

# The quality of placements during the pandemic and the applicable sanitary regime as assessed by physiotherapy students from Poland

Agnieszka Jankowicz-Szymańska<sup>1</sup> A-F , Anna Stefanowicz-Kocot<sup>2</sup> A,E,F   
Aneta Grochowska<sup>1</sup> A,F,G 

<sup>1</sup> University of Applied Sciences in Tarnow, Faculty of Health Sciences, Poland

<sup>2</sup> University of Applied Sciences in Tarnow, Faculty of Humanities, Poland

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## Abstract

**Introduction:** The COVID-19 pandemic and the related sanitary rigour pose a great challenge for universities preparing young people to work in medical and medicine-related professions, including the profession of a physiotherapist. It is particularly difficult to conduct placements, during which both students and employees of the institution as well as patients will be provided with maximum safety, but at the same time high standards of education will be maintained. The aim of the study was to assess possible changes in the quality of placements that might have occurred during the COVID-19 pandemic and the applicable sanitary regime.

**Material and methods:** The study was conducted in October 2021 among 67 students of physiotherapy at the University of Applied Sciences in Tarnow, Poland. The sample consisted of both women (n = 49) and men (n = 18) who had completed at least one full work placement prior to the outbreak of the pandemic and at least one full work placement during the pandemic. Students voluntarily filled in a purpose-built electronic questionnaire, in which they responded to 20 questions referring the conditions of placements, cooperation with staff, the atmosphere in the institution and the skills acquired there. They determined on a scale of 1 to 5 (1 – has definitely changed in favour, 5 – has definitely changed in an unfavourable way), how professional practices have changed due to the pandemic and the sanitary regime. Students could also add their comments in the form of recommendations aimed at improving the quality of placements. They were invited to do it with the following statement: Provide an example of a practical solution that would help improve the quality of placements.

**Results:** According to the respondents, the most unfavourable changes in the quality of placements caused by the pandemic are: increased stress related to placements, worse conditions for learning how to diagnose and plan therapy, limited opportunities to learn about modern methods of therapy and limited opportunities to work directly with the patient. The respondents also noticed positive changes in the quality

## Keywords

- placements
- physiotherapy
- quality of education
- pandemic
- COVID-19

## Contribution

- A – the preparation of the research project
- B – the assembly of data for the research undertaken
- C – the conducting of statistical analysis
- D – interpretation of results
- E – manuscript preparation
- F – literature review
- G – revising the manuscript

## Corresponding author

**Agnieszka Jankowicz-Szymańska**  
e-mail: jankowiczszymanska@gmail.com  
Akademia Nauk Stosowanych w Tarnowie  
Wydział Ochrony Zdrowia  
ul. Mickiewicza 8  
33-100 Tarnów, Poland

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of placements. These were the opportunity to work in a small group, a better atmosphere in the institution, more help from the staff and better familiarization with the place of the placement.

**Conclusions:** The pandemic has brought both positive and negative changes in the quality of placements. Monitoring the quality of placements and surveying students' opinions is a very important tool in improving the quality of education. It is worthwhile to carry out extra quality control studies at times of change to be aware of possible changes in the quality of placements induced by such challenging situations. It was also interesting to notice that students expect some of the changes related to the sanitary regime to persist after the pandemic has ended.

## Introduction

In 2020, the International Quality Audit System was created as part of the Erasmus+ KA2 HEALINT project. It makes it possible to assess the degree of preparation of medical centres to accept nursing students for placements.<sup>1-5</sup> The system makes it easier for universities and students to choose an appropriate placement where they are guaranteed appropriate conditions and high standards of student supervision necessary to achieve the learning outcomes required by the study program. The project outcomes facilitate both national and international mobility of students. It has been developed to the rank of an ISO standard and recommended globally. As the HEALINT project was successful and attracted great interest from universities, students and medical institutions, it was decided to extend it to other medical and paramedical fields, including physiotherapy. The new project was named HEALINT4ALL.

Researchers, academics and professionals from six centres (five countries: UK, Malta, Spain, Finland and Poland) are currently collaborating in the follow-up project (HEALINT4ALL) to create an interactive platform for auditing and evaluating health care facilities from the point of view of potential places of placement for students of medical and medical-related professions. The HEALINT4ALL project was nominated in the Standards + Innovation Awards 2021.<sup>7,8</sup> This platform is also aiming to meet the ISO 2015 standards and the quality assurance requirements in the scope of ISO standards. The development of the ISO IWA will bring international benefits to each of the partners involved in the project. The ISO will help to take a long-term view of the development of the results of the HEALINT and HEALINT4ALL projects, to manage risks with an orientation towards the current situation (e.g. legal, health, or geopolitical), and to build a brand for the results of the projects.

One of the stages of the project was conducting individual interviews as well as group interviews with students, academic teachers and placement tutors. The following topics were discussed in these interviews: Are clinical practices regulated in your country? Are there any standards / guidelines that regulate the course of placements? Are there areas related to the implementation of the placement for which there are no exemplary

standards regarding learning standards? What are the features of a very good placement? What are the characteristics of a bad placement site? Taking into account international or national elective placements, how can placements be recognized? The analysis of the content of the interviews made it possible to determine the features that qualify a given place of professional practice as very good or bad.

The duration of the HEALINT4ALL project coincided with the difficult period of the COVID-19 pandemic. On the one hand, this circumstance significantly hindered work on the project, on the other hand, it indicated that when preparing a tool that is to be used for the audit and evaluation of placement positions for many years to come, one should also take into account unexpected events that might affect the conditions of working and studying. In Poland, the pandemic outbreak did not exempt physiotherapy students from the obligation to complete apprenticeships, nor did it limit the number of hours of placements, but it did change the rules. Students had to strictly follow sanitary and epidemiological guidelines. Universities were given the right to make temporary changes to the study programme (e.g. change the date of the internship) so that students could acquire the required practical skills with maximum safety. Students could also work to combat the SARS-CoV-2 virus.

The authors have set out to check how medical care facilities, permanently cooperating with the University of Applied Sciences in Tarnów as placements for physiotherapy students, managed to adjust their functioning to the conditions of the pandemic and significantly increased sanitary rigour, and how it affected the students' satisfaction of the placement. The University of Tarnów was particularly interested in this issue, firstly as a place of education for students of medical sciences, and secondly as a partner in the HEALINT and HEALINT4ALL projects. From both points of view, it was very important for the researchers that the protocol for assessment of placement sites developed within the projects met the highest standards, was a reliable tool, accessible to the widest possible audience, clear in communication, user-friendly and in line with the needs and requirements of users.

The aim of the research was to find out about the students' opinions on the changes in the quality of

placements that have occurred in connection with the COVID-19 pandemic and the sanitary regulations in force. The knowledge obtained in this way will help people responsible for education in the field of physiotherapy and tutors in improving the quality of shaping the practical skills of students. It may also inform the HEALINT4ALL project partners while perfecting the tools developed within the project.

## Material and methods

The study was conducted in October 2021 among students of master's studies in physiotherapy at the University of Applied Sciences in Tarnow. All third, fourth and fifth-year physiotherapy students were invited to participate in the research by e-mail. The 1st and 2nd year students could not take part in the study, because 1st year students had not completed any placement yet, and 2nd year students were in the process of their first placement and had no comparison of how the quality of placement changed in relation to the time before the pandemic. In total, the invitation to complete the questionnaire was sent to 179 people. Participation in the study was voluntary and anonymous. The electronic questionnaire was made available to students via a Google form. Respondents were guaranteed anonymity. The research was conducted in compliance with all the principles of the Declaration of Helsinki.

The authors' questionnaire consisted of 20 questions related to the conditions of placements, cooperation

with the staff, the atmosphere in the institution and the skills acquired there. The respondents were to determine how the placements have changed due to the pandemic and the applicable sanitary regime. Responses from 1 to 5 took the form of a Likert scale, where 1 meant a change in the quality of practices definitely to the advantage, 2 – rather favourably, 3 – no change, 4 – a change rather unfavourably, and 5 – a change definitely unfavourably. Additionally, the respondents could write a comment on the following topic: Provide an example of a practical solution that would help improve the quality of placements.

The questions for the survey were prepared on the basis of information obtained from interviews with students during the HEALINT4All project. Interviews were conducted face-to-face and online with four groups of physiotherapy and nursing students with several people in each group. The information gathered during the interviews was compiled and used to help achieve the next steps of the Healint4All project. A meta-analysis of the interviews yielded a list of the features of the placements considered to be the most important by the students (those which are desirable by the students and those which are problematic). These features were selected and used to build a questionnaire, the research tool for this study.

The results are presented in the form of a table and illustrated in charts. In order to make the presentation of the results more transparent, the percentage of answers was given instead of numerical values. Basic descriptive statistics were also provided.

**Table 1.** Responses to individual statements concerning changes in the quality of placements carried out before and during the COVID-19 pandemic

Due to the pandemic and the applicable sanitary rigour, the following features describing the conditions of placement have changed	Definitely in favour	Rather in favour	Have not changed	Rather unfavourably	Definitely unfavourably
Atmosphere at the place of placement	8	13	31	11	4
The time that the placement tutor devotes to the student	8	10	33	11	5
Access to patients' medical records	6	7	40	8	6
Adjusting the assigned tasks to the student's current skills	10	6	46	3	2
Individualization of the learning process	7	10	38	9	3
Clarity in the definition of assigned tasks and responsibilities	8	9	38	9	3
The possibility of individual work with the patient	9	11	25	11	11
The opportunity to improve your practical skills	10	8	26	18	5
Possibility to participate in the therapy process / direct work with the patient	9	7	27	15	9
The opportunity to learn about modern methods of therapy	6	9	29	16	7

Due to the pandemic and the applicable sanitary rigour, the following features describing the conditions of placement have changed	Definitely in favour	Rather in favour	Have not changed	Rather unfavourably	Definitely unfavourably
Learning to diagnose and plan treatment	3	7	33	16	8
Learning to communicate with the patient	11	7	31	12	6
Support from the staff	11	10	40	4	2
Work in a small group	12	17	30	6	2
Preparation of the placement tutor	9	8	44	4	2
Independence in working with the patient	13	7	39	6	2
Stress related to placements	3	6	20	21	17
Cooperation with staff	11	6	40	6	4
Equipping the institution with modern equipment used in the rehabilitation process	7	6	46	6	2
Familiarizing students with the place of placements	10	12	33	5	7

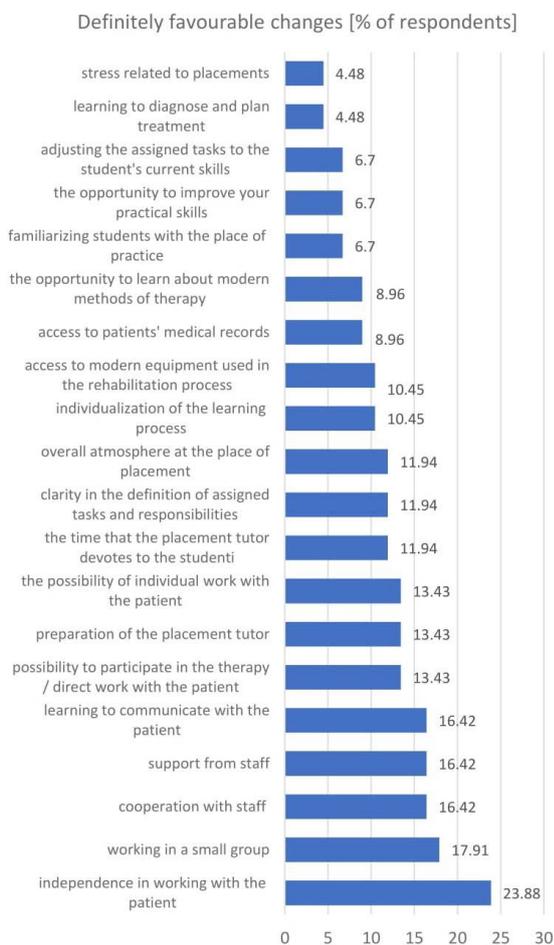


Figure 1. Changes in the quality of placements during the COVID-19 pandemic evaluated by students as definitely favourable

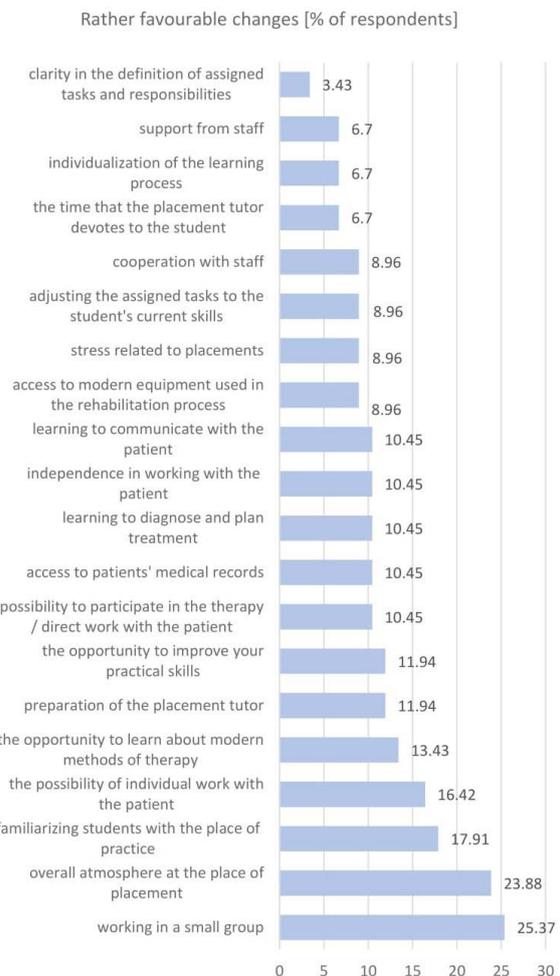


Figure 2. Changes in the quality of placements during the COVID-19 pandemic evaluated by students as rather favourable

## Results

67 people (which accounted for 37.4% of all those invited to the study) responded to the invitation to fill in the survey, including 49 women (73%) and 18 men (27%). They were 3rd (n = 10), 4th (n = 38) and 5th year (n = 19) students. All respondents answered all the questions included in the survey. The number of responses to individual statements contained in the survey is presented in Table 1.

Among the features of placements which changed significantly in a favourable way during the pandemic, the respondents mentioned the possibility of working independently with the patient, working in a small group, cooperation with staff, assistance from staff and the possibility of improving communication skills with the patient (Figure 1).

According to the respondents, the following areas have changed in a favourable way: the possibility of working in a small group, the atmosphere at the place of placement, and the way of familiarizing students with the place of placement (familiarization with the staff, presentation of a place where you can eat, change clothes, get hygiene products, disinfectants, gloves, etc.), the possibility of individual work with the patient and the opportunity to learn about modern methods of therapy (Figure 2).

The most frequently mentioned changes were generally rated as favourable: concerning work in a small group (almost every second respondent), familiarizing students with the place of practice (about 1/3 of respondents), atmosphere at the place of placement (about 1/3 of respondents), assistance from the staff (about 1/3 of the respondents), the possibility of individual work with the patient (less than 1/3 of the respondents) (Figure 3).

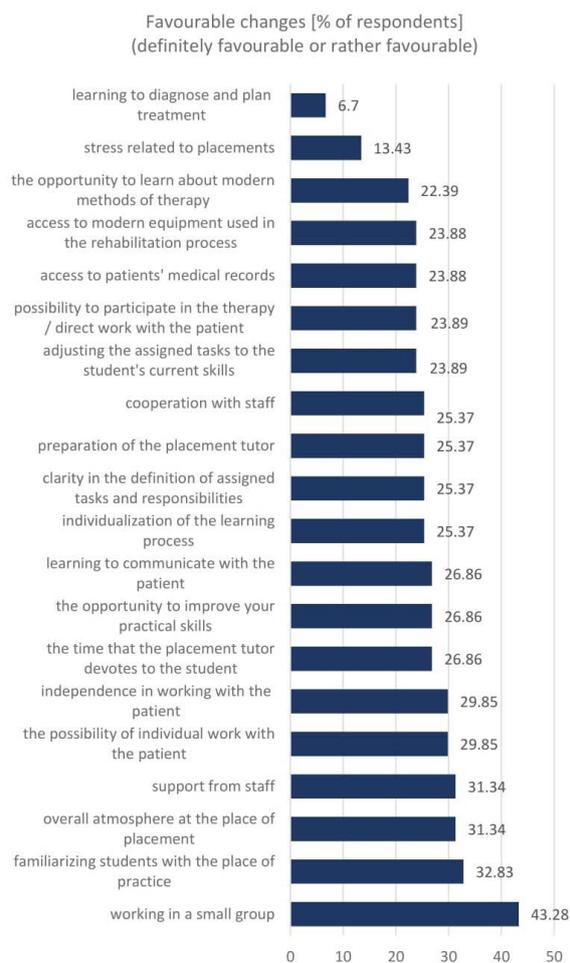


Figure 3. Changes in the quality of placements during the COVID-19 pandemic evaluated by students as favourable (definitely or rather beneficial)

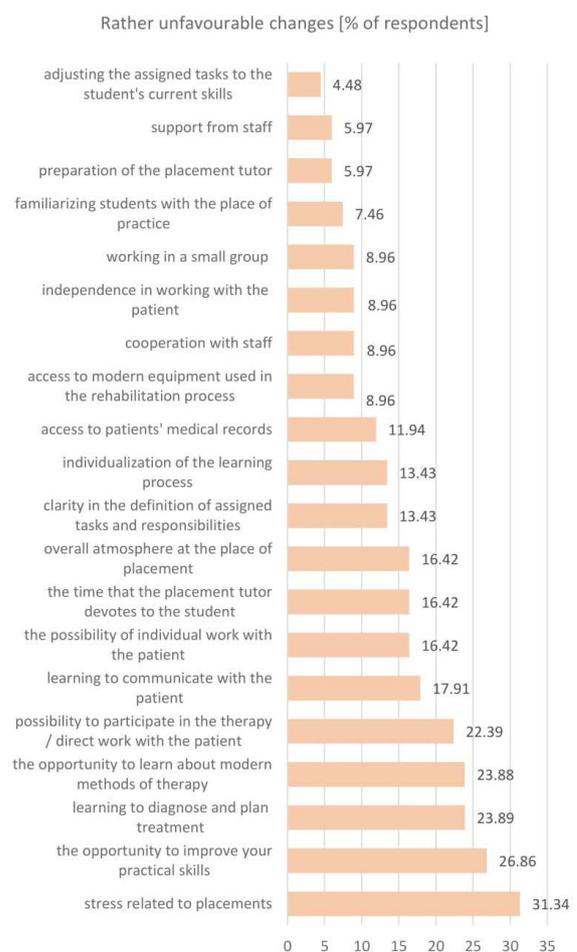
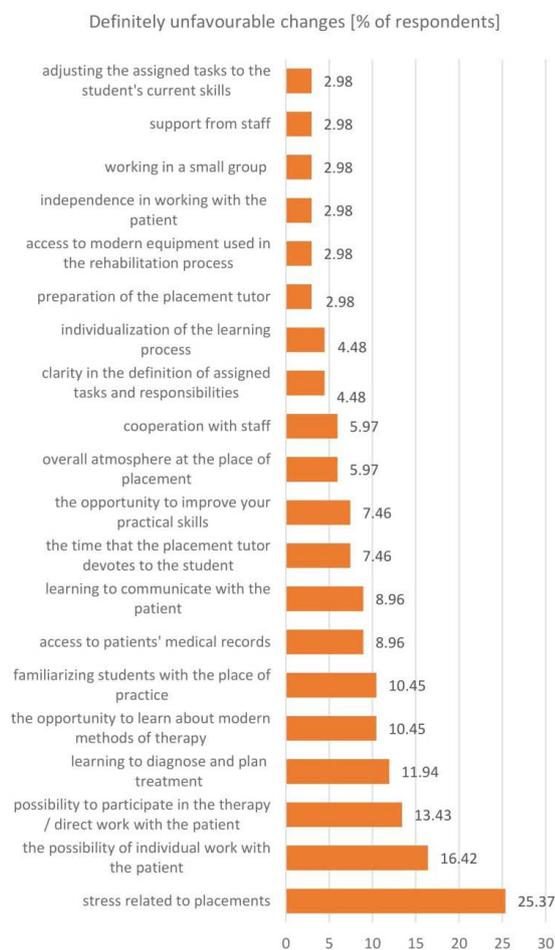


Figure 4. Changes in the quality of placements during the COVID-19 pandemic evaluated by students as rather unfavourable

Rather unfavourable changes in the quality of placements caused by the pandemic included greater stress related to the placement, fewer opportunities to improve one's practical skills, worse conditions for learning to diagnose and plan treatment, poorer opportunities to learn about modern therapy methods, limited opportunities to participate in the therapy process / direct work with the patient (Figure 4).

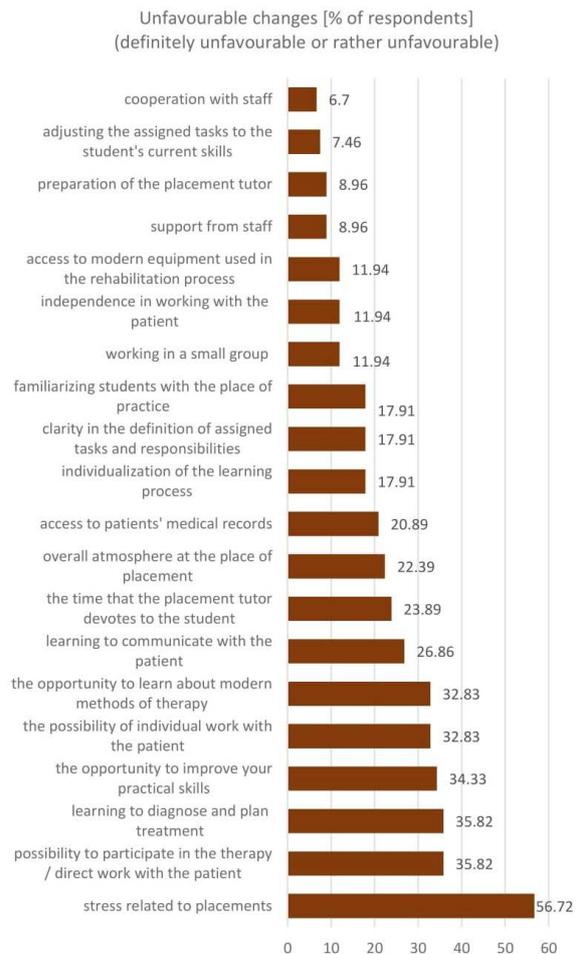
During the pandemic, the conditions for placement training significantly worsened due to greater stress, the inability to work individually with the patient, limited participation in the therapy process, limited opportunities to learn how to diagnose and plan treatment, and learn about modern methods of therapy (Figure 5).



**Figure 5.** Changes in the quality of placements during the COVID-19 pandemic evaluated by students as definitely unfavourable

To sum up, the respondents most often mentioned unfavourable changes related to the pandemic related to greater stress related to the placement (more than

half of the respondents!), limited possibility of participating in the therapy process, limited possibility of learning how to diagnose and plan treatment, limited possibility of improving one's practical skills, limited possibility of individual work with the patient and get acquainted with modern methods of therapy (about 1/3 of respondents) (Figure 6).

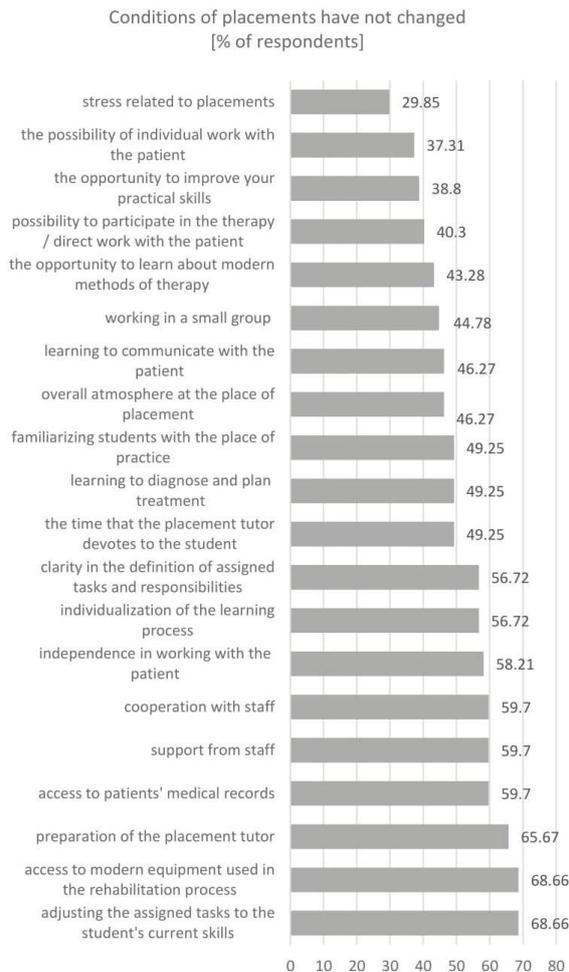


**Figure 6.** Changes in the quality of placements during the COVID-19 pandemic evaluated by students as unfavourable (definitely or rather unfavourable)

According to 2/3 of the respondents, the pandemic and sanitary rigour had the least impact on adjusting the tasks entrusted to the student's current skills, equipping the institution where the placement took place and the substantive preparation of the tutor (Figure 7).

The mean of the answers was determined indicating the level of satisfaction with individual features describing the quality of placements (in Table 2 they were arranged in descending order). An average rating higher than 3.0 meant a deterioration in quality, an average

rating lower than 3.0 meant an improvement in quality, a rating equal to 3.0 meant no change in the level of a given feature describing the practice. The values of descriptive statistics confirm the qualitative results presented above, also here the most significant unfavourable change was the increased stress related to placements during the pandemic, while the most favourable change was the possibility of working in a small group.



**Figure 7.** Features of placements that, according to the surveyed students, have not changed due to the COVID-19 pandemic

In addition to answering the 20 core questions of the survey, twenty-five students added a comment on the topic: Give an example of a practical solution that would help improve the quality of placements. The most frequently repeated comments were related to (students' statements were also quoted to illustrate this summary):

- the relations with the staff of the place at the placement: familiarizing students with the scope of their duties in more detail during the placement;

enabling work with as many patients as possible with various diagnoses / diseases; enabling independent work with the patient; putting more emphasis on the therapist presenting the way of working with the patient individually (specific techniques and methods). Examples of students' utterances include:

'...the traineeship supervisor should devote more time to the students, show them how the organisation works, what the therapy with the patient looks like, there should be a longer introduction of the student, make him/her familiar with the rules of the organisation...'

'to familiarise the student with the forms and ways of therapy carried out individually by the physiotherapist at the place of internship...'

- the facilities: the possibility to access medical documentation, working in small groups:

'...fewer students assigned to one tutor...'

'...the ability to review the patient's medical documentation and records or more extensive information from the tutor to know what areas to specifically focus on during therapy, what the patient responds well to and what they respond poorly to...'

'...the possibility of analysing, for example, X-rays with the help of the tutor...'

- the preparation for the placement at the university: more practical preparation at the University before starting the placement, independent selection of a larger number of centres where placements are held, better preparation in terms of communication skills with the patient

'...we need more hands-on, one-to-one practice during our classes at university rather than hand-outs and presentations'

'...more help with organisational matters of the placement (e.g., list of institutions, enrolment schedule, referral) to decrease the amount of paperwork...'

## Discussion

Education in a clinical environment and direct contact with the patient play a significant role in preparation for the profession of a physiotherapist.<sup>9</sup> Szyport<sup>10</sup> investigated the subjective assessment of preparation for the profession among students of physiotherapy. The respondents positively assessed the role of placements, but nevertheless more or less the same number of respondents felt ready and not yet ready to work with the patient independently. It may imply that the process of educating physiotherapists requires modification.

**Table 2.** Scores of the survey (a higher result means a worse grade in the opinion of the surveyed students)

A feature describing the level of implementation of professional practice	Mean	Median	Min	Max	SD
Stress related to placements	3.64	4.00	1.00	5.00	1.10
Learning to diagnose and plan treatment	3.28	3.00	1.00	5.00	0.97
The opportunity to learn about modern methods of therapy	3.13	3.00	1.00	5.00	1.07
Possibility to participate in the therapy / direct work with the patient	3.12	3.00	1.00	5.00	1.19
The possibility of individual work with the patient	3.06	3.00	1.00	5.00	1.24
Access to patients' medical records	3.01	3.00	1.00	5.00	0.98
The opportunity to improve your practical skills	3.00	3.00	1.00	5.00	1.14
The time that the placement tutor devotes to the student	2.93	3.00	1.00	5.00	1.05
Learning to communicate with the patient	2.93	3.00	1.00	5.00	1.15
Individualization of the learning process	2.87	3.00	1.00	5.00	0.94
Overall atmosphere at the place of placement	2.85	3.00	1.00	5.00	1.03
Clarity in the definition of assigned tasks and responsibilities	2.85	3.00	1.00	5.00	0.96
Access to modern equipment used in the rehabilitation process	2.85	3.00	1.00	5.00	0.84
Familiarizing students with the place of practice	2.81	3.00	1.00	5.00	1.12
Cooperation with staff	2.79	3.00	1.00	5.00	1.02
Preparation of the placement tutor	2.73	3.00	1.00	5.00	0.88
Adjusting the assigned tasks to the student's current skills	2.72	3.00	1.00	5.00	0.88
Independence in working with the patient	2.66	3.00	1.00	5.00	0.99
Support from staff	2.64	3.00	1.00	5.00	0.93
Working in a small group	2.54	3.00	1.00	5.00	0.99

During their 5-year master's studies, students of physiotherapy at UAS in Tarnów have a total of 1,560 hours of professional practice, including 150 hours of assistant practice, 710 hours of practice in clinical physiotherapy, physical therapy and massage, 400 hours of profiled practice (the place of practice is selected by the student) and 300 hours practice in physiotherapy (during their summer holidays). This number and nature of placements result from the standards of education for the profession of physiotherapist (legal basis: Regulation of the Minister of Higher Education of July 26, 2019, on the standards of training for the profession of a doctor, dentist, pharmacist, nurse, midwife, laboratory diagnostician, physiotherapist and paramedic).<sup>11</sup> Among the 22 centres where placements for UAS physiotherapy students take place there are public specialist hospitals, public clinics and specialist clinics, public nursing homes and hospices, private rehabilitation clinics, occupational therapy centres for people with intellectual disabilities, kindergartens and schools with integration departments.

In the electronic survey, physiotherapy students were asked how they assess the quality of placements

during the COVID-19 pandemic compared to pre-pandemic conditions. The most frequently mentioned changes in favour were the possibility of working in small groups, better familiarization of students with the place of placement, the atmosphere in the institution and the willingness of the staff to help students. Stress related to the undergoing placement, limitation of the possibility of direct participation in the therapy and the limited possibility of learning how to diagnose and plan the therapy were mentioned as unfavourable changes. These observations are presented below contrasted with research of other authors, who for obvious reasons (their implementation time before 2020) refer to the pre-pandemic reality, but appear to have many common points.

According to the surveyed students, special attention should be paid to improving the ability to diagnose a functional patient, plan the therapeutic process and conduct kinesiotherapy, physical therapy and massage. This is all the more important as, in line with the new status of a physiotherapist in the Polish health care system, these are basic health services provided to patients by a physiotherapist.<sup>12,13</sup> Students also reported

difficult access to patients' medical records. It seems that these claims are right because, in accordance with the already mentioned status, the physiotherapist is legally guaranteed to have such a right. The ability to analyse documentation should be one of the goals of placements.

In open comments, the surveyed students suggested that the quality of placements could be improved by the possibility of choosing the place and type of placement more often than it is currently possible. However, it is not feasible, because the standards of training for the profession of a physiotherapist clearly define the type and duration of placements, leaving universities very little freedom in this regard (the standard allows the choice of a place and type of 400 h with 1,560 h of placement).<sup>11</sup> Incidentally, these expectations formulated by students show that they are not familiar with the standards of education.

The analysis of the collected questionnaires shows the need to put more emphasis on learning to communicate with the patient. It is extremely important not only due to the quality of communication during therapy (explaining the exercises and techniques performed), but also during patient education (motivating for systematic self-therapy, reorganization of the home environment and / or work environment, or changing habits). Educating patients is an integral part of the therapeutic process. Meanwhile, according to Forbes et al.,<sup>14</sup> young physiotherapists much more often report difficulties related to talking to the patient, conveying information about the purpose of the therapy, and less frequently using personalized educational materials or discussions. Also, Strohschein et al.<sup>15</sup> point to the importance of social competences, such as communication, for achieving therapy progress. In their opinion, these competences can be developed during clinical practice, during which students try to respond to the unique needs of specific patients.

In several comments attached to the questionnaire, the students indicated the need for better preparation for direct contact with the patient within the walls of the university, before starting practice in the clinical environment. This could be achieved by increasing the number of hours in the low- and high-fidelity simulation labs, which are the bridge between theoretical knowledge and practical skills.<sup>16</sup>

The limitation of the presented project is the lack of research on students' opinions on the use of modern technologies in clinical teaching. Including IT tools in education and everyday work with patients is becoming more and more common.<sup>17</sup> Care should be taken to optimally integrate the use of modern technologies with clinical education, taking into account the individual

needs and potential of students. The questionnaire also lacked the question about the presence of skills training in maintaining the principles of work ergonomics during placements. According to Kowalczyk's research,<sup>18</sup> physiotherapy students are willing to train these skills in practice.

## Summary and Conclusions

The COVID-19 pandemic and the sanitary regime in force have had an impact on the quality of placements for physiotherapy students. The favourable changes were the reduction of the number of students in the clinical group, a more detailed familiarization of students with the place of placement, improvement of the atmosphere in the institution and greater readiness of the staff to help students. The most unfavourable change reported by more than half of the respondents was greater stress associated with placements. Students also complained about the limitation of the possibility of direct participation in the therapy, the limitation of the possibilities of learning to diagnose and plan the therapy.

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