

ONLINE TRANSITION OF AN INTERNATIONAL MINOR IN PHYSIOTHERAPY IN ACUTE CARE

A. Alves Lopes¹, A.G. Brader², V. Azevedo¹, H. van de Leur²

¹*Escola Superior de Saúde do Alcoitão / Alcoitão School of Health Sciences (PORTUGAL)*

²*Hanze University of Applied Sciences / Hanzehogeschool Groningen (NETHERLANDS)*

Abstract

Introduction: To meet the global health ongoing needs, physiotherapists should have competences to intervene in conditions and contexts throughout the life cycle of their clients/patients. Educating physiotherapy students in the knowledge and skills required to operate in an acute care setting both expands and improves their entry level capabilities as well as prepares them to intervene with patients regarding the COVID-19 pandemic. Alcoitão School of Health Sciences, Portugal and the Hanze University of Applied Sciences, the Netherlands took the initiative to develop an International Minor Physiotherapy Course in Acute Care, in order to address the ongoing demand in this specific environment, using the opportunities given by the ERASMUS+, namely student and teachers mobility programs.

Methodology: The content was developed using the international descriptors of competences of the Physiotherapist in Acute Care. Pedagogical and assessment strategies were chosen to reflect the competencies to be achieved, with a strong focus on active learning. This Minor as taught entirely online using asynchronous and synchronous strategies.

Results: At the end of the Minor edition, students answered anonymous online questionnaire on the organizational and pedagogical aspects. The data revealed a very favourable opinion regarding the contents discussed (more than 80% strongly agree), pedagogical approaches used, such as online activities (more than 90% agree/strongly agree), teacher support (88% agree/strongly agree). Students were satisfied with Minor's adaptation to the pandemic context, allowing them to obtain the necessary skills to work in this context.

Conclusions: Based on the positive responses from the students, we consider the implementation to be successful. The next steps are to integrate hybrid learning methodologies and broaden the participation of students and professors from other international institutions. Promoting skills and knowledge needed to work in acute care meets the growing need for professionals capable of working in the context of the COVID-19 pandemic.

Keywords: Online, Acute Care, Physiotherapy.

1 INTRODUCTION

Physiotherapists should have competences to intervene in conditions and contexts throughout the life cycle of their clients/patients[1]. Educating physiotherapy students in the knowledge and skills required to operate in an acute care setting both expands and improves their entry level capabilities as well as prepares them to intervene with patients regarding the COVID-19 pandemic[2]. As such, Higher Education Institutions (HEI) should design and implement educational programs to address these needs[3].

Due to the pandemic, most of the educational programs in health education faced a significant impact. A survey conducted by World Physiotherapy Global Task Force on Physiotherapist Education revealed that, 93% of the respondents reported expected challenges in entry level education and assessment due to the COVID-19 outbreak, and had to move online for theoretical classes, clinical reasoning and critical thinking development, practical skills, as well as assessments, except for practical skills, in this situation 50% of respondents postponed the assessment[4]. In a later report the Task Force recommended ensuring flexibility of the programme to accommodate the diverse needs of students and the diversity of situations in which students must learn during the COVID-19 pandemic, including recognition of the implications of a digital divide, creativity in finding educational solutions during the pandemic context, while ensuring the practical and clinical skills development, maintaining good and effective communication about the current issues related to the programme as well as the future prospects[5].

Digital education is process of teaching and learning using information and communication technologies and has as primary objective the connection of students and educators who are physically distant and can include different digital modalities aimed to provide contents either synchronously or asynchronously. Digital education is not a new concept in physiotherapy education, several studies have investigated its effectiveness on learning processes and outcomes confirming that this approach could have benefits to offer. Research on digital education can be applied in physiotherapy as a resource, replacement (e.g. for theoretical knowledges — online) or in integration (e.g. for procedural skills — blended) of the face-to-face teaching [6].

2 METHODOLOGY

Alcoitão School of Health Sciences, Portugal and the Hanze University of Applied Sciences, Groningen, the Netherlands took the initiative to develop an International Minor Physiotherapy in Acute Care, to address the ongoing demand, using the opportunities given by the ERASMUS+, namely student and teachers mobility programs.

The general goal is to promote Physiotherapy competencies in acute care conditions throughout the lifespan and in specific contexts. At the end of the Minor students have worked towards the following competences:

- Recognition of basic components of acute care units and conditions,
- Demonstration of adequate performance in a multidisciplinary context, analyzing and solving the common client problems in different pathological conditions,
- Professional clinical decision-making based on evidence-informed principles and information

The content was developed using the international descriptors of competences of the Physiotherapist in Acute Care[7], that are divided in different components: Clinical Decision-Making (an integral component of all of the sections); Communication; Safety; Patient Management; and Discharge Planning. Each of these sections is interconnected and requires the Physiotherapist to be equally competent in all for safe and effective patient care. Based on that several topics are discussed with the students, such as: Acute care Setting; Evidence Informed Practice; Interventions in specific contexts; Activity and Participation and the use Technology in this context (Fig. 1).

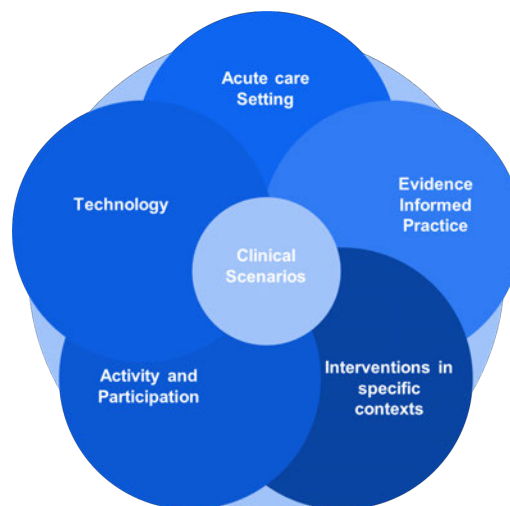


Figure 1. Main contents of the Minor

The Minor has run, for the last 4 years, on the spring semester, from March till June. The pedagogical and assessment strategies were chosen to reflect the competencies to be achieved, with a strong focus on active learning.

On the 2020/2021 curricular year, due to the COVID pandemic, the Minor took place entirely online using asynchronous and synchronous strategies. To facilitate this transition, we implemented a weekly based strategy supported in 4 Steps:

- Preparation, we create preparatory activities that include asynchronous activities like seeing short, pre-recorded lectures, reading selected literature, or searching for information;
- Interaction, we provide synchronous lectures or promote online groupwork (using interactive tools – like whiteboards, mindmapping, google docs,);
- Consolidation, we used Web quizzes or students did thematic presentations about the weeks topic;
- Assessment, at the end of the week/topic the students submitted a task that reflect the topic and the process.

To increase engagement and participation the students during this period, were also involved in to two additional projects: PhysioViews (Profiling Physiotherapists in acute care), for this one the students created a script and did online interviews of different physiotherapist working in the context of Acute Care in different country's (e.g. Netherlands, UK, Italy, Suisse, United Emirates), and also participate in the development of an Acute Care Resource App (acute care.glideapp.io), responsible for the creation of the content of the different sections, that include clinical instruments and references for patient assessment, evidence to support practice and additional tools.

3 RESULTS

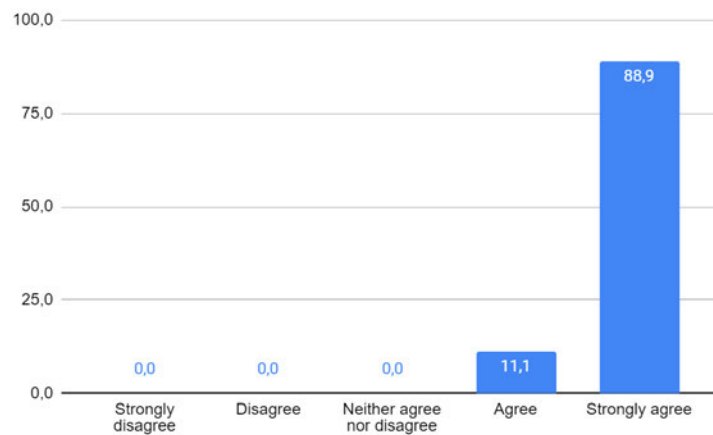
To assess the student's satisfaction with this pedagogical process we created and implemented an anonymous online questionnaire divided in 2 main sections, one related to the organizational aspects, and other centered on the pedagogical aspects of the Minor. All students (N=10) answered the anonymous online questionnaire at the end of the Minor.

3.1 Organizational and pedagogical aspects.

A descriptive analysis of the student's responses on the different sections of the questionnaire is given.

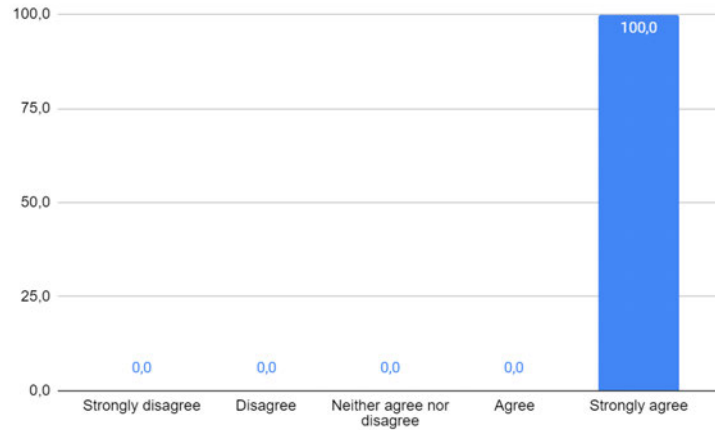
3.1.1 Organizational aspects.

When asked to state their opinion in relation to the organizational support given during the Minor (eg. thought WhatsApp, email), 88,9% of the students Strongly agree that was adequate (Graph 1).



Graphic 1 - The organizational support given during the Minor was adequate

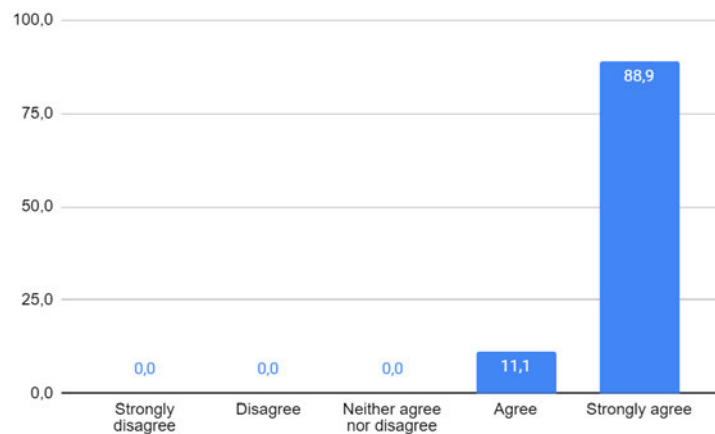
In relation to the IT tools (including the eLearning Platform and the online conference system) used to support the online Minor, all the students Strongly agree that was adequate (Graph 2).



Graphic 2 - The IT tools (including the eLearning Platform and the online conference system) provided was adequate

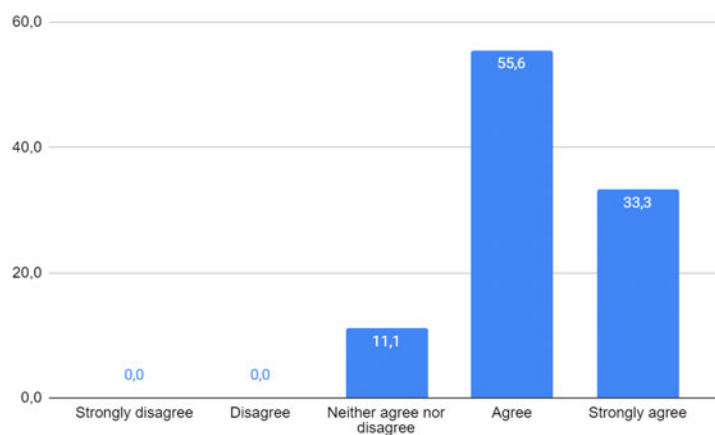
3.1.2 Pedagogical aspects.

When asked if the topics discussed were relevant to the overall objective of the Minor, 88,9% of the students Strongly agree that was adequate (Graph 3).



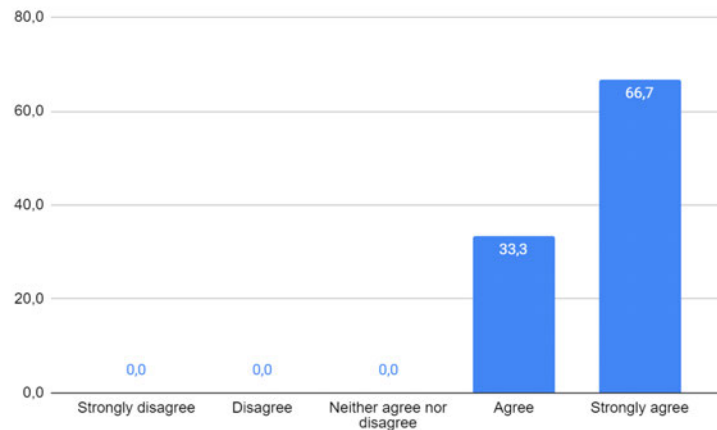
Graphic 3 - The topics discussed were relevant to the overall objective of the Minor

When asked, in their opinion, if the online classes facilitated the students learning, more than 80% of the students Agree/Strongly agree (Graph 4).



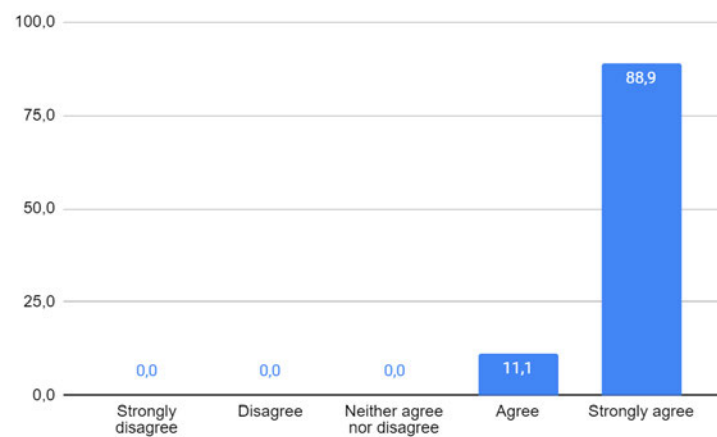
Graphic 4 - The online classes facilitated the students learning

In relation to the online activities created, more than 90% the students Agreed/Strongly agree, that it contributed to the overall objectives of the Minor (Graph 5).



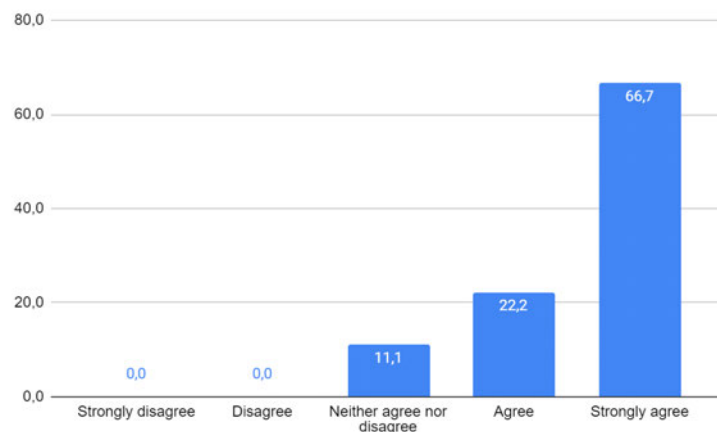
Graphic 5 - The online activities created contributed to the overall objectives of the Minor

In relation to teacher's role in the Minor, 88,9% of the students considered that they facilitated the learning process (Graph 6).



Graphic 6 - Teachers involved in the Minor facilitated the students learning process

Finally, more than 80% considered that the assessment strategies were aligned with the overall objectives of the Minor (Graph 7).



Graphic 7 - The assessment strategies were in line with the overall objective of the Minor

3.1.3 Additional comments

Beside the presented data we also ask the students in open format to provide additional comments about the Minor, such as:

- “It was overall a very interesting minor and it has caused me to become really interested in working in the ICU and I want to try to find an internship placement in a hospital.”
- “I think it is challenging for both teachers and students to do classes online and all teachers involved in the minor were really great and this helped me to stay motivated.”
- “Great, interactive minor. Really enjoyed the content and of course the teachers.”

4 CONCLUSIONS

As previously mentioned, the data reveal a very favourable opinion regarding the contents discussed (more than 80% strongly agree), pedagogical approaches used, such as online activities (more than 90% agree/strongly agree), teacher support (88% agree/strongly agree). Students were satisfied with Minor's adaptation to the pandemic context, allowing them to obtain the necessary skills to work in this environment. Based on the positive responses from the students, we consider the implementation to be successful. To ensure a high level of competencies for the future generation of physiotherapists, educators involved in physiotherapy programs, have the responsibility to embrace flexible and adaptive educational modalities, like Online or Blended Learning. We aspire to integrate hybrid learning methodologies and broaden the participation of students and teachers from other international institutions in this Minor Course. Promoting skills and knowledge needed to work in acute care meets the growing need for professionals capable of working in the context of the COVID-19 pandemic.

ACKNOWLEDGEMENTS

We would like to thank all the students and teachers involved, and the HEI, Escola Superior de Saúde do Alcoitão / Alcoitão School of Health Sciences (Portugal) and the Hanze University of Applied Sciences / Hanzehogeschool (Netherlands) for providing us with the opportunity to develop this Minor Course. Participation of students and teachers was made possible by the European Union Erasmus+ programme. For more information about the Minor in Acute Care please follow this link: www.essa.pt/portal/cursos/minor-acute-care .

REFERENCES

- [1] J. Sommers *et al.*, “Physiotherapy in the intensive care unit: an evidence-based, expert driven, practical statement and rehabilitation recommendations,” *Clin. Rehabil.*, vol. 29, no. 11, pp. 1051–1063, 2015, [Online]. Available: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4607892/pdf/10.1177_0269215514567156.pdf.
- [2] P. Thomas *et al.*, “Physiotherapy management for COVID-19 in the acute hospital setting and beyond: an update to clinical practice recommendations,” *J Physiother*, 2021, doi: 10.1016/j.jphys.2021.12.012.
- [3] B. H. M. Bastick Ek M Physio *et al.*, “Postgraduate clinical physiotherapy education in acute hospitals: a cohort study,” *Physiother Theory Pr.*, vol. 36, no. 1, pp. 157–169, 2020, doi: 10.1080/09593985.2018.1479906.
- [4] WorldPhysio, “World physiotherapy response to COVID-19—briefing paper 1. Immediate impact on the higher education sector and response to delivering physiotherapist entry level education.,” 2020. <https://world.physio/covid-19-information-hub/covid-19-briefing-papers>.
- [5] WorldPhysio, “World physiotherapy response to COVID-19—briefing paper 3. Immediate impact on students and the response to delivering physiotherapist entry level education.,” 2020. <https://world.physio/covid-19-information-hub/covid-19-briefing-papers>.
- [6] G. Rossetini *et al.*, “Digital Entry-Level Education in Physiotherapy: a Commentary to Inform Post-COVID-19 Future Directions,” *Med Sci Educ*, pp. 1–13, 2021, doi: 10.1007/s40670-021-01439-z.
- [7] K. Greenwood, E. Stewart, E. Milton, M. Hake, L. Mitchell, and B. Sanders, “Core competencies for entry-level practice in acute care physical therapy,” *Acad. Acute Care Phys.*, 2015.