

Prevalence Rate Of Plantar Fasciitis In Hospitals Housekeeping Staff And Its Impact On Quality Of Life

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ABSTRACT

Hospital housekeeping staff are at a heightened risk of injury due to the nature of their work, which involves prolonged standing and repetitive physical tasks. Plantar fasciitis is a condition marked by inflammation and degeneration in the front part of the plantar fascia, a thick band of tissue connecting the heel to the toes. Despite its potential impact, the prevalence and effects of Plantar fasciitis on their quality of life remain underexplored. This study *aims* to assess the prevalence rate of plantar fasciitis among hospital housekeeping staff and examine its impact on their quality of life.

Methods: A cross-sectional study was conducted involving housekeeping staff. Participants completed a structured questionnaire, including the Foot Health Status Questionnaire (FHSQ) and to evaluate foot-related and overall quality of life. Clinical examinations and diagnostic criteria were used to identify cases of Plantar fasciitis.

Conclusion: Mean foot health status was 47.07 & majority of 67.9 housekeeping staff low foot health status, majority of 51.9% housekeeping staff was male & 48.1% housekeeping staff was female.

Keyword- Planter Fasciitis, Hospital, Foot Problem, Prevalence, Housekeeping Staff

INTRODUCTION

Plantar fasciitis is a common overuse injury that frequently affects individuals in housekeeping roles. It results from inflammation of the plantar fascia, a thick band of tissue that connects the heel bone to the toes. This condition can cause significant pain and discomfort, particularly in the heel and arch of the foot.[1] Housekeeping tasks, which often involve repetitive bending, lifting, and carrying heavy loads, can put significant strain on this tendon. This repetitive stress can lead to inflammation and pain, typically felt in the back of the heel. The discomfort may worsen during physical activity and can significantly impact an individual's ability to perform daily tasks and maintain an active lifestyle.[2] Achilles tendon injuries and plantar fasciitis can lead to chronic pain and functional limitations. Plantar fasciitis, often referred to as "plantar heel pain," is a common foot disorder in adults. The combined impact of plantar fasciitis and Achilles tendinitis can significantly impair lower limb function, making it challenging to perform daily activities, particularly for individuals in housekeeping roles. These conditions affect individuals across all age groups, genders, and ethnicities. However, women aged 40-60 years are more likely to experience these issues. Approximately 11-15% of all foot-related problems require long-term professional care.[3] Plantar fasciitis has been referred to by various terms such as "jogger's heel," "tennis heel," and "policeman's heel." While these terms highlight the association of the condition with specific activities, the underlying causes of heel pain are primarily mechanical in nature. Common etiologies of heel pain include heel spurs, severe heel bumps, Achilles tendinopathy, heel neuritis, and heel bursitis. Among these, plantar fasciitis is the most prevalent musculoskeletal foot condition, accounting for approximately 80% of heel pain cases.[4]

Researchers found that approximately 10% of the general population will experience this condition at least once in their lifetime.[5]

METHODOLOGY

This cross-sectional study aims to determine the prevalence rate of plantar fasciitis among hospital housekeeping staff and its impact on their quality of life. To achieve this, an online questionnaire was developed by reviewing existing physiotherapy surveys. This questionnaire was then distributed through an online network and email database. The study participants were healthy housekeeping staff who had at least six months of experience in the housekeeping department. Descriptive statistics were employed to analyze the data collected from these participants.

We extracted data from studies that met our inclusion and exclusion criteria. This data included sample size, disease duration, randomization method, follow-up period, and time to pain reduction in both intervention and control groups. As a measure of pain reduction, we defined the target as a 60% decrease in the initial Visual Analog Scale (VAS) score. A qualitative interpretive descriptive design was selected as the most suitable methodological approach. This non-categorical research method allows healthcare professionals to delve into clinically relevant phenomena within a supportive framework. It is particularly well-suited for exploring complex experiences and subjective perspectives.

INCLUSION & EXCLUSION CRITERIA

The inclusion criteria for this research program was who had a Positive Windlass Test, and Thomas Test. Participants will complete the FHSQ questionnaire.

- Age
- Gender - Male/Female
- Occupation - Hospital housekeeping staffs
- Duration - Symptoms present for at least three months to ensure chronic cases are included

Exclusion:

- Non- housekeeping roles
- Individual below the age of 16 years
- Non-hospital Workers: Individuals not employed as hospital housekeeping staff (e.g., clinical staff, administrative workers)
- Pre-existing Conditions: History of other foot or ankle conditions (e.g., fractures, arthritis, tendinitis) that could independently affect mobility or quality of life.

PROCEDURE

Plantar fasciitis is typically diagnosed through a combination of medical history review and physical examination. During the physical examination, healthcare providers may identify tender areas on the foot, especially in the heel and arch region. Specific diagnostic tests, such as the Windlass test, may be performed to assess the condition. Additionally, a Thomas test might be conducted to evaluate hip flexor tightness, which can contribute to foot problems.

Design

An online questionnaire survey design was used.

In order to interpret the values obtained through the FHSQ. The following self-development classification was used

Range	Value
0 - 24.9	Very Low
25 - 49.9	Low
50 - 74.4	Medium
75 - 100	High

Scoring: Quality Of Life questionnaire scale we used **FHSQ - FOOT HEALTH STATUS QUESTIONNAIRE**

None	1
Very Mild	2
Mild	3
Moderate	4
Severe	5

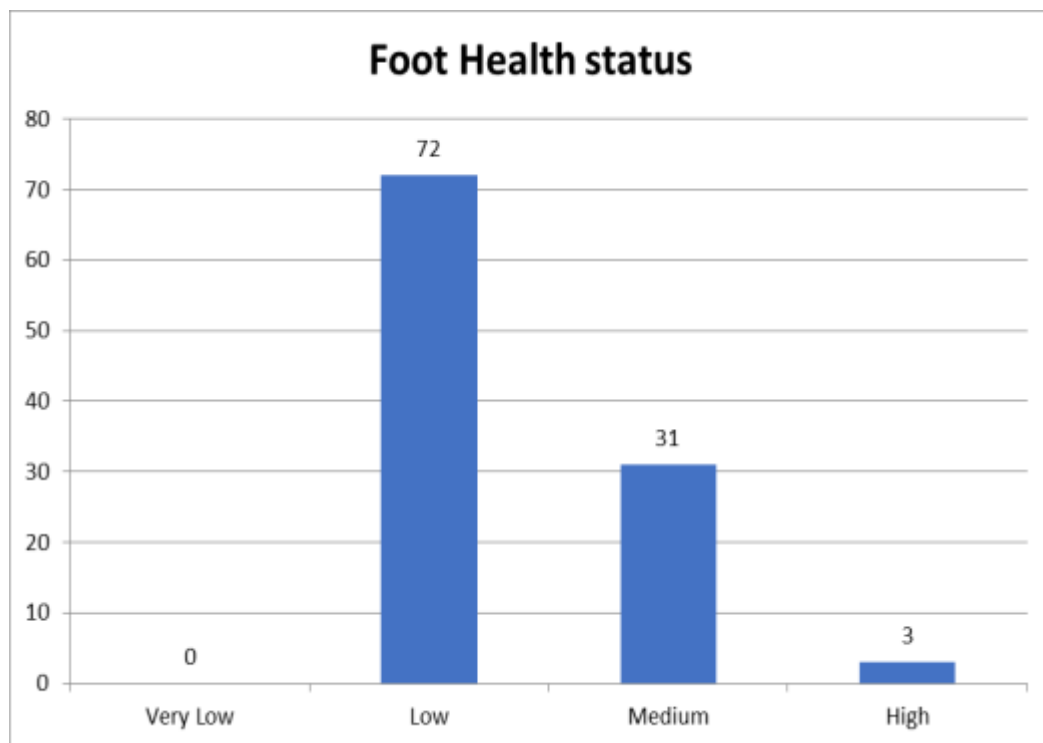
RESULT

The obtained survey data shows that mean foot health status was 47.07 and majority of 67.9% housekeeping staff had low foot health status; 29.2% housekeeping staff had medium foot health status and 2.8% housekeeping staff had high foot health status. Prevalence of foot health status was 31.1%.

N=106

Foot Health status	Frequency	Percent
Very Low	0	0
Low	72	67.9
Medium	31	29.2
High	3	2.8
Mean FHS	47.07 \pm 11.75	

Frequency and percentage of Age of housekeeping staff in hospital.

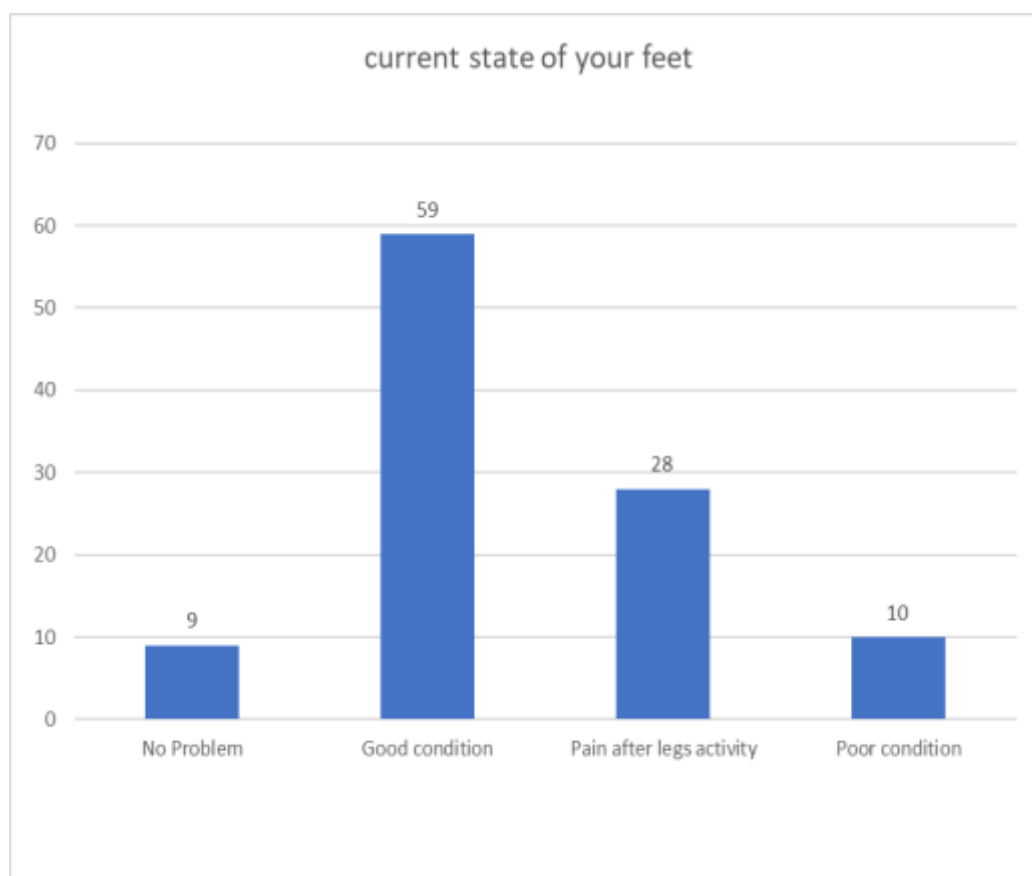


Below data shows that the majority of 55.7% housekeeping staff had good feet condition; 26.4% housekeeping staff had pain after leg activity; 9.4% housekeeping staff had poor feet condition and 8.5% housekeeping staff had no feet problem in their current state.

N=106

Current state of Feet	Frequency	Percent
No Problem	9	8.5
Good condition	59	55.7
Pain after legs activity	28	26.4
Poor condition	10	9.4

Frequency and percentage of Age of housekeeping staff in hospital



DISCUSSION

This study revealed that foot and ankle pain is a prevalent issue among housekeeping staff at a private university hospital in India. The discomfort is often intensified by activities such as navigating uneven surfaces, ascending and descending stairs, prolonged periods of standing, and physically demanding tasks. These findings underscore the significant impact of these musculoskeletal conditions on the well-being and occupational performance of housekeeping staff in this specific setting.

The study employed a validated questionnaire to collect data on foot problems and quality of life. This approach ensured the use of a reliable measuring instrument and enabled comparison of the findings with those of other studies that utilized the same questionnaire. Another significant advantage was the relatively large sample size, encompassing nearly half a thousand participants. This extensive data allowed for the derivation of statistically reliable estimates. Additionally, the inclusion of comparable subjects in terms of sex and age further strengthened the study's validity, as any observed differences could not be attributed to imbalances in these demographic variables.

The average age of the housekeeping staff was 32.36 years. The largest age group, comprising 40.6% of the staff, was between 31 and 40 years old. Another significant group, 39.6%, was aged 21-30. A smaller proportion, 10.4%, was in the 41-50 age range. The remaining staff were younger than 20 (5.7%) or older than 50 (3.8%). This age distribution suggests that the majority of the housekeeping staff falls within the prime working age group, which could potentially impact their physical capabilities and susceptibility to work-related injuries. Understanding the age demographics can be helpful in tailoring preventive measures and ergonomic interventions to address the specific needs of this workforce.

The study revealed a diverse range of foot health conditions among the housekeeping staff. A significant majority (55.7%) exhibited good foot health, suggesting that their footwear and work practices were generally adequate. However, a notable proportion (26.4%) experienced pain after physical activity, indicating potential issues with footwear, biomechanics, or work intensity. A smaller group (9.4%) had poor foot health, likely due to underlying conditions or prolonged exposure to occupational stressors. Interestingly, 8.5% reported no foot problems, possibly due to individual variations in foot structure or work habits.

In terms of gender distribution, the majority of the housekeeping staff were male (51.9%), while females accounted for 41.8%. This information can be useful for tailoring interventions and prevention strategies to the specific needs of each gender group.

CONCLUSION

In conclusion, plantar fasciitis is a common overuse injury that can significantly disrupt daily activities. While it is often a self-limiting condition, accurate diagnosis and appropriate treatment are essential to

minimize pain and discomfort.

Foot problems, including plantar fasciitis, can negatively impact an individual's quality of life. Studies have shown a correlation between mild foot and ankle pain and reduced health-related quality of life. The findings of this study highlight the challenges faced by individuals with plantar fasciitis, particularly when performing activities like climbing stairs, standing for prolonged periods, and walking on flat surfaces.

To improve the quality of life for housekeeping staff, it is crucial to promote foot health behaviors and provide appropriate interventions. This may include education on proper footwear, ergonomic practices, and stretching exercises. By addressing these factors, we can help reduce the prevalence and impact of plantar fasciitis and other foot-related conditions.

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