Plan & Procedure
Chapter 3
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3.0 Introduction:

Perhaps what motivates most investigators is that using one's creative and intellectual powers to add something novel—nobody else has ever known before—to the storehouse of human knowledge is an enormously rich and satisfying experience. Not that the average researcher is likely during his career to make a world-shaking discovery; a great deal of enjoyment and still be derived from the process of following an idea whenever it leads. Doing a difficult creative job well, according to one's own high standards, provides one of the greatest satisfactions that can be experienced. A depth of pleasure that can hardly be matched by anything else.

Research is done, therefore the hedonistic reason that often it is a highly pleasurable activity which many people pursue simply because they "get a kick out of it" but there are many other related and unrelated reasons for doing research. One investigator may be hoping for immorality or looking for a grandiose world views. Another may want to satisfy his curiosity in research because they feel they want to help people and are convinced that in the long run new knowledge will make life more liveable.

Research is sometimes done for propaganda, sometimes for discovery, often for both, ideally, whatever the underlying motives; the immediate goal is the acquisition of knowledge. Often knowledge is sought in a particular area by a special interest group; doubtless the rapid development of science in fields such as public opinion, motivations and human relation not to mention such a recent no psychological research for as satellite and missile development gains major impetus from public pressure for practical knowledge and skill in those areas.
Therefore here research problem is discussed.

According to WHO definition, health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity. That means health is related to not only with physical health but also with mental and social health. Moreover sub parts of health are also related with each other. If one’s body is not well, can’t act properly at mental state. And if a person is under stress or any type of mental conflict, it affects on his body responses.

Moreover people become more conscious for their health. The section deals with the relationship of the consciousness for good health. The idea that every individual in whatever part and in whatever condition he might be should be enrolled under the process of the expanding consciousness for the health. This spreading of the consciousness irrespective of the other things can find greater meaning in life and reaching new dimensions and connectedness with other people around the world. Thus health consciousness is the tendency to focus attention on one’s health, where individual with more health consciousness have better quality of life. So it is very interesting to know how much individual is conscious for his health and how much aware for health related activities.

Especially, consciousness for health is related to our eating behaviour. Normally people never remark what they are eating or drinking. People do what they like, not what they should have to do for their health. So only consciousness can’t do anything but proper eating attitude or behaviour is an important part. Eating attitude is awareness for our eating style. What, how much and when people eating is related to eating attitude. If individual is acting properly for his eating he will get healthy life. The
more a person positive for his eating attitude, the more positive results he get for his health.

As health is related to our eating attitude, it’s also related to our mental state. Mental stability affects person’s health. Even physical health and mental health are dependent on each other. Individual behaves properly for his eating style but working under high stress or pressure, he can’t get good health results. Thus, imbalance in thinking, perception, emotions is related to mental problems. And mental imbalance creates another health disturbance. Moreover, researches said that stress is highly related with our health. Because stress is the body’s reaction to a change that requires a physical, mental or emotional adjustment or response. If person is more stressed out, his physical health will be in trouble.

Therefore here in this research tried to know stress level, health consciousness and eating attitude. Because stress affects person’s health consciousness and eating attitude. So to know stress level, health consciousness and eating attitude here three questionnaires will be used. These three things will give us data of one’s mental and physical health and how they all effect and related with each other. The more people are in stress, the more health problem they gets. This results in many diseases. Some diseases are majorly related with both mental and physical health. That is called psycho somatic disease. Asthma, CHD, blood pressure, skin disease, diabetes etc. are psycho somatic diseases. Here in this research, three types of people are included. People with diabetes and CHD and people who are without any disease or normal healthy people. So to check stress level, health consciousness and eating attitude these three types of people will be taken as sample.
By keeping it in view, here in this study the objectives, data collection methods and its statistical methods are described.

3.1 Research Problem:

"A problem is an interrogative sentence or statement that asks what relation exists between two or more variables. The answer is what is being sought in the research."

- Karlinger (1986)

"A problem is a question proposed for a solution."

The present investigation has been aimed to know the effect of stress on health consciousness and eating attitude among the patient of diabetes and CHD and normal people. The title specifically runs thus:

"The effect of stress on health consciousness and eating attitude among diabetic and CHD patients and normal people"

3.2 Objectives:

Skill in research is to a large extent a matter of judicious choice about what to study; deciding which of a series of possible ideas in pursue or which aspect of a problem to focus on.

According to the research problem, objectives for present study are:

1. To check the stress level among male and female.
2. To check the stress level among diabetes and CHD patients.
3. To check the stress level among rural and urban people.
4. To check the internal effect of stress on sex, types of people and area of residence variable.
5. To check the health consciousness among male and female.
6. To check the health consciousness among diabetes and CHD patients.
7. To check the health consciousness among rural and urban people.
8. To check the internal effect of health consciousness on sex, types of people and area of residence variable.
9. To check the eating attitude among male and female.
10. To check the eating attitude among diabetes and CHD patients.
11. To check the eating attitude among rural and urban people.
12. To check the internal effect of eating attitude on sex, types of people and area of residence variable.
13. To check the correlation between stress and health consciousness.
14. To check the correlation among stress and eating attitudes.
15. To check the correlation between health consciousness and eating attitudes.

3.3 Hypothesis:

Null hypothesis for the present study are as under:

1. There is a significant difference in stress among male and female.
2. There is no significant difference in stress among diabetes and CHD patients.
3. There is no significant difference in stress among rural and urban people.
4. There is no significant internal difference in stress among gender, type of people and area of residence variables.
5. There is no significant difference in health consciousness among male and female.
6. There is no significant difference in health consciousness among diabetes and CHD patients.
7. There is no significant difference in health consciousness among rural and urban people.

8. There is no significant internal difference in health consciousness among gender, type of people and area of residence variable.

9. There is no significant difference in eating attitude among male and female.

10. There is no significant difference in eating attitude among diabetes, CHD patients and normal people.

11. There is no significant difference in eating attitude among rural and urban people.

12. There is no significant internal difference in eating attitude among gender, type of people and area of residence variables.

13. There is no significant relation among stress and health consciousness.

14. There is no significant relation among stress and eating attitudes.

15. There is no significant relation among health consciousness and eating attitudes.
3.4 Variables:

The present study has been aimed to measure the effect of stress on health consciousness and eating attitudes among diabetes, CHD patients and normal people. Thus, identified variables for the study are as under:

Table 3.1

<table>
<thead>
<tr>
<th>A.</th>
<th>Independent variables</th>
<th>a. Gender</th>
<th>1. Male</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>b. Types of people</td>
<td>2. Female</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Area of residence</td>
<td>1. Diabetic patients</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. CHD patients</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Normal people</td>
</tr>
<tr>
<td>B.</td>
<td>Dependent Variables</td>
<td>a. Stress</td>
<td>1. Rural area</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Eating attitude</td>
<td>2. Urban area</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Health Consciousness</td>
<td>1. Self &amp; Practice</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Monitoring</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Nutrition &amp; Satisfaction</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Energy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5. Cautiousness</td>
</tr>
</tbody>
</table>

3.5 Research Design:

The aim of the present study was to know the effect of stress on health consciousness and eating attitude among diabetic and CHD patients
and normal people. Personal variables namely gender, area of residence and types of people affect stress, health consciousness and eating attitude.

Therefore, the research design was 2x2x3 factorial design which was as under:

2x2x3 Factorial design

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>Diabetic patients</td>
<td>50</td>
</tr>
<tr>
<td>CHD patients</td>
<td>50</td>
</tr>
<tr>
<td>Normal people</td>
<td>50</td>
</tr>
</tbody>
</table>

3.6 Sampling:

The present study has been aimed to know the effect of stress on health consciousness and eating attitude among diabetic and CHD patients and normal people. Therefore a total sample of 600 people was taken according to variables. In which, 300 male and 300 female were taken. In 300 male and female 150 from rural area and 150 from urban area and in both area 50 diabetic patients, 50 CHD patients and 50 normal people were taken accordingly. The sample was selected randomly from Jamnagar district and surrounding area.
Sample design is as below:

N-600

300 Male

150 Rural

50 Diabetes patients

50 CHD Patients

50 Normal People

150 Urban

50 Diabetes patients

50 CHD Patients

50 Normal People

300 Female

150 Rural

50 Diabetes patients

50 CHD Patients

50 Normal People

150 Urban

50 Diabetes patients

50 CHD Patients

50 Normal People
3.7 Research Tools:

In present study stress, health consciousness and eating attitude have been measured among patients and normal people. So, here three research tools were used which are:

1. Stress scale
2. Health consciousness scale
3. Eating attitude test

1. Stress scale:

Hens Selye (1979) stated, “Stress refers to non-specific response of body to any demand made upon it.”, Morgan and his associates (1992) refer to stress as a “stress is many faceted process that occurs in us in response to any events that disrupt or threaten to disrupt our physical or psychological functioning.”

A state of stress exists when unusual or excessive demands threaten a person’s well-being or integrity. Extraordinary efforts are needed to master the situation and there is the danger that coping capacities will be overwhelmed with the consequence of disturbed functioning, pain or anxiety, illness or even death.

Stress can originate in physiological, psychological and social conditions and threaten the integrity of body, the personality or the social system. Threat can disturb psychological well-being and functioning. Some stressful situations like uncertainty and under stimulation, information overload, danger, ego control failure, ego mastery failure, self-esteem danger etc. Create stress.
Ross defined stress symptoms as “a series of symptoms which arise from faulty adaptations to the stresses and strains in life. It is caused by over action in an attempt to meet the difficulties.” Psychological symptoms like apprehension, gloomy, foreboding fear of dying, feeling of insecurity and general excitement, when physical symptoms like stomach ulcer, blood pressure, cancer, diabetes, skin diseases etc. are noted.

Clinical psychologists have suggested different methods of measuring stress. In this research stress scale self-reporting scale was used developed by Dr. M. Singh. (2002). Stress scale is a 40 items self report inventory. Respondents had signed on any one out of three options of ‘always’, ‘sometimes’ or ‘never’ and scoring key for these options are 2,1,0 accordingly. By total score of calculation was interpreted by as below:

<table>
<thead>
<tr>
<th>State of stress</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe state</td>
<td>57 and above</td>
<td>59 and above</td>
</tr>
<tr>
<td>High state</td>
<td>47-56</td>
<td>49-58</td>
</tr>
<tr>
<td>Moderate state</td>
<td>37-46</td>
<td>39-48</td>
</tr>
<tr>
<td>Low state</td>
<td>27-36</td>
<td>29-38</td>
</tr>
<tr>
<td>Very low state</td>
<td>26 and less</td>
<td>28 and less</td>
</tr>
</tbody>
</table>

**Reliability:**
Reliability coefficient of the scale was estimated by Split-half method and Test-retest method and correlation was found 0.82 and 0.79 respectively. (According to manual)

**Validity:**
Validity coefficient was computed with Bist Battery of Stress Scale (Abha Rani Bist) and correlation was found 0.61. (According to manual)
2. Health Consciousness Scale:

Health consciousness is related to the level of individual’s attention to health, every individual wants to maintain their health in a good manner. These days health is very important factor for human beings because of lack of nutritious food, increasing stress level, lack of physical work and highly polluted atmosphere. The health consciousness scale was developed to cover all aspects of health such as health awareness, health habits, health care, health monitoring and health beliefs.

Here health consciousness scale developed by N.V.V.S. Narayana (Research Scholar, Andhra University, Vishakhapatnam). The health consciousness scale dimensions which were retained in the final analysis were 5 – 1: Strongly disagree, 2: Disagree, 3: Neither disagree/agree, 4: Agree, 5: Strongly agree. And the total items retained for this scale were 35.

The health consciousness scale has five dimensions and all distributed in these 35 items. Which are as below:

- Self and practice: 11, 12, 13, 14, 15, 22, 27, 28, 29, 32, 33, 34 and 35
- Monitoring: 17, 18, 19, 20, 21, 23, 24, 25 and 26
- Nutrition and satisfaction: 1, 2, 3, 4 and 16
- Energy: 5, 6, 7, 8 and 10
- Cautiousness: 9, 30 and 31

Reliability:

The reliability of the health consciousness scale was estimated by using Speareman-Brown Split-Half and Guttman Split-Half methods. It can be noted from the table that scale is reliable. (According to manual)
Reliability of the Health Consciousness Scale:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Spearman-Brown Split-Half Reliability</th>
<th>Guttman Split-Half Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self &amp; Practice</td>
<td>.871</td>
<td>.869</td>
</tr>
<tr>
<td>Monitoring</td>
<td>.735</td>
<td>.729</td>
</tr>
<tr>
<td>Nutrition &amp; Satisfaction</td>
<td>.771</td>
<td>.743</td>
</tr>
<tr>
<td>Energy</td>
<td>.673</td>
<td>.640</td>
</tr>
<tr>
<td>Cautiousness</td>
<td>.420</td>
<td>.404</td>
</tr>
</tbody>
</table>

> Validity:

Convergent and divergent validity was found satisfactory. (According to manual)

3. Eating Attitude Scale:

Of the number of measures of eating Attitude Test (EAT: Garfinkel and Garner, 1979; Garner et. Al., 1982) is possibly the most appropriate measure to cross-validate. The EAT-26 (Garner et al., 1982) has been used extensively in clinical psychology (Boyadjieva and Stainhausen, 1996), general psychology (Rosen et al., Gross, 1998).

The Revised Eating Attitude Test is a 21 items questionnaire designed by Helen J. Lane, Andrew M. Lane and Hilary Matheson to identify abnormal eating habits and concerns about weight derived from a 40-item original inventory (Garner and Garfinkel, 1979). Participants rate the intensity of attitudes from six possible options Never, rarely, sometimes...
(0), Often (1), very Often (2), and Always (3). The first three responses scored zero, with the other three responses being scored 1, 2 and 3 accordingly. A score greater than 20 is considered to be an indicator of a possible eating disorder problem, and individuals who score 20 or more should seek clinical support.

The eating attitude test has four dimensions to check. These dimensions are also distributed in 21 items in which:

- **Dieting**: 1, 5, 6, 9, 10, 12, 13, 14, 18, 19, 20
- **Oral Control**: 2, 6, 11, 16
- **Food Preoccupation**: 3, 15, 17
- **Bulimia**: 4, 7, 21

➢ **Reliability**:

Eating Attitude Test is an internally consistent scale with an alpha coefficient of 0.79 (Lane, 2003). (According to manual)

➢ **Validity**:

Convergent and divergent validity were found satisfactory. (According to manual)

3.8 Data Analysis:

When qualitative information transferred into quantitative information, statistical method is used. By quantitative data we can get more perfect result and can evaluate its significance also.

In present study following statistical methods were used:
1) **Factorial Design:**

Here, dependent variables stress, health consciousness and eating attitudes were assessed with context of certain personal variables namely gender, type of people and area of residence. Therefore to measure more than two independent variables $2\times2\times3$ Factorial design was used.

2) **Correlation:**

To check the relation between stress, health consciousness and eating attitude correlation method was used.