

## The Relationship between General Health and Stress Levels of Carpet Weavers

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### ABSTRACT

Carpet weaving is one of the crucial sectors in India. It involves a sound number of weavers and this industry gets India recognized at international levels too. The carpet weavers are critical to the success of this industry. This research paper deals with the general health and stress levels of the carpet weavers and their inter-relationship. The objective of this paper is to determine the relationship between general health and stress level of carpet weavers and correlation between the two. It also explores the relationships between select demographic variables and other variables with respect to general health and stress levels of the carpet weavers. This paper gives insight into the general health and stress levels of male and female carpet weavers also.

**Keywords:** Carpet weavers, general health, stress level, male, female, correlation

Carpet manufacture production is arguably the most important employment oriented sector and it is highly effective for poverty reduction and unemployment eradication in the under-developed and developing countries. Because of widespread poverty in Asian countries like India, Pakistan and China, increasing carpet production certainly helps improve their lives.

### A. GENERAL HEALTH

Health is the physical, mental, social and spiritual well-being of the individual. There is a subtle body within each individual consisting of his mind, vital intellect, ego and soul.

- i. **Studies related to health:** Awan (2005) carried out a risk assessment of the health and safety conditions of child workers in the carpet industry on behalf of the ILO's International Programme on the Elimination of Child Labour (IPEC). The study found that carpet weavers suffer from major health problems due to a loom design that hasn't changed for centuries. He came up with the idea of an ergonomic loom for adult carpet weavers. (Awan, S. 2005. world of work magazine, 55.)

In another study, a health and morbidity screening was done among 500 carpet weaving children and 450 children attending school selected at random in a rural field

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practice area the age group studied was from 6 to 16. Each child was thoroughly interviewed and examined for any deviation from health. The results showed that the heights and weights of schoolchildren were greater than those of the carpet weaving children in both boys and girls. Clinically, 56% of the schoolchildren as against 41.6% of carpet weaving children had no nutritional defects. The main complaints in the carpet weaving children were in order of descent, headache, blurring of vision, backache, abdominal pain, limb pains, and respiratory tract infection. Both groups of children were later followed up for six months from September 1981 to March 1982. The incidence of subjective and objective deviations from health were higher in the carpet weaving than in the schoolchildren and the first ten major complaints in the carpet weaving children were respiratory tract infection, headache, backache, pain in the abdomen, injuries (major and minor), joint pains, diarrhoea and dysentery, fever of unknown origin, dermatitis, and chilblains (Mattoo, G.M., Rauf, A and Zutsh, M.L.(1986). *Health status of school age children employed in carpet weaving in Ganderbal Block*.43(10): 698–701)

General health and well-being is somewhat malleable concept which is to do with people's feelings about everyday life activities (Campbell, 1976; Warr and Wall, 1979). It covers a wide range of inter-related affective, cognitive and behavioral processes which range from negative mental health (dissatisfaction, unhappiness, worries, anxiety, depression, low morale, lack of self-confidence, low sense of personal autonomy and inability to cope with the problems of living, etc.) through a more positive outlook which extends beyond the mere absence of dissatisfaction into a state which has sometimes been identified as positive mental health.

- ii. **Lifestyle and health:** The lifestyle that one leads has a great impact on his health. Also, lifestyle dictates what disease one has and life expectancy. Smoking, drinking, bad eating habits, lack of physical activity or excess of labor as in carpet industry may be responsible for lifestyle related health problems. Coronary heart diseases, obesity, cancer are major lifestyle related diseases. The prevalence of these lifestyle related health determinants is giving way to a generation of children and youth who will suffer from heart diseases and other health problems at an earlier age.

One of the most extraordinary things about 20th century has been the remarkable improvement made in health, around the globe. Contributing to this, development in the field of psychology brought to the fore an individualistic and behavioral understanding of health and disease, wherein ill-health was attributed to individual failings.

### **B. STRESS**

Stress may be considered as any physical, chemical, or emotional factor that causes bodily or mental tension and that may be a factor in disease causation. This concept was first introduced in the life sciences by Hans Selye in 1936. It is a concept borrowed from the natural sciences, derived from the Latin word "stringere".

- i. **Definition of Stress:** According to *Cofer and Appley (1964)*, "Stress is the state of the organism when he perceives that his well being (or integrity) is endangered and that he must elevate all of his energies to his protection".
- ii. **Causes of stress:** Listing the causes of stress is tricky. There can be innumerable stress factors since different individuals react differently to the same stress conditions. Extreme stress situations for an individual may prove to be mild for another, for yet

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another person the situations might not qualify as stress symptoms at all. Stress is often termed as a twentieth century syndrome, born out of man's race towards modern progress and its ensuing complexities. For that matter, causes such as a simple flight delay to managing a teenage child at home can put you under stress.

Stress is a many-faceted process that occurs in reaction to events or situations in our environment termed "stressors". Changes in one's life are important stressors (Holmes, 1984). Physical and chemical stressors include trauma, infections, toxins, illnesses, and injuries of any sort. Emotional causes of stress and tension are numerous and varied. While many people associate the term "stress" with psychological stress, scientists and physicians use this term to denote any force that impairs the stability and balance of bodily functions.

A stress condition can be real or perceived. Yet, our brain reacts the same way to both causes of stress by releasing stress hormones equal to the degree of stress felt. The brain doesn't differentiate between real and imagined stress. It could happen while watching a horror movie or when one is apprehensive of some imminent danger.

- iii. **Common sources of stress:** Both negative and positive stressors can lead to stress. Some common categories and examples of stressors include: sensory input such as pain, bright light, or environmental issues such as a lack of control over environmental circumstances, such as food, housing, health, freedom, or mobility. Social issues can also cause stress, such as struggles with nonspecific or difficult individuals and social defeat, or relationship conflict, deception, or break ups, and major events such as birth and deaths, marriage, and divorce. Life experiences such as poverty, unemployment, depression, obsessive compulsive disorder, heavy drinking, or insufficient sleep can also cause stress. Students and workers may face stress from exams, project deadlines, and group projects.

Adverse experiences during development (e.g., prenatal exposure to maternal stress, poor attachment histories, sexual abuse) are thought to contribute to deficits in the maturity of an individual's stress response systems. One evaluation of the different stresses in people's lives is the Holmes and Rahe stress scale.

- iv. **Stress and Health:** Stress and health are closely linked. It is well known that stress, either quick or constant, can induce risky body-mind disorders. Immediate disorders such as dizzy spells, anxiety, tension, sleeplessness, nervousness and muscle cramps can all result in chronic health problems. In the long run they may also affect our immune, cardiovascular and nervous systems. Stress sets off an alarm in the brain, which responds by preparing the body for defensive action. The nervous system is aroused and hormones are released to sharpen the senses, quicken the pulse, deepen respiration, and tense the muscles. This response (sometimes called the fight or flight response) is important because it helps us defend against threatening situations. The response is preprogrammed biologically. Everyone responds in much the same way, regardless of whether the stressful situation is at work or home.
- v. **Effect of stress:** Medically, it has been established that chronic symptoms of anxiety and stress can crumble our body's immune system. Irrespective of the nature of the causes of stress—real or perceived—our subconscious mind reacts with the same body response by releasing stress hormones equal to the degree of our fear, worry or

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sense of threat. It brings about changes in the body's biochemical state with extra epinephrine and other adrenal steroids such as hydrocortisone in the bloodstream. It also induces increased palpitation and blood pressure in the body with mental manifestations such as anger, fear, worry or aggression. In short, stress creates anomalies in our body's homeostasis. When the extra chemicals in our bloodstream don't get used up or the stress situation persists, it makes our body prone to mental and physical illnesses.

### Objectives

The objectives of the present research are:

- i. To determine the relationship between general health and stress level of carpet weavers.
- ii. To delineate the difference in general health of male and female carpet weavers.
- iii. To find out the significance of difference in stress level of male and female carpet weavers.
- iv. To study the relationship between general health and stress level of male and female carpet weavers.

### Hypotheses

On the basis of above objectives, following major hypotheses were propounded:

- i. There will be a negative relationship between general health and stress level of carpet weavers.
- ii. There will be a significant negative relationship between general health and stress level among male and female carpet weavers.
- iii. There will be a significant difference in general health and stress levels of male and female carpet weavers.

### Research Plan

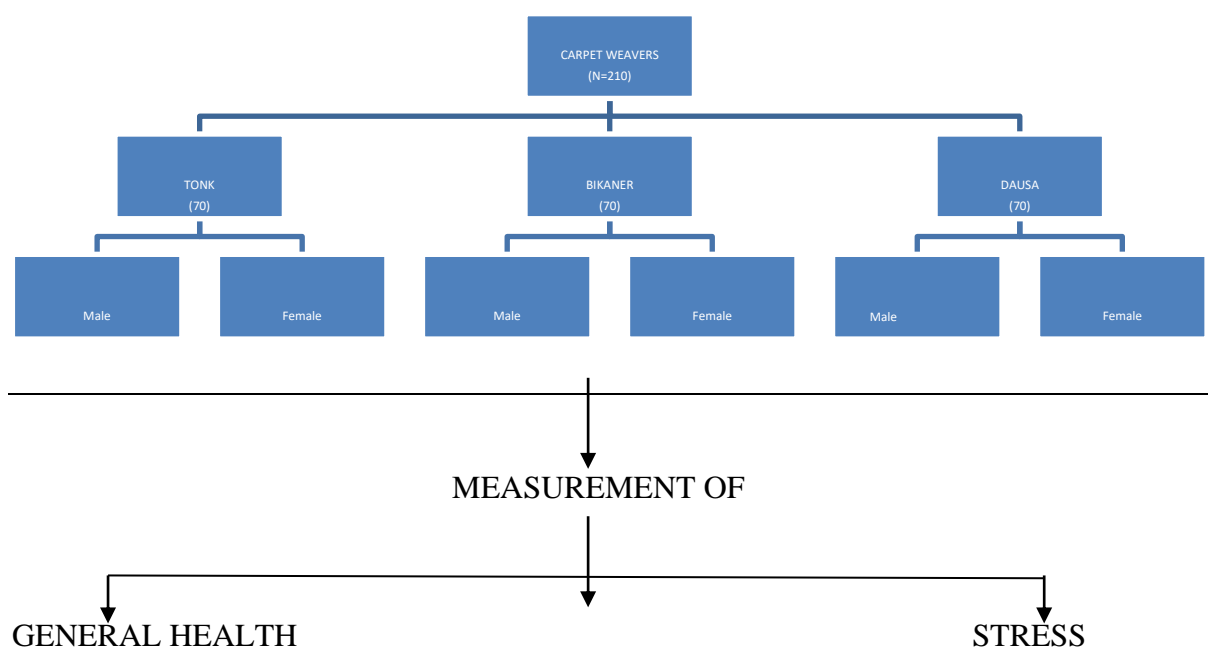


Figure – 4.1: Research Plan

## The Relationship between General Health and Stress Levels of Carpet Weavers

### Research Design

In the present study a **correlation design** is adopted to study the relationship of general health, stress and other demographic variables. The goal of correlation design is to measure two or more variables and to determine if they are related, i.e., if they vary together (Kerlinger, 1973).

### Variables

Major variables selected for the present study are as follows:

1. General health
2. Stress
3. Demographic variables:
  - Age
  - Gender

### Operational Definition of Variables

- i. **General health:** Health is the physical, mental, social and spiritual well-being of an individual. It is assessed on the basis of answers to questions relating perceived health standards of the respondents including their physical, mental and emotional health status.
- ii. **Stress:** It is a state of mental or emotional strain or suspense. Respondents perceived level of stress is determined with the help of their responses to how often have they been upset, unable to control the important things in their life, felt nervous or confident, able to cope with the situations or control them.

### Sample

The sample of present study consists of 210 carpet weavers from different areas of Rajasthan state which are dominant areas in carpet weaving i.e., Bikaner, Dausa and Tonk. 110 males and 100 females are taken in all. Purposive sampling method is adopted.

These carpet weavers are divided as follows:

<b>Areas</b> <b>Weavers</b>	<b>Tonk</b>	<b>Bikaner</b>	<b>Dausa</b>	<b>Total</b>
Males	40	30	40	110
Females	30	40	30	100
TOTAL	70	70	70	210

**Table: 8.1**

**Criterion** of selection includes the subjects:

- With age ranging from not less than 14 years.
- Not less than 4 members in a single unit.

### Tools Employed

To achieve the objectives of the study, the following questionnaires/schedules were selected:

Demographic and socio-economic variable schedule	
Perceived Stress Scale	Cohen and Williamson, (1988)
General Health schedule	

**Table – 9.1: Tools used in the present study.**

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- 1) **Perceived Stress Scale:** developed by **Cohen and Williamson (1988)**, this scale is used for measuring perceived stress of carpet weavers. The questions in this scale ask the respondent about his feelings and thoughts during the last month. The scale consists of ten statements addressing the extent of stress on various dimensions. The PSS is not a diagnostic instrument, so there are no cut-offs. There are only comparisons between people in the sample.
- 2) **General health schedule:** An interview schedule is carefully prepared to assess general health. Items related to General Health were prepared. In all 10 items related to above variable were selected.
- 3) To measure the **demographic and socio-economic variables**, a scale was constructed consisting of 23 items relating to various demographic variables like age, sex, residing place, work place, type of family, level of work, density of workroom, income level, years of work, density of living place.

### *Procedure*

After the selection of tools and target sample, other necessary arrangements were made viz. permission was sought from required authorities to interview the weavers. The participants were contacted personally at their respective work or residing places. A good rapport was first established with them and they were given instructions accordingly. They were convinced that the data collected will be kept confidential and be used for research purpose only.

### *Scoring*

There are different patterns for scoring for different questionnaires. As per their manuals following methods have been used:

1. **Perceived Stress Scale:** the scale consists of ten items pertaining to stress. The items have to be assigned '0' to '4' for 'never' to 'very often'. PSS-10 scores are obtained by reversing the scores on the four positive items, e.g., 0=4, 1=3, 2=2, etc. and then summing across all 10 items. Items 4, 5, 7, and 8 are the positively stated items.
2. **General Health schedule:** After the collection of responses with complete information scoring was done. This consists of 10 statements related to general health. Each item had three response alternatives.  
4=Always; 3=Most of the times; 2=Sometimes; 1= Never  
All the items were scored this way except for six negatively stated items (item number 3,4,5,6,8 and 10), which were scored in a reverse order (1,2,3,4) means 4 equivalent to 1, 3 equivalent to 2, 2 equivalent 3 and 4 equivalent to 1.
3. **Demographic and socio-economic variable schedule:** After the collection of responses with complete information content analysis was done.

### *Statistical Analysis*

In order to test the proposed hypotheses the mean and standard deviation are computed for each of the variables viz. general health and stress. Mean and Standard deviation were computed for sample as whole as well as for the group male and female carpet weavers.

't' test technique is used to find out the difference between the variables i.e. general health and stress of male and female carpet weavers. Pearson (r) Correlational technique is used to find out the relationship among all the above-mentioned variables. Also, multiple regression analysis was done to study the magnitudes of the effect of general health and stress. Apart, content and frequency analysis is conducted to see the frequency on different psychological and demographic variables.

## RESULTS AND DISCUSSION

Carpet manufacture production is perhaps the most important employment-oriented sector and it is highly helpful for poverty reduction and unemployment eradication in the under-developed and developing countries. Because of widespread poverty in Asian countries like India, Pakistan and China, increasing carpet production undoubtedly helps improve their lives.

Hence in this study efforts are made to study the influence of general health in relation to stress levels of weavers. Besides, how various demographic variables such as sex, age, etc. affect the general health and stress levels of weavers will also be included in the study.

### Results

#### A. Relationship between General Health and Stress

Table 13.1 shows the relationship between general health and stress level of carpet weavers.

**Table 13.1 Correlation between general health and stress level of carpet weavers (N=210)**

Variable	N	r	Level of Significance
General health and stress level of carpet weavers	210	-.602	0.01

Table 13.1 shows the relationship between general health and stress of carpet weavers (N = 210) which is found to be negatively correlated ( $r = -.602$ ) at 0.01 level.

#### B. Relationship between General Health and Stress Levels of Male and Female Carpet Weavers

Table 13.2 shows the relationship between general health and stress level of male and female carpet weavers.

#### *Relationship Between General Health and Stress*

**Table 13.2 Correlation between general health and stress level of male (N=110) and female (N=100) carpet weavers**

Variable	N	R	Level of Significance
General Health and stress of male carpet weavers	110	-.100	NS
General Health and stress of female carpet weavers	100	-.094	NS

Table 13.2 shows the relationship between general health and stress level of male (N=110) and female (N=100) carpet weavers. The correlation on general health and stress of male carpet weavers is found to be insignificant ( $r = -.100$ ) and of female carpet weavers is also found to be insignificant ( $r = -.094$ ).

#### C. Difference on General Health and Stress Levels of Carpet Weavers

Table 13.3 and 13.4 shows the difference on general health and stress level of male and female carpet weavers.

## The Relationship between General Health and Stress Levels of Carpet Weavers

### DIFFERENCE ON GENERAL HEALTH

*Table 13.3 Mean, SD, 't' ratio, and significance level on general health between male (N=110) and female (N=100) carpet weavers*

Variable	Group	N	Mean	SD	't'	Sig.
General Health	Male	110	30.99	4.98	14.47	.000
	Female	100	20.49	5.53		

Table- 13.3 renders Mean, SD, 't' ratio, and significance level between male (N=110) and female (N=100) carpet weavers. A significant difference ( $t = 14.47$ ) could be seen among male and female carpet weavers on general health. Apart, a difference could also be seen at the mean level among male weavers ( $M=30.99$ ) and female weavers ( $M=20.49$ ).

### DIFFERENCE ON STRESS LEVEL

*Table 13.4 Mean, SD, 't' ratio, and significance level on stress between male (N=110) and female (N=100) carpet weavers*

Variable	Group	N	Mean	SD	't'	Sig.
Stress level	Male	110	24.57	7.95	2.36	.01
	Female	100	22.20	6.43		

Table- 13.4 renders Mean, SD, 't' ratio, and significance level between male (N=110) and female (N=100) carpet weavers. A significant difference could be seen on stress level of male ( $M=24.57$ ) and female ( $M=22.20$ ) carpet weavers ( $t=2.36$ ) at 0.01 level.

### **D. Content and Frequency Analysis: Demographic Variables**

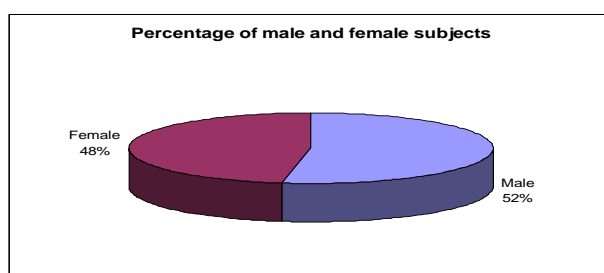
The data is based on the interview schedules measuring psychological variables such as general health, stress and demographic status of the carpet weavers in different areas of Rajasthan. Table 13.5- 13.7 encompasses the explanation related to the profile of the demographic variables. The areas taken for the study were Tonk, Jaipur and Bikaner district of Rajasthan. The results are as follows

*Table 13.5 Number of male and female carpet weavers:*

Category	Number	Percentage
Male	110	52.38
Female	100	47.62
<b>TOTAL</b>	<b>210</b>	<b>100</b>

Table 13.5 shows number of male and female carpet weavers comprising the sample for the present study. The data is collected from 110 male carpet weavers (52.38%) and 100 female carpet weavers (47.62%).

### *Graphical representation of Table 13.5*





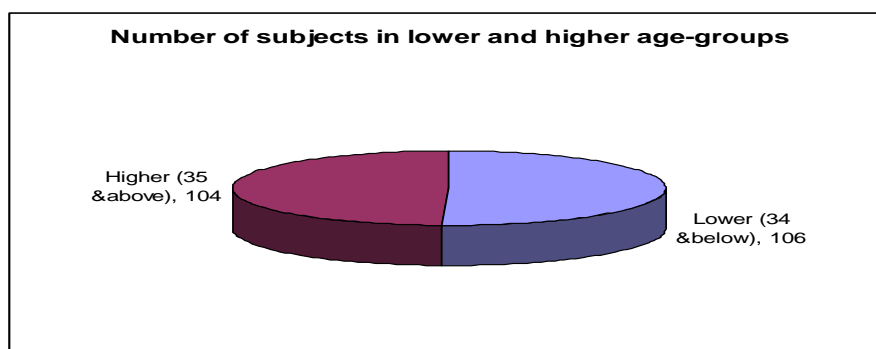
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**Table 13.6 Lower and higher age-groups among carpet weavers:**

Age- group	Number	Percentage
Lower (34 years and below)	106	50.48
Higher (35 years and above)	104	49.52
TOTAL	210	100

Table 13.6 shows the age group comprise the lower and higher age groups. The lower age group (34 years and below) include 106 carpet weavers comprising 50.48 % of sample. The higher age group (35years and above) incorporates 104 subjects comprising 49.52 % of the total sample.

**Graphical representation of Table 13.6**

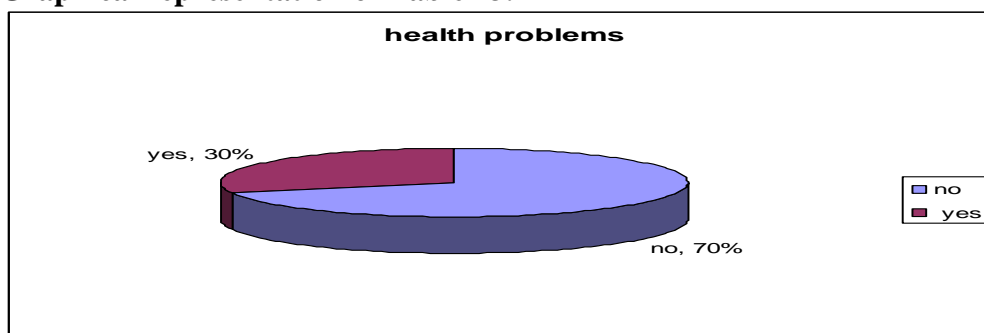


**Table 13.7 Health problem or disease:**

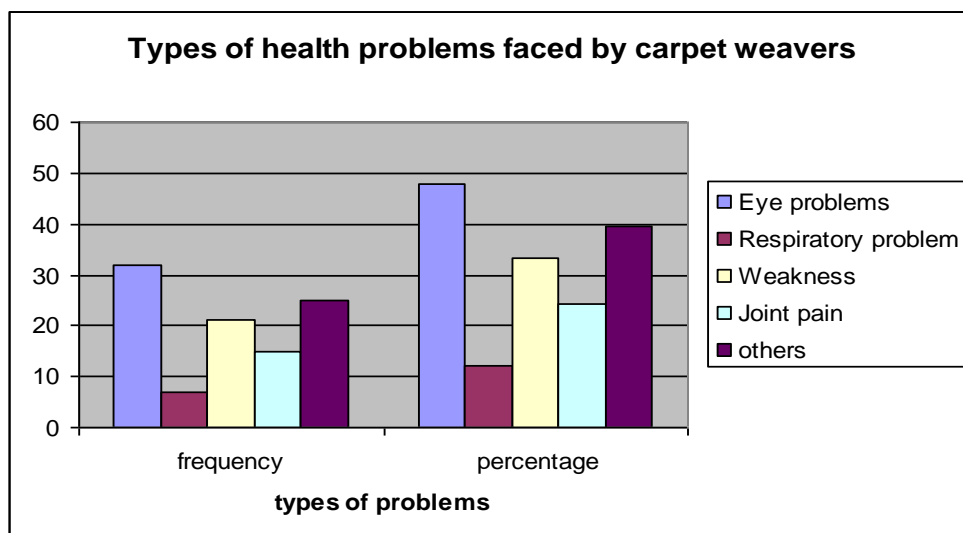
Responses		Frequency	Percentage
No		147	70
Yes		63	30
Type of problems	Eye problems	32	48
	Respiratory problem	7	12.12
	Weakness	21	33.33
	Joint pain	15	24.24
others		25	39.39
<b>Total</b>		<b>210</b>	<b>100</b>

Table 13.7 depicts the health state of carpet weavers. The data shows that 147 subjects which comprise 70 % of the sample do not face any serious health problem, while 63 subjects suffer from various diseases or problems concerning eye (48%), respiratory problems (12.12%), weakness (33.33%), joint pain (24.24%) and other kind of minor problems (39.39%).

**Graphical representation of Table 13.7**



## The Relationship between General Health and Stress Levels of Carpet Weavers



### DISCUSSION

The **first hypothesis** of the study was that *there will be a negative relationship between general health and stress level of carpet weavers.*

Health is the physical, mental, social and spiritual well-being of an individual. It is assessed on the basis of answers to questions relating perceived health standards of the respondents including their physical, mental and emotional health status. Stress is a state of mental or emotional strain or suspense. Respondents perceived level of stress is determined with the help of their responses to how often have they been upset, unable to control the important things in their life, felt nervous or confident, able to cope with the situations or control them.

While analyzing the correlation between general health and stress level among carpet weavers, it was seen that general health and stress level was negatively correlated at 0.01 level. This shows that as the stress level of carpet weaver's increase, it has negative effect on their health.

It may be derived that hypothesis related to general health and stress shows the negative relationship at 0.01 level in carpet weavers which indicates that general health and mental health together show emphasis on carpet weavers.

A survey was conducted at two factories owned by a single company within the UK to investigate possible links between workload, work activity, stress and psychological health. Questionnaires were sent by post to 51 managers comprising the entire management teams at the two factories. Managers as a group were chosen for inclusion within the study because several had previously expressed concerns about the level of stress in their work and about their workload. Managers were asked to complete questionnaires which includes an anxiety and depression scale, 4 the 30-item General Health Questionnaire (GHQ 30), 5 and a perceived work-stressor score. In addition all were asked to complete a detailed activity diary during the course of one working week. The scores on the psychological health questionnaires used in this study suggest that considerable numbers of the subjects included within this study were at risk of developing psychological illness. Over 40% of subjects were above the threshold for caseness on each of the tests used. A high prevalence of caseness was identified, and the fact that such a large proportion of these managers are consequently at risk of developing overt psychological illness, must be of concern (Hobson and Beach, 2000).

## The Relationship between General Health and Stress Levels of Carpet Weavers

Another study was done by Calnan et al. (2000). This study adopted a 'workforce' perspective in a study of job strain in primary care (general practice) in the UK. It explored the level of stress amongst workers in general practice and between practices and examined the relationship between level of stress and work characteristics. Postal questionnaires were sent to a random sample of general practices ( $n=81$ ) in southern England. The study showed that 23% of all responders could be classified, according to the GHQ-12, as suffering from mental distress with practice managers having the highest level of stress and clerical and administrative staff the lowest. Work characteristics as measured by Karasek's Job Content Instrument were shown to be significant predictors of job stress as were marital status and health status.

Shimizu and Nagata (2002) investigated relationships between job stress and self-rated health among Japanese full-time occupational physicians (OPs).

They mailed self-administrated questionnaires to 716 OPs. Of these OPs, 349 (49%) returned sufficiently completed questionnaires for analyses. Oblique-rotated principal factor analysis of the job stress questionnaire extracted three components; low understanding of occupational health services in companies (low understanding), conflicts between occupational physicians and their coworkers (conflicts), and discrepancies between occupational physicians' routine work and occupational health services (discrepancies). The model, in which low understanding contributed to self-rated health through job satisfaction and self-rated health was influenced by job satisfaction and discrepancies, provided a good fit to the data.

They found that a potential relationship between job stress and self-rated health among Japanese full-time OPs. The present results implied that among full-time OPs, low understanding contributed negatively to self-rated health through job satisfaction, and that self-rated health was influenced positively by job satisfaction and negatively by discrepancies.

Long hours of static work with awkward posture at traditionally designed looms can cause high prevalence of musculoskeletal disorders (MSDs) among carpet weavers. A comprehensive study was conducted in this industry with the objectives of determination of MSDs symptoms prevalence; identification of major factors associated with MSDs symptoms in carpet weaving occupation; and development of guidelines for weaving workstation design.

The study consisted of two phases. In the first phase, MSDs symptoms in nine Iranian provinces were surveyed by questionnaire among 1439 randomly selected weavers. Working posture and weaving workstations were ergonomically assessed as well. The results of this phase revealed that symptoms from the musculoskeletal system occurred in high rate among weavers with the prevalence significantly higher than that of the general Iranian population ( $P<0.001$ ). It was found that the majority of ergonomics shortcomings originated from ill-designed weaving workstation. In the second phase, considering the general guidelines, an adjustable workstation was designed and constructed. By combining the results of the two phases, guidelines for weaving workstation design were presented. It is believed that the recommended workstation improves working posture and results in reduced postural stress on weavers' bodies and, consequently, reduced prevalence of MSDs symptoms (Choobineh et al, 2007).

## The Relationship between General Health and Stress Levels of Carpet Weavers

A study adopted the meta-analysis technique to analyze 354 journal articles, theses, and dissertations that had investigated the association between stress and health in Taiwan between January 1980 and December 2003. This study was conducted with the purpose of understanding the association between general stress and general health, the discrepant associations between different stress types and health facets, and the possible moderators between general stress and general health. A computer search for relevant studies was conducted on several databases using the key words “stress” and “life event”. For each eligible study, the important study characteristics were recorded, and the effect sizes of the relationship between stress and health were computed.

Furthermore, in order to investigate the moderating effects of the study characteristics on the stress–health relationship, the methods of categorical model analysis and correlation analysis were employed. The results of this study revealed that: (1) the correlations between general stress and general health as well as between general stress and various health facets fell between medium and high; (2) there existed different degrees of association between various stress types and health facets; and (3) none of the demographic and methodological variables could by itself moderate the relationship between general stress and general health as the moderator effects were not sufficient and strong enough (Kaohsiung, 2007)

Thus, it proves hypothesis showing a negative relationship between general health and stress level of carpet weavers irrespectively of illness and normality.

The **second hypothesis** of the study was that *there will be a significant negative relationship between general health and stress level among male and female carpet weavers.*

Table 13.2 shows the relationship between general health and stress level of male and female carpet weavers. The correlation on general health and stress of male carpet weavers is found to be insignificant ( $r = -.100$ ) and of female carpet weavers is also found to be insignificant ( $r = -.094$ ). Health thus refers to proper functioning of the body and the mind, as well as, the capacity to participate in social activities, performing the roles and abiding by the moral principles. It takes into consideration the nutritional status, immunity from diseases, and better quality of social and family life. The concern is not with cure i.e., treating and preventing organic malfunctioning, but with healing the person, i.e., regenerating a sense of well-being and fitness to deal with one’s life conditions.

Well-being comprises people’s evaluations, both affective and cognitive of their lives (Diener & Suh, 1997). It is an outcome of a complex array of biological, socio-cultural, psychological, economic and spiritual factors.

A study aimed to investigate whether stress following major and minor life events could precede the onset of primary Sjögren’s syndrome (pSS). The role of coping strategies and social support, as compensating buffering mechanisms, was also explored. 47 patients with pSS were compared with two control groups: 35 patients with lymphoma (disease controls, DC) and 120 healthy controls (HC) with disease onset within the previous year. A higher number of patients with pSS reported the occurrence of negative stressful life events prior to disease onset compared with patients with lymphoma and HC, while the number and impact of daily hassles did not differ between the three groups. Coping strategies were defective and the overall social support was lower in patients with pSS compared with DC and HC groups. Lack of social support may contribute to the relative risk of disease development (Karaiskos, 2007).

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A high level of job stress is correlated with the level of work-family conflict. Job stress implies that the mother perceives her job to be time consuming and fast paced. Other studies have shown that high job stress constitutes a health risk, according to Bull.

Work-family conflict is described in the study as the mother's perception that work takes time away from her family and that her job demands so much energy that she does not do things outside of work with her family. The perception of work-family conflict may also imply that the mother spends a lot of time worrying about her job outside of work hours and that her family expresses dissatisfaction with the amount of time she spends at work (Haslie, 2010).

The results show that there was *no significant difference in relationship of general health to stress level among male and female carpet weavers* as they might have developed coping skills to overcome stress which minimally affect their general health. There was no significant difference found in relationship of these two variables owing to sex.

The **third hypothesis** of the study was that *there will be a significant difference in general health and stress levels of male and female carpet weavers*.

While analyzing the significant difference in general health of males and females a significant difference ( $t = 14.47$ ) could be seen among male and female carpet weavers on general health. Apart, a difference could also be seen at the mean level among male weavers ( $M=30.99$ ) and female weavers ( $M=20.49$ ).

While a significant difference could also be seen on stress level of male ( $M=24.57$ ) and female ( $M=22.20$ ) carpet weavers ( $t=2.36$ ) at 0.01 level.

Women workers face many workplace health and safety hazards. There are hazardous chemicals as well as a variety of physical and biological agents (such as radiation and bacteria) used in many workplaces which expose women workers to health and safety hazards. Additionally, there are many work situations (such as work which is highly stressful, or shift work) which may have negative effects on the health of female workers, including their reproductive health (Keyes, 1988).

The endocrine response differences between male and female subjects were unrelated to questionnaire-derived psychological variables. No sex and group differences in perceived stress, mood changes, or social desirability were observed. No significant correlations were observed between the perceived stressfulness of the situation, mood changes, and cortisol responses.

Brennan, Ritter and Erickson (2004) examined the role of social comparisons in understanding differences in psychological and behavioral health related to stress. Gender differences in this relationship are highlighted. We find that social comparisons of stress mediate the relationship between stress and depression in the combined gender sample. They also find that social comparisons of stress moderate the relationship between stress and depression, such that persons who have high stress and perceive they experience more stress than the average amount of stress a person experiences have higher depression than those who perceive they experience similar or less stress. In separate gender samples, they find that social comparisons have an effect on the relationship between stress and depression for women, but not men.

## The Relationship between General Health and Stress Levels of Carpet Weavers

It could be analyzed from the results that gender differences regarding health and stress level were as expected, that is, men reported better health and high stress than women. For social support, gender differences were opposite to what was expected, that is, women reported higher social support than men. The gender differences found for work-related sources of social support were contrary to what was expected. Namely, men did not report more social support from supervisor and from colleagues than women; instead women reported more social support from colleagues than men. The gender differences that were found for the non-work related sources of social support were as expected and in line with Vaux (1985), Olsen and Shultz (1994) and Reevy and Maslach (2001).

An explanation for the fact that working women, despite worse health than working men and high stress level, report higher subjective well-being, may be that working on the job provides women with more opportunities for development, economical independence, social contacts, and therefore leads to a more meaningful life, which increases one's life satisfaction (Barnett, 1994; Geurts, Taris, Demerouti, Dijkers, & Kompier, 2002).

### Major Findings

- The correlation between general health and stress level of carpet weavers (N=210) shows a negative relationship at .01 level of significance. This shows that better the general health, lower will be the stress level of carpet weavers irrespective of illness.
- A significant negative relationship could not be seen between general health and stress level of male (N=110) and female (N=100) carpet weavers. This shows that they must have developed coping strategies to deal with day to day life problems.
- There is a significant difference on general health and stress level in male (N=110) and female (N=100) carpet weavers at .01 level of significance.

## REFERENCES

- Awan, S. (2005) World of Work Magazine No. 55, December, 36-37.
- Barnett, R. C. (1994). Home-to-work spillover revised: a study of full-time employed women in dual-earner couples. *Journal of Marriage and the Family*, 56, 647-656.
- Brennan, K. M., Ritter, C. And Erickson, R. J., (2004). "Social Comparisons of Stress, Gender, and the Relationship between Stress and Health." *Paper presented at the annual meeting of the American Sociological Association, Hilton San Francisco & Renaissance Parc 55 Hotel, San Francisco, CA.*
- Calnan M, (2000). Mental health and stress in the workplace: the case of general practice in the UK. *Social Science and Medicine*, Volume 52, Issue 4, February 2001, Pages 499-507.
- Calnan M, Wainwright D, Almond S. (2000) Job strain, effort-reward imbalance and mental health: a study of occupations in general medical practice. *Work Stress*, 14:297-311.
- Campbell, D. (1976). Factors relevant to the validity of experiments in social settings. *Psychological Bulletin*, IV, 297-312.
- Choobineh, A. Hosseini, M. Lahmi, M. Khani, R. And Shahnava, H. (2007). Musculoskeletal problems in Iranian hand-woven carpet industry: guidelines for workstation design. *Appl Ergon*. 38(5), 617-24.
- Cofer, C.N. and Apply, M.H. (1964). *Frustration, Conflict and Stress, Motivation. Theory and Research*, New York: Wiley, Inc. 412-429.
- Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health*, pp. 31-68. Newbury Park, CA: Sage.

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- Diener, E. & Suh, E.M. (1997). Measuring quality of life: Economic, social and subjective indicators. *Social Indicators Research*, 40, 189-216.
- Geurts, S.A.E., Taris, T.W., Demerouti, E. Dijkers, J. & Kompier, M.A.J. (2002). Waar werk en prive elkaar raken: de stand van zaken where work and nonwork meet: The state of the art. *Gedrag en Organisatie*, 15(3), 163-183.
- Haslie, A. (2010). Happy despite work family conflict. *Journal of health psychology*. Vol. 6(8), 32-45.
- Hobson, J. And Beach, J. R. (2000). An investigation of the relationship between psychological health and workload among managers. *Occup. Med.* Vol. 50, No. 7, pp. 518-522
- Holmes, T.H. and Rahe, R.H. (1984). Short term intrusion into the life-style routine. *J. Psychosom. Res.* 14(2), 121-132.
- Kaohsiung J, (2007). A meta-analysis of the association between Stress and health in Taiwan. *Med sciences*; 23, 287-97.
- Karaiskos, D. 2007. Ismail, A. (2010). Relationship between Work Stress, Coworker's Social Support, Work Stress and Work Interference with Family Conflict: An Empirical Study in Malaysia. *Journal of occupational health Psychology*, Volume: 4(2), 76-83.
- Kerlinger, F.N. (1973). *Foundations of behavioral research*. Delhi: Surjeet Publications.
- Keyes, C.L. (1988). Social well-being. *Social psychology quarterly*, 62, 121-140.
- Mattoo GM, Rauf A, Zutshi ML. (1986) *British Journal of Industrial Medicine*. Oct;43 (10):698-701.
- Olsen, D. A., & Shultz, K. S. (1994). Gender differences in dimensionality of social support. *Journal of Applied Psychology*, 24, 1221-1232.
- Reevy, G. M., & Maslach, C. (2001). Use of social support: Gender and personality differences. *Sex Roles*, 44, 437-459.
- Selye. H. *The Stress of Life*. New York: mcgraw-Hill, 1956.
- Seyle, Hans (1936). "A syndrome produced by diverse nocuous agents". *Nature* 138: 32. Doi:10.1038/138032a0.
- Shimizu T, Hiro H, Mishima N, Nagata S. (2002) Job stress among Japanese full-time occupational physicians. *J Occup Health*, 44:348-354.
- Shimizu T, Nagata S. (2003) Relationship between coping skills and job satisfaction among Japanese full-time occupational physicians. *Environ Health Prev Med.*, 8:118-123.
- Vaux, A. (1985). Variations in social support associated with gender, ethnicity and age. *Journal of Social Issues*, 41, 89-110.
- Warr, P and Wall, T. (1979). Scales for measurement of some work attitude and aspects of psychological well-being. *Occupational Psychology*, 58, 129-148.

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### **Conflict of Interest**

The author(s) declared no conflict of interest.

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