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Work Related Musculoskeletal Pain Among Hotel Management Students in Mumbai: A Cross-Sectional Study

Dr.Prachi Rajpure[1], Dr Jyoti Parle[2], Dr.Shweta Phadke[3], Pranati Tilak[4]

[1]Intern, Lokmanya Tilak College of Physiotherapy.
[2]HOD, Department of Community Physiotherapy, Lokmanya Tilak College of Physiotherapy.
[3]Principal, Lokmanya Tilak College of Physiotherapy.
[4]Campus Director of Tilak Maharashtra Vidyapeeth. pune

Abstract: One of the businesses that is developing most quickly is the hospitality one, and it is one that is always growing. There are many different departments at hotels, and the level of physical activity that each department's employees do vary greatly. Workers do a variety of actions as part of their professional responsibilities, including bending, sitting, and lifting, despite the likelihood of both musculoskeletal diseases.
OBJECTIVE: To determine the prevalence of musculoskeletal pain in hotel management students using Nordic Musculoskeletal questionnaire.
RESULTS: Out of 200 respondents, 190 students reported having musculoskeletal pain/discomfort for this study. The findings have been presented in accordance with the several practicals. Highest prevalence of pain was found in students of kitchen practical followed by food & beverages practical and housekeeping practical.

Keywords: Hotel management students, Musculoskeletal Pain, Nordic Musculoskeletal Questionnaire.

INTRODUCTION.

The hospitality sector, one of the industries with the fastest development, is one that is always expanding. The rise of the hospitality business has created job opportunities with career progression in a variety of disciplines, most notably the specialty field of hotel management.
The kitchen is a room that is used a lot in hotel administration. The efficiency and productivity of everyday operations are impacted by a poorly designed kitchen layout, which over time puts operational staff members at risk for bodily harm. Injuries and diseases that affect the muscles, tendons, ligaments, bones, joints, and nerves are both included in the category of musculoskeletal disorders.[(7)]
Hotels contain a variety of departments, and the work that each department's staff performs differs considerably. Despite the possibility of both musculoskeletal conditions, workers perform various tasks such as bending, sitting, and lifting as part of their job duties.
Tasks involve biomechanical hazards that can cause or exacerbate musculoskeletal problems in food service workers. Research shows chefs have the highest prevalence of musculoskeletal disorders.
Musculoskeletal disorders, with a prevalence of 8% of his, rank him sixth in terms of disorders and are the leading cause of morbidity worldwide. There is evidence that a hotel and restaurant employee is at

increased risk for her musculoskeletal disorder. The literature on the prevalence of his MSD in Indian hotel students is lacking. In fact, there are few studies on the health of hotel management students with musculoskeletal disorders. (7)

Injury to soft tissues such muscles, tendons, ligaments, joints, cartilage, and the neurological system is referred to as an musculoskeletal disorder. These illnesses, known as cumulative disorders brought on by trauma, repetitive motions, stress, or as a syndrome of occupational overload, most frequently affect the arms and back. Musculoskeletal disorder progressively manifests over the course of weeks, months, and years, and over a longer length of time, it may result in disability. (4)

Excessive repetition, awkward postures, and hard lifting are biomechanical risk factors with at least fair evidence, according to a recent meta-analysis that included data from multiple studies, as demonstrated in this trial, where neither the supervisor nor the doctor was informed of the discomfort. Nevertheless, we did not assess particular biomechanical characteristics like bending, carrying, unpleasant postures, etc. Heavy lifting was demonstrated to be associated with musculoskeletal pain in the current investigation as well.

Standing-intensive jobs can be unpleasant for employees and detrimental to their health. One study found that after two hours of nonstop standing, around 50% of healthy workers experienced lower back discomfort. Another study found that having sore feet from standing around all day is a contributing factor. Workers who stood for more than 50% of their working hours typically suffered chronic venous insufficiency compared to those who stood for less time.(8)

Injuries and diseases that affect the muscles, tendons, ligaments, bones, joints, and nerves are both included in the category of musculoskeletal disorders. While musculoskeletal disorders may or may not be connected to an individual's career, the evidence shows that a substantial percentage of this burden is tied to the workplace. A worker does a variety of actions as part of their job duties, including bending, sitting, lifting, etc. These tasks contain biomechanical risks that might cause or exacerbate musculoskeletal problems.

OBJECTIVES

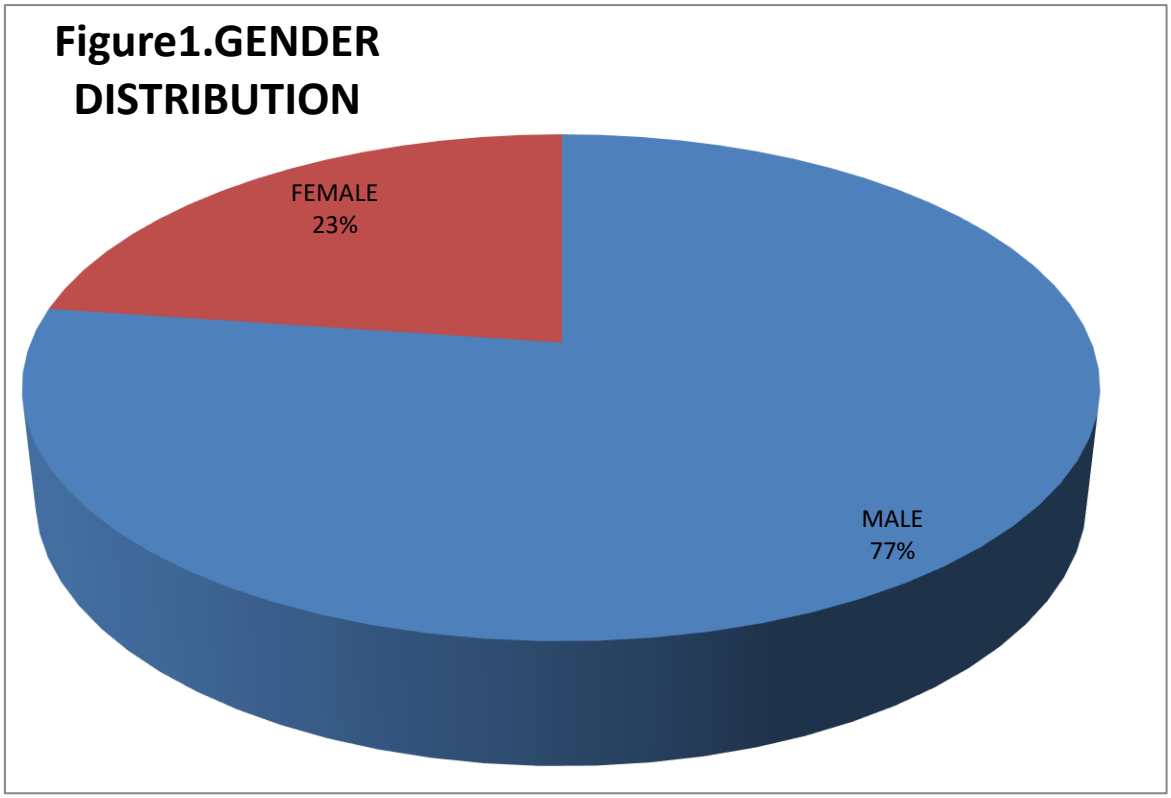
To determine the incidence of musculoskeletal pain in hotel management students using Nordic Musculoskeletal questionnaire.

METHODOLOGY.

A cross-sectional study design was employed. Main outcome variable was self-reported musculoskeletal pain/discomfort.The data was collected by self-administered questionnaires which was Nordic Musculoskeletal Questionnaire. Only final year students were included in the study. Student with any congenital/musculoskeletal pain prior, students engaged in other occupation (part time job), Students with recent trauma were excluded from the research. Ethical clearance was obtained from the Institutional Ethics Committee. Permission to conduct the research was obtained from the institute. A written informed consent was obtained before participation from the respondents. The rights to privacy and confidentiality were explained to the eligible respondents. Participants who met the inclusive criteria were told about the significance of the research, its goal, the protocol to be followed, informed consent was taken. Data was collected by self-administered questionnaires. Collected data was screened and analyzed using Microsoft Office Excel.

STATISTICAL ANALYSIS & RESULTS

Inference: The following figure1 depicts the gender of the participants, with males (77%) and females (23%).



- Age of participants ranging from 20 to 24 years where mean age of students was 21(±0.5)

Table1.

PRACTICAL	TOTAL PARTICIPANTS	Musculoskeletal Pain at specific site								
		NECK	SHOULDER	UPPER BACK	ELBOW	WRIST/HAND	LOWER BACK	HIP/THIGH	KNEE	ANKLE
KITCHEN PRACTICAL	94	28(29%)	34(36%)	18(19%)	9(0.9%)	11(11%)	46(48%)	15(16%)	34(36%)	48(51%)
FOOD & BEVERAGES	61	16(26%)	36(59%)	13(21%)	11(18%)	21(34%)	46(75%)	8(13%)	24(39%)	38(62%)
HOUSE KEEPING	26	9(34%)	9(34%)	8(30%)	0	0	17(65%)	1(0.3%)	5(19%)	8(30%)
FRONT OFFICE	9	6(66%)	5(55%)	2(22%)	0	0	4(44%)	0	1(11%)	0

Inference: The table1 above reveals that among the several departments, housekeeping and food & beverage had the highest prevalence of pain. The Nordic musculoskeletal questionnaire was used to assess the pain.

A) Kitchen practical: Ankle joint pain was noted as (51%), then low back pain (48%).

B) Food & Beverages**:** Low back pain (75%) was the most severe, followed by ankle joint pain (62%), shoulder joint pain (59%), and knee pain (39%).

C) Housekeeping practical**:** Low back discomfort (65%), followed by neck and shoulder (34%), was reported post practical.

D) Front desk: Neck pain (66%) and shoulder pain (55%) was reported.

DISCUSSION

The Nordic Musculoskeletal Questionnaire, which was employed in this investigation, has been employed in a number of other studies with a similar purpose and is regarded as an adequate approach to quantify the prevalence of musculoskeletal pain. This study's participants gave self-reported data; therefore there is a chance for bias. It has been proposed that physical exams and evaluations might produce more accurate findings.

As seen in this study, supervisor or physician was not been reported of the pain excessive repetition, awkward postures, and heavy lifting are biomechanical risk factors with at least fair evidence, according to a recent meta-analysis that included data from several researches. Heavy lifting was shown to be related to musculoskeletal discomfort in the current study as well; however, we did not evaluate specific biomechanical aspects such bending, carrying, uncomfortable postures, etc.[7]

The literature also documents the role of years of service, housekeeping job, and psychosocial well-being in causing musculoskeletal disorders as reported in this study. Similar to previous studies, the association between stress of lifting weight and musculoskeletal pain persisted to be significant even after controlling for other variables. There are certain ergonomic factors that are relevant for each anatomical location of pain. So, we go into depth on site-specific pains in the following paragraphs.[1,4]

Out of 200 respondents, 190 students reported having musculoskeletal pain/discomfort for this study (147males and 43 females). Using the Nordic Musculoskeletal Questionnaire, work-related musculoskeletal complaints were evaluated. The findings are important because most of previous research was among specific occupational types such as housekeeping or restaurant staff. The prevalence was found highest among the housekeeping staff followed by kitchen staff & food and beverage staff. Similar results were found in our study. Physicians were not been reported of the pain.[7].

Our study identified lower back pain as being the most prevalent area of musculoskeletal pain (20%) among students, housekeeping students had higher prevalence of low backache. Previous studies found that biomechanical risk factors with reasonable evidence include excessive repetition, awkward postures, and heavy lifting were found to be cause of back pain.[7,9,12].

Ankle pain (18%) was found to be the second most affected musculoskeletal pain region. Students reporting to the food & beverage (F&B) practical and kitchen practical had the most frequent ankle discomfort, which could be linked to the extended standing times required for the practical sessions. [7]

Shoulder discomfort, which was determined to be the third most affected area, accounted for 16% of all practical cases. The joints of the upper extremities, particularly the shoulder joint, can be harmed by lifting large things, awkward postures according to previous researches. [1, 7].

This study findings also show high neck pain prevalence(11%).[1]This may be because lifting of objects within hotel settings often involve arm or hand movements, prolong sitting hours which affect the neck/shoulder musculature and generate loads on the neck/shoulder area, prevalence of neck pain was highest in the front office practical [1,3,6].

CONCLUSION.

This study reported high prevalence of musculoskeletal symptoms among the hotel management students.

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