



PR3: Results of the questionnaire survey – recommendations to increase physical activity

This document summarizes the results of a survey conducted as a part of the project COVIDMOVE aimed at increasing physical activity after the pandemic caused by COVID19. This survey involved at least 50 respondents (students) from the partner countries – Czech Republic, Slovak Republic and Poland who shared their feedback on the leaflet. The questions are slightly different from country to country depending on the target group.

Czech Republic results

Given that low adherence to recommended exercise programs is one of the biggest barriers to achieving sufficient physical activity levels for the prevention of secondary and lifestyle diseases in the post-COVID population, the COVIDMOVE project included a questionnaire survey. This survey involved 50 university students who were tasked with exercising for one week following the guidelines outlined in the brochure. The questionnaire aimed to gather feedback from physiotherapy students on the clarity, feasibility, effectiveness, and practical relevance of exercises described in the leaflet, as well as to identify any challenges or suggestions for improvement. Students assessed the comprehensibility of the instructions, the difficulty of performing the exercises, the perceived time demand, and the effectiveness of the exercises in improving breathing. They also evaluated their physical comfort during the exercises and the frequency with which they needed to adjust their position due to discomfort or pain. Additionally, students rated the exercises' relevance to their future professional practice and their willingness to recommend them to peers. This data helps identify areas for improvement in the leaflet and exercises, ensuring they are appropriately tailored to users' needs. The survey was conducted among physiotherapy students rather than patients with breathing disorders to focus on the didactic quality of the materials and assess their usability and clarity for teaching purposes. Students, as future practitioners, provided valuable insights into the applicability and instructional quality of the exercises, ensuring that the material could serve as an effective educational tool in clinical practice.



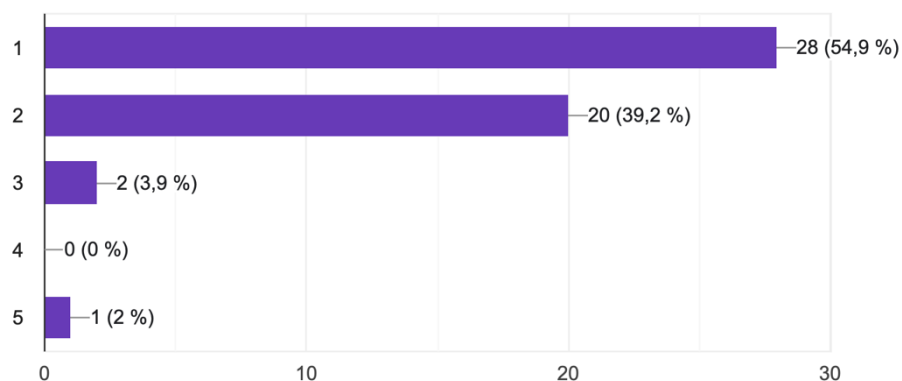


Questionnaire Survey Results

Question No. 1: How do you rate the clarity of the instructions in the leaflet?

1 – completely clear, 5 – very unclear

51 responses



Summary: The feedback from the questionnaire indicates that the instructions in the booklet are generally clear. A majority of respondents (54.9%) rated the instructions as completely clear, another 39.2% rated them as mostly clear, while only a small minority (3.9%) found them moderately clear, and 2% considered them very unclear. The booklet is well-received for its clarity, as over 90% of respondents found the instructions clear or very clear. However, the 2% rating it as "very unclear" may indicate a need to review certain sections of the booklet, particularly for accessibility or simplification of language where possible.

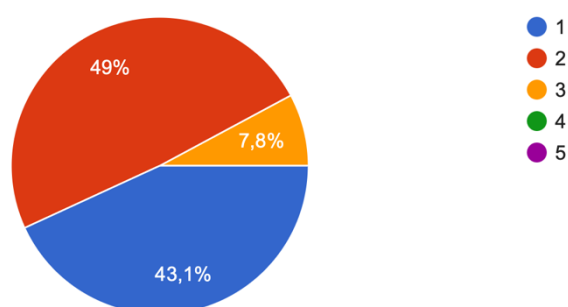




Question No. 2: How difficult was it for you to perform the exercises according to the booklet?

1 – very easy, 5 – very difficult

51 responses



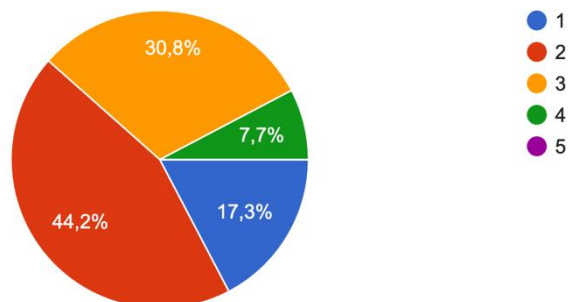
Summary: The questionnaire evaluating the difficulty of performing exercises from the booklet reveals that most respondents found the exercises accessible and easy to follow. Specifically, 43.1% rated them as "very easy" and 49% as "easy." Only 7.8% found the exercises moderately challenging, and no respondents rated them as difficult or very difficult. These results suggest that the booklet effectively guides users through the exercises. However, the feedback from the small minority who found the exercises moderately challenging may indicate an opportunity for minor clarifications or adaptations to better meet the needs of all users.



Question No. 3: How do you rate the time demand of the exercises?

1 – ideal in terms of time, 5 – very time-consuming

52 responses



Summary: The questionnaire evaluating the time demand of the exercises reveals that most respondents found the time commitment reasonable, with 61.5% rating it as ideal or manageable (17.3% "ideal" and 44.2% "manageable"). However, 30.8% considered the exercises moderately time-consuming, and 7.7% found them somewhat demanding. Notably, no respondents rated the exercises as very time-consuming. Overall, the results suggest the exercises are well-balanced in terms of time requirements but offering shorter or more flexible versions could enhance accessibility for those with limited time.

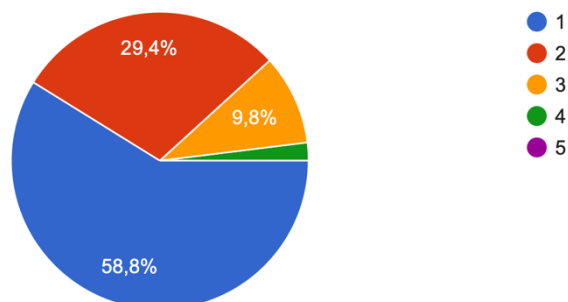




Question No. 4: Was the exercise effective in improving the feeling of better breathing?

1 – very helpful, 5 – not helpful at all

51 responses



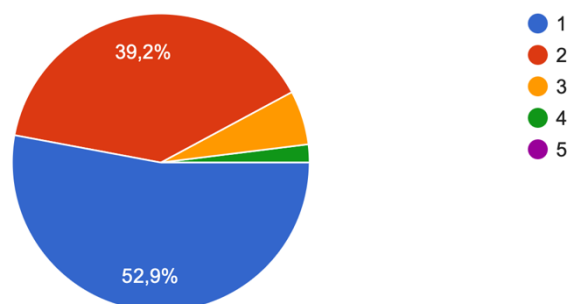
Summary: The questionnaire assessing the effectiveness of the exercises in improving breathing shows that the majority of participants found them beneficial, with 58.8% rating them as very helpful and 29.4% as helpful, totaling nearly 90% reporting positive effects. A smaller group, 9.8%, found the exercises moderately effective, while 2% reported only slight improvement, and no respondents rated the exercises as not helpful at all. These results indicate that the exercises are generally effective, though minor adjustments or personalized guidance could further enhance their impact for a small subset of users.



Question No. 5: How was your physical comfort while performing the exercises?

1 – completely comfortable, 5 – very uncomfortable

51 responses



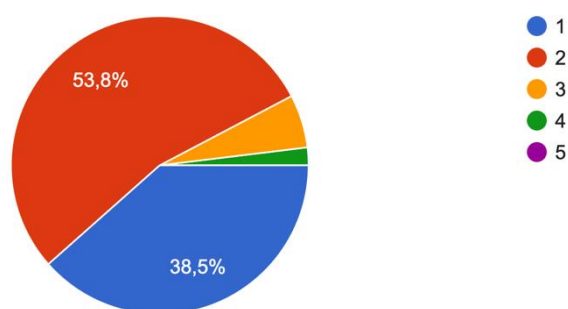
Summary: The questionnaire assessing physical comfort during the exercises reveals that the majority of participants found them comfortable, with 52.9% rating the experience as completely comfortable and 39.2% as comfortable, totaling over 90% positive feedback. Only 5.9% found the exercises moderately comfortable, and 2% reported slight discomfort, with no participants rating them as very uncomfortable. These results indicate that the exercises are well-designed for physical comfort, though minor adjustments or individualized guidance could address the needs of those who experienced slight discomfort.



Question No. 6: How often did you feel the need to adjust your position due to discomfort or pain?

1 – never, 5 – during every exercise

52 responses



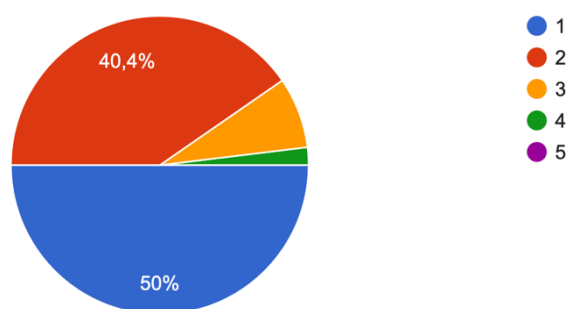
Summary: The questionnaire on the frequency of position adjustments due to discomfort or pain indicates that most participants experienced minimal issues, with 38.5% reporting they never needed to adjust their position and 53.8% adjusting only rarely. A small percentage, 5.8%, needed occasional adjustments, and 1.9% experienced more frequent adjustments, while no participants reported needing adjustments during every exercise. These results suggest that the exercises are generally well-suited for comfort and accessibility, though minor modifications or personalized guidance could help address the needs of the small minority who experienced occasional discomfort.



Question No. 7: How would you rate the benefit of this exercise for your professional practice?

1 – very significant benefit, 5 – no benefit

52 responses



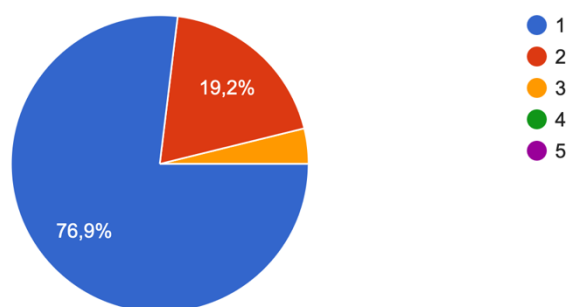
Summary: The questionnaire evaluating the benefit of the exercise for professional practice indicates that the majority of respondents found it highly valuable. Half of the participants (50%) rated it as a "very significant benefit", and 40.4% considered it a significant benefit. A small percentage, 7.7%, saw moderate benefit, and only 1.9% rated it as having little benefit, with no respondents indicating no benefit. These results highlight the exercise's strong relevance and applicability in professional practice, demonstrating its potential as a useful tool for professionals in related fields.



Question No. 8: Would you recommend this exercise to your patients with breathing disorders?

1 – definitely yes, 5 – definitely no

52 responses



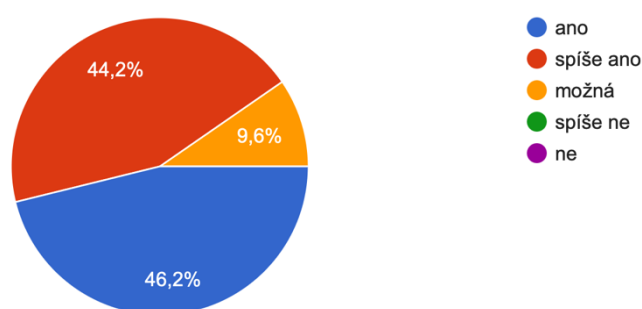
Summary: The questionnaire assessing whether participants would recommend the exercise to patients with breathing disorders shows overwhelmingly positive feedback, with 76.9% stating they would "definitely recommend" it and 19.2% indicating they would likely recommend it. Only 3.8% were neutral, and no respondents selected "unlikely" or "definitely not". These results strongly suggest that the exercise is widely regarded as beneficial and suitable for individuals with breathing difficulties, reflecting high confidence in its effectiveness and applicability.



Question No. 9: Do you consider this exercise suitable for patients with musculoskeletal pain?

1 – definitely yes, 5 – definitely no

52 responses



Summary: The questionnaire assessing whether the exercise is suitable for patients with musculoskeletal pain indicates a highly positive consensus. A combined 90.4% of respondents believe it is suitable, with 46.2% answering "yes" and 44.2% "probably yes." An additional 9.6% were uncertain ("maybe"), while no respondents selected "probably no" or "no." These results suggest that the exercise is widely regarded as appropriate and potentially beneficial for this patient group, with minimal skepticism or concerns.



Question No. 10: Suggestions for improvements

The leaflet is generally praised for its clarity, detailed content, and helpful visuals, with many finding it easy to follow and well-prepared. However, several suggestions for improvement were noted. The introductory page could benefit from breaking up the text into smaller paragraphs and simplifying language to be more accessible for patients with limited background knowledge. The overall structure could be streamlined, with exercise descriptions formatted more concisely (e.g., goal, starting position, execution, and common mistakes), and technical terms should be replaced with layperson-friendly alternatives. Clarifications are needed for ambiguous instructions, such as the direction of diagonal pulls, dynamic versus static movements, exercise durations, and required table or chair heights. Adding examples or photos to illustrate complex instructions, reorganizing starting position instructions for better flow, and targeting specific breathing difficulties alongside DNS principles would improve usability. Additionally, using larger font sizes and shortening the text overall would make the leaflet more accessible and less overwhelming for patients. While well-received, these changes would enhance its effectiveness and appeal.

Conclusion

The COVIDMOVE project highlights the vital role of physical activity and posture in addressing the widespread consequences of hypoactivity, particularly in the aftermath of the COVID-19 pandemic. Leveraging the principles of Dynamic Neuromuscular Stabilization (DNS), the project developed educational materials aimed at enhancing physical health through proper movement, breathing mechanics, and postural alignment. These materials, including brochures targeting breathing disorders, pelvic floor dysfunction, and GERD in lung transplant patients, integrate evidence-based strategies to empower individuals in their recovery and health maintenance. Feedback from physiotherapy students underscores the clarity, feasibility, and professional applicability of the materials, while also identifying opportunities for improvement, such as simplifying language and clarifying exercise instructions. By emphasizing the interplay between posture, movement, and overall health, the project provides a comprehensive approach to improving physical activity levels and mitigating the health risks associated with sedentary behaviors, ensuring its relevance and utility for both patients and healthcare professionals.





Slovak Republic results

The questionnaire survey was completed by 59 students (future coaches or physical education teachers). Through their responses, we obtained feedback on the clarity, effectiveness, difficulty and practicality of the recommendations. The questions also focused on time commitment, improvement in feelings and comfort while exercising. They also evaluated the benefit with regard to their future employment and answered the question whether they would recommend the exercise for the general population or people with musculoskeletal pain. The results of the questionnaire survey are used to evaluate the proposed recommendations and possibly modify them to be useful for athletes and the general population.

Questionnaire Survey Results

Question No. 1: How do you rate the clarity of the instructions in the leaflet?

The figure 1 illustrates the evaluation of the clarity of instructions in the leaflet on a five-point scale, where 1 represents "very clear" and 5 represents "very unclear." The majority of respondents (71.2%) rated the instructions as very clear (1). Another 18.6% gave a rating of 2, indicating relatively good clarity. Only 5.1% of respondents rated the instructions as neutral (3), while another 5.1% considered them somewhat unclear (4). No respondents gave the lowest rating of 5, which would signify very unclear instructions. Overall, the results show that the instructions in the leaflet were perceived as predominantly clear and understandable.

1. How do you rate the clarity of the instructions in the leaflet?

59 odpovedí

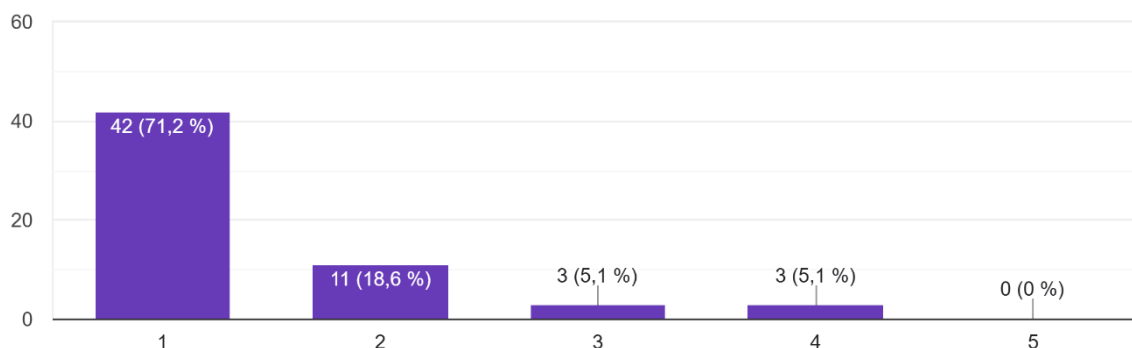


Figure 1 Clarity of instructions





Question No. 2: How difficult was it for you to perform the exercises according to the booklet?

Figure 2 shows the level of difficulty respondents experienced when performing exercises according to the booklet, based on 59 responses. The majority of respondents (54.2%) rated the exercises as relatively easy (2), while an additional 39% found them very easy (1). Only 5.1% of respondents rated the difficulty as neutral (3), and just 1.7% found the exercises somewhat difficult (4). No respondents rated the exercises as very difficult (5). Overall, the results indicate that the exercises were largely perceived as easy to perform, suggesting that the booklet provides clear and effective guidance.

2. How difficult was it for you to perform the exercises according to the booklet?

59 odpovedí

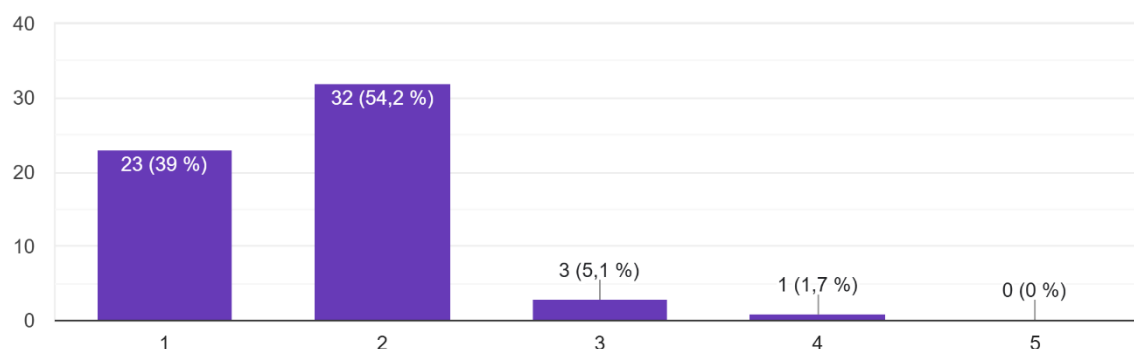


Figure 2 Difficulty of performance exercise





Question No. 3: How do you rate the time demand of the exercises?

Figure 3 illustrates how respondents evaluated the time demand of the exercises based on 59 responses. The majority of respondents (59.3%) rated the exercises as not time-demanding at all (1), while 32.2% found them slightly time-demanding (2). A smaller proportion, 6.8%, rated the time demand as moderate (3), and only 1.7% of respondents considered the exercises to be fairly time-demanding (4). None of the respondents rated the exercises as very time-demanding (5). Overall, the results suggest that the exercises were perceived as efficient and easy to fit into a typical schedule, with minimal time required for completion.

3. How do you rate the time demand of the exercises?

59 odpovedí

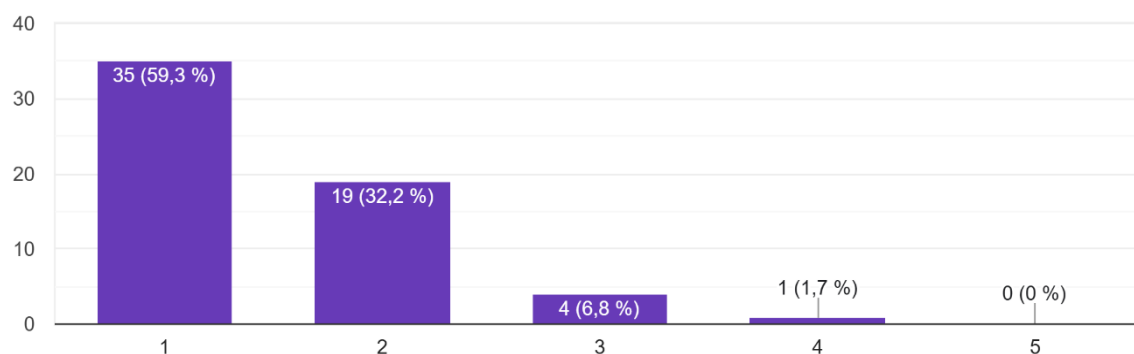


Figure 3 Time demand of the exercises





Question No. 4: Was the exercise effective in improving the wellbeing feelings?

Figure 4 shows the perceived effectiveness of the exercise in improving wellbeing feelings, based on 59 responses. The majority of respondents (55.9%) rated the exercises as very effective (1), while 35.6% found them relatively effective (2). A smaller percentage, 6.8%, rated the effectiveness as neutral (3), and only 1.7% of respondents considered the exercises somewhat ineffective (4). No respondents rated the exercises as not effective at all (5). Overall, the results indicate that the exercises were largely seen as effective in improving wellbeing, with most participants experiencing positive effects.

4. Was the exercise effective in improving the wellbeing feelings?

59 odpovedí

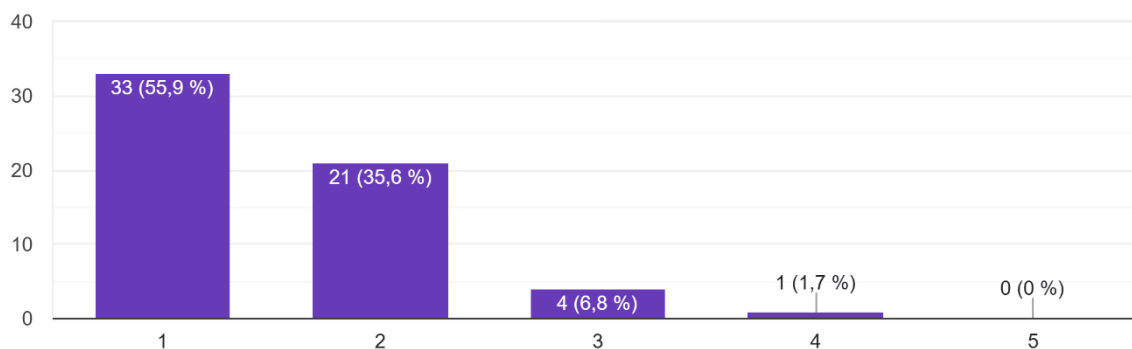


Figure 4 Improving of wellbeing feelings



Question No. 5: How was your physical comfort while performing the exercises?

Figure 5 shows respondents' physical comfort while performing the exercises, based on 59 responses. Nearly half of the respondents (49.2%) rated their physical comfort as very high (1), and 40.7% found the exercises relatively comfortable (2). A smaller percentage, 8.5%, rated their comfort as moderate (3), while only 1.7% of respondents reported some discomfort (4). None of the respondents rated the exercises as very uncomfortable (5). Overall, the results suggest that the exercises were designed to ensure a high level of physical comfort, as most participants felt comfortable while performing them.

5. How was your physical comfort while performing the exercises

59 odpovedí

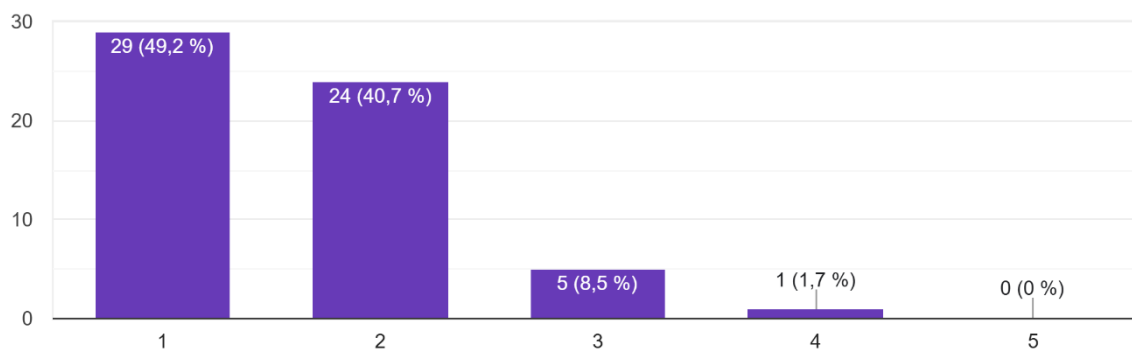


Figure 5 Physical comfort while performing exercise



Question No. 6: How would you rate the benefit of this exercise for your professional practice?

Figure 6 presents respondents' evaluation of the benefit of the exercise for their professional practice, based on 59 responses. The majority of respondents (55.9%) rated the exercise as very beneficial (1), while 37.3% found it relatively beneficial (2). A smaller percentage, 6.8%, considered the benefit to be moderate (3), and no respondents rated the exercise as either somewhat or not beneficial at all (4 or 5). Overall, the results indicate that the exercise is perceived as highly beneficial for professional practice, with most participants acknowledging its positive impact.

6. How would you rate the benefit of this exercise for your professional practice?

59 odpovedí

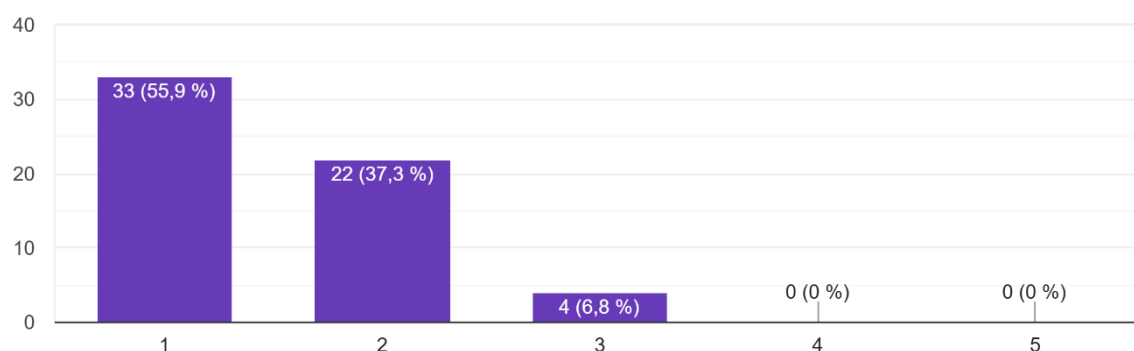


Figure 6 Rating benefit of exercises for professional practice





Question No. 7: Would you recommend this exercise to general population?

Figure 7 shows respondents' willingness to recommend the exercise to the general population, based on 59 responses. The majority of respondents (61%) indicated that they would definitely recommend the exercise (1), while 33.9% expressed a strong inclination to recommend it (2). A small percentage, 5.1%, provided a neutral response (3), and no respondents rated the exercise as either not recommendable (4) or definitely not recommendable (5). Overall, the results indicate a high level of enthusiasm among respondents for recommending the exercise to others, reflecting its perceived value and effectiveness.

7. Would you recommend this exercise to general population?

59 odpovedí

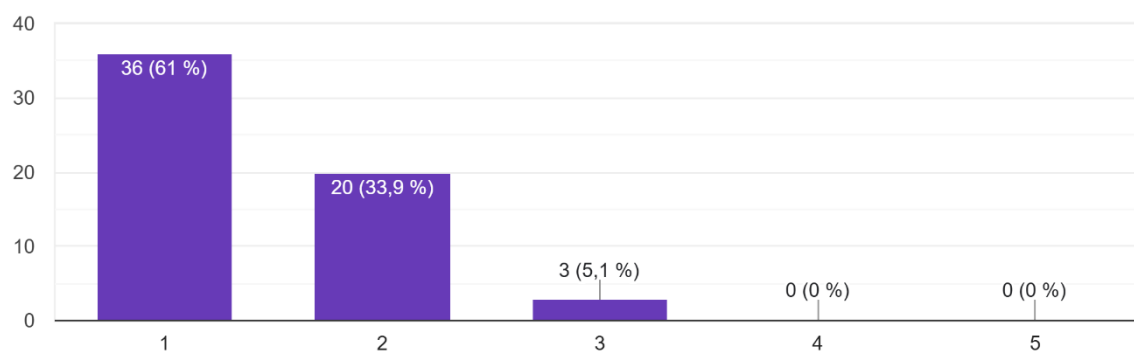


Figure 7 Recommending of the exercise for general population





Question No. 8: Do you consider this exercise suitable for patients with musculoskeletal pain?

Figure 8 presents respondents' views on the suitability of the exercise for patients with musculoskeletal pain, based on 59 responses. The majority of respondents (54.2%) considered the exercise as definitely suitable (1), while 37.3% rated it as suitable (2). A small percentage, 6.8%, provided a neutral response (3), and only 1.7% of respondents considered the exercise somewhat unsuitable (4). None of the respondents rated the exercise as definitely not suitable (5). Overall, the results indicate that the exercise is widely regarded as suitable for patients with musculoskeletal pain, reflecting its perceived appropriateness and potential benefits for this group.

8. Do you consider this exercise suitable for patients with musculoskeletal pain?

59 odpovedí

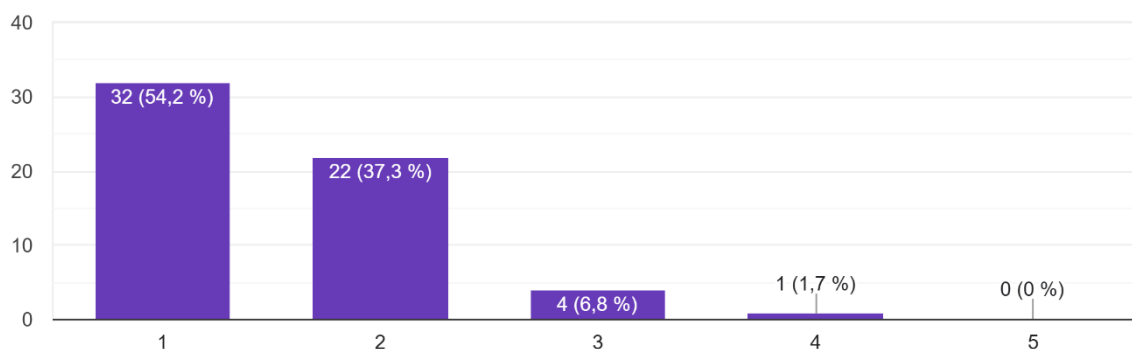


Figure 8 Suitable for musculoskeletal pain

Conclusion

The results indicate that brochure's instructions were clear, and exercises were easy to perform and time-efficient. Most participants experienced positive effects on well-being and felt physically comfortable. Respondents considered the exercises beneficial for professional practice and they would recommend them to others.





Poland results

In Poland, 55 students, future physiotherapists, participated in a questionnaire survey. They answered very similar questions to students from the Czech Republic and Slovakia.

Questionnaire Survey Results

Question No. 1: How do you rate the clarity of the instructions in the leaflet?

The figure 1 evaluates the clarity of the instructions in the leaflet, based on responses from 55 participants. A majority of respondents (52.7%) rated the instructions as very clear (rating 1), while 41.8% considered them clear (rating 2). A smaller group, 5.5%, gave a moderate clarity rating (rating 3). Notably, none of the participants rated the instructions as unclear or very unclear (ratings 4 and 5). In conclusion, the results show that the instructions are generally perceived as clear and easy to understand, with the vast majority (94.5%) giving positive ratings.

1. How do you rate the clarity of the instructions in the leaflet?

55 odpovedí

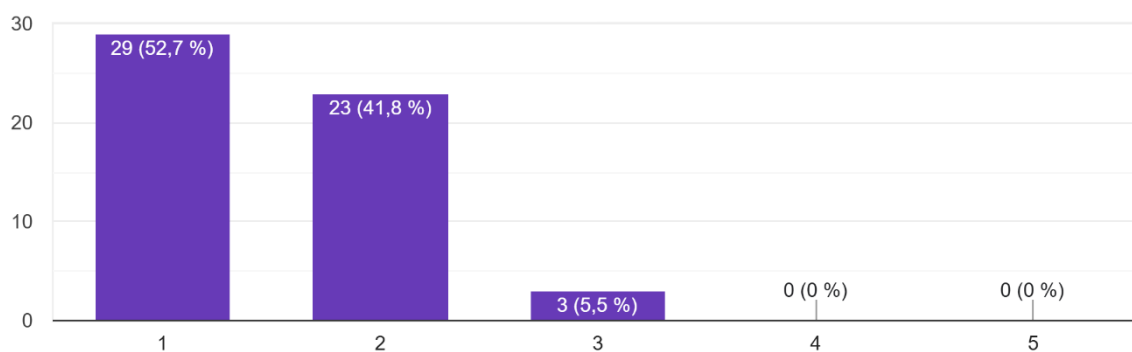


Figure 9 Clarity of instructions





Question No. 2: How difficult was it for you to perform the exercises according to the booklet?

Figure 2 evaluates how difficult it was for participants to perform the exercises according to the booklet, based on responses from 55 participants. A majority of respondents (56.4%) rated the exercises as not very difficult (rating 2), while 36.4% found them very easy to perform (rating 1). A smaller percentage, 7.3%, rated the exercises as moderately difficult (rating 3). Notably, none of the participants rated the exercises as difficult or very difficult (ratings 4 and 5). In conclusion, the results suggest that the exercises in the booklet were generally perceived as easy to perform, with over 92% of participants providing positive ratings (ratings 1 or 2).

2. How difficult was it for you to perform the exercises according to the booklet?

55 odpovedí

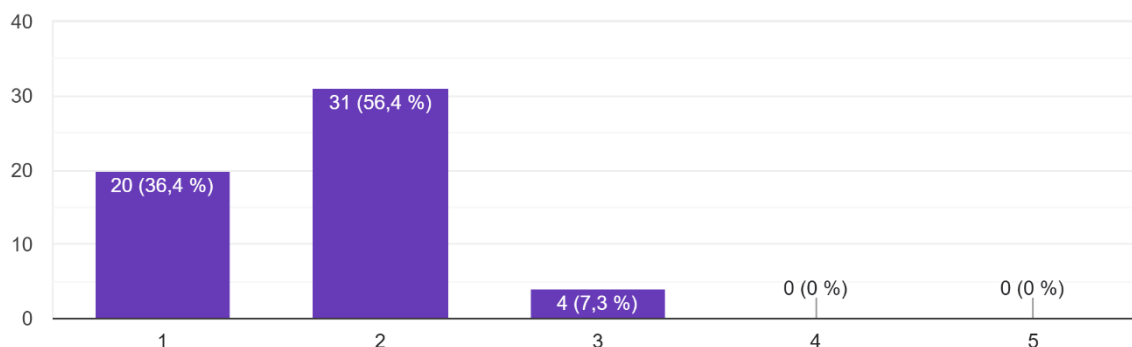


Figure 10 Difficulty perform exercise





Question No. 3: How do you rate the time demand of the exercises?

The graph evaluates how participants rated the time demand of the exercises, based on responses from 55 participants. Nearly half of the respondents (49.1%) rated the time demand as low (rating 2), while 47.3% considered it very low (rating 1). A small percentage (3.6%) rated the time demand as moderate (rating 3). Notably, none of the participants rated the time demand as high or very high (ratings 4 and 5). In conclusion, the results indicate that the exercises were perceived as not time-demanding, with the vast majority (96.4%) giving positive ratings (ratings 1 or 2).

3. How do you rate the time demand of the exercises?

55 odpovedí

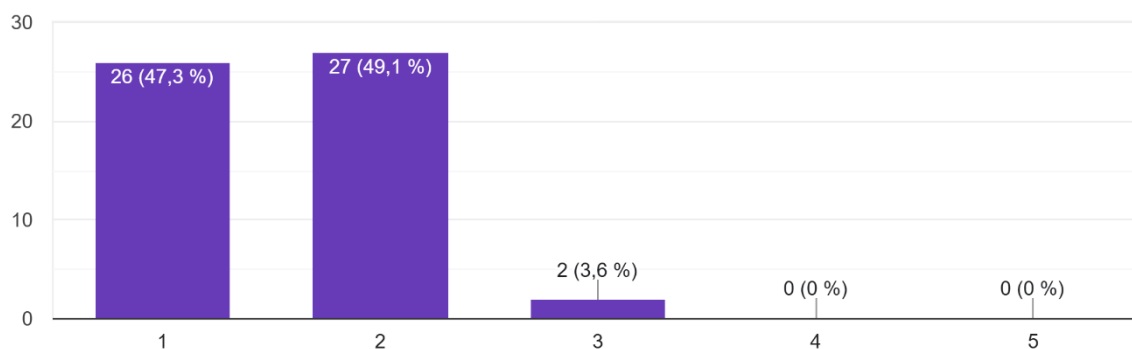


Figure 11 The time demand of exercise



Question No. 4: Was the exercise effective in improving the wellbeing feelings?

Figure 4 evaluates the effectiveness of the exercises in improving the participants' feelings of wellbeing, based on responses from 55 participants. A majority (61.8%) rated the exercises as very effective (rating 1), while 36.4% considered them effective (rating 2). Only 1.8% of respondents rated the exercises as moderately effective (rating 3). None of the participants rated the exercises as ineffective or very ineffective (ratings 4 and 5). In conclusion, the results indicate that the exercises were generally perceived as highly effective, with 98.2% of respondents giving positive ratings (ratings 1 or 2).

4. Was the exercise effective in improving the wellbeing feelings?

55 odpovedí

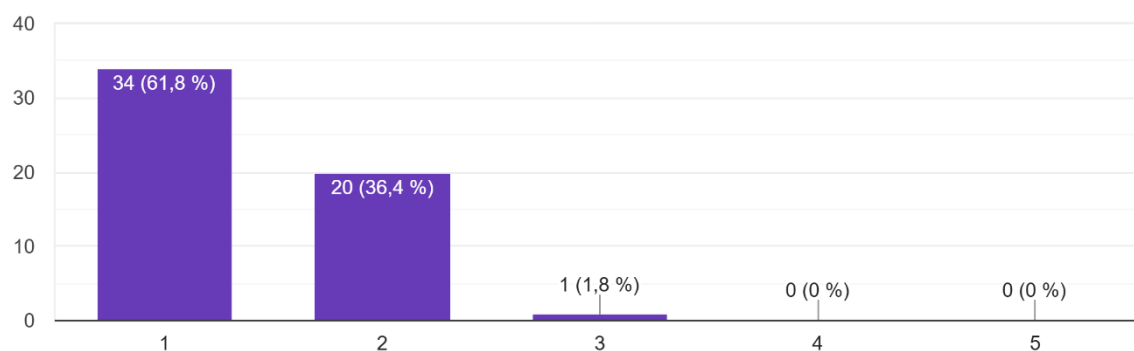


Figure 12 Effectiveness of symptoms wellbeing





Question No. 5: How was your physical comfort while performing the exercises?

Figure 5 evaluates the level of physical comfort participants experienced while performing the exercises, based on responses from 55 participants. Equal proportions of respondents (47.3% each) rated their physical comfort as very high (rating 1) and high (rating 2). A smaller percentage, 3.6%, rated their comfort as moderate (rating 3), and only 1.8% of participants reported lower comfort levels (rating 4). No respondents gave the lowest rating of physical comfort (rating 5). In conclusion, the results indicate that the exercises were generally comfortable for participants, with the majority (94.6%) providing positive ratings (ratings 1 or 2). Only a very small fraction experienced moderate or low comfort.

5. How was your physical comfort while performing the exercises

55 odpovedí

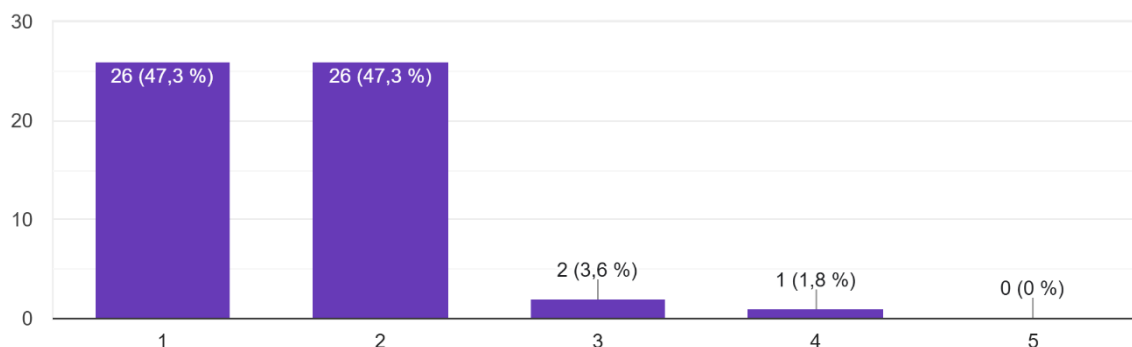


Figure 13 Comfort of physical exercise





Question No. 6: How would you rate the benefit of this exercise for your professional practice?

Figure 6 evaluates how participants rated the benefit of the exercise for their professional practice, based on responses from 55 participants. A majority of respondents (60%) rated the benefit as very high (rating 1), while 40% rated it as high (rating 2). No respondents rated the benefit as moderate (rating 3), low (rating 4), or very low (rating 5). In conclusion, the results indicate that participants overwhelmingly found the exercise beneficial for their professional practice, with 100% giving positive ratings (ratings 1 or 2)

6. How would you rate the benefit of this exercise for your professional practice?

55 odpovedí

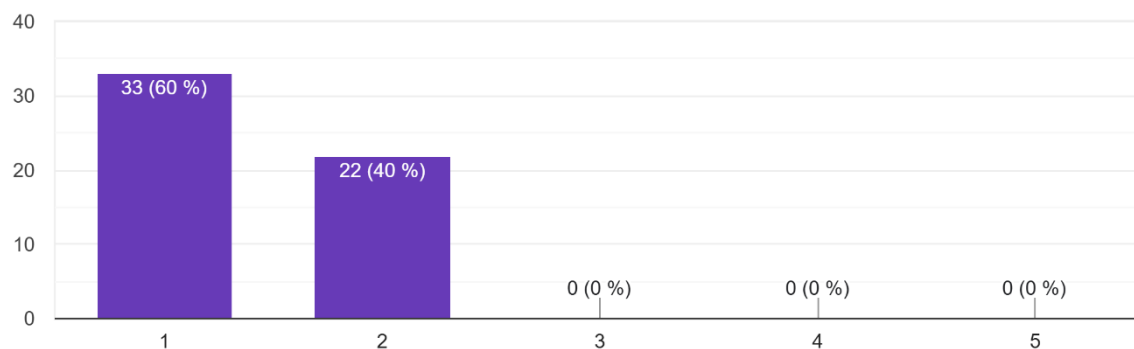


Figure 14 Benefit of exercises





Question No. 7: Would you recommend this exercise to general population?

Figure 7 evaluates whether participants would recommend this exercise to the general population, based on responses from 55 participants. A majority (52.7%) gave the highest recommendation rating (rating 1), while 41.8% also provided a positive recommendation (rating 2). A smaller proportion, 5.5%, rated their likelihood to recommend as moderate (rating 3). None of the participants gave low or very low recommendations (ratings 4 and 5). In conclusion, the results indicate that the exercise is highly recommended by the participants, with 94.5% giving positive ratings (ratings 1 or 2)

7. Would you recommend this exercise to general population?

55 odpovedí

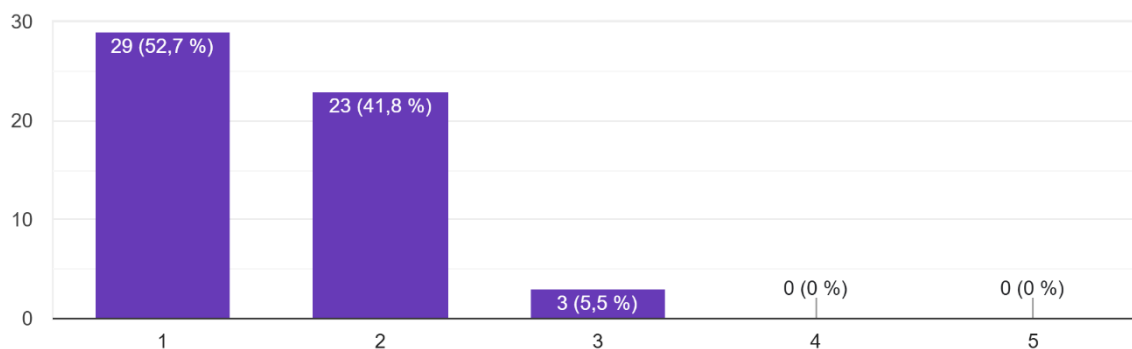


Figure 15 Recommend for general population





Question No. 8: Do you consider this exercise suitable for patients with musculoskeletal pain?

Figure 8 evaluates whether participants consider the exercise suitable for patients with musculoskeletal pain, based on responses from 55 participants. A majority (54.5%) rated the exercise as highly suitable (rating 1), while 40% also provided a positive rating (rating 2). A smaller proportion, 5.5%, considered the suitability as moderate (rating 3). None of the participants rated the exercise as unsuitable or very unsuitable (ratings 4 and 5). In conclusion, the results suggest that the exercise is largely regarded as appropriate for patients with musculoskeletal pain, with 94.5% of respondents giving positive ratings (ratings 1 or 2).

8. Do you consider this exercise suitable for patients with musculoskeletal pain?

55 odpovedí

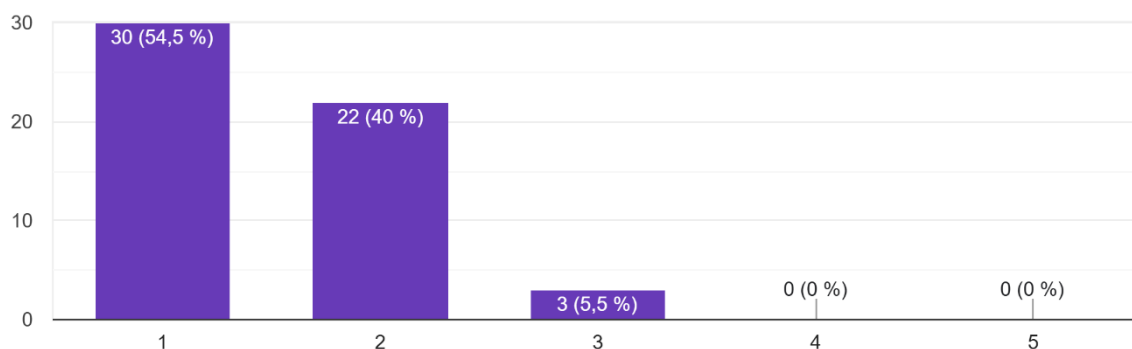


Figure 16 Suitable exercise



Question No. 9: Do you think this exercise will positively impact the quality of life?

Figure 9 evaluates whether participants think the exercise will positively impact the quality of life, based on responses from 55 participants. A majority (63.6%) strongly believe the exercise will have a positive impact (rating 1), while 34.5% also expressed a positive opinion (rating 2). A very small proportion, 1.8%, rated the impact as moderate (rating 3). None of the participants rated the impact as low or very low (ratings 4 and 5). In conclusion, the results indicate that most participants (98.1%) believe the exercise will positively affect the quality of life, with the majority strongly endorsing its benefits.

9. Do you think this exercise will positively impact the quality of life?

55 odpovedí

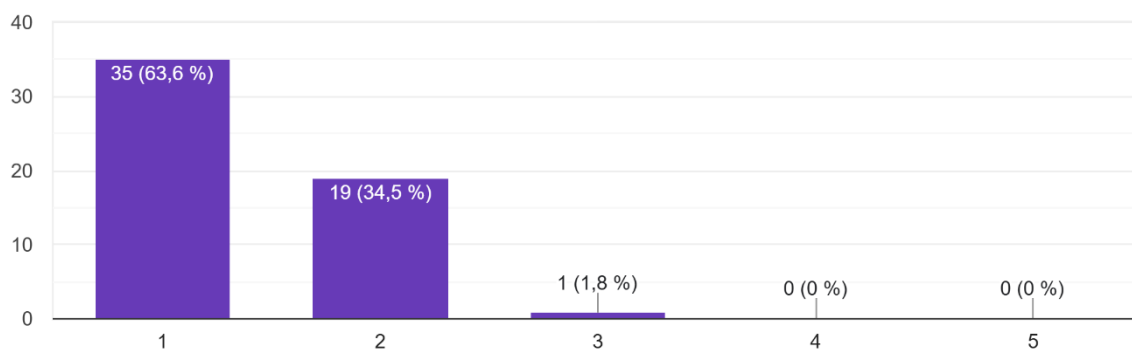


Figure 17 Impact of exercise on quality of life

Conclusion

The results show that in general the instructions were clear and easy to understand. They were easy to perform and not too time demanding. Students considered them as effective, comfortable and beneficial for future practice. The most participants believe that exercises will positively affect quality of life with many benefits.



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