

Comparison of Musculoskeletal Pain among Housewives and Office Working Women in Navi Mumbai District: An Observational Study

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Article Info	ABSTRACT
Article History: Received July 12, 2025 Revised Aug 07, 2025 Accepted Sep 04, 2025	Background: Musculoskeletal pain have been observed commonly and there is an increase in the frequency of symptoms through the years that has been observed. The aim of my study is to study the comparison of musculoskeletal pain among housewives and office working women. Methods: This is a Comparative – Observational study involving participants both housewives and office working women selected by convenient sampling. A self-made questionnaire and Nordic pain questionnaire was used to compare musculoskeletal pain in both the groups. The data was analyzed using pie charts and tables. Discussion: The results indicate that selected working women have more musculoskeletal pain when compared with housewives in one or more body regions in last 12 months and last 7 days. Also our study shows that the common site of musculoskeletal pain is lower back followed by neck, upper back and there is no marked significant difference in other joints. Results: The results showed that working women have more pain as compared to housewives and lower back is the most common site. So on overall comparing its prevalence in both the groups working women shows high significance of pain in lower back when compared to housewives.
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1. INTRODUCTION

Musculoskeletal disorders include a wide range of inflammatory and degenerative conditions affecting muscles, tendons, ligaments, joints, peripheral nerves, and blood vessels [1]. These disorders cause pain and discomfort which interfere with day to day activities [2].

The work-related musculoskeletal disorders (WRMD) are a worldwide public health problem and often can lead to temporary or permanent disability at work [3]. It is a clinical syndrome characterized by pain in the lower back, neck, shoulder girdle and upper limbs, accompanied or not by lesions in tendons, muscles and peripheral nerves. [3] Many studies found women have a higher musculoskeletal morbidity than men in general population as well as in different occupational groups [4].

Housework is one of the most pressing jobs for women, and the risk of WMSDs is very high due to the presence of multiple risk factors associated with it [5]. Full-time housewives tend to involve more in all households compared to part-time housewives. Those household activities performed by full-time housewives are almost utilized of their hands, arms and legs [6]. Therefore, housewives having higher chances to suffer from work-related musculoskeletal disorders. The occurrence of musculoskeletal issues among women in United States is around 79%. While they occur at a rate of 50% among Canadian women. About 35.9% of the housewives in India complain of musculoskeletal symptoms with lower back pain being the most commonly occurring symptom in 10.7% of the women and 7.9% of them having pain in the upper back [7].

Musculoskeletal complaints are commonly reported among office workers worldwide, and these can have detrimental effects on workers' health and productivity [8]. A higher risk of acquiring symptoms related to musculoskeletal problems has been linked to poor workstation design and continuous computer use for the whole workday, such as data entry. Approximately 76% of computer professionals from India reported musculoskeletal discomfort in various epidemiological studies [9]. Long working hours, static postures, poor office ergonomics, and repetitive nature of work were identified as some of the risk factors leading to pain and discomfort [9]. Persistence of musculoskeletal pain results in decreased productivity which at the end leads to poor quality of life [4].

Musculoskeletal pain is common in females as compared to males but minimal study has been done on work pattern including body positioning, repetition of movement or force constraintment in both the groups of housewives and working women. Therefore there is a need of study the level of musculoskeletal pain among housewife and working women. The Aim is to determine the level of musculoskeletal pain and prevalence of pain among house wife and office working women. Objective: To compare its prevalence of musculoskeletal pain among housewives and office working women and to determine the most common site of musculoskeletal pain among housewives and Office working women.

The study type is Descriptive, Population targeting Housewives and office working women in 25 to 40 years old. Sampling Method is convenient method Sample Size is 40 in office working women and 40 of housewives. Inclusion criteria are females of age = 25 to 40 years and married women also full time housewives. In Office, working women not more than 9 hours a day. Exclusion criteria: are any diagnosed case of musculoskeletal/ neurological/ psychological/ psychiatric/ dermatological/ deficit or disorders that can affect the study. Women performing heavy activities eg:-construction site workers, loading unloading work, pregnancy at the time of survey and healthcare professionals. Women who had assistance (maid) (at least 6 months prior to the study done). The tools used were Nordic pain questionnaire, Self made questionnaire and Google form.

2. METHODOLOGY

After Ethical clearance was taken from ethics committee. 80 Participants were selected in a group of 2 each of 40 participants Group A of Housewives and Group B of working women in the age group of 25 to 40 years of age based on inclusion criteria and exclusion criteria. Informed consent form was obtained from the participants. Demographic data was obtained, Nordic pain questionnaire and self-assigned questionnaire was given to the subjects. Data was analysed using pie charts.

3. PROCEDURE

80 subjects selected for the study using convenient sampling allocated to 2 groups Group A housewives (40) and Group B office working women (40) among the age group of 25 to 40 years consent was taken. Standard Nordic questionnaire and Self assigned Questionnaire is given to both the groups. The Nordic questionnaire having 27 multiple choice The first part the general one refers to 9 parts of the body (neck, shoulders, elbows, wrist/hands, upper back, lower back, hips/thighs, knees and ankles/feet) during the last 12 months /7 days. And later self-assigned questionnaire was given to working women (17 questions) and to housewives (12 questions).

4. RESULTS

A total of 80 respondents were collected in the age group of 25 to 40.

1. Do you have pain in the lower back?

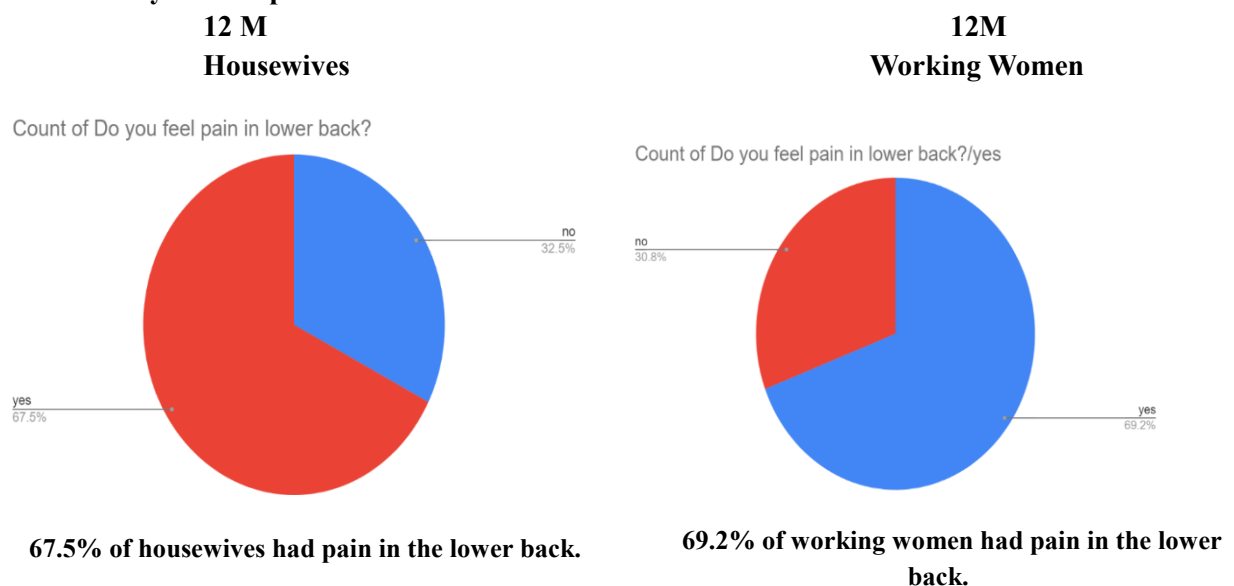


Figure 1. Response from Housewives and Working Women

12F

Have you at any time during the last 12 months been prevented from doing your normal work (at home or away from home) because of the trouble?

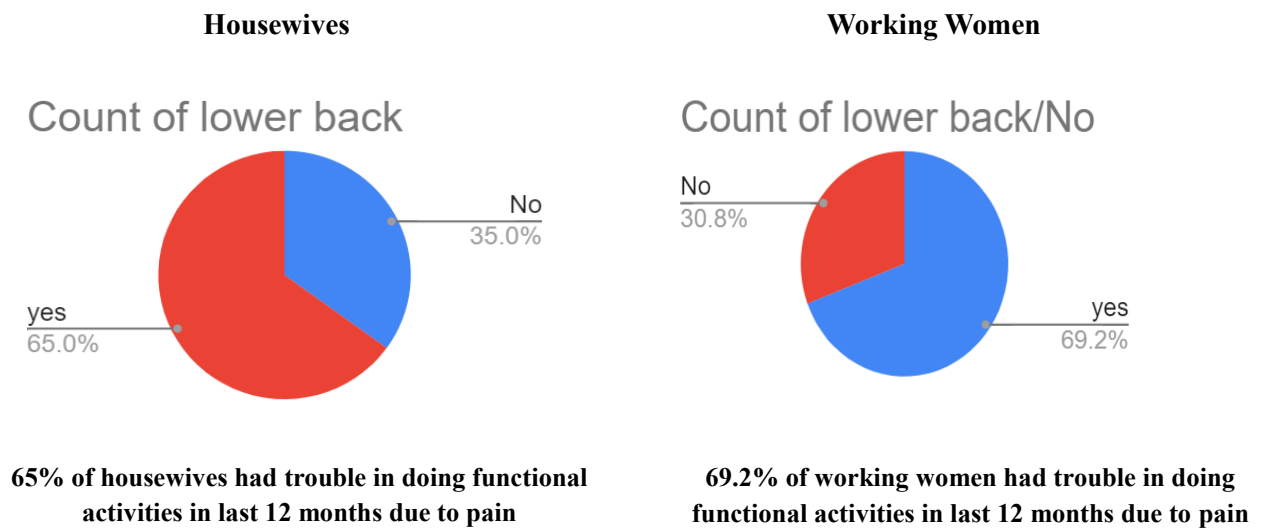


Figure 2. Trouble Response

7d

Have you had trouble at any time during the last 7 days?

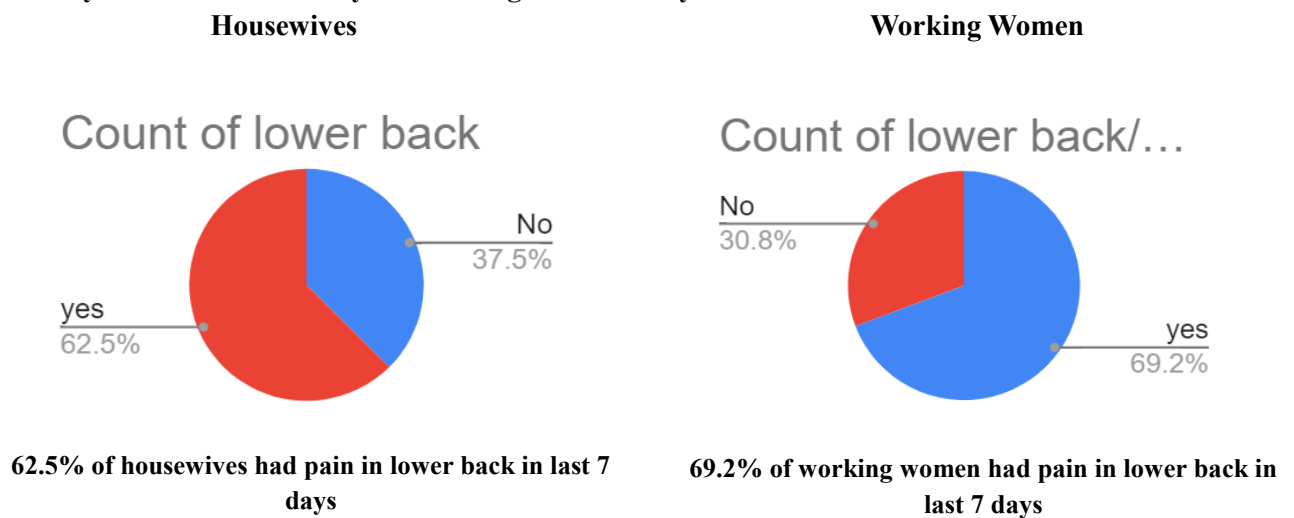


Figure 3. Last 7 Days Response

Data is presented in the form of tables:

1. Neck

Table 1. Neck Data
(a)

Neck	Housewives	Working Women
	12m	12m
yes	60%	69%
no	40%	31%

(b)

Neck 12f	Housewives	Working Women
	12f	12f
yes	55.00%	66.70%
no	45.00%	33.30%

(c)

Neck 7d	Housewives	Working Women
	7d	7d
yes	50%	66.70%
no	50%	33.30%

2. Shoulder

Table 2. Shoulder Data

(a)

Shoulder	Housewives	Working Women
	12m	12m
yes right	15.00%	0
yes(l)	2.50%	0
yes(both)	25%	0
no	57.50%	40%

(b)

Shoulder	Housewives	Working Women
	12f	12f
yes	35%	28.20%
no	65%	71.80%

(c)

Shoulder	Housewives	Working Women
	7d	7d
yes	27.50%	28.20%
no	72.50%	71.80%

3. Elbows

Table 3. Elbows Data

(a)

Elbows	Housewives	Working Women
	12m	12m
yes r	7.50%	7.70%
Yes l	7.50%	0
both	10%	7.70%
no	75%	84.60%

(b)

Elbows	Housewives	Working Women
	12f	12f
yes	12.50%	12.80%
no	87.50%	87.20%

(c)

Elbows	Housewives	Working Women
	7d	7d
yes	15%	12.80%
no	85%	87.20%

4. Wrist/hands

Table 4. Wrist/Hands Data

(a)

Wrist/hands	Housewives	Working Women
	12m	12m
yes r	12.50%	12.80%
yes l	5%	2.60%
both	7.50%	17.90%
no	75%	66.70%

(b)

Wrist/hands	Housewives	Working Women
	12f	12f
yes	22.50%	30.80%
no	77.50%	69.20%

(c)

Wrist/hands	Housewives	Working Women
	7d	7d
yes	20%	25.60%
no	80%	74.40%

5. Upper back

Table 5. Upper Back Data

(a)

Upper back	Housewives	Working Women
	12m	12m
yes	32.50%	33.30%
no	67.50%	66.70%

(b)

Upper back	Housewives	Working Women
	12f	12f
yes	27.50%	30.80%
no	72.50%	69.20%

(c)

Upper back	Housewives	Working Women
	7d	7d
yes	27.50%	35.90%
no	72.50%	64.10%

6. Lower back

Table 6. Lower Back Data

(a)

Lower back	Housewives	Working Women
	12m	12m
yes	67.50%	69.20%
no	32.50%	30.80%

(b)

Lower back	Housewives	Working Women
	12f	12f
yes	65%	69.20%
no	35%	30.80%

(c)

Lower back	Housewives	Working Women
	7d	7d
yes	62.50%	69.20%
no	37.50%	30.80%

7. Hips/thighs

Table 7. Hips/Thighs Data

(a)

Hips/thighs	Housewives	Working Women
	12m	12m
yes r	7.50%	0
yes l	2.50%	0
both	10%	10.30%
no	80%	89.70%

(b)

Hips/thighs	Housewives	Working Women
	12f	12f
yes	12.50%	7.70%
no	87.50%	92.30%

(c)

Hips/thighs	Housewives	Working Women
	7d	7d
yes	12.50%	10.30%
no	87.50%	89.70%

8. Knees

Table 8. Knees Data

(a)

Knees	Housewives	Working Women
	12m	12m
yes r	10%	5.10%
yes l	2.50%	5.10%
both	25%	25.60%
no	62.50%	64.10%

(b)

Knees	Housewives	Working Women
	12f	12f
yes	30%	33.30%
no	70%	66.70%

(c)

Knees	Housewives	Working Women
	7d	7d
yes	30%	28.20%
no	70%	71.80%

9. Ankles/feet

Table 9. Ankles/Feet Data

(a)

Ankles/feet	Housewives	Working Women
	12m	12m
yes r	10.00%	5.10%
yes l	5.00%	5.10%
both	17.50%	12.80%
no	67.50%	76.90%

(b)

Ankles/feet	Housewives	Working Women
	12f	12f
yes	22.50%	20.50%
no	77.50%	79.50%

(c)

Ankles/feet	Housewives	Working Women
	7d	7d
yes	20%	17.90%
no	80%	82.10%

The results of the Nordic questionnaire are presented in the above tables. On comparing the housewives and working women, working women show high percentage of pain in low back 69.2% (12m) when compared with housewives having 67.5% (12m). Followed by low back it was neck commonly affected in working women having 69% (12 month) when compared with

housewives having neck pain of 60% (12 month). The third common joint affected is upper back in working women having 33.3% (12 month) when compared with housewives having upper back pain of 32.5% (12 month). The least commonly affected joint area is hips/thighs in housewives and in working women shoulder is not affected. So, on overall comparing the prevalence of both the groups working women shows high significance of pain in lower back when compared to housewives.

5. DISCUSSION

According to [1], Musculoskeletal disorders include a wide range of inflammatory and degenerative conditions affecting muscles, tendons, ligaments, joints, peripheral nerves, and blood vessels. Also [2] said these disorders cause pain and discomfort which interfere with day to day activities. It was found that in our study comparing both housewives and working women, musculoskeletal pain is more in working women as the previous studies show that Guzin Kaya Aytutuldu 2020 office work may require prolonged static work posture, working in awkward positions, or performing repetitive manual tasks typically involves activities such as reading, writing, and typing.

Also, Guzin Kaya Aytutuldu 2020 found that Musculoskeletal symptoms such as lower back pain (LBP) and neck pain or upper extremity pain are commonly reported in office workers. Previous study also show that Alireza Besharati 2018 Use of computers has increased in workplaces, which is associated with MSDs-related symptoms with a prevalence rate of more than 50%, especially in the upper extremities and lower back.

According to Alireza Besharati 2018, results showed that the highest prevalence rates of MSD symptoms in the last 12 months were related to the neck (60.16%), lower back (57.10%), and shoulders (54.03%) but in our study it shows that the highest prevalence rates of musculoskeletal pain in working women the last 12 months were related to lower back (69.2%), neck (69%) and upper back (33.3%). Overall it indicates our study shows working women having lower back pain are commonly affected as compared to housewives.

6. CONCLUSION

The results indicate that selected working women have more musculoskeletal pain when compared with housewives in one or more body regions in last 12 months and last 7 days. Also our study shows that the common site of musculoskeletal pain is lower back followed by neck, upper back and there is no marked significant difference in other joints.

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