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A SURVEY TO FIND THE RELATION BETWEEN FOOT PAIN AND FOOTWEAR AMONG FEMALE PARTICIPANT IN JAIPUR.

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INTRODUTION –

Foot pain is very common Musculo-skeletal disorder in the general population and has been shown to have a negative impact on health-related quality of life in women especially. Humans are using footwear for more than 30000 years[1]. Footwear can play an important factor in aggravating the foot pain. Inadequate and poor selection of footwear can cause the pain. Foot pain is among the most frequent musculoskeletal complaints. It refers to any discomfort or aching in parts of the foot, including the heel, arch, toes, or sole. Females have a very long range of footwear from Heels, Chappals, Sneakers, Flip-flops, Mojdi, and Sandals (Flat and Heels). The function of footwear is as follows-

1. Transferring and distribution of body weight.
2. Act as cushion to absorb the shock while running and jumping.
3. Protect the foot from injuries.
4. The medial longitudinal arch provides a propulsive force during locomotion.
5. The lateral longitudinal arch functions as a static organ of support and weight transmission.

The concavity of the arches protects the nerves and the vessels of the sole.[2]

A study held in Northwest Adelaide, Australia indicated that one in five people over age 18 years have reported foot pain with higher prevalence in females[3] In Asian population, 50 percent of young urban working women reported recurrent non- traumatic foot pain and 68.4% believed that the pain is associated with the footwear they wore at work[4]. Foot pain has been associated with reduced mobility[5] and an increase in falls risk[6]. Poorly fitting shoes can exacerbate foot pain, lessen stability, hinder effective rehabilitation, and increase the development of hyperkeratotic lesions[7,8]. Specific footwear features including heel height, toe-box width, and the hardness and thickness of the sole have been identified as contributors to foot discomfort[9,10]. The Cheshire Foot Pain and Disability Survey found that disabling foot pain is prevalent and is likely to arise from multiple contributing factors[11].

METHOD –

PARTICIPANT: 18-45years females.

The study was conducted in Jaipur city among female (n= 303) using self- administered questionnaire (Google Form). A cross-sectional survey was done over a period of 4 months between August 2026 and November 2026. The consent was taken from participants before the survey.

OUTCOME MEASURE:

- Self-administered Questionnaire (Google Form)
- Numeric Pain Rating Scale
- BMI Calculator.

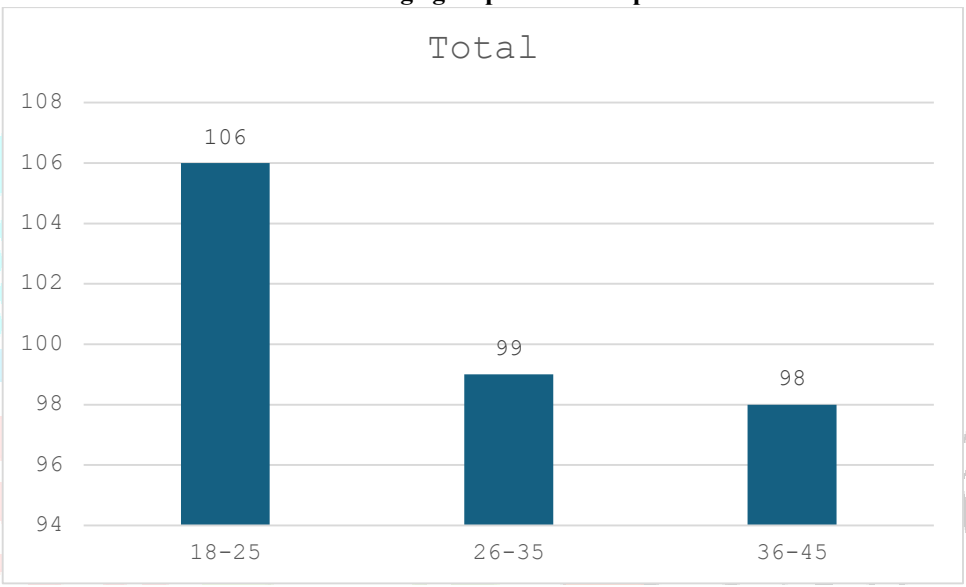
PROCEDURE:

A self-administered questionnaire was created using Google Forms and distributed to female participants aged 18 to 45 years. The form was provided in English and participants were asked to complete items covering demographic details as well as questions about foot pain, choice of footwear, severity of pain and activity being compromised. Data confidentiality was ensured, and only those who gave voluntary consent were included in the study.

RESULT:

S.No.	Age Group	Participants
1.	18-25	106
2.	26-35	99
3.	36-45	98

Table1.1- Age group and Participants



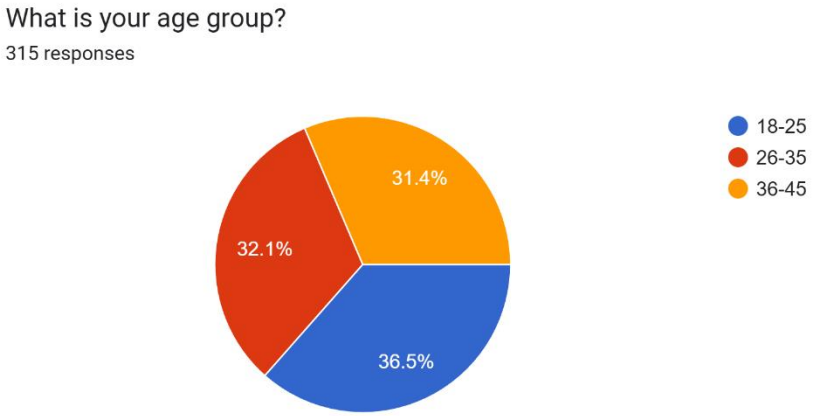


Figure 1.1 - Age group and Participants

Table 1.2 BMI and Participants

S.No.	BMI	Participants
1.	Below 18.5	133
2.	18.5 – 24.9	58
3.	25 – 29.9	55
4.	Above 30	54

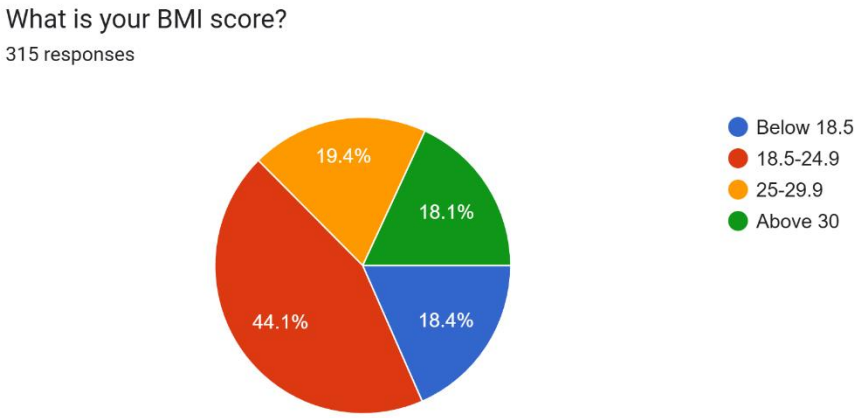
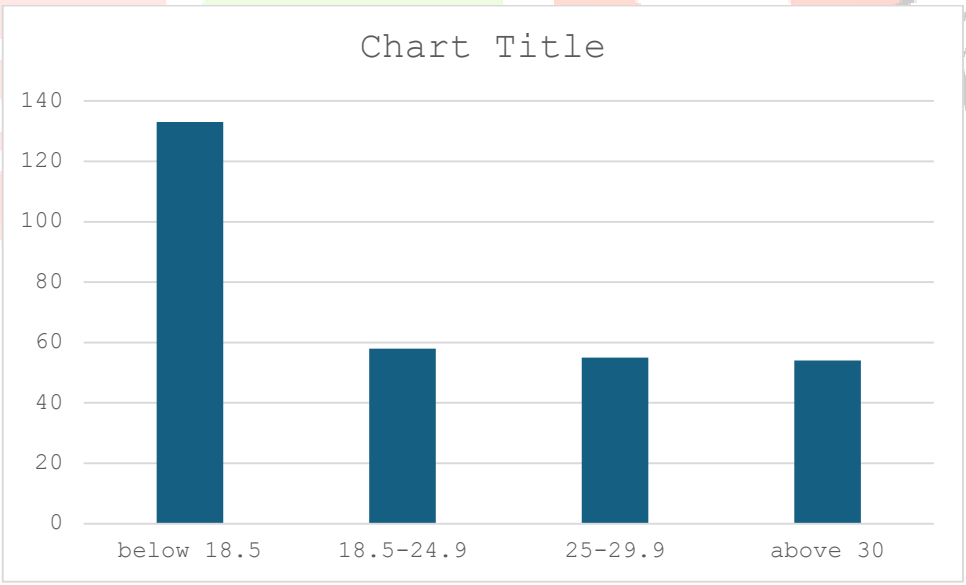


Figure - 1.2 BMI and Participants



Graph 1.1 BMI and Participants

Table 1.3 Footwear choices and Participants

S.No.	Choice of Footwaer	Participants	P Value
1.	Chappal	77	0.0001
2.	Mojdi	27	0.001
3.	Sandle (Heel)	17	0.003
4.	Sandle (Flat)	51	0.001
5.	Heel (1-2inch)	29	0.080
6.	Heels (More than 2inch)	42	0.0001
7.	Flip-Flops	11	0.025
8.	Sports Shoe/Sneaker	49	0.001

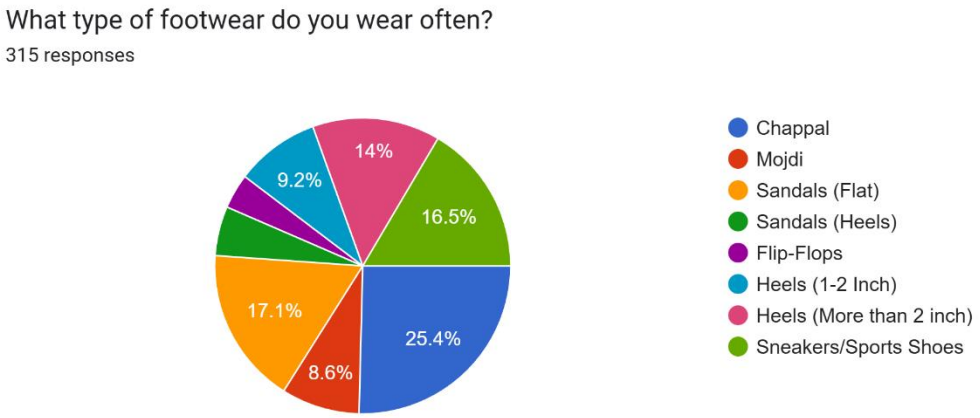
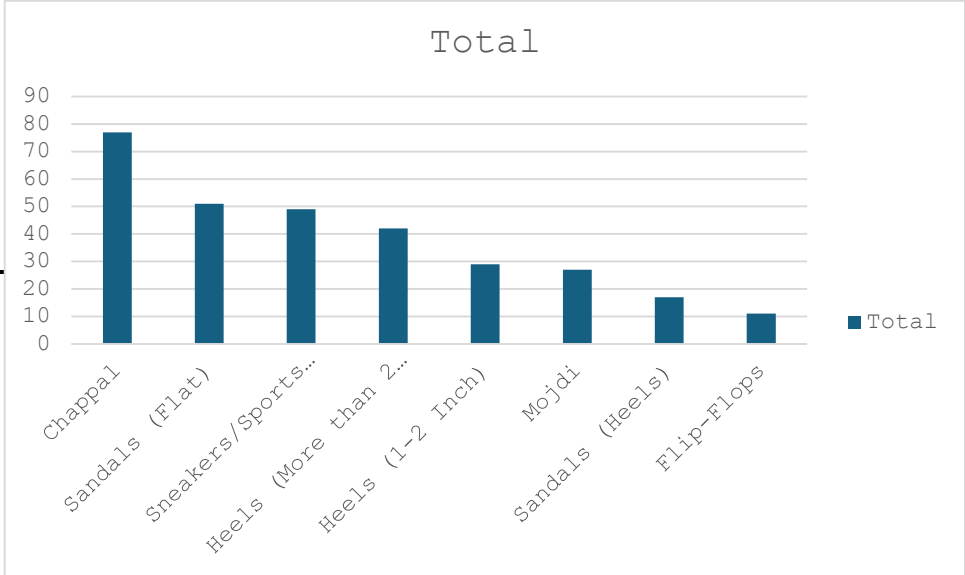


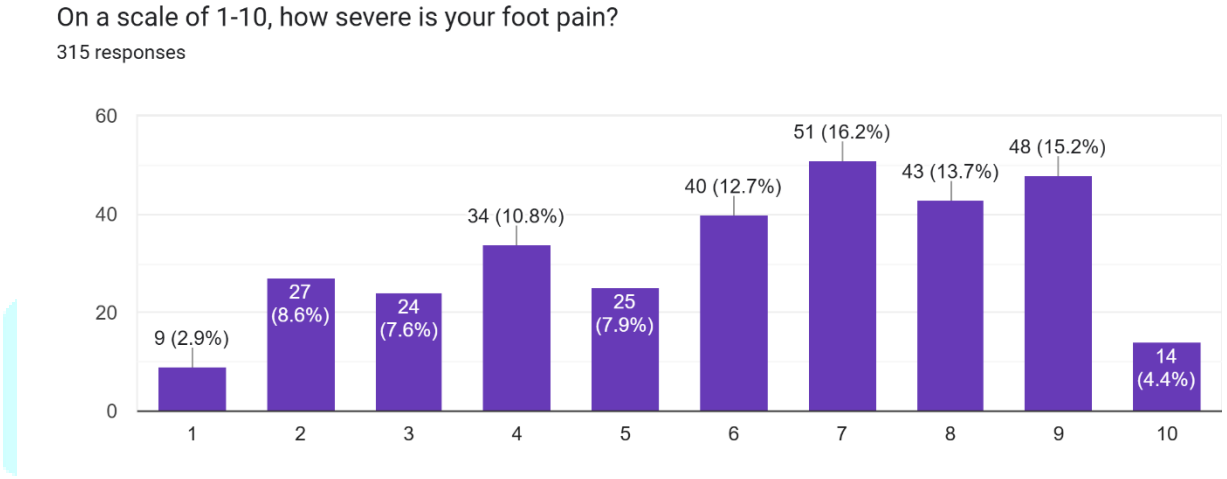
Figure 1.3 - Footwear choices and Participants



Graph 1.2 - Footwear choices and Participants

Table 1.4 – Pain Score

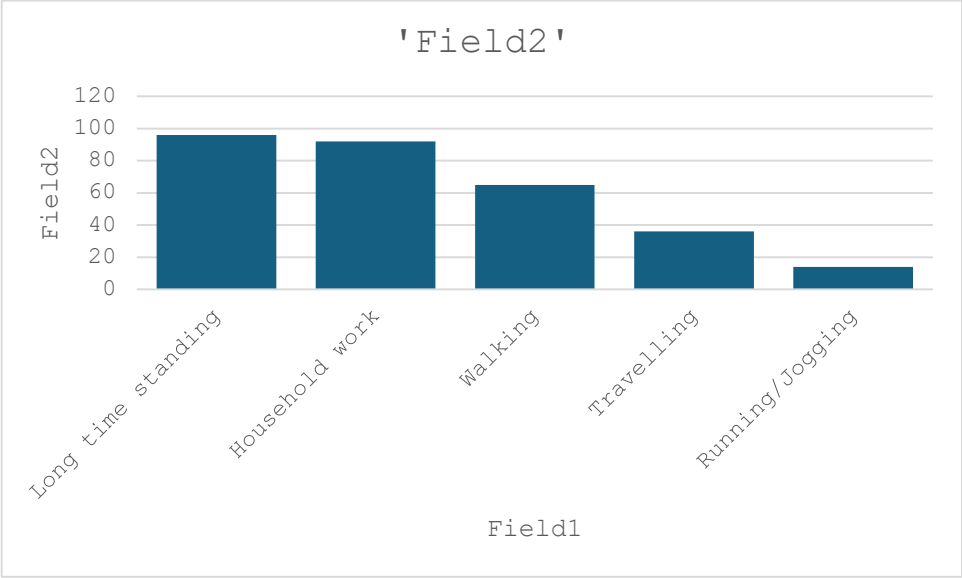
S.No.	Pain Range	Participants	P Value
1.	0-3 (Mild)	51	0.001
2.	4-6 (Moderate)	96	0.001
3.	7-10 (Severe)	156	0.001



Graph 1.3 Pain Score

Table 1.5 - Activity and Pain relation

S.No.	Activity Triggering Pain	Participants
1.	Long time standing	96
2.	Household work	92
3.	Walking	65
4.	Travelling	36
5.	Running/Jogging	14



Graph 1.4 - **Activity and Pain relation**

CONCLUSSION:

The study was conducted among randomly selected female participants. Foot pain refers to any discomfort or pain occurring in one or more parts of the foot, including the heel, arch, toes, or sole. It is considered one of the most common musculoskeletal conditions. The population of this study was females of age between 18-45 years. The primary aims of our study; first to determine frequency of foot pain among female participants in Jaipur.

Out of 303 sample size maximum number are from age group 18-25 year (106 participants) while 25-36 age group and 36-45 have respectively 99 and 98 participants. In relation to BMI highest number of participants were underweight category (133) and normal weight 18.5-24.9) was (58) 25-29.9 (55) lastly above 30 BMI was (54) only.

A strong association has been found between the foot pain and footwear types in this study statistically, with a p-value of less than 0.05. Those who chose Chappal (77) Heels more than 2 inches (42) and sneakers (49) have higher incidence of getting foot pain.

We found that the main cause or triggering activity of foot pain was long time standing and household work. While some other activities which triggers the foot pain are walking, travelling and jogging to some extent.

It has been evidently proved in our research that choice of footwear can cause the foot pain and some activities can increase the intensity of pain.

Andrew k concluded a large proportion of the population wear incorrectly sized footwear, which is associated with foot pain and foot disorders.

Greater emphasis should be placed on both footwear fitting education and the provision of an appropriately large selection of shoes that can accommodate the variation in foot morphology among the population; particularly in relation to foot width[12].

There is a need to raise awareness and improve knowledge among the population to encourage appropriate footwear choices that fit properly and provide biomechanical support. Additionally, footwear designers should develop products that are both ergonomically and biomechanically sound.

LIMITATIONS –

1. Sample size was small (303).
2. Further studies in different cities should be carried out to stablished more valid relation between choice of footwear and foot pain.

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