

Community awareness about attitude and knowledge of daily used footwear and risk related to footwear problems

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Abstract

Objective: Footwear preferences can relate to a lot of musculoskeletal problems, it is important to know about the awareness healthy individuals have amongst them this study was designed to determine the knowledge and awareness a normal individual has related to their daily footwear and risk related to the same, also physiotherapy is taken as an intervention or treatment was also analyzed in the study.

Method: A cross sectional survey was carried out through google forms among the individuals within the age of 15-35 years using a self-administered questionnaire .200 ambulatory subjects were invited.

Result: According to the study 60% people thought heels to be the worst type of footwear, : 64% people know their footwear size 23% people don't know their footwear size 13% are unsure , 37.2% people have pain due to footwear 48% do not experience any pain and 14.8% are unsure if the Pain is due to footwear , 80% people don't know about footwear expiry 20% do ,66% people are aware about physiotherapy help 20% are unaware and 14% say they may or may not know about it.

Conclusion: So over all interpretation of study shows that the people were aware of their shoes size but are not aware of health problems caused by footwear including the consequences caused by ill-fitting footwear.

Keywords: Footwear; Awareness; Physiotherapy intervention; Musculoskeletal problems; Risk

1. Introduction

According to the routine also are contributory in footwear related risks Humans have been using footwear for 30,000 years. Although originally worn as a protective covering for the foot, modern footwear is designed to fulfil a range of purposes, its accomplishment is decided on a lot of factors like proper fit ,comfort, design, brand and styling not only the aesthetic appeal of the footwear is considered but the footwear it should also accomplish the intended purposes like protecting an individual's foot ,reduce the risk of injury and also create a flexible and articulated structure allowing the complex actions required for body support, movements and balance ^{1,2}.

It not only becomes important to take in consideration about foot health but also footwear as it plays an important aspect in a dynamic age population of 15-35 years of age, as this population has different problems than the other age group like ankle sprain, Ankle sprains Tinea pedis (fungal infection in foot), Onychomycosis (Nail Fungus), Plantar warts (extra hard grown skin on heels) heel pain foot pain etc.

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Foot pathology and pain is reported in approximately 24–30% of the young adult population. Foot pain has been associated with reduced mobility, decreased leg strength and an increase in falls risk. ill-fitting footwear can increase foot pain, reduce the quality of life.

The styling and fit of footwear worn can accelerate the chances of foot pain and the development of progressive foot deformity and pathology. Other factors such as expiry date of the foot wear, shelf life of the foot wear, characteristics of the sole footwear selection.

A high percentage of the population report footwear related foot pain, yet there is limited research on the effect footwear has on the development of this pain as people have very limited knowledge how a footwear. According to an individual's routine should be selected.

Such issues need to be addressed in seeking to ensure better quality of life and wellbeing for young adults of age group 15-35.

Programs to improve the general condition of these individuals through proper knowledge attitude and awareness^{2,4}

Thus, we sought to determine the state of foot wear among male and female of the age group known about the factors that affect the development of foot health and musculoskeletal problems due to footwear.

Aim:-

- To study awareness, attitude and knowledge about daily used footwear and risk related to footwear problems

Objectives:-

- About physiotherapy interventions related to foot health To find out awareness of knowledge about daily used footwears in young adults
- To study of different types of footwears worn by young adults.
- To understand if there is awareness about different problems related to foot and musculoskeletal health due to improper footwear.
- To establish whether footwear purchased by patients have an association with foot pain and what choices determined a purchase decision
- To check whether there is awareness and knowledge

2. Material and methods

The study includes 200 ambulatory adults, both male and female in 15-35 years of age group. Exclusion criteria for the study were non ambulatory adults or adults using walking aids. For the survey a questionnaire was drafted and was digitally circulated through google forms, relevant literature was referred and there by validated with an expert in the field. Questionnaire: which has 5 units consists of 21 questions i.e., knowledge, attitude, type, awareness, pain. A pilot study was conducted on 10 subjects and other required changes were made. The data was analyzed and then presented in the graphical and tabular form.

3. Results

A total of 200 ambulatory young adults from age 15-35 were included the sample analyzed 116 females and 84 males.

The data was processed using descriptive statistics -for demographic data name age and hours of wearing footwear. According to profession and percentages were used to depict proportions. Tables were made using Microsoft Word and Figures were plotted using Microsoft Office Excel 2007. This study included total 200 participants and a tabular and graphical presentation was done the results are shown in tables bell.

Table 1 Age distribution

Age groups	Numbers of Respondents	Percentage
15– 20	72	36 %
21 – 25	96	48 %
26 – 30	27	13.5 %
31 – 35	5	2.5 %

According to Table 1, there were 72 respondents of age 18-20 years, 96 of age 21-25 years, 27 of age 26-30 years and 5 of age 31-35 years.

Table 2 Gender Distribution

Gender	Numbers of Respondents	Percentage
Male	84	42 %
Female	116	58 %

According to table 2 84 were males 116 were females.

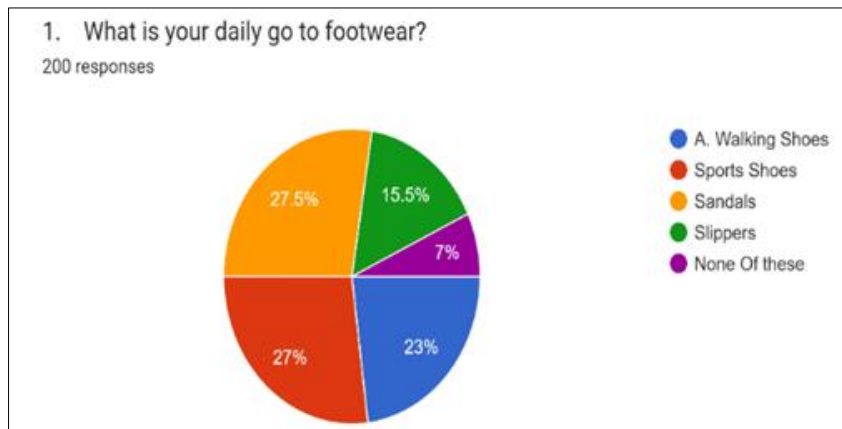


Figure 1 Daily go to footwear

According to Figure 1: 23% chose walking shoes as their daily go to footwear 27% wore sports shoes 27.5% chose sandals and 15.5% wore slippers.

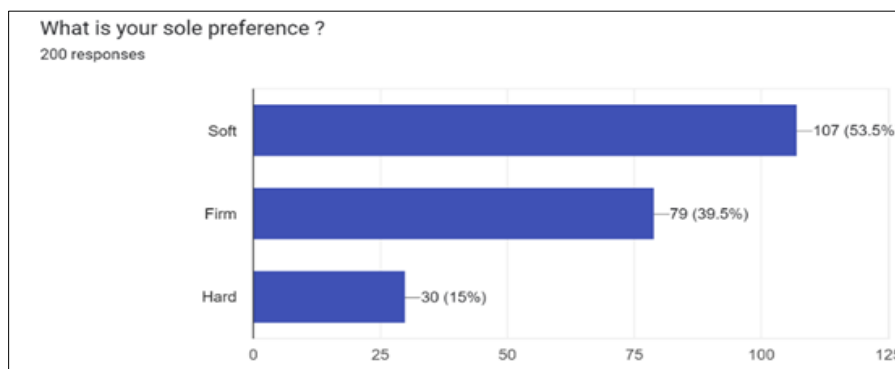


Figure 2 Sole preference

According to Figure 2: 53.5% people prefer soft soles, 39.5% people chose firm soles sole preference and 15% people opt for hard soles.

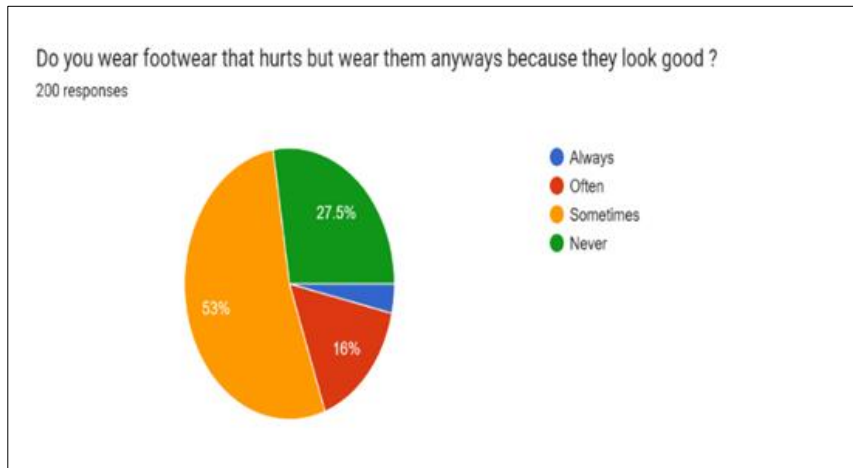


Figure 3 Wearing footwear that hurts

According to Figure 3: 3.5% people always wear footwear that hurts, 27.5% people often wear them, 53% sometimes do so, 16% never do it.

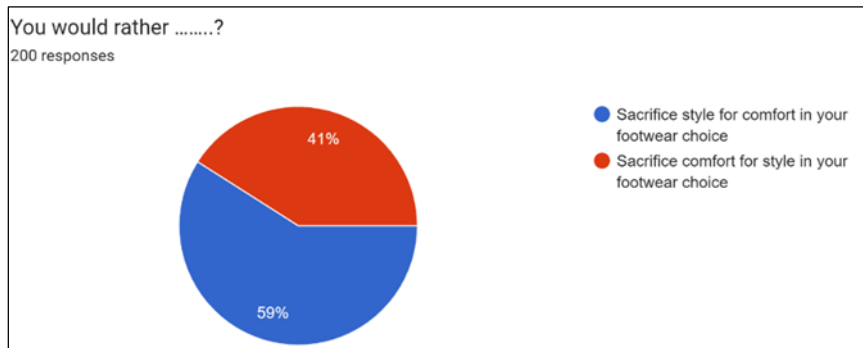


Figure 4 Comfort or style

According to Figure 4: 59% people sacrifice comfort for style and 41% sacrifice style for comfort.

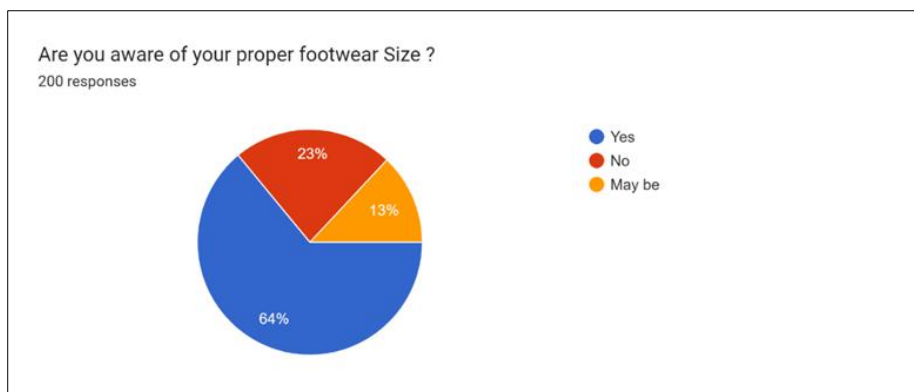


Figure 5 Proper footwear size

According to Figure 5: 64% people know their footwear size, 23% people don't know their footwear size, 13% are unsure.

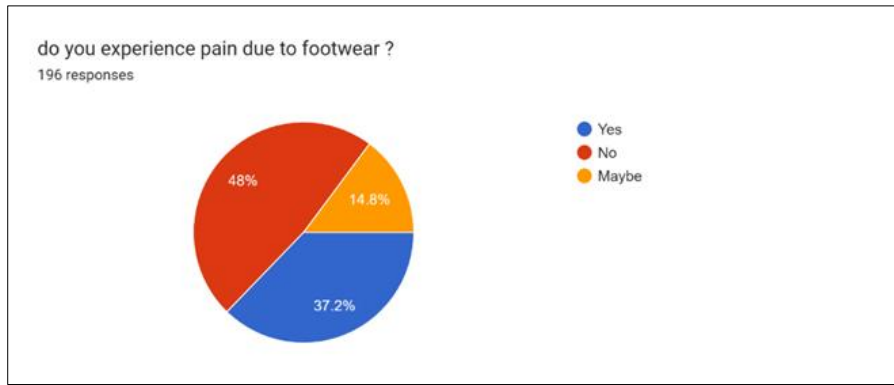


Figure 6 Pain due to footwear

According to Figure 11 37.2% people have pain due to footwear 48% do not experience any pain and 14.8% are unsure if the Pain is due to footwear.

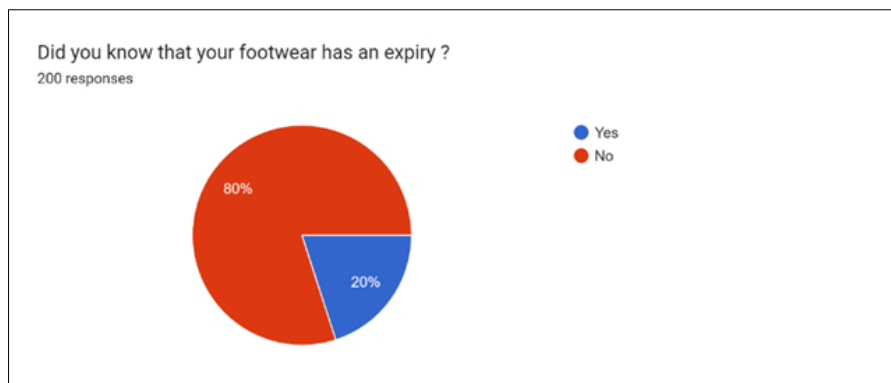


Figure 7 Footwear expiry

According to Figure 7: 80% people don't know about footwear expiry 20% do.

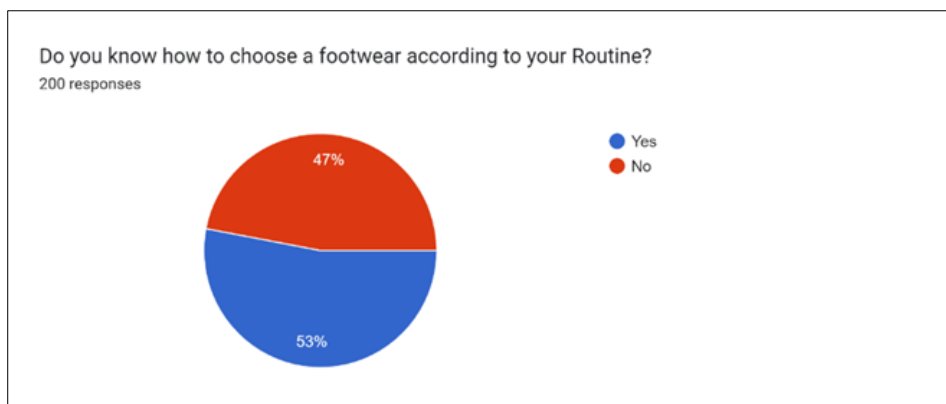


Figure 8 Footwear selection

According to Figure 8:47% people know how to chose footwear According to their routine 53% don't.

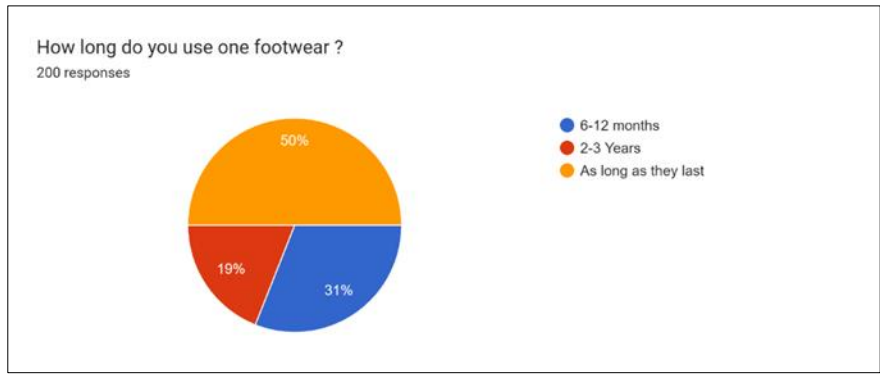


Figure 9 Footwear use

According to Figure 9:31% people use footwear for 6-12 months which is the ideal usage 19% use it for 2-3 years and 50% use them as long as they last.

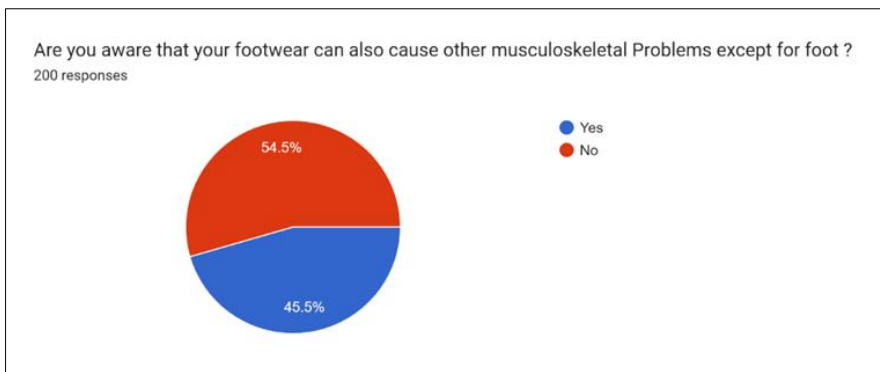


Figure 10 Musculoskeletal problems

According to Figure 10 : 45.5% people say yes they are aware about musculoskeletal problems except for foot 54.5% say no.

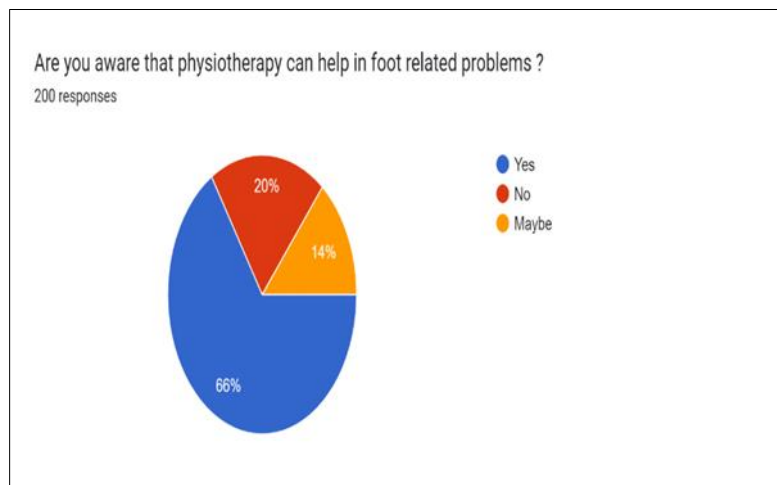


Figure 11 Physiotherapy help

According to Figure 11:66% people are aware about physiotherapy help 20% are unaware and 14% say they may or may not know about it.

4. Discussion

The study shows that the dynamic population of 15 to 35 years old population uses a variety of footwears in which the maximum population used shoes as their daily go to footwear.

Data analysis showed that 54 % of the population contributed towards shoes as their first choice rating sandals the second.

According to this study in today's generation high heels remains the top most footwear rated as the worst footwear choice amongst the population.

According to another study high heels, sandals and slippers were categorized as poor footwear choice but also has a potential impact on foot health.

Out of total number of subjects 53.5% of them preference of soft soles. Referring to a study done by Dr. Irene Davis found that maximalist shoes (soft sole or extra cushioning) could actually increase the risk of injury having high impact on knees as our ankles are not strong enough in managing impact . Naturally minimally cushioned surface tensed to adopt a mind foot strike letting ankle to contribute towards shock absorption leading to a frequent ankle sprains contrary to what is claimed by the company.

Also based on mechanical testing harder soled shoes have been shown to have lesser available friction, which attribute towards factors subjecting to risk of falls.

Referring to this study there is very less awareness about what type of soled footwear should be used, indicating higher number of people opting for soft soled shoes.

The sole preference should be firm so as to reduce possible concentration of stress as well as change pattern during gait which was seen in 39.5 % individuals.

Although the footwear industry has expanded the availability for a variety of consumers, the choice and fit continue to be problematic with many individuals wearing shoes that are ill-fitting.

Provision of specific footwear advice for problem feet is poorly evidenced and is heavily practitioner dependent limiting its efficacy. that 24.1% of the people are wearing footwear that are ill fitted According to them 19.6% don't know about the condition.

There is limited understanding as to the changes that can occur from regularly wearing footwear that is unsuitable in shape, style and construction which is referred to as ill-fitting.

Current research on the effect that everyday footwear has on foot function and pain focuses mainly on women's shoes, particularly high heels. Defining what is a good fitting shoe, 56.3% people wear proper fitting form, that does not damage the foot or mechanics of walking According to them this may need to be individualized, but best fit is based on loose.

Podiatrists talk a lot about importance of proper footwear certain types of footwear are more likely than others to cause pain in certain areas of the body on regular basis like heels, toes ,nail ,ankle, base, back ,swelling on feet and people were asked to analyze if they have pain due to footwear 37.2% of them were experiencing pain due to footwear out of which maximum people suffered heel pain the most accompanied with back pain 16% of the population also suffered from pain in toes and 14%in ankle. most of them suffered from mild pain, around 20% had moderate and only 4 .5% had severe pain there. 14.8% people were unaware about if the pain was surely because of footwear or any other co related conditions.

Therefore, it becomes very important to educated people to wear good footwear with proper arch support and to understand and get to a store that has professional to measure your feet properly and get shoes that are specifically designed to accommodate your situation.

47% people do not know how to choose footwear According to their routine hence it is important aspect with community point of you to improve quality of life⁶.

changing your shoes every six months to one year as shoe lose shock absorption cushioning and stability over time ,which could lead to an injury but in Indian scenario 80% of the dynamic population of age 15 -35 is unaware that footwear have shelf lives too and 50% of them use their footwear for as long as they last it is important to understand your foot condition and to keep a check on what you wear you can tell if your footwear is worn out by putting them on a table top and seeing if the soles are

20% population was unaware about physiotherapy in foot related problems 66% were aware of them and 14 % were unsure, but on research they thought of physiotherapy as only a treating option but ergonomic awareness was very low.

Knowledge of physiotherapy evaluation and management especially of community based rehabilitation and industrial health physiotherapy should be taught. Physiotherapy through the medium of exercise as key factor and patient education plays a major a role in lifestyle modification and prevention of metabolic disorder.

5. Conclusion

So, over all interpretation of study shows that the people were aware of their shoes size but are not aware of health problems caused by footwear including the consequences caused by ill-fitting footwear. People wear footwear which are not comfortable for fashion related purposes. Footwear are chose According to brand and fit considering comfort but routine aspect is seen to be neglected most of the times.

Compliance with ethical standards

Acknowledgments

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Disclosure of conflict of interest

No conflict of interest.

Statement of ethical approval

The study was approved by ethical committee of tilak Maharashtra Vidyapeeth's college of physiotherapy, Pune , Maharashtra .

Statement of informed consent

Informed consent was obtained from all individual participants included in the study

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