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Association Between Sciatica And Work Related Prolonged Sitting Among Adult And Middle Aged Population

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ABSTRACT

Sciatica is a typical kind of torment affecting the sciatic nerve, a large and thick nerve reaching out from the gluteal region to the back of thigh and leg to give nerve supply to that region. Sciatica generally influences just one side of the lower extremity. Usually the pain and tingling sensation reaches out from the lower back completely through the rear of the thigh and down through the leg. There are many challenges faced by the people affected with this condition,its prevalence, work related damages in the middle aged and adult population are not accurately analysed and studied by researchers. This research is needed to know the awareness among prolonged working Students. To inculcate better sitting posture in middle age.If not diagnosed in the early stages , the pain may likewise stretch out to the foot or toes. Treatable by a medical professional. Usually self-diagnosable,Lab tests or imaging rarely required,Medium-term: resolves within months.

Key words: Sciatic nerve; Compression; Pain; Prolonged sitting; Work; Awareness

INTRODUCTION

Sciatica is the pain radiating along the Sciatic Nerve on one or both thighs. It is caused when a herniated disc in the spine presses a nerve. It is treatable and easily diagnosable. More than 10 million Cases are reported in India everyYear. It can be resolved in months under the guidance of the medical profession. It is very popular due to its potential risk when life is neglected . Awareness about this is very required because these days everyone works for long hours in a wrong sitting posture. Measures to prevent sciatica should be taken by every person with Prolonged sitting habits Existence of relationship between workplace and occurrence of low back pain and sciatica all recognised (1).

Prolonged static sitting postures Show negative effects on intervertebral discs and lead to LBP and Sciatica (2). There are 5 Times more chances for Tractor drivers to get sciatica, due to too harsh positions and movements (3). There are many challenges faced by others, research in the middle aged and adult population was not accurately taken by others. Regional variation Occupations variations also differ from person to person. This research is needed to know the awareness among prolonged waking Students. To inculcate better sitting posture in middle age and the to create an awareness about this topic Indian occupation validated from foreign country, awareness in college student, on sitting postures and harsh movements.Aim of the study is to create awareness among association between Sciatica and Work related prolonged sitting among adults and the Middle Aged population (4-7).

Patients with sciatica as a rule experience torment in the lumbar spine, and constantly the agony will be one-sided (8). A typical trademark is that the pain might be radicular to the ipsilateral influenced furthest point (9). Regularly, patients may portray torment or a tickling sensation somewhere down in the back, and as often as possible they will depict paresthesia that goes with the pain (10). Less ordinarily there is related ipsilateral leg shortcoming. These patients may portray the influenced leg feeling overwhelming (11). A straight-leg raise test has variable affectability and explicitness and could conceivably be available relying upon the basic reason. The straight-leg test is a detached assessment. The straight-leg test is performed by having the patient lay in a casual, prostrate position (12).

MATERIALS AND METHODS

Prospective observational study with the sample size of 100 college students from a private health profession college. Measures were taken to check internal and external errors. Simple Random Sampling was done as per statistical norms. The participants were above the age of 15 years to 25 years. Online survey links were created on google forms, containing standard surveys of questions about the personal information, demographic details, gender, occupation, knowledge about sciatica, clinical complications of sciatica, etc. The output data was represented in the form of pie charts and bar diagrams using descriptive analysis in SPSS Software. This is later used to obtain information easily in graphical forms.

RESULTS AND DISCUSSION

In the present study out of 100 respondents, 79% are aged between 15-20 years, 12.3% are aged between 20-25, 8.5% are above 25 years (Figure 1). Out of 100 respondents,57.94% are male, 41% are female and 0.93% are others (Figure 2). Based on the occupation of the participants who took the survey, 91.5% are students, 8.5% are parents and 0.93% are others (Figure 3).

81.9% of the participants have heard about sciatica whereas 18.1% have no Idea about it (Figure 4). 65.7% of the participants know that it affects the people with long sitting habits and 34% don't know (Figure 5). 69.2% of the Respondents agree with the fact that Sciatica is very common among the Indian Population whereas 20.8% are against it (Figure 6). 72.9% of the Respondents do know that sitting posture can Save one from being affected by sciatica whereas 22.1% don't think so (Figure 7).

76.9% of the participants think that physical activity can show a good effect on treating Sciatica whereas 23.1% don't think so (Figure 8). 75% of participants know that untreated Sciatica Can cause paralysis of the leg, while 25% have no idea (Figure 9).65.95% of participants know that 10 million Indians Suffer with sciatica everywhere as 35% have no Idea (Figure 10).

Most Participants in the age group of 15-20 years have more awareness and knowledge on sciatica when compared with participants of other age groups. 65% of the people from the age group 15 to 20 years have heard about sciatica (Figure 11). 52% of the people in the age group of 15- 20 years know that it affects the people with long sitting habits (Figure 12). 55% of the people in the age group 15-20 years know that sciatica is very common among the Indian population (Figure 13). 61% of the people who are in the age group of 15-20 years know that their sitting posture can save them from being affected by sciatica (Figure 14).

63% of the people in the age group 15-20 years know that their poster can save them from being affected by sciatica (Figure 15). 63% of the participants from age group 15 to 20 years know that sciatica can cause paralysis of the leg if it is untreated (Figure 16). 53% of the participants in the age group of 15-20 years know that 10 million Indians suffer from sciatica every year (Figure 17). 66% of the participants in the age group 15 -20 Years said that daily physical exercise and good sitting posture can put sciatica away (Figure 18).

65% of the people agree that people with long sitting habits have more chances to get affected by Sciatica (16).; 34 % of the people don't agree with it. 69% of people agreed that sciatica is very Common among the Indian population , while 30.8% did not agree with it (13-15). 77.9% of people know that sitting posture can save them from being affected by Sciatica (19)(20). 76.9% think that physical activity Can Show good effect on treating Sciatica 65 % of than do know that 10 million Indians Suffer with sciatic every year whereas 35% have no Idea about it (21)(22)(23).79.8% of them Know that exercise, good sitting posture can put away sciatica. 69.2% agree that untreated Sciatica can lead to permanent back pain, whilst 30.8 % deny the Fact 85.7% had an opinion that this survey was useful in giving them knowledge (16-18). Sciatica affects many people. Patients are community treated in primary Care but a small proportion is Jeffled to Secondary care and may eventually have Surgery (19). Diagnosis and treatment sciatica Less sample size, practical assessment. Regionalism are some of the limitations of the Study This Survey spreads awareness on sciatica and work related prolonged sitting among the adult and middle aged population. Awareness about this is very important because today everyone works for long hours with a wrong sitting posture which is very dangerous (20-22).

Depending on the community, the prevalence of sciatica, a musculoskeletal condition, can range from 2 to 5%. It is the reason why people with sciatica have a significant impairment burden and substantial health-related costs to society (23). Previous research has discovered links between employment characteristics and sciatica or a herniated lumbar disc. In recent decades, little has been learned about the risk of sciatica and factors associated to the workplace. Recall bias in workload exposure can result from the cross-sectional or case-control study design used in many previous studies to examine work-related characteristics. It's possible that individuals with sciatica chose easier job assignments in these study designs, and the "healthy worker effect" may have affected the findings (24).

Sciatica risk has been reported to be increased by occupational workload and physical activity at work, such as lifting or carrying heavy goods. Herniated lumbar discs have also been linked to non-occupational lifting, particularly when done with straight knees and a bent back. Sciatica risk factors have also been proposed to include trunk twisting at work and occupational exposure to whole-body vibration (e.g., motor vehicle drivers, machine operators). Some prospective studies, however, have contested the idea that physically demanding work increases the incidence of sciatica (25).

CONCLUSION

It can be concluded that this research is done to create awareness on sciatica and good sitting posture among the present generation so that prevention measures can be taken. Students of the age group 15-20 years have good knowledge on the topic. Parents need to have more knowledge on sciatica as this is more common from age 30 and above. More awareness studies can help in inculcating knowledge among all age groups.

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AUTHORS CONTRIBUTION
All the authors contributed equally in concept, design, carrying out the research and analysis of the study.

CONFLICT OF INTEREST
The authors have none to declare.

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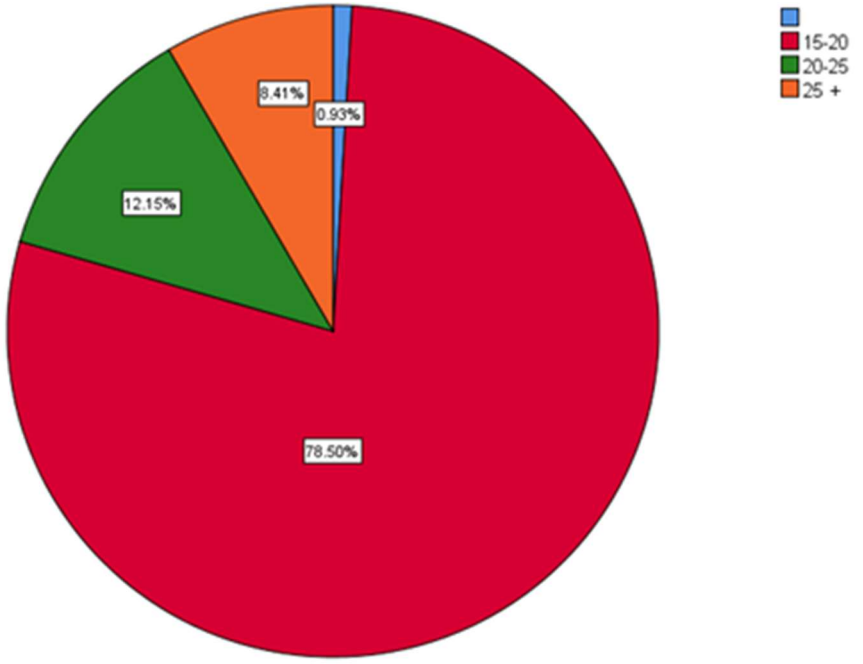

Figure 1: The pie chart shows the frequency distribution of age groups of the survey participants. 78.50% are aged between 15-20 (red colour), 12.15% are aged between 20-25 (green color) and 8.41% are above 25 years (orange color), 0.93% were aged between 10-15 years (blue colour).

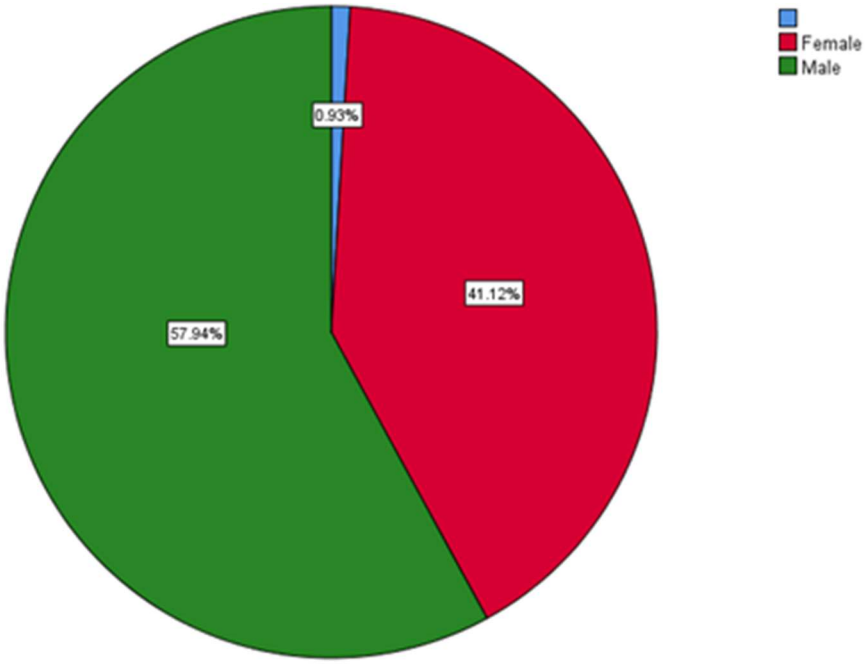

Figure 2: The pie chart shows the frequency distribution of gender of the survey participants. 57.94% are male (green colour), 41.12% are female (red colour) and 0.93% are others (blue colour).

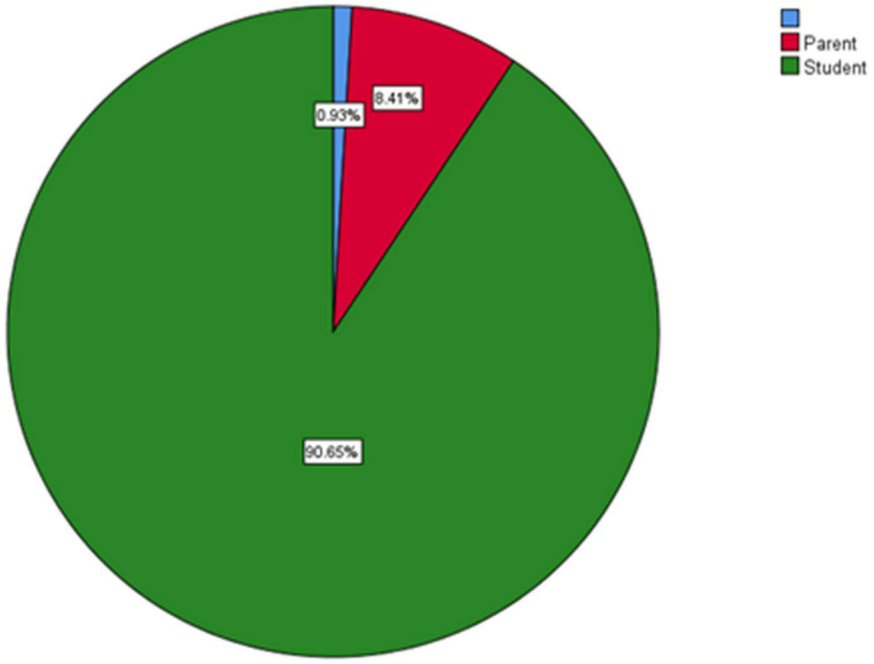

Figure 3: The pie chart shows the frequency distribution of occupation of the survey participants. 90.55 % all students (green colour) ,8.41 % are parents (red colour) and 0.93% are others (blue colour).

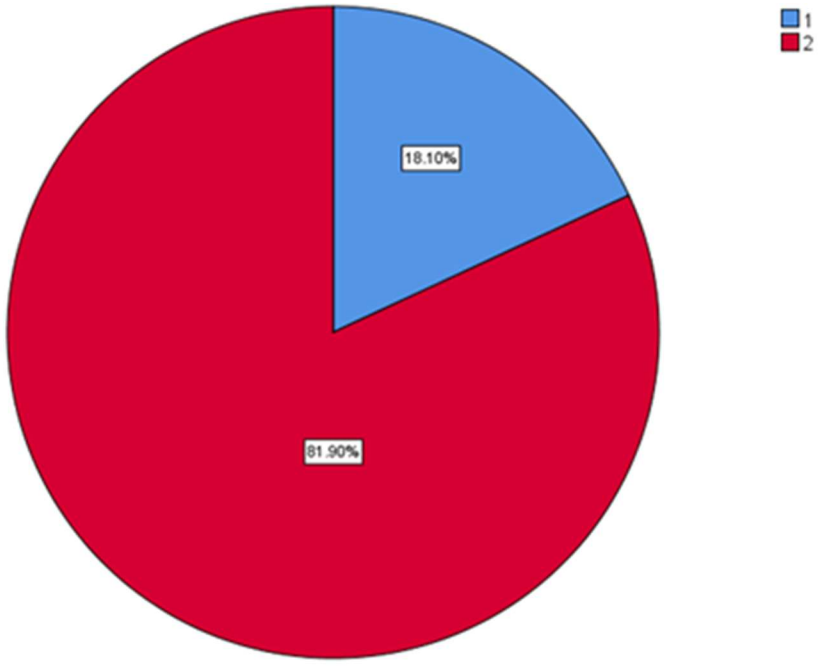

Figure 4: The pie chart shows the frequency distribution of knowledge of the participants on sciatica. 81.9% have heard about sciatica (red color) whereas 18.1% have no Idea about it (blue color).

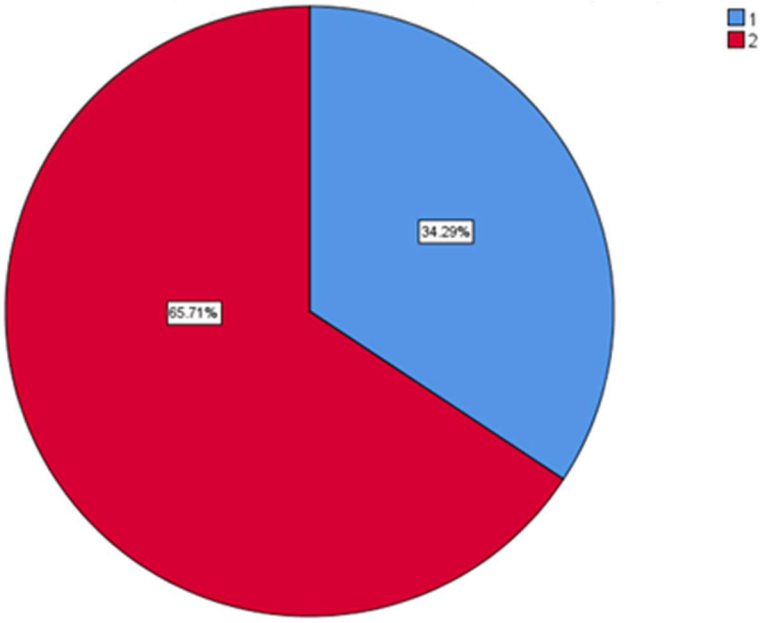

Figure 5: The pie chart shows the frequency distribution of knowledge of the participants on association between long sitting habits and sciatica. 65.7% know that it affects the people with long sitting habits (red color) and 34% don't know about it (blue color color).

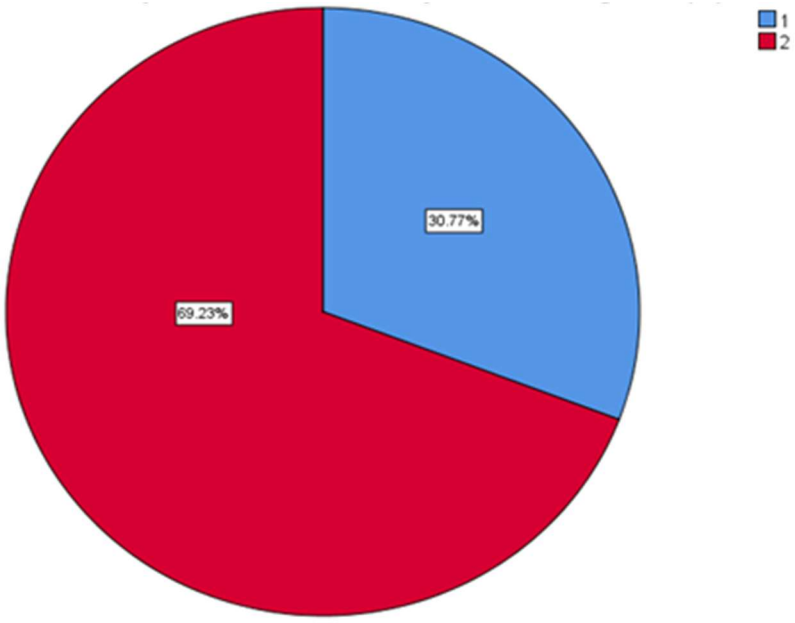

Figure 6: The pie chart shows the frequency distribution of knowledge of participants about the prevalence of sciatica among Indian population. 69.2% of the responses agree with the fact that Sciatica is very common among Indian Population (red color) whereas 20.8% denied this (blue color).

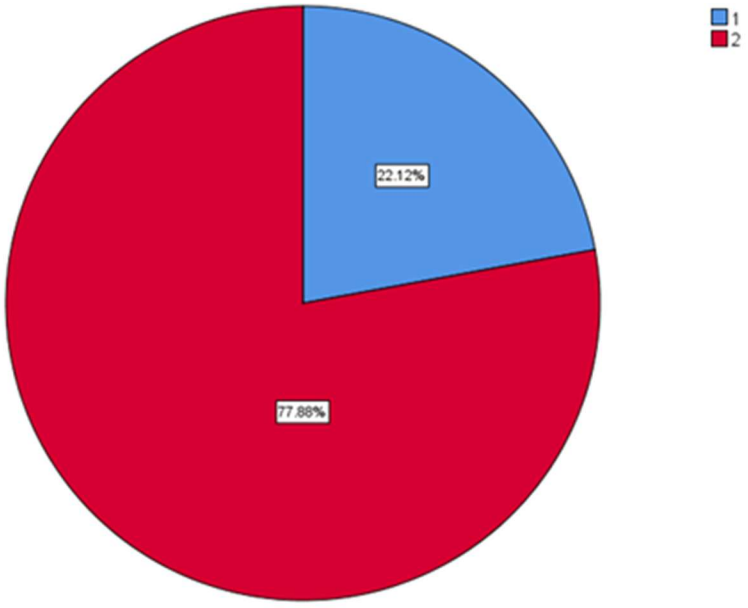

Figure 7:The pie chart shows the frequency distribution of knowledge of participants about the good sitting posture which can prevent sciatica. 72.9% do know that sitting posture can save one from being affected by sciatica (red color) whereas 22.1% don't think so (blue color).

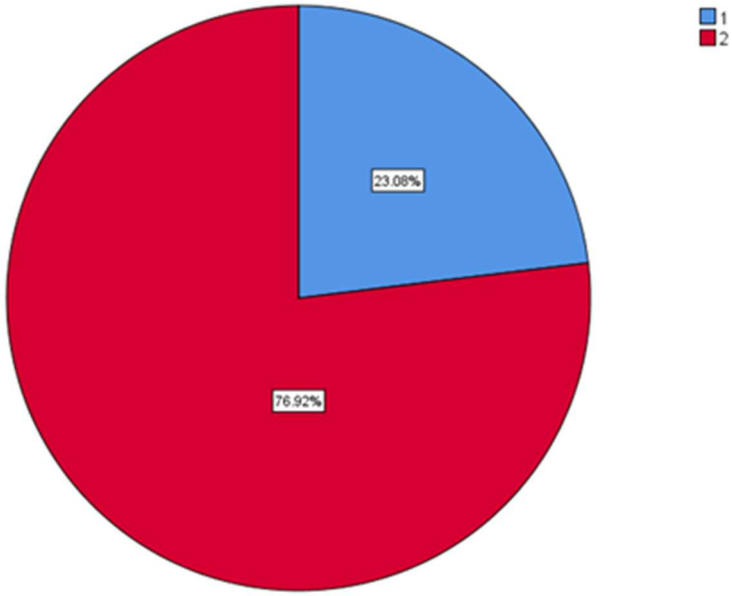

Figure 8: The pie chart shows the frequency distribution of knowledge of participants about the impact of physical exercise on sciatica. 76.9% think that physical activity can show good effect on treating Sciatica whereas (red color) and 23.1% don't accept this (blue color).

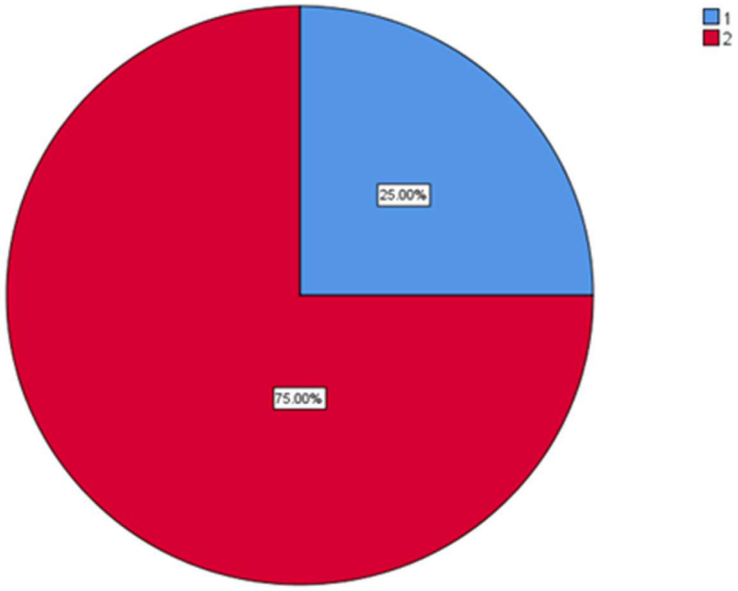

Figure 9: The pie chart above shows the knowledge of participants about the negligence which can cause paralysis. 75% of them know that untreated Sciatica Can cause paralysis of leg (red color), while 25% have no idea (blue color).

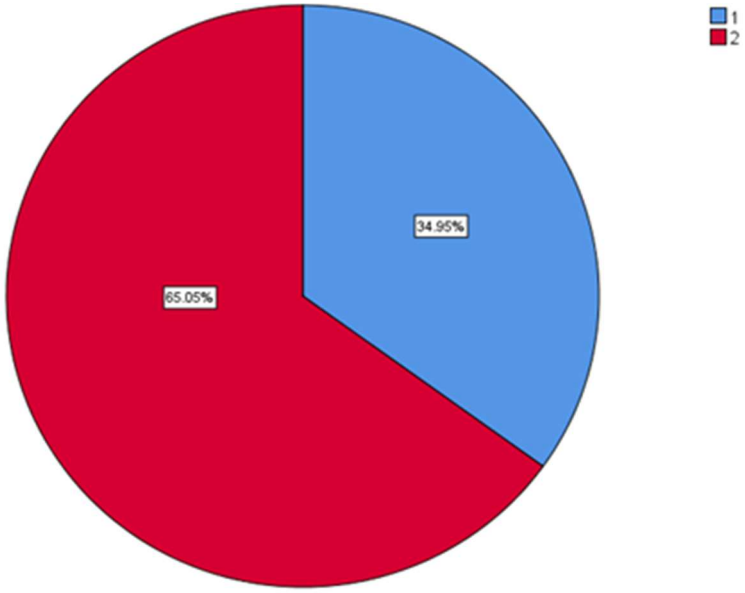

Figure 10:- The pie chart shows the frequency distribution of knowledge of participants about the early cases of sciatica in India. 65.95% of them do know that 10 million Indians suffer with sciatica (red color), whereas 35% have no Idea (blue color).

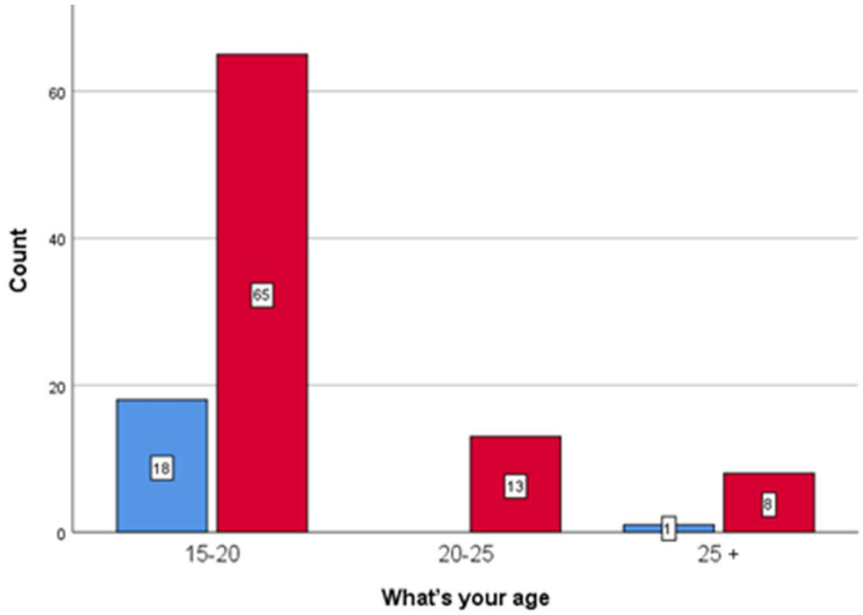

Figure 11 :The bar graph showing association between different age groups of students whether they Heard about sciatica or not. 65% of the people from the age group 15 to 20 years have heard about sciatica . X axis showing the genders and Y axis showing the number of participants. Chi square analysis was done. p-value=0.143,(p>0.05 considered statistically insignificant). Blue-No, Red-Yes.

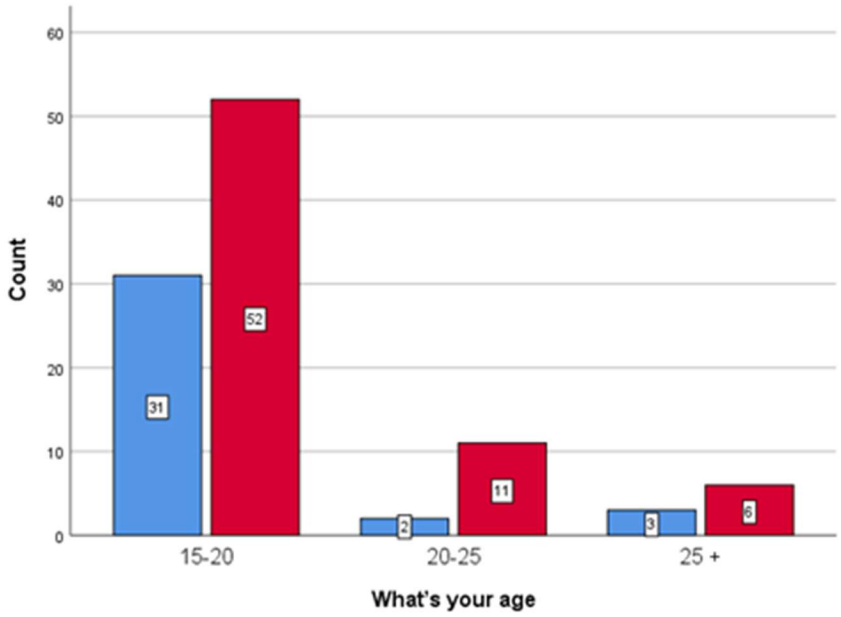

Figure 12 :-The bar graph showing association between different age groups of students whether they know that it affects the people with long sitting habits or not. 52% of the people in the age group of 15- 20 years know that it affects the people with long sitting habits. X axis showing the genders and Y axis showing the number of participants. Chi square analysis was done. p-value=0.300,(p>0.05 considered statistically insignificant). Blue-No, Red-Yes.

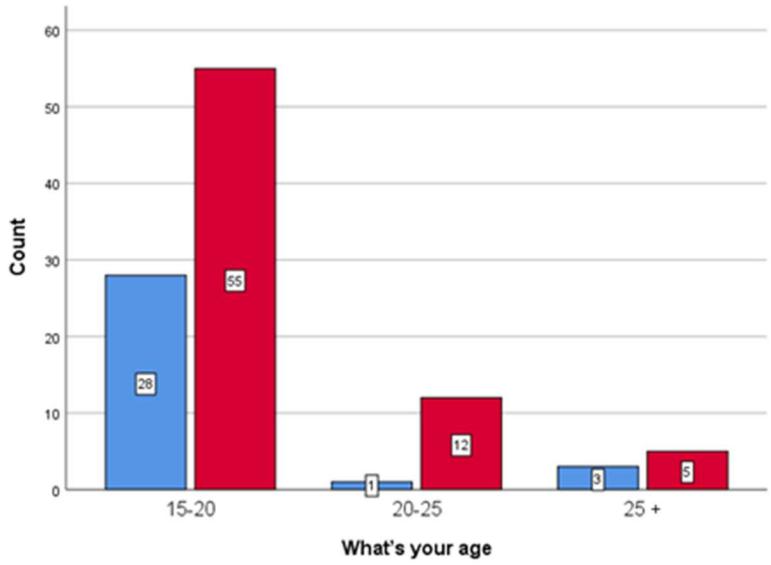

Figure 13 :-The bar graph showing association between different age groups of students whether they know that sciatica is very common among Indian population or not. 55% of the people in the age group 15-20 years know that sciatica is very common among Indian population .X axis showing the genders and Y axis showing the number of participants. Chi square analysis was done. p-value=0.152, (p>0.05 considered statistically insignificant). Blue-No, Red-Yes.

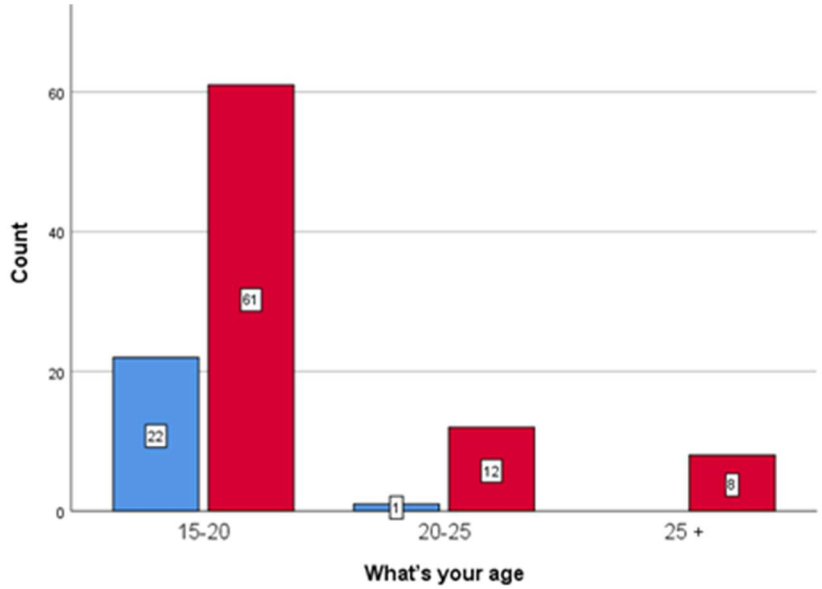

Figure 14:- The bar graph showing association between different age groups of students whether their sitting posture can save them from being affected by sciatica or not. 61% of the people who are in the age group of 15-20 years know that their sitting posture can save them from being affected by sciatica. X axis showing the genders and Y axis showing the number of participants. Chi square analysis was done. p-value=0.092, (p>0.05 considered statistically insignificant). Blue-No, Red-Yes.

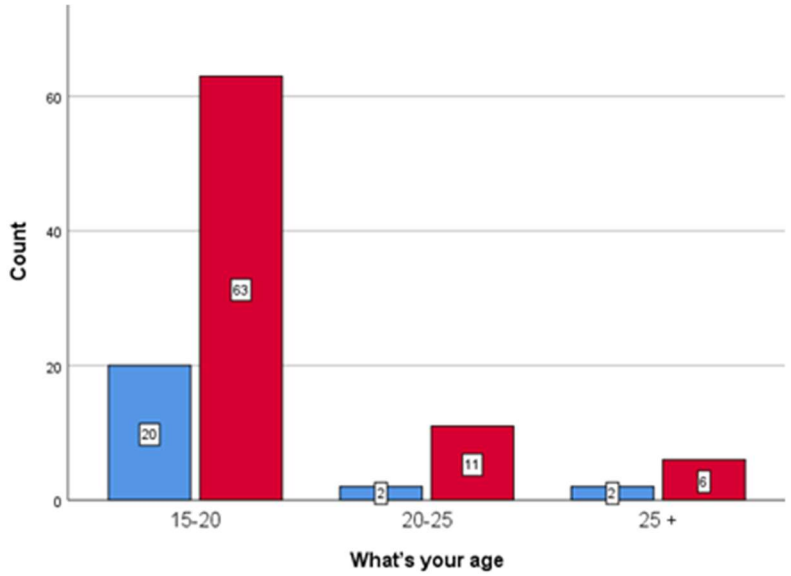

Figure 15: The bar graph showing association between different age groups of students whether they know that their poster can save them from being affected by sciatica or not. 63% of the people in the age group 15-20 years know that their poster can save them from being affected by sciatica. X axis showing the genders and Y axis showing the number of participants. Chi square analysis was done. p-value=0.092, (p>0.05 considered statistically insignificant). Blue-No, Red-Yes

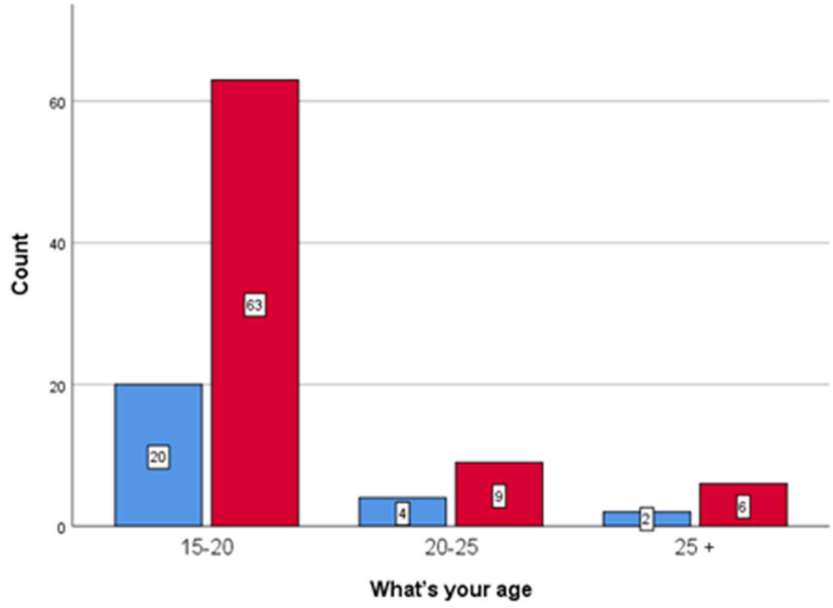

Figure 16: The bar graph showing association between different age groups of students whether they know that sciatica can cause paralysis of the leg if it is untreated or not. 63% of the participants from age group 15 to 20 years know that sciatica can cause paralysis of the leg if it is untreated. X axis showing the genders and Y axis showing the number of participants. Chi square analysis was done. p-value=0.875, (p>0.05 considered statistically insignificant). Blue-No, Red-Yes.

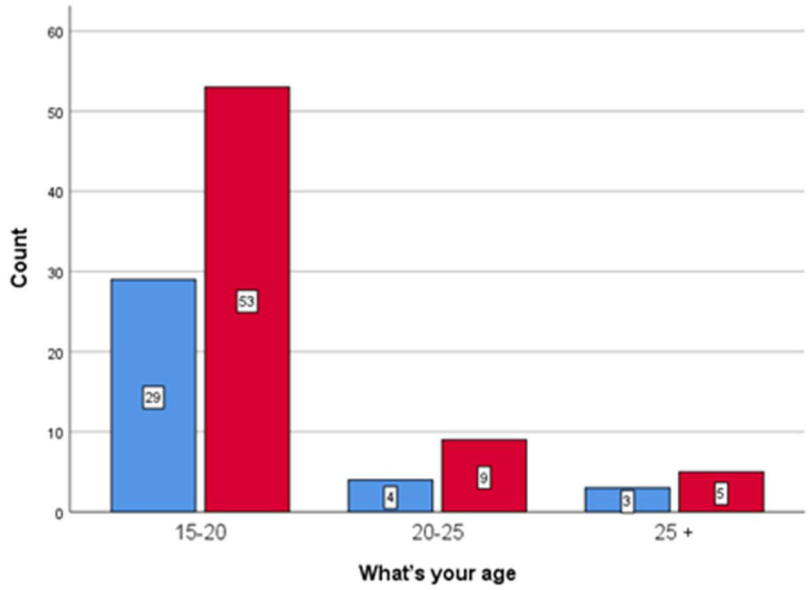

Figure 17:The bar graph showing association between different age groups of students whether they know that 10 million Indians suffer with sciatica every year or not. 53% of the participants in the age group of 15-20 years know that 10 million Indians suffer from sciatica every year. X axis showing the genders and Y axis showing the number of participants. Chi square analysis was done. p-value=0.938, (p>0.05 considered statistically insignificant). Blue-No, Red-Yes.

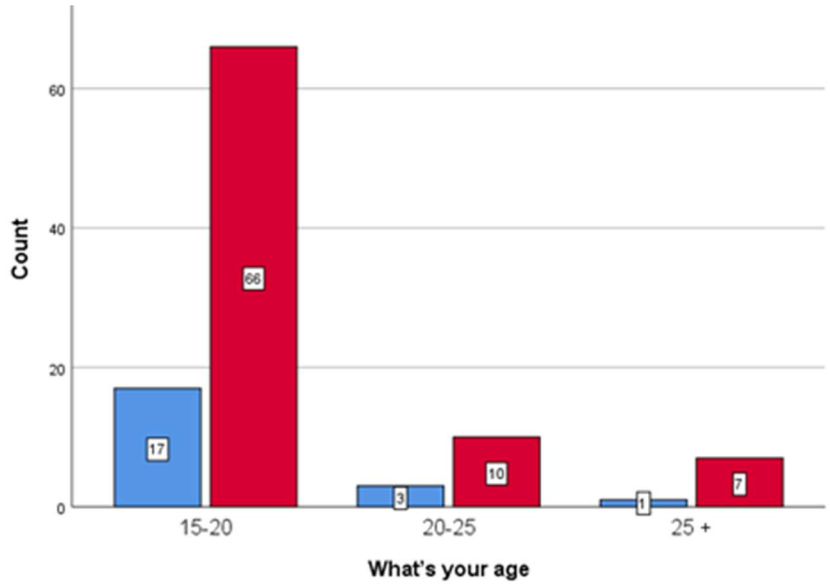

Figure 18:-The bar graph showing association between different age groups of students whether they know that daily physical exercise and good sitting posture can put sciatica away or not. 66% of the participants in the age group 15 -20 Years said that daily physical exercise and good sitting posture can put sciatica away. X axis showing the genders and Y axis showing the number of participants. Chi square analysis was done. p-value=0.833, (p>0.05 considered statistically insignificant). Here, Blue-No, Red-Yes.