, obesity) the results would be more accurate if a belief scale relevant to the specific condition was developed (Wallston, Wallston, Kaplan, & Maides, 1976; Saltzer, 1982). Saltzer (1978) developed a scale to measure locus of control in respect to weight. The Weight Locus of Control scale appears to be useful in predicting success in weight control. The results of Saltzer's studies presented preliminary evidence that the Weight Locus of Control scale will specifically

distinguish predicted behavior in relationship to weight locus of control and weight loss.

Data from this study would help Family Nurse Clinicians develop weight loss programs according to the individual's locus of control. Therefore, the weight loss program would be more effective, with the client losing more weight, decreasing physical health problems, and increasing self-esteem.

The purpose of this study was to determine the relationship of locus of control and present body weight. The researcher was seeking to answer the question: Is there a relationship between locus of control and degree of body weight?

CHAPTER II

Theoretical Basis of Study

The theoretical basis of this study is derived from King's interpersonal theory of man. King (1971) views man functioning within social systems through personal relationships based on his perception which influence his life and health. For the purpose of this research, the emphasis will be on perception and health.

Perception is defined by King (1971) as how one views reality, the awareness of objects, persons, and events. The Weight Locus of Control scale may be seen as a tool to determine how one perceives the effects of outside forces on weight.

King (1971) recognizes health as a continuous part of the life cycle which adapts to the stresses of both an internal and external environment making use of one's resources to achieve health and maintain wellness. Therefore, illness is seen as an interference in the life cycle, and the nurse is seen as a major force in assisting the individual during this period of illness (King, 1981).

Obesity is the failure to achieve health and maintain wellness. The Family Nurse Clinician, utilizing the information from this study, will be able to gain insight into the individual's perception of internal or external control and help the individual to lose weight and achieve health.

CHAPTER III

Hypothesis

Theoretical Hypothesis

When men and women are surveyed about weight
locus of control and the results are correlated to
body weight, there will be no significant
correlation.

Theoretical Definitions

1. Men and women: mentally competent adults
between the ages of 18 and 65.

2. Surveyed: administered the Weight Locus of
Control scale.

3. Correlated: using the Pearson r.

4. Body weight: the weight measured by the
researcher on an upright scale.

5. Significant: utilizing the Pearson r at the
.05 level of significance.

Operational Hypothesis

When mentally competent men and women between the
ages of 18 and 65 are administered the Weight Locus
of Control scale and the results are correlated, using

Pearson r, to the weight as measured by the researcher on an upright scale, there will be no significant correlation at .05 level.

CHAPTER IV

Review of Literature

The following review of the literature will include a discussion of obesity and locus of control. The discussion of obesity will include the etiology, risk, and treatment of obesity. The review of literature on locus of control will consist of a discussion of the Social Reaction Inventory Scale, the Health Locus of Control, the Weight Locus of Control as it relates to obesity, and a summary.

Obesity may be classified as exogenous, that is, caused by excessive food intake, or endogenous, caused by some abnormality within the body such as hypothalamus irregularities or endocrine disorders. Research has shown strong evidence that a heredity link to obesity does exist, yet it is difficult to determine how much obesity is due to environment or related to genetics. It has been found that children with two obese parents have an 80% chance of growing up obese (Hagenbuch, 1982).

Some researchers believe the key to obesity lies within the fat cells. An individual may have a normal

complement of 25 billion or so fat cells. When
calorie income exceeds outgo, the cells can swell up
to three times their normal size, and once they reach
a certain size they begin to multiply. Once fat cells
are formed they are permanent (Adler & Gosnell, 1982).

> The importance of the fat cell number
> theory is related to the difficulty in the
> treatment of obesity. Obese individuals
> who have been obese since childhood and
> who have a larger number of fat cells than
> those obese since adulthood regained their
> weight more rapidly after dieting, the
> higher the fat cell number, the more rapid
> the weight gain. (White, 1982, p. 193)

Newer evidence suggests that the body has a
"setpoint," a mechanism for stabilizing weight for
long periods within a narrow range. This is similar
to other physiological regulated variables, such as
body temperature. A person's setpoint may be largely
inborn. Regular moderate exercise seems capable of
lowering it while consuming too many sweets appears
to raise the setpoint (White, 1982; Ackerman, 1983;
Adler & Gosnell, 1982).

The socioenvironmental aspects of obesity relate
to the current state of technology and the food

industry in the United States. Supporters of this theory state the reason for the increase in obesity is due to (a) increased use of technology, (b) lowering of activity, (c) increased availability of processed food, and (d) the abundance of food.

Those that believe that psychological problems cause obesity find it difficult to delineate which psychological problems are causes and which ones are the results of obesity. Psychotherapeutic data suggest that many obese patients did not experience an appropriate maternal response to their nutritive and non-nutritive needs during infancy and childhood (Fogel & Woods, 1981; White, 1982; Troupe, 1981). These are just some of the possible causes of obesity. There apparently is not one single cause of obesity but a combination or relationship between psychosocial, biochemical, neurophysiologic, hereditary and environmental factors.

Specific data available on morbidity due to being overweight was given by Stewart and Brook (1983). This study was based on cross-sectional data from a general population of 5,817 people aged 14 to 61. This study showed 10% of this population moderately overweight and 12% severely overweight. The limitation in personal functioning increases as weight increases.

Personal functioning limitation was 34% in the severely overweight people compared to 28% in the moderately overweight people and 19% in normal weight people. In role limitation, normal weight people and moderately overweight people have about the same percentage (12% to 13%) while with severely overweight people this increases to 16%. Being overweight was given as the reason for limitation of physical activity by 13% of people ages 14 to 61 and by 18% of those 30 to 49. In general health perception, it was found that as weight for height increases, general health decreases. There was no association shown between weight for height and positive well-being. Among people who perceive they are overweight, pain, worry, and restricted activities all increase as weight increases.

Ackerman (1983) postulates that our understanding currently outstrips our management techniques of obesity. He notes specific therapies for various subforms of obesity have been identified that would allow treatment to influence any one of eight parameters: appetite, ingestion, digestion, absorption, metabolism, fat storage, thermogenesis, and activity. Yet the behavioral and pharmacological methods currently used are aimed only at changing appetite, food ingestion, and exercise.

Because of great variability among subjects' response to weight loss programs, researchers have attempted to identify predictor variables. Weiss (1977) studied results of weight control programs in an attempt to predict subjects' responsiveness to weight control programs. He concluded that three individual variables surveyed had predictive validity. They were age of onset, locus of control, and self-reinforcement style. Weiss states that age of onset as a predictor may be useless since it has not been determined if juvenile onset is due to genetic influence, fat cell theory, habit strength, or other casual explanations. He further concludes that perhaps locus of control research will provide more useful data when work is conducted on the relationship between locus of control and self-reinforcement style.

The locus of control concept is based on social learning theory of Rotter (1966). This theory states that the potential for any behavior to occur in a given situation is a function of the person's expectancy that the given behavior will secure reinforcements. Individuals who have a generalized expectancy that reinforcements are not under their control are classified as externals, but individuals that have the expectancy that reinforcements are under

their control are internals. Subjects are classified according to scores on the Social Reaction Inventory Scale. This scale has been used as a tool for multiple research concerning social psychological concepts.

Wallston, Wallston, Kaplan, and Maides (1976) took from this concept and developed a locus of control specific to health. The Health Locus of Control scale elicits information about health-related beliefs. Wallston et al. (1976) failed to find significant differences in weight reduction between internals and externals using either the Health Locus of Control scale or the Social Reaction Inventory Scale. However, they did note that Health Locus of Control internals lost more weight in an internally oriented, self-directed program.

Chavez and Michaels (1980) conducted a study to evaluate the efficacy of Health Locus of Control on predicting success in a behavioral treatment program for obesity. There were 43 subjects participating in the study. Internal subjects lost significantly more weight than external subjects. This study also indicated that internal subjects considered themselves more attractive than external subjects, even though they weighed more, which suggests that the self-concepts of overweight internal persons may be better than those of

overweight external ones. Chavez and Michaels (1980)
state that further research and development of a tool
for measuring internal-external locus of control
specifically for obese persons may permit screening
to facilitate treatment.

The Weight Locus of Control scale was developed
by Saltzer (1978) especially for obese persons. Two
separate validation studies for the Weight Locus of
Control scale were completed by Saltzer (1982). The
first study examines behavior intentions toward losing
weight and actual behavior of 55 male and 61 female
undergraduate university students. These were students
who participated in the study in order to earn extra
credit in social science courses. These participants
completed three locus of control measures. They were
a version of Rotter's locus of control scale, the Health
Locus of Control Scale, and the Weight Locus of Control
scale. The students also answered an instrument
assessing behavioral intentions with respect to weight
loss. As predicted, subjects who were internals on
the Weight Locus of Control scale and who had high
value for health and/or physical appearance were only
influenced by their personal attitudes toward weight
loss. Subjects who were assessed as externals with a
high value of health and/or physical appearance were

only influenced by perceived social normative belief
in predicting their behavior intentions in relation to
weight loss. This predicted pattern was not shown when
the subjects' locus of control orientation was assessed
by the Social Reaction Inventory Scale or the Health
Locus of Control Scale.

The second study examined locus of control and
weight loss intentions and behavior in a group of 115
patients in a medical weight reduction program. All
subjects completed a questionnaire prior to the
beginning of the weight loss program. This questionnaire
consisted of background biographical and demographic
information; a value survey; two locus of control
measures, including the Weight Locus of Control scale;
a measure of behavioral intentions for weight loss; and
a social desirability scale. A modest but significant
association between internality and program completion
was found as determined by the Weight Locus of Control
scale. However, there was no significant association
with program completion and the other locus of control
scale used. Program success was defined as correlation
of subject's initial weight loss goal for six weeks and
their actual weight loss at the end of six weeks.
Weight Locus of Control internals with a high value on
health or physical appearance were more successful in

achieving their initial weight loss goals, while the Weight Locus of Control externals were not able to translate their goals into actual behavior.

The review of literature indicates that for weight loss programs to be successful, a method needs to be devised to determine predictor variables for weight loss and weight control. Studies have shown that locus of control is an effective predictor of successful weight loss. However, specific measure of locus of control expectancies with respect to weight have been shown to be a more successful predictor of weight loss behavior; therefore, further research is needed to test the Weight Locus of Control scale.

CHAPTER V

Research Design and Methodology

Research Design

The type of research that was used in this study
was correlational. Krampitz and Pavlovich (1981)
state that correlation studies "determine how the
variation in one nonmanipulated variable is associated
with the variation in a second nonmanipulated variable"
(p. 45). This study was a correlation design because
it compared the subjects' body weight to their scores
on the Weight Locus of Control scale.

Variable

The dependent variables were the scores on the
Weight Locus of Control scale and the subjects' weight.
The controlled variables were age and place. Intervening
variables were truthfulness, undetermined pregnancy, the
time of day the subject was weighed and the time of the
last menstrual period, since fluid retention would
affect weight, whether the subject had just eaten, what
he had eaten, amount of clothing the subject was wearing
when weighed, whether the subject had taken any

medication that would affect weight either on the day of or the day before being weighed.

Setting, Population, and Sample

The setting for this study was middle Georgia. Two rural towns were used, located approximately 30 miles apart. The first town has a census of 4,887 (Chamber of Commerce, 1980). The principal products manufactured in this town are textiles and wood products. The per capita income for the county where this town is located is $6,228. This is one of the lowest per capita incomes in the state. There is a combined city-county public school system and one accredited private school. A junior college which is part of the state university system is located in this town.

The second town is a county seat and has a population of 20,728 in 1980 (Chamber of Commerce, 1980). The per capita income is $8,781. This is a growing, prosperous community, with numerous industries. The main ones are textile, rubber, and transportation equipment. The area has a combined city-county school system with 16 public schools. There is one vo-tech school in the community with 1,237 students enrolled. This community also has a modern hospital which presently has 222 beds.

There are three weight loss programs available in these areas. They are the Weight Watchers, Inc., the Back to Basics Diet and Exercise Program, Inc., and Dancercise class sponsored by the local junior college. Each of these programs has a fee. It costs $18.00 to join the Weight Watchers and $6.00 for each meeting attended thereafter (Weight Watchers International, Inc., personal communication, April 23, 1984). The Back to Basics Diet and Exercise Program costs $35.00 for registration for a series of six classes (Judy Taylor, personal communication, April 23, 1984). The Dancercise class which consists of eight classes costs $26.00 (Gordon Junior College, personal communication, April 23, 1984). The Back to Basics Diet and Exercise Program reaches approximately 315 people per year, while the Dancercise classes have 224 people attending in a year's time. Since there are no free programs, a large percentage of the people in the community do not have access to a weight loss program.

The population for this study consisted of mentally competent men and women between the ages of 18 and 65 who attended the physicians' clinic between May 1 and June 15, 1984. Any known pregnant women were not included in this study.

The sample consisted of 50 subjects. The researcher took every subject encountered on the day of data collection who met the criteria and consented to participate until 50 subjects had been admitted to the study. If a person did not consent to participate, then the next subject meeting the criteria was selected.

Data Gathering Process

The researcher contacted Saltzer (1982) for permission to use the Weight Locus of Control scale (researcher has on file the consent). The researcher contacted the physicians to explain the study and asked permission to conduct the study with their patients (see Appendix A). The study was conducted from May 1 to June 15, 1984.

Upon initial contact with the subject, the researcher introduced herself, explained the study, and obtained his consent to participate in the study (see Appendix B). If the subject did not agree to participate in the study, then the researcher went to the next subject. The researcher assisted the subject in completing the demographic information and the Weight Locus of Control scale (see Appendix C).

Instrumentation

The researcher designed the Weight Questionnaire to elicit demographic information. This included age,

sex, marital status, weight, height, usual weight; gained weight recently, if yes, how many pounds, over what period of time; lost weight recently, and the method used. The following methods were listed: Low Calorie, Liquid Protein, High Protein, Weight Watchers, Cambridge, High Carbohydrates, Diet Pills, By-Pass Surgery, Exercise, Dancercise, Back to Basics, and others. With each method identified, the subject was to list the number of pounds lost, over what period of time, and if the subject gained the weight back, and over what period of time.

The Weight Locus of Control is a scale which specifically measures locus of control with respect to weight. The scale consists of four items, two internally worded items and two externally worded items. It uses a 6-point Likert-type scoring having a range from 1 to 6, with 6 standing for strongly agree and 1 standing for strongly disagree.

The Weight Locus of Control scale is scored in the external direction, and Likert format is scored in reverse for the internally worded items. The scale ranges from 4 to 24, with a score of 4 noting internal orientation, and a score of 24 noting an external orientation.

Two studies have shown discriminate validity of the Weight Locus of Control scale in comparison with other published measures of locus of control. In the first study,

> Subjects who were internal on the WLOC
> scale and who highly valued health and/or
> physical appearance were only influenced
> in their behavioral intentions for weight
> loss by their personal attitude toward
> weight loss. Conversely, those subjects
> who were external as assessed by the WLOC
> scale with a high value on health and/or
> physical appearance were only influenced
> by perceived social normative beliefs in
> predicting their behavioral intentions
> with respect to weight loss. (Saltzer,
> 1982, pp. 624-625)

A modest, but significant, association using point biserial correlation was found between internality as assessed by the Weight Locus of Control scale and those completing a weight loss program.

There were relatively low measures of reliability (.58 or .56), but Saltzer believed this may be due to the fact that the scale only contains four items. The test-retest reliability of the scale

(.67) was statistically significant but also relatively low. This research will provide further opportunity to test the Weight Locus of Control scale. For the purposes of this research, the scale is considered to be valid and reliable within the confines of the study.

Statistical Data

When one does bivariant correlation involving two sets of interval data, the Pearson Product moment correlation statistical format is the method of choice (Waltz & Bausell, 1981). Thus, the Pearson's r was the statistical test chosen to analyze the data.

Assumptions

1. There are obese people.

2. Obesity is a national health problem.

3. People want to lose weight.

4. People can lose weight.

5. The tool is valid and reliable within the confines of this study.

6. If the Family Nurse Clinician was aware of whether the clients were internally or externally motivated, she could use this knowledge to develop an effective weight loss program.

7. People are either internally or externally motivated.

Limitations

1. The location of the study limits the generalization to only small rural areas in Georgia.

2. The fact that the study included the age of subjects from 18 to 65 limits generalization to those under 18 or over 65.

3. The fact that only nonpregnant women were included may limit generalization to pregnant women.

CHAPTER VI

Analysis of Data

The purpose of this study was to determine the relationship of locus of control to body weight. Data were collected from subjects who completed the Weight Locus of Control scale and a demographic information sheet.

A total of 50 subjects between the ages of 18 and 65 formed the sample for this study. Every subject encountered that met the criteria was included in the sample. Any known pregnant woman was excluded. The mean age for the group was 41.02. There were 7 males and 43 females. Of these, 41 were married and 9 were not married.

In the group the mean weight was 157.74 pounds, and the mean height was 65.32 inches. The mean for the Weight Locus of Control scale was 19.40. These data can be found in Table 1.

Hypothesis

The researcher hypothesized that there would be no significant correlation between actual body weight and Weight Locus of Control. The data collected were

Table 1

Raw Data

Subject	Age	Sex	M/S	WT	HT	WLOC
1	42	F	M	180	64	24
2	54	M	M	173	71	24
3	32	M	M	183	72	22
4	44	F	M	144	66	17
5	57	F	M	145	65	19
6	62	M	M	210	74	19
7	18	F	S	121	63	20
8	26	F	M	167	65	24
9	49	F	M	173	62	24
10	53	F	D	177	64	24
11	54	F	M	126	67	22
12	33	F	F	122	64	24
13	30	F	F	139	63	18
14	19	F	S	111	64	15
15	38	F	M	149	62	20
16	28	F	D	117	66	22
17	27	F	D	134	68	17
18	27	F	M	156	63	17
19	41	F	M	121	65	19
20	37	F	M	200	65	20
21	40	F	M	230	64	24
22	26	F	M	186	65	20
23	30	F	M	95	63	9
24	42	F	M	116	65	13
25	62	M	M	182	72	23
26	55	F	M	165	69	21
27	57	F	M	162	65	20
28	50	F	M	132	62	19
29	50	M	M	219	73	14
30	24	F	M	182	62	23
31	50	F	M	150	62	24
32	32	F	M	120	64	19
33	43	F	M	143	62	08
34	49	F	M	152	62	24
35	58	F	M	168	66	20
36	19	F	S	132	65	18
37	25	F	M	132	65	18
38	54	F	S	131	65	12
39	20	F	S	132	66	19
40	39	F	D	130	68	21
41	33	F	M	160	63	23
42	61	M	M	230	70	09
43	39	F	M	234	67	23
44	63	F	M	152	61	18
45	59	M	M	162	67	19
46	30	F	M	128	66	24
47	47	F	M	221	62	19
48	60	F	M	150	68	24
49	40	F	M	147	65	14
50	23	F	M	96	59	20

Note.

M/S = Marital status
WT = Weight in pounds
HT = Height in inches
WLOC = Weight Locus of Control

subjected to the correlation coefficient, using the Pearson r.

The r value was .1721. Since this value was not significant at the .05 level, the researcher failed to reject the null hypothesis. Table 2 presents the Pearson r analysis.

Table 2

Correlation of Weight Locus of Control Scores to Body Weight of Subjects Using Pearson r

Variable	n	r	p
WLOC Score	50	.1721	.116
Weight	50		

Additional Findings

To further explore the data, the researcher examined the demographic information. There were 15 subjects who stated they had not gained weight recently while 34 stated that they had gained weight recently. The average period of time over which the weight gain occurred was 10 months. The average amount of weight gained was 14 pounds.

There were 16 subjects who said they were not overweight while 34 said they were overweight. Of the 50 subjects, 34 had not gained recently and 15 had gained recently. There were 17 subjects who had lost weight recently and 33 had not lost weight recently. Weight was gained back by 9 subjects and was not gained back by 15 subjects. The preceding data can be found in Table 3.

Table 3

Demographic Data

Variable	n	Yes	No
Gained weight recently	49	34	15
Overweight	50	34	16
Lost weight recently	50	17	33
Gained weight back	24	9	15

The demographic variables were correlated to the Locus of Control scale using the Pearson r. There were no significant correlations between the demographic data and WLOC scores. This data can be found in Table 4.

Table 4

Correlation of Weight Locus of Control

With Demographic Data

Measure	n	r	p
Gained weight			
recently	49	.1358	.176
Amount of gain	34	.0401	.411
Time of weight			
gain	34	.0481	.394
Overweight	50	.0879	.272
Lost weight			
recently	50	-.1524	.145
Amount of loss	24	-.0506	.407
Time of weight			
loss	24	-.0879	.342
Gained weight			
back	24	.1064	.310

The researcher was unable to obtain all the
needed information due to improper use by the subjects
of the demographic tool. Since the tool did not
include a time limit when asking the question about

whether weight had been lost recently, there was confusion by the subjects as to how to complete the remainder of the questionnaire.

The researcher also observed misinterpretation of the question on the WLOC which stated, "Being the right weight is largely a matter of fortune." The subjects stated that this meant, "it is nice to be the right weight."

CHAPTER VII

Summary, Conclusion, Implications,

and Recommendations

Summary

This was a descriptive study designed to
correlate the Weight Locus of Control scale with
body weight. The researcher hypothesized that
there would be no significant correlation between
body weight and the scores on the Weight Locus of
Control scale.

The Weight Locus of Control scale and a researcher-
designed demographic tool were administered to 50
subjects between the ages of 18 and 65.

Data were analyzed utilizing Pearson Product
Moment correlation coefficient. The r value obtained
was not significant at the .05 level. The researcher
failed to reject the null hypothesis.

Conclusion and Implications

The results of this study showed there was no
relationship between body weight and the Weight Locus
of Control scale. This failed to support previous
work by Saltzer (1982) who found the Weight Locus

of Control scale useful in predicting weight behavior.
Therefore the Weight Locus of Control scale may only
be valid when testing intentions to lose or actual
behavior in a weight loss program.

Although not statistically significant, 68% of
the subjects stated they were overweight. This could
indicate an over-concern by the general population
about weight control reduction. Since the mean for
body weight was 157.74 and the mean height was 65.22
inches, with 86% of the subjects female, this could
indicate that a large percentage of the population
is overweight. There were also 34 subjects who
stated they had gained weight recently. This implies
a need for education of the general public in proper
nutrition and weight loss, including diet and
exercise.

Only 24 of the 50 subjects completed the data
relating to whether they had lost weight recently.
This indicates a need to revise the demographic
questionnaire. Also, further testing of the Locus
of Control scale is needed to clarify the intention
of the statements.

Recommendations

The researcher recommends:

Research

1. Testing of the Weight Locus of Control scale according to cultural groups to determine interpretation of terminology.

2. Revision of the demographic questionnaire.

3. Testing of Weight Locus of Control scale in weight loss programs.

Nursing

1. Family Nurse Clinician education should include information on nutrition and weight control.

2. Family Nurse Clinicians should monitor clients for obesity and have a protocol for diet and exercise.

APPENDICES

APPENDIX A

Mississippi University for Women

School of Nursing

Physician's Memorandum of Agreement

Concerning Nursing Study

Title of Study: The Relationship Between Locus of
                  Control and Body Weight Utilizing
                  the Weight Locus of Control Scale

Study discussed and explained to: _____
                                    Name of Physician

Involvement in Study:

_____   Cooperation: Consent for patients to be used
                       in study.

_____   Participation: Specify under comments.

Communication concerning patient:

_____   At intervals

_____   As indicated

Comments concerning agreements:

_____   _____
         Date   Signature of Physician

_____   _____
         Date   Investigator

APPENDIX B

Mississippi University for Women

School of Nursing

Patient's Consent for Nursing Study

Investigator:

I am Martha Ann Bailey, a registered nurse, who is in the graduate nursing program at Mississippi University for Women. I am doing research to see if an individual's weight relates to how one feels about himself. The results of this study will be used to plan an effective weight loss program.

Title of Study:

The Relationship Between Locus of Control and Body

Weight Utilizing the Weight Locus of Control Scale

Nature of Patient's Participation:

I consent to participate in this study by having my height and weight recorded and by completing a questionnaire. I understand that this information will be kept confidential.

I may refuse to participate in this study or withdraw from the study at any time.

_____   _____
Date   Patient's Signature

I explained this study to the patient on the date given.

_____   _____
Date   Investigator

APPENDIX C

Weight Questionnaire

Age: _____   Sex: _____   Marital Status: _____

Weight: _____   Height: _____   Usual Weight: _____

Gained weight recently? _____ (Yes/No)
If yes, how many pounds? _____ Over what period
of time? _____.

Do you see yourself as overweight? _____ (Yes/No)

Lost weight recently? _____ (Yes/No)

Circle the method or combination of methods you used and
complete the information:

Method Used	No. of Pounds Lost	Over What Period of Time (Years, Months)	Did You Gain it Back (Yes/No)	Over What Period of Time (Years, Months)
Low Calorie				
Liquid Protein				
High Protein				
Weight Watchers, Inc.				
Cambridge				
High Carbohydrate				
Diet Pills				
Bypass Surgery				
Exercise				
Dancercise				
Back to Basics, Inc.				
Other				

Circle each item from 1 (strongly disagree) to
6 (strongly agree).

1. Whether I gain, lose, or maintain
   my weight is entirely up to me.   1 2 3 4 5 6

2. Being the right weight is largely
   a matter of good fortune.   1 2 3 4 5 6

3. No matter what I intend to do, if
   I gain or lose weight, or stay
   the same in the near future, it
   is just going to happen.   1 2 3 4 5 6

4. If I eat properly and get enough
   exercise and rest, I can control
   my weight in the way I desire.   1 2 3 4 5 6

References

Ackerman, S. (1983). The management of obesity.
Hospital Practice, 18(3), 117-129, 134-140.

Adler, J., & Gosnell, M. (1982). What it means to
be fat. Newsweek, 24(c), pp. 84, 89, 90.

Chamber of Commerce. (1980). Economic Profile.
Barnesville, GA: Author.

Chamber of Commerce. (1980). Economic Profile.
Griffin, GA: Author.

Chavez, E. L., & Michaels, C. (1980). Evaluation
of the health locus of control for obesity
treatment. Psychological Reports, 47, 709-710.

Fogel, C. T., & Woods, N. F. (1981). Health care of
women. St. Louis, MO: The C. V. Mosby Company,
pp. 475-482.

Hagenbuch, V. E. G. (1982). Obesity and the
school-age child. The Nursing Clinics of North
America, 17(2), 207-216.

King, I. M. (1971). Toward a theory in nursing. New
York: Wiley and Sons, Inc.

King, I. M. (1981). A theory for nursing. New York:
A Wiley Medical Publication, John Wiley & Sons.

Krampitz, S. D., & Pavlovich, N. (1981). Readings for Nursing Research. St. Lous, MO: The C. V. Mosby Co.

Phares, E. J. (1968). Differential utilization of information as a function of internal-external control. Journal of Personality, 36, 649-662.

Price, J. H., & Pritts, C. (1980). Overweight and obesity in the elderly. Journal of Gerontological Nursing, 6, 341-347.

Rotter, J. B. (1966). Generalized expectancy for internal versus external control of reinforcement. Psychological Monographs, 80(1), 609.

Saltzer, E. B. (1978). Locus of control and the intention to lose weight. Health Education Monographs, 6(2), 118-127.

Saltzer, E. B. (1982). The weight locus of control (WLOC) scale: A specific measure for obesity research. Journal of Personality Assessment, 46(6), 620-628.

Stewart, A. L., & Brook, R. H. (1983). Effects of being overweight. American Journal of Public Health, 73(2), 171-177.

Troupe, C. F. (1981). Don't give up on the hopelessly obese. RN, 44(4), 74-75, 78, 80, 82, 84, 86.

Wallston, B., Wallston, K., Kaplan, G., & Maides, S. (1976). Development and validation of the health locus of control (HLC) Scale. Journal of Consulting and Clinical Psychology, 44(4), 580-585.

Waltz, C. F., & Bausell, R. B. (1981). Nursing research: Design statistics and computer analysis. Philadelphia, PA: F. A. Davis Co.

Weiss, A. R. (1977). Characteristics of successful weight reducers: A brief review of predictor variables. Addictive Behavior, 2, 193-201.

White, J. H. (1982). An overview of obesity: Its significance to nursing. Nursing Clinics of North America, 17(2), 191-198.