

# Evaluation of Musculoskeletal Disorders among the House Wives in Nagpur City, Maharashtra

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**Abstract:-** Housewives, who spend most of the time in kitchen while performing the daily household activities continuously without taking rest, are at the greatest risk due to lack of awareness of the basic principle, poor working conditions and traditional work methods and tools. Therefore, the study was undertaken to evaluate the occupational hazards and musculoskeletal disorders among them.

**Key word:** Musculoskeletal disorders, occupational hazards, Ergonomics, health hazards, work ability

## I. INTRODUCTION

Household management is the most common occupation in almost every country. Home management is the mental process and it involves many steps. As soon as the family is established and its members starts living and working together for the common goals, a plan of action has to be delegated to the members of the family. Most of the household works is generally done by the housewives with some help. In some families all the members of the families share the household work. Fatigue is the main problem in all the household work. All work involves use of body and mind. How effectively the housewives can use her time and energy in the performance of household job, depends on her ability to adjust and control forces in the family.

Musculoskeletal conditions affect more than 1.7 billion people worldwide and have the 4<sup>th</sup> greatest impact on the overall health of the world population, considering both death and disability. This burden has increased by 45% during the past 20 years and will continue to escalate unless action is taken. These cause considerable functional limitation in the adult population in most welfare states than any other group of disorders.

A housewife is a women whose main occupation is running or managing the family home, caring and educating her children, cooking and storing foods, buying goods for the family needs in day to day life, cleaning and maintaining the home, making clothes for the family etc. And who is generally not employed outside the home. A housewife as a married woman is in charge of her family. In our society, for many countries a stereotype for women was created, which is that their only purpose in life is to support and care for their family. Women play a role as a housewife. She performs a number of activities throughout the day such as cooking; washing clothes, dish washing, cleaning and so on. she suffers various problems related to their occupations which causes

injuries to their muscles and skeletal system. Almost all the work of their activities requires hand, leg and arm utilization. Therefore, more incidence of suffering work related musculoskeletal disorders are a group of painful disorders of muscles, tendons and nerves, Carpal tunnel syndrome, tendonitis, thoracic outlet syndrome and tension neck syndrome. Work activities which are frequent and repetitive activities with awkward postures cause these disorders which may be painful during work or at rest. Women perform a wide variety of activities daily in the kitchen. Due to continuous work performance housewives suffer various kind of physical disorders like musculoskeletal disorders, pain in joints, back, shoulders, arms and hands due to prolong standing posture.

A number of studies have been conducted in India regarding the housewives occupation but very few studies have been done on hazards related to their occupation and musculoskeletal disorders. Work that demand awkward working posture and force has adverse relationship to the physiological comfort of the period trading to lowering of work efficiency. Every activity of housewives offers the working efficiency and produce occupational hazards. The amount of time spent and efficiency of work varies according to the types of activities and the manner in which it is performed. Women works demand a high degree of physical effort leading to fatigue and frustration. They do lots of activities throughout the day that is sometimes neglected by other family members. Although 70 percent homemakers do not go outside for any work but they do perform equal amount of work as the office going women. Most of the time they do not take rest, adopt awkward working posture while performing the household activities which leads to occupational hazards and musculoskeletal disorders. Therefore, the present research study is designed with the following objectives:

1. To evaluate the occupational hazards and musculoskeletal disorders among the housewives.

### *Limitation*

1. The study was limited to the Nagpur city only.
2. The study was limited to the 100 samples only.
3. The study was limited to the housewives of 40 to 50 years of age.

## II. METHODOLOGY

Two localities were purposively selected from Nagpur city, i.e. Manewada and Balaji Nagar. Simple random sampling without replacement was used to select the study area and samples. Sample size was determined before the data collection. Total 100 housewives who are performing group of activities such as preparation of food, cooking, cleaning home, dish washing were selected. Descriptive data was collected personally by using the interview schedule method. All the subjects volunteered for the study. They were informed about the study. The study protocol is presented in figure 1. The precoded interview schedule and observation sheets were developed to record and gather the data.

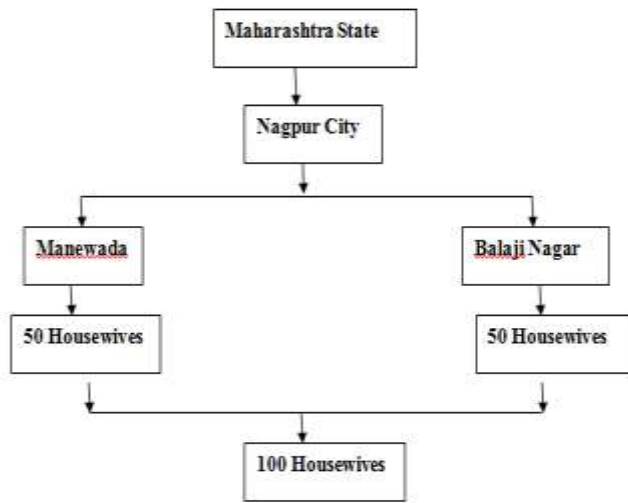


Figure 1: Schematic framework of the sample

III. RESULTS AND DISCUSSION

The working capacity of the housewives is greatly determined by the daily household activities. The ergonomic and musculoskeletal disorder among housewives is greatly determined by the type of activities which they are performing. The household activities that the housewives daily performs are cooking, cleaning of house (brooming, dusting, sweeping), washing clothes, dish washing, maintenance of home, shopping, child rearing and caring, social interaction etc. Almost 90 percent of the activity involves carrying, pulling and pushing of loads. Sometimes they carry the load either on their shoulders, head or on their lap at chest level. Because of their awkward posture they face various problems like aching, burning, numbness, pain, swelling, stiffness, tingling, weakness etc.

Table 1: Distribution of the respondents on the basis of Ergonomic Problem (N=100)

Disorders due to	Frequency	Percentage
Awkward Posture	5	5
Muscles Stress	15	15
Musculoskeletal Disorders	60	60
Fatigue	10	10
High Blood Pressure	-	-

Increased level of Heart Rate	-	-
Increased level of Pulse rate	-	-
Respiratory Problem	10	10

It was found that the housewives were facing so many ergonomic problems due to their wrong working methods. It can be seen through table-1 that 60 percent of the housewives were having musculoskeletal disorders due to awkward working posture. It was found that about 15 percent housewives were suffering from muscles stress due to continuously performing same work and without taking proper rest and very few respondents were having respiratory problems and other.

Table-2: Distribution of the respondents on the basis of Musculoskeletal disorders (N=60)

Musculoskeletal disorders	Frequency	Percentage
Tendinitis	25	41.6
Carpal tunnel syndrome	20	33.3
Osteoarthritis	10	16.7
Bone Fracture	5	8.33

The table-2 shows that respondents were suffering from various types of musculoskeletal disorders. It was found that approximately half of the respondents were suffering from tendinitis in which tendons become irritated. More than 30 percent of the respondents were suffering from the carpal tunnel syndrome and nearly 10 percent of the respondents were having the problem of osteoarthritis and bone fracture.

IV. CONCLUSION

Based on the results and evidences of the results and analysis it can be concluded that Musculoskeletal disorders of the lower back and upper extremity are very much common among housewives because workplace disorders and individual risk an outcomes are inextricably bound, Musculoskeletal disorders should be approached in the context of the whole person rather than focussing on the body regions in isolation. It can also be concluded that there is a clear relationship between back disorders and physical load; that is manual material handling load, load moment, frequent bending and twisting, heavy physical work. Modification of the various physical factors could reduce substantially the risk of symptoms for low back and upper extremity disorders.

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