

# Body Posture Awareness and Its Application in the Seated Position

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**Abstract** Postural awareness, as a very important component of youth postural education, is the ability to be subjectively aware of posture position as a consequence of self-perceptual information. The purpose of this study was to identify the relationship between cognitive level and practical action regarding postural attitudes. Participants in our study were students from Albanian University and the Sports University of Tirana (N = 286; aged 22±3). In order to identify the level of our students' body posture knowledge and how they applied it in their everyday lives, we used a closed body posture questionnaire. We used an internet platform to distribute the prepared questionnaire and gather the necessary data in accordance with the study's objective. The data were analyzed using IBM SPSS Statistics 20, and a descriptive analysis was utilized to list the characteristics of a data set and the chi-square calculator test (2x2) to generate reasonable information about the impact of cognitive level on posture. In our study, results showed that most of the students were aware of the proper body posture for many different everyday tasks. The proper position during standing was selected by 92% of the participants; washing by 82%; gardening by 81%; and carrying heavy objects by 73%, except for the right sleeping position, which was correctly chosen only by 44%. Furthermore, 91% of the participants reported that they knew enough about posture position, but only 52% reported sitting in a proper way in daily life. The cognitive level was discovered to be important but not the only influencer on postural awareness and its practical action. However, its combination with physical activity might result in a better mind-body correlation. Further research is

required to influence the rate of sitting posture awareness and its practical action by utilizing a large sample size of participants from diverse educational institutions. Based on our findings and conclusions, the study demonstrated that physical education teachers need to recognize postural behaviour issues.

**Keywords** Posture Awareness, Proprioception, Good Posture, Self-Perception of Posture

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## 1. Introduction

For decades, postural behaviour has been one of the most researched issues, analyzed from different points of view, such as health, biomechanical, mental, and motor. It was considered as reflection of musculoskeletal health, human well-being, people's activity level, and personal mood [1-3]. The way a person stands has a crucial role in conveying their personality to others and demonstrating the connection between psychology and the human body as well as morals [4]. In addition, good posture is determined to be one of the essential prerequisites for the correct functioning of the entire organism. It is critical to encourage its maintenance. Preventing postural asymmetries also reduces the likelihood of structural pathological disorders and poor movement pattern development [5]. The ability to control posture, as a requirement of good postural behaviour, is the capacity to keep the body's parts aligned such that gravity's pressure is

distributed evenly throughout the body, preventing the concentration of tension on a single joint [6, 7].

Recently, body posture has been one of the most studied issues because of its prevalence, especially among younger generations. Since its negative factors (external and intrinsic ones) continue to affect it, it is important to focus our future studies on the reduction of this posture behaviour phenomenon [1, 8, 9]. For that reason, improper posture needs to be diagnosed as soon as possible to prevent its development before it turns into a fixed pattern as a permanent posture habit. This challenge needs the immediate attention of all the education partners of the new generation because a wrongly automated attitude at an early age might be difficult to correct in adulthood [10]. Furthermore, its prevention must occur as soon as possible because if the wrong posture persists for a long time, they may face various health problems affecting daily life and the future [11].

Having adequate information, being aware of good posture, and applying it during daily activities are very important since it can prevent the occurrence of improper posture and its associated pain, such as low back pain [7]. Furthermore, it has shown that posture awareness can help the body maintain balance or recover it even after losing it. This is related to the ability to comprehend and effectively apply self-perception feedback in order to control posture alignment in relation to the environment and against gravity [12]. One of the subjects that has lately been studied in connection with perception of posture and motor control is body posture awareness. In this sense, it is seen as the subjective interoceptive and proprioceptive elements that reach conscious awareness. Body posture awareness is recognized by mental processes as a changeable component because of its connection to body scheme, tactile, and proprioceptive perceptions [5, 13].

Those who investigated the cognitive postural level of young people showed that they might be informed about posture from different sources, such as their parents, their physical education teachers, other teachers, doctors, books, magazines, etc. [14]. In addition, there is a variety of posture knowledge and its practical action level detected by other studies, particularly among sitting positions. This diversity is the result of the lack of understandable skill in the samples detected by the referred studies. In this context, the young generation doesn't need only to be informed; they also need to be motivated to better understand what a sitting position is, how it might be, etc., in order to reduce any chance of misunderstanding issues [7, 15]. Furthermore, the lack of posture knowledge can increase the possibility of an awkward sitting position, which, if persists for a long time, as happened during pandemics and online learning, where the extended sitting position was inevitable because of the learning process, may cause low back pain and headaches, negatively affecting some of the academic performance mechanisms [16].

Even though a lack of posture knowledge isn't the only factor that forces the body into an awkward position [11],

there is data that confirms the relationship between posture knowledge and its application during daily activities [14, 15]. Being more informed about this issue should be considered a necessary demand to induce pupils to make more efforts to have a better posture for other benefits, such as health and aesthetics. In most cases, the lack of information became the reason for many health problems, including posture behaviour [17].

Also, there is evidence suggesting that cognitive postural level may not be the most crucial component for postural awareness. If it is combined with physical activities, a mind-body interaction may be strengthened, improving body awareness too [18]. Furthermore, the importance of physical education is evidently expressed in the fact that physical inactivity and bad posture habits can cause the form of the skeletal and muscular systems to alter [19, 20]. Unfortunately, a number of studies show that rates of children's and adolescents' physical health are poor in many nations throughout the world [21, 22], despite the WHO's recommendation that children engage in at least 60 minutes of physical exercise each day [23]. This is a result of young people not being motivated to engage in physical exercise, which is why children's motivation levels in typical PE programs are low [24, 25].

In this context, the purpose of this study was to identify the relationship between cognitive level and practical action regarding postural attitudes.

## 2. Methodology

### 2.1. Study Participant

This study involved all students, aged 22±3 years, from the Sports University of Tirana and the Albanian University. We applied a closed posture awareness questionnaire to all the participants, but only 286 of them (87%) could complete and return it. From the students who took part in our study, 256 were Professional Master students studying for physical education teachers at the Sports University of Tirana, and 30 were bachelor students studying for primary and preschool teachers at the Albanian University.

### 2.2. Instruments of the Study

To assess the cognitive level and the practical action regarding postural attitude, we used a postural awareness questionnaire with 23 questions, of which 13% were about the sociodemographic characteristics of the participants; 57% were closed-ended questions designed about the student's postural knowledge level; and 30% were open-ended questions about the practical action of their sitting postural attitudes. This questionnaire enables some cognitive and self-perception reports regarding the goal of the study, identifying the practical impact of the postural knowledge rate.

### 2.3. Procedure

In our study, we used the BAQ (body posture questionnaire) as one of the most commonly used instruments and with good reliability when it comes to studies among young people and about self-awareness of postural habits [11,18,26-28]. To provide some more detailed data regarding the self-perception of sitting position, we added questions from the questionnaire of the Casas' [29] study and eight distinct positions (photo 1, "positions A-H", question 17, Appendix 1) of the sitting posture to easily present their practical action in the sitting posture position at various times (always, frequently, seldom, and ever).

### 2.4. Statistical Analyses

To deliver and collect the computed questionnaire from our participants, we utilized an online platform such as Microsoft Teams. For the statistical analysis of the collected data, we used SPSS, particularly the descriptive statistical analysis, to describe and summarize data points in a constructive way so that patterns might emerge to fulfill every condition of the data. Additionally, we used the chi-square calculator test (2x2) to provide accurate data and contingency tables for both groups of students (SUT and AU students) on the two categorical variables and their connections, respectively, on cognitive level and postural practical action.

## 3. Results

### • Socio-demographic Features of the Participants

The study's participants are 286 students (aged  $22 \pm 3$  years), of whom  $N = 256$  were from the Sports University of Tirana (SUT), where they were pursuing professional master's degrees as "Teachers of Physical Activity and Health," and  $N = 30$  were from the Albanian University (AU), where they were pursuing bachelor's degrees in the third course as "Primary and Pre-Scholar Teachers." Males constituted the majority of study participants (exactly 56% of the study participants were male). While regarding the age distribution of our participants, the Sports University of Tirana was dominated by students aged 22 to 23, exactly 46%, followed by those aged 24 to 25 (30%) and those over 26 (14%), while at the Albanian University, participants are less likely to be female and older than 22 to 25 years old (7%) and over 28 years old (12%).

### • Postural Knowledge regarding Different Daily Activities

Regarding thirteen closed questions about knowledge of the proper posture position during various daily activities, each question is accompanied by two alternative images. Due to these questions, our participants were asked to select the photo that, in their opinion, best depicts the correct position of the required activity (Appendix 1,

"Body Posture Questionnaire").

In question 1, students were asked to "select the suitable stance *standing in front of the table at hip level*", and the results showed that 86% of the students were aware of the required position by selecting the correct one (photo 1, question 1, Appendix 1). The same tendency resulted even in the normal *standing position* because almost all of our participants (92%) chose correctly, showing appropriate knowledge of the right standing posture position (photo 1, question 2, Appendix 1). When they were questioned about the ideal *washing posture*, only 18% of participants chose wrongly by picking photo 2 (question 3, Appendix 1). This showed that the majority of participants were well informed that when they want to clean something, their backs are safe when they stand in front of the container and set it on a bench at hip level (photo 1, question 3, Appendix 1).

With regard to the appropriate *seated posture position on a high backrest chair*, the results showed that 93% of our students knew what position to adopt by choosing photo 2 (question 4, Appendix 1). This outcome demonstrates that they are aware of how important it is to keep their backs straight, keep their hips and knees bent at a 90-degree angle, and contact their backs with high backrest chairs (photo 2, question 4, Appendix 1). When it came to the proper *seated posture in a low backrest chair*, our study clearly demonstrated that 83% of the participants chose the correct response, demonstrating sufficient awareness of the cross-legged position in a low backrest chair (photo 2, question 5, Appendix 1).

*Driving position* in our study was also well-known by most of the participants (92%) by selecting photo 1, which is an expected result because of the considerable age group of participants who consequently have sufficient knowledge regarding driving position (photo 1, question 6, Appendix 1). In our study, the *gardening position* was known to 81% of our participants who chose the correct position, as seen in photo 2, indicating that they were also aware of this body posture position (photo 2, question 7, Appendix 1).

In our study, we asked participants about their body's knowledge of *how to carry weight and put it somewhere at a high level*, and the results showed that 86% of them were aware of the value of using a seat to go close to an item (photo 2, question 8, Appendix 1). Only 73% of our students correctly chose *the carrying position for a heavy object*, indicating the need to hold the thing close to the body with bent arms. This knowledge scenario was almost identical to the previous one (photo 2, question 9, Appendix 1).

Nearly identical findings were obtained for questions 10 and 11, which concerned the optimal *carrying positions for a backpack and two buckets*, respectively. Additionally, 94% of the participants chose photo 1 as the appropriate posture position to carry heavy weights, and 93% chose photo 2 as the appropriate posture position to carry a backpack (photo 1, question 10; photo 2, question 11).

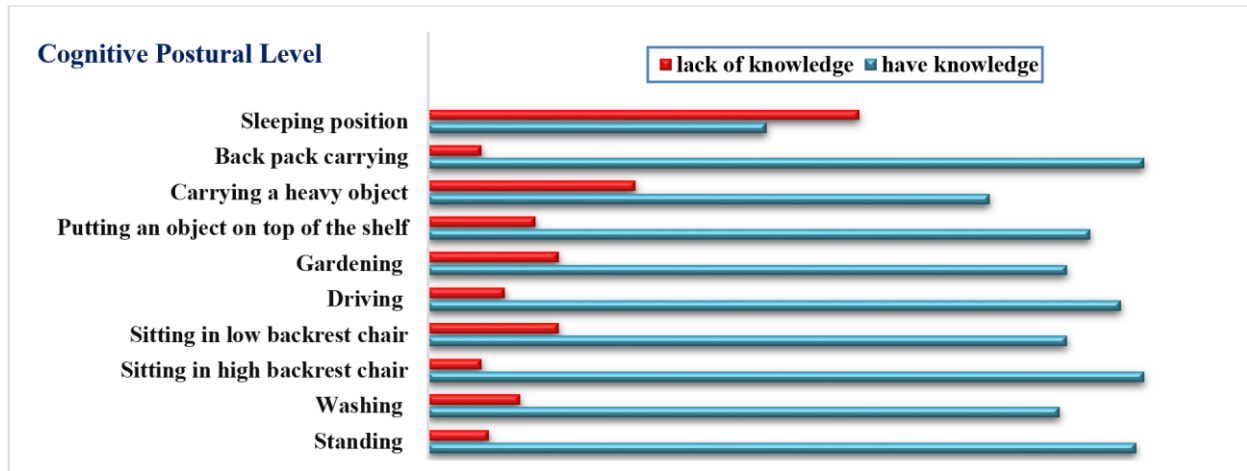


Figure 1. A summarized presentation of our participants' cognitive reports

In response to question 12, the side-lying *sleeping* posture was correctly identified by 44% of participants, indicating that 56% of them lacked knowledge about this regular behavior (photo 2, question 12). And only 83% of our participants highlighted the appropriate response to the question concerning the appropriate mattress type for sleeping (photo 1, question 13). All the results of questions 1–13 about the cognitive postural level are summarized in Figure 1.

Results showed that most of the participants had knowledge regarding the correct postural position during different daily activities.

Regarding question 14, our results have shown that 91% of the students were knowledgeable of the proper sitting posture. However, at question 15, which was an open-ended question, the opposite was true in terms of the students' capacity to explain the proper posture. We noticed that virtually all of the Sports University of Tirana participants provided extensive descriptions in answer to question 15, but the students of Albanian University only provided fragmentary descriptions. Additionally, just 9% of Albanian University students claimed to know about the proper posture for sitting, but at question 15, they had a lot of trouble describing it. In order to determine whether or not they had a good sitting position, our students were asked to explain their sitting position based on their self-perceptions. Despite the fact that 82% of Sports University of Tirana students indicated having enough knowledge about good sitting posture, only 47% of them stated having good body posture during sitting. The same pattern was seen among Albanian university students as well; just 5% of those who said they had sufficient knowledge of good posture claimed to have used it in everyday life.

Table 1 shows the effect of postural knowledge on good posture maintenance in daily life. We employed this basic chi-square calculator test (2x2) to generate reasonable information and contingency tables for both groups (SUT and AU students) on the two categorical variables and their

associations, respectively, between cognitive level and postural practical action.

Table 1. Chi Square Calculator for 2x2

	SUT	AU	Marginal Row Totals
Cognitive level	210 (209.51) [0]	9 (9.49) [0.03]	219
Practical action	99 (99.49) [0]	5 (4.51) [0.05]	104
Marginal Column Totals	309	14	323 (Grand Total)

\*The chi-square statistic is 0.0829. The p-value is 0.773436. Not significant at  $p < .05$ .

The findings of the chi-square test were not significant ( $p > 0.05$ ) regarding the relationship between cognitive level and posture, demonstrating, like Asiyah N.F. [11], that there are other factors than lack of posture awareness that might cause the body to be in an uncomfortable position.

Regarding questions 17–20, students were asked to choose one of the eight possible postural sitting postures from A–H [29], such as:

- A: Rounded back or increase of the kyphosis with the feet supported on the floor;
- B: Increase of the lordosis and the feet supported on the floor;
- C: Straight back and lumber-pelvic control, with the feet supported on the floor;
- D: Back support and reversion of the lumbar curvature, with the feet supported on the floor;
- E: Rounded back or increase of the kyphosis, feet supported on another chair;
- F: Rounded back or increase of the kyphosis and crossed leg;
- G: Straight back and lumber-pelvic control, crossed leg;
- H: Back support and reversion of the lumbar curvature, with the feet supported on another chair.

This selection is based on their posture awareness and self-perception at different times (always, frequently, rarely, or ever) when expressing their sitting position.

Results about sitting posture showed that only 53% of participants believed they should always maintain the "C position" when they were sitting, having the right position characterized by the back being straight and the feet being supported by the floor. The remaining students (47%), reported a different sitting position than the "C," indicating that their posture while seated is improper.

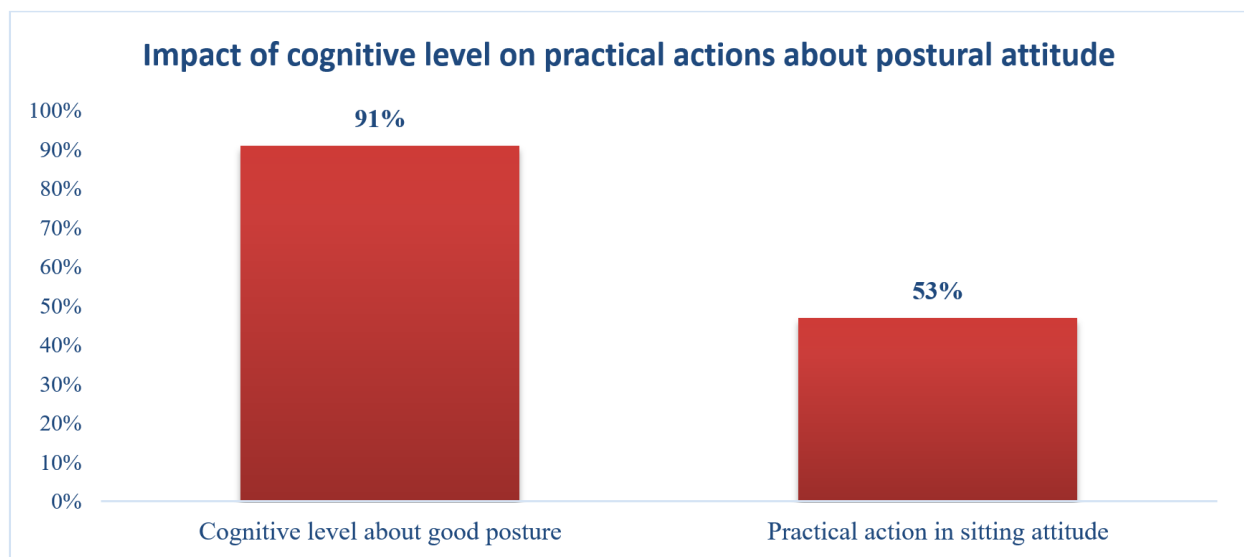
The majority of our students (48%) claim that the position "C" from photo 1, question 17, represents the most common sitting position, while 20% claim that the position "G" from photo 1, question 17, best represents the C position posture's qualities while maintaining crossed legs. In our study, it is obvious that over half of the participants *frequently* sit in a position that differs from that in the C photo, indicating that their sitting posture is incorrect.

While 20% of the participants chose position D from photo 1 question 17 as *the rare sitting posture*, indicating that supporting their feet on the floor and reversing their lumbar curvature was uncommon. Additionally, as the *ever-sitting* postural shape, positions E and F from photo 1, question 17, were chosen by 29% and 22% of respondents, respectively, indicating that they are never used to sit with

their backs rounded, their feet resting on another chair, or their legs crossed.

These findings demonstrate that their cognitive postural level (91%) wasn't alongside their practical action regarding sitting posture (53%), presenting that postural knowledge might be important for better practical action but not the only component for a better body posture awareness or mind-body relationship (Figure 2).

Regarding question 20, 43% of participants reported prolonged sitting time as a factor that caused back discomfort, respectively 37% (Sports University of Tirana students) and 50% (Albanian University students). The cognitive level that Sports University of Tirana students showed about how to relieve the cause of back pain (question 19, Appendix 1) was expected since it is closely connected to their field of study. Because of this, they were more detailed in their descriptions of the best back pain-relieving activities. In contrast, the answers given by the Albanian University students showed a lack of understanding, highlighting their urgent need for information on this subject. In our study, improper sitting posture (35%) and prolonged sitting (32%) were the primary contributors to back pain; nevertheless, 16% of students said that their back discomfort was exacerbated by their uncomfortable chairs (question 20, Appendix 1).



**Figure 2.** The relationship between cognitive level and practical sitting action

## 4. Discussion

Most of our results were alongside others, but there are findings that, because of different participants' characteristics (age, background of graduation, etc.), differ from ours. Regarding the standing right position in front of the table, most of our participants declared that they knew it, while in the referred studies just 20% of their participants declared the same [18, 26]. The cognitive level about standing posture position in our study resulted from the findings of Hafiz [15], Kumar [18], and Dissanayaka [26], who reported the same as our students did, being well informed (80%). In addition, there is data that states that even children and teachers are equally aware of standing posture. This was revealed in 2016 from a study realized among 20 teachers and 112 children from several schools in Karachi, aged 9 to 16 years old [30].

Regarding the manual washing position, other findings show the opposite of what our results showed. In our study, the majority of participants were informed about the proper posture for this work, whereas Kumar [18] found that only 30% of Karachi, Pakistan, high school students (15–18 years old,  $n = 95$ ;  $n = 43$  males;  $n = 52$  females) fully understood the proper posture for manually washing clothes. According to the similar findings of a survey done in 2014 among 776 high school students in Kandy, Sri Lanka (aged 17–18 years old,  $n = 320$  males;  $n = 456$  females), 70% of participants were not aware of the proper washing posture [26]. Our results differ from the referred research, and it was expected because of the age group, their experiences, and their anatomical and physiological knowledge as part of their graduation.

Regarding the proper sitting position, our study revealed that the majority of participants were aware of the significance of maintaining a straight back. They also knew that the cross-legged posture in a low-backrest chair is inappropriate. Furthermore, in our study, the proper seated position in a high backrest chair was declared to be known by 94% of participants, the same as found in both surveys conducted in 2014 and 2016 [18, 26].

In 2011, a survey was conducted with 25 tertiary-level students, and the findings showed nearly the same cognitive level as our results, with 75% of participants affirming their understanding of correct sitting posture [11]. Another author's study from 2015, which involved 162 dentistry students in Jizan, Saudi Arabia (aged 20 to 25), found that 81% of them had low to moderate seated postural awareness, with 21% having poor knowledge, 67% having average awareness, and just 11% having high awareness [31]. In 2017, it was found that only 75% of 400 kids from Pune City, aged 14 to 17, were aware of the proper sitting position [16]. A different survey conducted in 2021 among 70 Talisay Malayan Academy high school students, aged 14 to 16, found that 44% were aware of the right posture in the classroom and 40.57% were aware of the proper seated position at home [7].

Our participants, who consequently have significant

knowledge of driving and gardening positions, demonstrated that they were well-known by the majority of participants. In very identical findings, Dissanayaka's [26] and Kumar's [18] investigations from 2014 and 2016 found that 90% of their participants were aware of the proper driving stance. When it came to gardening, they also found that 83% of their participants were aware of its proper posture.

Regarding how to maintain a high level of weight and carry two buckets, our findings are comparable to those of Kumar [18] and Dissanayaka [26], who found that 88% of respondents were informed about the topics. On the proper posture for carrying heavy objects, compared with the results of both of them, our findings revealed more understanding, with respective knowledge scores of 73% and 52% [18, 26].

According to our findings, almost all of the participants declared that they knew how to carry a backpack properly, although data from other studies suggests that barely half of their participants (48%) were aware of that position [18, 26].

However, we found that our students had no idea regarding sleeping posture, indicating that more than half of the participants lacked information and expertise. Even 77% of participants in Dissanayaka's [26] and Kumar's [18] investigations had this information gap, demonstrating the need to increase understanding of this routine task and its proper placement.

Regarding their postural cognitive level, our findings revealed that they had enough knowledge but showed difficulties in defining the term "proper posture." Other studies have found that just 34% of medical students from Isra University, who claimed to be aware of proper posture, accurately defined it, compared to 67% of students from IIUM Kuantan Campus, indicating a discrepancy between knowledge of good posture and the capacity to define it [11, 15].

Regarding the relationship between postural cognitive level and its practical action, our findings revealed that 82% of Sports University of Tirana students claimed to have a full understanding of proper sitting posture, but only 50% of them self-perceived to have good posture in their everyday lives. Even Albanian University students displayed the same pattern; just 5% of those who approved of having sufficient knowledge about good posture claimed to reflect it in practical action. While Aisyah [11] stated that only 36% of IIUM Kuantan Campus students who knew about good posture practiced it by sitting erect and with their feet resting on the floor. The impact of cognitive level and posture on our study was not significant ( $p > 0.05$ ), demonstrating, like Asiyah N.F. [11], that there are other factors than a lack of posture awareness that might cause the body to be in an uncomfortable position.

About 50% of our participants reported having back discomfort because of the prolonged sitting duration, which even affected the spine's natural curvature. In a study conducted in 2015 among 68% of dental students at the

Dental Sciences Hospital College in Jizan, the association between an uncomfortable and static sitting position for an extended period of time and back pain was also highlighted [31]. The same association was found by Aisyan [11]. Additionally, musculoskeletal diseases were found to be much more common in pupils with poor to medium postural awareness [31]. This was amply demonstrated by Aisyan's [11] study, which found that 68% of its subjects had back discomfort when seated.

When asked about "how to relieve back pain," the Sports University Tirana students' response was predicted by their graduating field, which is intimately connected with educating them about the connection between poor posture and back discomfort as well as how to relieve the pain. This is consistent with the findings of a study conducted by Aisyan [11], who reported that all 25 participants in his study engaged in stretching exercises that helped them recognize their back discomfort. On the other hand, 2015 research by Hafiz [15] found that 56% of students knew how to relieve back discomfort with excellent practice. Students who responded to the survey indicated that taking regular breaks is a good practice, that uncomfortable postures should be avoided, and that extending your hands and shoulders every 20 to 30 minutes is a good exercise. As poor sitting posture and prolonged sitting were the primary causes of back pain in our study, this finding is in line with a study [16], where it discovered that inappropriate sitting posture causes neck discomfort (48.7%), headaches (22%), and back pain (70%). These reported back pains are consequences of the continued tension on the ligamentous tissues caused by the reduction of the spine's natural curvatures [32].

In contrast, prolonged periods of static sitting were underlined as the primary cause of back discomfort for 28% of participants [11]. These comparisons of data revealed differences on the postural cognitive level and how their practical action is affected by them. To have an impact on posture awareness and a better mind-body relationship, postural exercises need to be promoted at the postural cognitive level [33].

## 5. Conclusions

At the end of our study, we concluded that the postural cognitive level about the perfect standing posture, sitting position in a chair with a high backrest, carrying a backpack, and driving position were enough to present good postural knowledge. Also, they had an average level of awareness while washing by hand, working in a gardening position,

moving objects at a high height, and lifting a heavy object. But we observed that they had little understanding of appropriate sleeping positions, which suggests a reduced level of postural awareness in this routine activity. We conclude that their postural cognitive levels were well reported, but a lack of understandable skills reduced their postural awareness.

Regarding their knowledge about proper sitting position and their practical action level, we determine that the majority of our participants comprehend the importance of having good posture when sitting based on their self-perceived reports. Even though they claimed to be aware of its benefits, only half of them declared to use it properly in its practical postural action. As a conclusion, there is a gap between the possible relationship between mind and body awareness in our study and the lack of understanding of postural cognitive information.

Sitting position, prolonged periods of sitting, and ergonomics of the chair were detected as the consequences of the back discomfort experienced. Despite this, our participants demonstrated adequate knowledge of how to reduce back pain, highlighting the significance of routine breaks, movements that help them avoid awkward sitting posture, exercises like stretching that reduce accumulated stress in joints, etc. Based on these findings, postural awareness requires the postural information to be clearly understood, providing a mind-body relationship due to good posture. Additionally, physical activities geared toward postural education are needed to improve postural awareness by taking practical action regarding postural habits. Chair ergonomics was a distinct causal factor detected in our study, meaning that an upgrade of furniture's ergonomics, such as chairs and tables, is needed.

Our study brings into attention the importance of posture awareness and its need to be continuously motivated; acknowledgments about the postural information focus on the combination between knowledge and physical activity impact. Improvement of postural awareness means a better relationship between mind (cognitive and understanding level) and body (practical action of postural attitude). Most significantly, there are several limitations to this experimental investigation that must be considered. This survey exclusively included undergraduate students from two Albanian universities. As a result, this study may not be able to generalize the influence of cognitive postural level over postural attitudes' practical behavior to other student populations. In this regard, the outcomes of this inquiry strongly suggest that a comparable study with the involvement of additional students from other higher educational institutions must be conducted.

# APPENDIX 1

## Body Posture Awareness

(Questionnaire of cognitive level and practical action of posture attitudes) [16, 17, 20]

**a) University**













- Sports University of Tirana
- Albanian University


























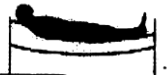


**b) Study cycle**

- Bachelor, first-year
- Bachelor, second-year
- Bachelor, third-year
- Professional Master, first-years
- Professional Master, second-year

**c) Age:** \_\_\_\_\_

**d) Gender:** Male  Female

<i>** Mark with <math>\checkmark</math> or X the correct posture for each daily activity.</i>	
<b>1. Standing in front of the table at hip level</b>	
 <p>Photo 1</p> <input style="width: 50px; height: 25px; margin-left: 10px;" type="checkbox"/>	 <p>Photo 2</p> <input style="width: 50px; height: 25px; margin-left: 10px;" type="checkbox"/>
<b>2. Standing upright.</b>	
 <p>Photo 1</p> <input style="width: 50px; height: 25px; margin-left: 10px;" type="checkbox"/>	 <p>Photo 2</p> <input style="width: 50px; height: 25px; margin-left: 10px;" type="checkbox"/>
<b>3. Washing</b>	
 <p>Photo 1</p> <input style="width: 50px; height: 25px; margin-left: 10px;" type="checkbox"/>	 <p>Photo 2</p> <input style="width: 50px; height: 25px; margin-left: 10px;" type="checkbox"/>
<b>4. Sitting in a high-backrest chair.</b>	
 <p>Photo 1</p> <input style="width: 50px; height: 25px; margin-left: 10px;" type="checkbox"/>	 <p>Photo 2</p> <input style="width: 50px; height: 25px; margin-left: 10px;" type="checkbox"/>
<b>5. Sitting in a low backrest chair.</b>	
 <p>Photo 1</p> <input style="width: 50px; height: 25px; margin-left: 10px;" type="checkbox"/>	 <p>Photo 2</p> <input style="width: 50px; height: 25px; margin-left: 10px;" type="checkbox"/>
<b>6. Driving.</b>	
 <p>Photo 1</p> <input style="width: 50px; height: 25px; margin-left: 10px;" type="checkbox"/>	 <p>Photo 2</p> <input style="width: 50px; height: 25px; margin-left: 10px;" type="checkbox"/>

<b>7. Gardening.</b>	
 Photo 1	 Photo 2
	
<b>8. Placing a heavy object at height.</b>	
 Photo 1	 Photo 2
	
<b>9. Holding an object.</b>	
 Photo 1	 Photo 2
	
<b>10. Carrying buckets of water.</b>	
 Photo 1	 Photo 2
	
<b>11. Carrying the school bag.</b>	
 Photo 1	 Photo 2
	
<b>12. Sleeping position.</b>	
 Photo 1	 Photo 2
	
<b>13. The right mattress</b>	
 Photo 1	 Photo 2
	

14. Do you know the correct position that the body should have while sitting in the chair?

- yes
- no

15. Describe the correct sitting body posture.

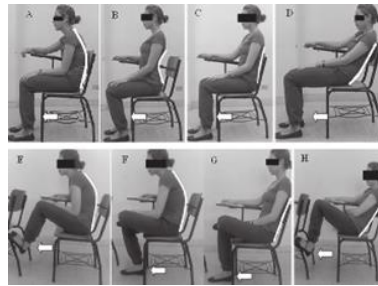
---

16. Describe your body position when sitting in a chair.

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**17. Choose the position that shows how you hold your body while sitting in the chair:**

- Always as position \_\_\_\_\_
- Often as position \_\_\_\_\_
- Rarely as position \_\_\_\_\_
- Never as position \_\_\_\_\_



**Photo 1 (positions A-H)**

**18. Do you feel pain when sitting in a chair?**

- yes
- no

**19. What do you do to get rid of back pain after a long stay sitting in a chair.**

**20. The cause of the pain you feel when sitting in a chair is:**

- Improper posture in the chair
- Sitting for a long time
- Uncomfortable chair
- For various health reasons
- Fatigue
- I do not know

**21. After a long stay in the chair, performing exercises such as walking short distances or stretching exercises helps position the body properly in the chair.**

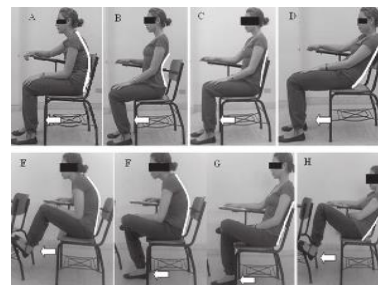
- yes
- not

**22. During the online lesson, you use your phone or laptop:**

- Placing it on the study table
- Sitting on the sofa
- Resting him on his lap
- \_\_\_\_\_

**23. What is the most comfortable position for you when sitting in a chair?**

- A
- B
- C
- D
- E
- F
- G
- H



**Photo 1 (positions A-H)**

**THANK YOU FOR YOUR TIME!**

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