

Appendix 1. Online Questionnaire

Unit 1 of 6

The impact of distance learning on the musculoskeletal system: a cross-sectional study in university students

The period between 2019-2021 is closely associated with the appearance of the new coronavirus SARS-CoV-2 (COVID-19) and quarantine. Our daily routine and lifestyle have been affected considerably, as well as our way of studying, training, and learning.

Fill in the questionnaire below and help us understand how the way we use distance learning devices, like personal computers or tablets, leads to the appearance of musculoskeletal symptoms.

We would like to thank you for your time, and we are reciprocating it by offering you an at-home exercise guide to relieve common symptoms such as neck or lower back pain.

The questionnaire is anonymous, respond honestly and stress-free! Estimated time: 3 minutes.

Unit 2 of 6

Demographic Data

-Gender

- ☐ Man
☐ Woman

-Age

[Fill in]

-Weight (in Kg)

[Fill in]

-Height (in cm)

[Fill in]

-University (e.g. University of Thessaly)

[Fill in]

-Department (e.g. Department of Medicine)

[Fill in]

-Year of studies (e.g. 3rd)

[Fill in]

Unit 3 of 6

Distance Learning

Help us better understand the way you attend classes or study from home by answering the following short questions.

-Which tool do you usually use to attend university classes - study at home?

- Tablet
- Smartphone
- Personal Computer
- Smart TV

-How many hours of online courses do you attend per day on average?

- 0-2
- 2-4
- 4-6
- 6-8
- >8

-How many hours of total screen time do you have per day (Including time on social media, watching series, etc.)?

- 0-2
- 2-4

- 4-6
- 6-8
- >8

-How often do you attend online classes in a specially adapted place (e.g., desk with office chair)?

- Never
- 1
- 2
- 3
- 4
- 5
- Always

-Where else do you attend your classes? (1 = never, 5 = always)

- Bed: 1-5
- Sofa: 1-5
- Dining table: 1-5

-Do you maintain an ergonomic posture, as shown in the picture?

- Never
- 1
- 2
- 3
- 4
- 5

- Always

-How many hours of online classes do you attend before getting up from the sitting position?

- < 1
- 1
- 2
- 3
- >3

Unit 4 of 6

Symptoms related to the musculoskeletal system

All of us have felt pain in the neck or lower back after prolonged work on the computer. Help us understand how often and how intensely it has happened to you by answering the following short questions.

- How often were you experiencing pain BEFORE quarantine started, while participating in any type of distance learning?

- Everyday
- Once a week
- Once a month
- Never

-How often were you experiencing pain DURING the quarantine period, while participating in any type of distance learning?

- Everyday
- Once a week
- Once a month
- Never

-Where was the pain located?

- Neck (Cervical spine)
- Thorax (Thoracic spine)
- Back (Lumbar spine)
- Shoulders
- Feet
- Other

-How intense was the pain BEFORE quarantine?

- 1 (No pain) to 10 (very intense)

- How intense was the pain DURING quarantine?

- 1 (No pain) to 10 (very intense)

-Was a medical appointment necessary for these symptoms?

- Yes
- No

-Did the symptoms subside AFTER quarantine and by the return to normal activities?

- Yes
- No

Unit 5 of 6

How active are you in your everyday life? How much did the quarantine affect the way you exercise? Help us find out by answering the following short questions.

-Frequency of physical activity BEFORE quarantine

- Never
- Once a week
- 2-3 times a week
- 4-5 times a week
- 6-7 times a week

-Type of physical activity BEFORE quarantine

- None
- Running
- Exercise at home
- Exercises instructed via videos
- Gym
- Swimming pool
- Sports (Basketball, Football, Tennis etc.)
- Yoga or Pilates

-Frequency of physical activity DURING quarantine

- Never
- Once a week
- 2-3 times a week
- 4-5 times a week
- 6-7 times a week

-Type of physical activity DURING quarantine

- None

- Running
- Home workouts
- Video workouts (any kind of workout)
- Gym
- Swimming pool
- Sports (Basketball, Football, Tennis, etc.)
- Yoga or Pilates

-During the quarantine period in total?

- I increased the duration of exercise
- I decreased the duration of exercise
- I did not the change the duration of exercise

Unit 6 of 6

Thank you for your time!

Your participation is essential in understanding the influence of distance learning and quarantine on musculoskeletal health.

We wish the previous quarantine to be the last! However, as the time we spend in front of a screen is constantly increasing, we highly recommend dedicating at least 150 minutes per week for activities and sports in order to improve your personal health.

As promised, we offer you 2 at-home exercise guides for lower back and neck pain. (In case of severe symptoms, please consult an orthopedic, the exercises are advisory and not a cure).

Have a nice day! Stay healthy!