Scientific Hub of Applied Research in Emerging Medical science & technology (SHAREme)

SHARMEme |Vol.5 | Issue 1| Jan - Mar -2026

https://shareme.joinjet.org/

ISSN: 2583-3162

DOI: https://doi.org/10.61096/SHAREme.v5.iss1.2026.1-9

Research

AWARENESS OF PROPER POSTURE AMONG COLLEGE STUDENTS IN DAKSHINA KANNADA

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Published on: 05.01.2026

Published by:
Futuristic Publications

Abstract

Abstract: Spinal pain and postural deviation are common due to the lack of awareness of students in observing proper posture upon performing daily activities were poor posture can lead to pain, muscle ache, and exhaustion. The research sought to determine the level of awareness of proper posture among the college students.

METHOD-A observational study with total of 110 students from colleges of dakshina kannada participated in the study. 110 college students aged between 18-25 years were included. Questionnaire on Body Awareness of Postural Habits in Young People (Q-BAPHYP) Outcome measure was used to determine level of awareness of college students in terms of proper posture. Data was collected with help of online google form™ .After collecting data, data was analyzed and results were drawn

RESULT- The result in this study shows that the respondents (college students) are frequently aware of thier posture with mean ranging from 2.3-3.5 with a standard deviation ranging from 0.5-1.9. In respect to the body posture at home, 18.8% of the students are frequently, in respect to carrying objects, student's percentage of 22.1%. In respect body posture in classroom, 18.6% of the students are frequently. Frequency of students observing proper posture in classroom, home and carrying objects is only 40.2%, 42.2% and 45% respectively.

CONCLUSION- This study concludes that students have moderately decreased level of awareness in terms of the posture that should be adopted in performing any ADLs can result in postural problems like postural deviation and low back pain that would last until adulthood. Postural education program may result in positive change where in students adopt the proper posture upon performing any activity.

Keywords: proper posture, college students, awareness, activities of daily living.

1. INTRODUCTION

The alignment or orientation of body parts while remaining upright is known as posture[1]. The mechanical connection between the various bodily parts is another definition of posture [2]. "Posture" is a motor habit formed on a specific morphological and functional backdrop in their study[3].

In the long run, poor posture can lead to pain, muscle ache, and exhaustion were many patients with chronic back pain might attribute their condition to years of poor postural habits[4]. Additionally, bad posture might have an impact on the position and functionality of your essential organs, especially in the abdominal region[1].

A person with good posture exudes composure, integrity, and respect, which can contribute to their attractiveness[4]. To have proper posture, it's critical that your back, muscles, and joints are in great shape were the cervical curve, thoracic curve, and lumbar curve are the three typical curves of a healthy spine[1]. In actuality, excellent posture maintains the balanced alignment of these three curves in additional strong and flexible muscles are required for optimal posture[4]. When the body is in an irregular condition, tissues and organs can still operate normally in an upright position but the body cannot maintain a constant state[5]

Lack of awareness of proper posture, sedentary lifestyle, occupational demands, joint stiffness, decreased flexibility, muscle weakness, poor core stability, and inadequate ergonomic workstations are common risk factors for postural dysfunctions[9].

If bad posture is not fixed, it can lead to depression, stress, digestive problems, respiratory problems, back discomfort, and tension headaches[6]. The lower back (63%), neck (53%), shoulders (38%), and wrists (33%) are the most often affected body parts. Lung expansion may be hampered by poor posture[7]. A student are exposed to a range of static and dynamic circumstances related to the college bag and sitting for long hour in class and use laptop and electronic gadget which effects the posture.

However, Early detection and treatment of postural irregularities offers opportunity to reinforce teaching methods that help pupils learn and receive adequate instruction. Once exposed to the proper posture early on, young people can adopt it[12].

Additionally, they demonstrated how little people generally knew about certain factors like weight limits and proper carrying technique.

If the college students are less aware of the proper posture to adopt when completing any ADLs, it could lead to postural issues that would persist into adulthood. Students who are exposed to postural instruction program early on may experience positive change, adopting the right posture when performing any task[12].

There is a paucity of research on how posture is maintained in college and home while sitting, standing and activity of daily life (ADL), which was therefore chosen as one of the conditions in the current study came to the conclusion that parental knowledge was adversely connected with the prevalence of posture in students.

MATERIALS AND METHODS

This observational study was conducted over a period of three months, with participant enrollment beginning in March 2023. The study population consisted of college students from various colleges in Dakshina Kannada. Data were collected using an online Google Form™ created on a laptop and distributed digitally. A non-probability sampling design was employed, and participants were recruited through convenience sampling based on their accessibility and willingness to participate. College-going students between 18 and 25 years of age, of both genders, and those regularly attending classes were included in the study. Students who did not attend classes regularly or were unable to read or understand English were excluded from participation.

PROCEDURE

A Observational study was conducted, during the academic year of 2023 among college students across Dakshina Kannada.

ONLINE GOOGLE FORM: In order to collect data from students of different college students across Dakshina Karnataka, a survey was completed with the help of online Google form TM, Google form TM was created with the help of one questionnaire Q-BAPHYP (Questionnaire on body awareness of postural habits in young people) and personal demographic details of students.

DATA COLLECTION TECHNIQUE:

After the approval from the Institutional ethical committee of Alva's college of Physiotherapy, Moodbidri. Name, Email and course of the students studying in different colleges across Dakshina Kannada were collected. After collecting all the data from the Internet, a request email followed by telephonic message with the link to the google form, bearing the consent and questionnaires was sent to the participation of students in the study. A request was made to all students to participate in the study by sharing links through What's app messages or email. All the voluntary students were part of the study on the basis of inclusion and exclusion criteria. The nature of the study was explained to all the students through a description. The consent form was taken from all the subjects through the same Google form™ and then data was collected. A outcome measures were attached with google form to measure the awareness of posture scale.

All items of the Google form were mandatory for students to fill and one student was able to fill out the form only one time. All the details were given and explained in Google form™ and students were instructed to read all the instructions carefully before filling the Google form ™.

The following personal data was collected from the students –

1.Name
2. Email address of students.
3. Age
4. Gender
5. Course and year of study

In order to protect the privacy, contact no of the student and college studying in was not asked and collected. The purpose of taking email was to ensure the participation of the students.

OUTCOME MEASURES:

Q-BAPHYP (Questionnaire on Body Awareness of Postural Habits in Young People). This questionnaire has a content validation of 0.28 and 72% and it also has an inter class correlation coefficient of 0.66 and 0.74. (20) The questionnaire is a subjective instrument that evaluates the awareness of an individual regarding proper posture.

1. With respect to body posture in the **CLASSROOM**
2. With respect to body posture at **HOME**
3. With respect to **CARRYING OBJECTS**

With options

a. Never
b. Rarely
c. Frequently
d. Always
e. Don't know

FOLLOW UP AND PARTICIPANTS OF STUDY:

Total 110 students from different colleges across Dakshina Kannada participated in the study. While collecting the data we were keep on monitoring the collected data of students in order to achieve the required sample size of eligible students. A follow-up email and what's app message was sent to college students after 3 weeks of sending the message or email to achieve the required sample size of eligible students. After getting 110 responses from students the link of google form was deactivated as we achieved required eligible 110 students.

DATA ANALYSIS AND INTERPRETATION

1. **Baseline characteristics of data-**

- Categorical variables were presented by frequency and percentages and continous variables by mean and standard deviation. All data was entered into an excel sheet.
- Data was analzsed for all the participants by converting all the responses into numerical values by assigning values in the excel sheet and all the data was analzsed statistically.

2. **Gender and Age distribution**

- The total of 110 college students aged between 18-25 years with a mean age of 20.6 years (table:1) were completed and responded to the questionnaire through google form to the researcher with a response rate of 100%. There were 34 males and 86 females as shown in table: 2.

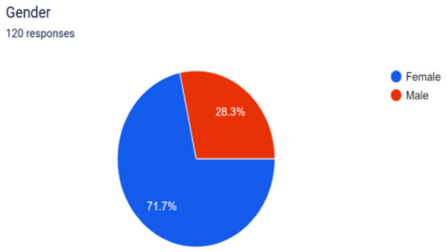
RESULT

The result in this study shows that the respondents (college students) are frequently aware of of thier posture with mean ranging from 2.3-3.5 with a standard deviation ranging from 0.5-1.9. students lack the awareness of observing proper posture. Some college students who are aware of proper posture are not adapting it in their ADL activities.

In respect to the body posture in the classroom, 18.6% of the students are frequently aware of the proper posture that should be followed in class at all times. In respect to the body posture at home, 18.8% of the students are frequently aware of the proper posture that should be portrayed at home. In respect to carrying objects, student's are always observing the proper posture with a percentage of 22.1%. frequency of students observing proper proper posture in classroom, home and carrying objects is only 40.2%, 42.2% and 45% respectively.

Table:1

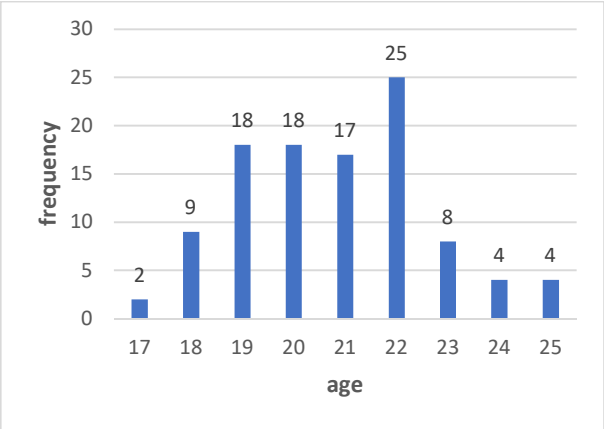
Gender	Frequency	Percentage	Mean	Standard deviation
Male	34	28.3%	1.717949	0.451934
Female	86	71.7%		



Graph 1: Gender distribution

Table:2

Age	N (no of people)	Percentage	Mean	Standard deviation
17	2	1.7%	20.69231	1.909421
18	9	7.5%		
19	18	1.7%		
20	18	15%		
21	17	14.2%		
22	25	20.8%		
23	8	6.7%		
24	4	3.3%		
25	4	3.3%		



Graph 2

Table 3

	N (Total number)	Minimum answer	Maximum answer	Mean	Standard deviation
1.	110	1	5	2.982906	1.008438
2.	110	1	5	2.606838	0.982232
3.	110	1	5	2.017094	1.008438
4.	110	1	5	2.136752	1.21105
5.	110	1	5	3.08547	1.214657
6.	110	1	5	3.333333	0.919145
7.	110	1	5	2.025641	1.148174
8.	110	1	5	2.282051	0.917701
9.	110	1	5	3.769231	0.59284
10.	110	1	5	1.854701	0.940148
11.	110	1	5	3.17094	1.002502
12.	110	1	5	2.957265	0.994755
13.	110	1	5	2.290598	0.938265
14.	110	1	5	2.290598	1.114635
15.	110	1	5	3.25641	1.001325
16.	110	1	5	2.293103	1.201573
17.	110	1	5	2.478632	0.91537
18.	110	1	5	2.846154	1.186239
19.	110	1	5	2.094017	1.166951
20.	110	1	5	2.290598	1.000516
21.	110	1	5	2.905983	0.946709
22.	110	1	5	3.136752	0.981782
23.	110	1	5	3.111111	0.989408
24.	110	1	5	1.940171	1.044613
25.	110	1	5	3.641026	0.724706
26.	110	1	5	3.017094	0.991193
27.	110	1	5	2.384615	1.13598

28.	110	1	5	2.094017	1.166951
29.	110	1	5	2.264957	1.155147
30.	110	1	5	3.452991	0.951367
31.	110	1	5	2.769231	0.977194
32.	110	1	5	2.863248	1.065978
33.	110	1	5	3.512821	0.906066
34.	110	1	5	2.623932	0.953456
35.	110	1	5	2.34188	1.211741

The result showed that the respondents are frequently aware of their posture since it yielded a mean ranging from 2.3-3.5 with a standard deviation ranging from 0.5-1.9. In table 3 the minimum and maximum answers of the respondents were shown, most of the respondents had a minimum answer of 1 (Never) and a maximum answer of 5 (I don't know) through this the researcher was able to find out that the respondents does not know the proper posture that should be observed.

Table:4

Response	Proper Posture (%) "Classroom''	Proper Posture (%) "Home"	Proper Posture (%) "Carrying objects"	Improper Posture (%) "Classroom''	Improper Posture(%) "Home"	Improper Posture(%) "Carrying objects"
1	7.72%	6.62%	7.5%	29.8%	25.61%	20.8%
2	18.9%	25.8%	23.3%	40.6%	39.06%	32.7%
3	18.6%	18.8%	22.1%	15.7%	17.8%	15.8%
4	40.2%	42.2%	45%	10.5%	13.7%	14.3%
5	18%	1.21%	0.5%	4.20%	2.8%	0.1%

In respect to the body posture in the classroom, 18.6% of the students are frequently aware of the proper posture that should be followed in class at all times. In respect to the body posture at home, 18.8% of the students are frequently aware of posture that should be portrayed at home. In respect to carrying objects, student's are always observing the proper posture with a percentage of 22.1%. frequency of students observing proper proper posture in classroom, home and carrying objects is only 40.2%, 42.2% and 45% respectively.

DISCUSSIONS

The purpose of our study was to determine the awareness of college students in terms of their posture when involved in Activities of daily living and classroom using Questionnaire on Body Awareness of Postural Habits in Young People. Data was collected with help of online google form™. The total of 110 students from colleges of dakshina kannada participated in the study. 110 college students aged between 18-25 years were included. Among 110 students who participated in survey, 71.7% were females and 28.3% were males. The mean age of subjects was 18-25 years with SD ± 1.909421. Questionnaire on Body Awareness of Postural Habits in Young People (Q-BAPHYP) Outcome measure was used to determine level of awareness of college students in terms of proper posture.

In the present study result shows that the respondents (college students) are frequently aware of of thier posture with mean ranging from 2.3-3.5 with a standard deviation ranging from 0.5-1.9. students lack the awareness of observing proper posture. Some college students who are aware of proper posture are not adapting it in their ADL activities.

In respect to the body posture in the classroom, 18.6% of the students are frequently aware of the proper posture that should be followed in class at all times. In respect to the body posture at home, 18.8% of the students are frequently aware of the proper posture that should be portrayed at home. In respect to carrying objects, student's are always observing the proper posture with a percentage of 22.1%. frequency of students observing proper proper posture in classroom, home and carrying objects is only 40.2%, 42.2% and 45% respectively.

A research stated that even college students who are in medical field courses are unaware of their posture, Kiruthika et al. The present study was conducted to find awareness of proper posture in college students of all courses. As college students will be occupied with long hours of class and will have impact in posture.

High prevalence of low back pain among school students was due to short and prolong sitting position. Adoption of poor posture by students can lead to musculoskeletal pain. Joint hypo-mobility and decreased flexibility can also elicit a poor posture. Students using computers are directly associated with the development of musculoskeletal discomfort or pain throughout their college age[18,26].

45 % of students responded that they are aware of proper posture in home and during ADL activities. Remaining had little knowledge about proper posture or were careless to adopt proper posture in daily activities. One of the study showed that back pain may develop due to frequent use of stooping posture while performing ADLs.

A survey study done among PUC and Degree students aged between 18 to 25 years to investigate the risk factors of posture and back pain and found out risk factors associated with backpain are modifiable

A study conducted in China was to identify the prevalence of faulty postures among adolescents. The students were asked to answer a questionnaire, on-campus postural screening which includes muscle strength test, flexibility test and digital photography.

Results showed that there is a high prevalence in forward head posture (25%) and uneven shoulder level (36%). The incidence of forward head was also increased in males compared to the females.

A research that was conducted by Noll et al observed the prevalence of adequate sitting and sleeping postures after 3 years among male and female adolescents. This research showed a decreased prevalence in adequate sitting and sleeping postures among younger adolescents compared to older ones. This means that the early stage of adolescents is very critical in establishing good spinal health habits, Noll et al.

A lot of authors have also tried to create studies investigating the presence of postural deviation in children. Most of these authors used the age range of 8 to 15 years old.in this study the population aged between 18 to 25 were considered

Batistão et al. made a study about the relationship between postural deviation and age, type of school (private or public), parental education, body mass index and body posture associated with everyday situation. However, these studies only assessed the postural deviation present in the children. The researchers did not verify the level of awareness the students have.

Students must constantly be reminded of observing the proper posture in whatever activity the students are doing. Postural education is slowly increasing as a strategy to target the problems present in the spine, World Health Organization. These back health educational programmes aim to decrease the number of young individuals experiencing spinal, back problems or other problems that affect the bones and muscles, Bettany-Saltikov et al.

If the students have decreased level of awareness in terms of the posture that should be adopted in performing any ADLs can result in postural problems that would last until adulthood. Prevention of the development of postural anomalies in early stage increases the opportunities to reinforce strategies that allow students to learn and be adequately trained. Young people are able to adopt the correct posture once early exposure is being given.

FUNDING

The authors received no financial support for the research and/or authorship of this article.

ETHICAL CLEARANCE

The study was approved by the Institutional Ethical Committee.

CONFLICT OF INTEREST

The authors declare no conflict of interest with respect to the conduct of this study.

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