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PREVALENCE OF WORK-RELATED MUSCULOSKELETAL DISORDERS IN CATERERS FROM PUNE (MAHARASHTRA)

Miss. Shreya Milind Tomake Bhagwat* — BPTh, PES Modern College Of Physiotherapy, Pune, Maharashtra, India. *Corresponding Author

Dr. Kiran Jeswani — Professor, Department of Musculoskeletal sciences, PES Modern College Of Physiotherapy, Pune, Maharashtra, India.

ABSTRACT **Context:** Work-related musculoskeletal disorders like neck pain, back pain, knee pain, etc. in caterers are found to be very common in caterers due to their workload and working pattern, which includes activities like lifting heavy utensils, stirring continuously for several minutes, standing or sitting for long hours. This study is aimed to find out prevalence of these musculoskeletal disorders in caterers from Pune (Maharashtra). **Methods And Material:** This is Descriptive Cross Sectional Study done among the of 340 caterers from Pune (Maharashtra) over the duration of 6 months with the help of Standardized General Questionnaire of The Nordic Musculoskeletal Pain Questionnaire **Results:** The prevalence percentages of work-related musculoskeletal disorders were found to be Knee pain(68.51%), Low back pain(65.35%), Neck pain(62.85%), Shoulder pain(47.85%), Upper back pain(38.57%), Elbow pain(37.14%), Wrist/Hand pain(22.85%), Hip/Thigh pain(21.78%), ankle pain(18.92%). **Conclusions:** The study showed that Knees were most commonly affected in caterers due to pain followed by Low back pain and Neck pain.

KEYWORDS : Prevalence, Work-Related Musculoskeletal Disorders, Pain, Caterers

INTRODUCTION:

Catering business provides food service at various sites such as hotels, hospitals, pubs, aircrafts, cruise ships, parks, filming sites or studios or event venues. [1]

Catering workers include cooks and food preps who make large amounts of food for parties, galas and events. Instead of working in a restaurant which requires food preparation according to the order, catering workers prepare all dishes at once and serve them to the clients. Things like fast work pacing, manual handling and long hours of work are common for them. [2]

A Kitchen is hot and uncomfortable place and the caterers have to work a for variety of hours such like early mornings, late evenings and even on holidays and weekends. The working processes among this profession still largely depend on humans which cannot be replaced by automation. Work routine of caterers includes long standing hours, constant forward leaning, repetitive upper body movements, lifting heavy objects and also awkward postures, static postures and heavy workloads. Most of these tasks involve static postures and repetitive movements which can develop the risk of musculoskeletal disorders among the Caterers. The forceful exertion of the entire body is required for grasping of cooking utensils, tossing a wok, cutting vegetables etc. [3]

A study was conducted by S. Shankar and M. Shanmugam 2015 in South India, the results showed that 67.5% of the male kitchen workers experienced Work-related Musculoskeletal Disorders in the duration 12 months. [7]

Musculoskeletal disorders can be explained as an injury or dysfunction that commonly involves the supporting structures of the body along with the nerves, muscles, bones and cartilages. These are collectively caused by repetitive movements, sustained poor, awkward positions. [3] Musculoskeletal disorders are most common occupational injuries that can result towards decreased productivity, impose direct and indirect costs on society, increase the time loss and work-related disabilities. [4]

Work-related musculoskeletal disorders (WMSDs) are defined as symptoms that are caused or aggravated by occupational risk factors which include discomfort, damage or persistent pain in the body structures. [5] WMSDs are a variety of range of inflammatory and degenerative disease conditions which lead to pain and functional loss resulting disturbance in the body part. [4]

MATERIALS AND METHODOLOGY:

This is a Descriptive Cross-Sectional study, done among the caterers from Pune (Maharashtra). Ethical clearance was taken from Modern college of physiotherapy, Pune. The sample size was of 280 individuals, including 172 males and 102 females, were selected through convenient sampling. The study was done over the duration of 6 months. Caterers in the age group of 25-45 years were included having an average of 6-10 hours of work per day. Prevalence was calculated with the help of Standardized General Questionnaire of The Nordic Musculoskeletal Pain Questionnaire.

Standardized General Questionnaire Of The Nordic Musculoskeletal Pain Questionnaire:

The questionnaire consisting of structured, forced, binary or multiple-choice variants was used to calculate the prevalence of musculoskeletal disorders by interviewing the participants to fill it.

Data Analysis:

The Data that fulfilled the inclusion criteria was exported to excel sheet and was further analyzed. 280 subjects have been included in the study according to the inclusion criteria.

RESULTS:

Table 1: Overall Prevalence Percentage According to The Body

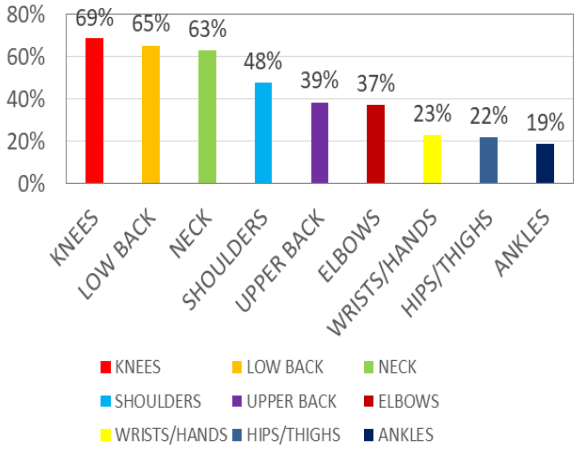

Table 2: Data Analysis According To The Nordic Questionnaire

Body Part	Have You Experienced Pain In Last 12 Months			Have You Experienced Pain In Last 7 Days			Difficulty In Doing Adls In Last 12 Months Due To Neck Pain		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Neck	176 (62.85%)	97	79	134 (47.85%)	69	65	133 (47.5%)	73	58

Shoulders	134 (47.85%)	73	61	112 (40%)	59	53	99 (35.35%)	53	46
Elbows	104 (37.14%)	61	43	44 (15.71%)	25	19	60 (21.40%)	31	29
Wrists	64 (22.85%)	33	31	38 (13.57%)	20	18	26 (9.28%)	14	12
Upper Back	108 (38.57%)	61	47	74 (26.42%)	43	31	79 (28.21%)	35	44
Lower Back	183 (65.35%)	109	74	123 (43.92%)	65	58	138 (49.28%)	79	59
HIPS/ THIGHS	61 (21.78%)	37	24	44 (15.71%)	25	19	12 (4.28%)	5	7
Knees	192 (68.57%)	103	89	126 (46%)	55	71	149 (53.21%)	67	82
Ankle	53 (18.92%)	27	26	43 (15.35%)	27	16	(6.42%)	11	7

DISCUSSION:

The aim of this study was to evaluate the prevalence of work-related musculoskeletal disorders in various anatomical areas among caterers from Pune (Maharashtra).

This study showed a high prevalence of musculoskeletal disorders in knee, low back, neck and shoulders among these caterers. Results of the study showed that there is a high prevalence of musculoskeletal disorders among the caterers i.e.

Knee pain (68.57%) followed by Low Back pain (65.35%) was the most identified. In this study, participants were found to be working in either continuous standing or sitting posture.

Continuously working in either standing or sitting position results in static loading. Many of the participants were found to be working in continuous Cross-Leg sitting which may contribute to the discomfort in the Knees.

Participants also found to lift heavy objects while bending through their back and not from their knees, which is one of the most common reasons behind the discomfort/pain in the Lower Back region.

Followed by Knee and Low Back, Neck pain (62.85%) was found to be prevalent due to the repetitive movements, continuously leaning forward while working that leads to forward neck posture which then contributes to the pain.

Shoulder pain (47.85%), Upper Back pain (38.57%), Elbow pain (37.14%), Wrists/Hands pain (22.85%) was also found in the participants. This can be as a result of heavy lifting, repetitive movements of the limbs during preparation of the food and due to faulty posture.

Hips (21.78%) and Ankle (18.92%) pain was also found in the participants but the prevalence was relatively less than other parts of the body.

CONCLUSION:

From this study we can conclude that Knees are most commonly affected due to pain in the caterers followed by Low Back pain and Neck pain.

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