EFFECTIVENESS OF SYNCHRONOUS NON-CLASS EDUCATION IN HIGHER HEALTH EDUCATION

Efetividade do ensino não presencial síncrono no ensino superior da saúde

Efectividad de la docencia no presencial sincrónica en la educación superior en salud

António Ferreira*, Catarina Santos**, João Santos***, Marta Figueiredo****, Roman Ratushnyi*****

RESUMO

Enquadramento: a pandemia por SARS-COV2 condicionou o funcionamento das Instituições de Ensino Superior, levando à adoção de medidas para assegurar o processo de ensino, até então presencial, para uma tipologia de ensino não presencial síncrono. **Objetivo:** avaliar a efetividade do de ensino não presencial síncrono no ensino superior da saúde em resposta à pandemia, na perspetiva do estudante, e sua satisfação. **Metodologia:** estudo misto, descritivo e exploratório, com recolha de dados através de questionário *online.* A população-alvo são estudantes que transitaram para o ensino não presencial síncrono. Análise estatística com recurso ao programa SPSS®, versão 27.0 e análise de conteúdo de acordo com *Bardin* (2016). Cumpridos requisitos éticos. **Resultados:** participaram 48 estudantes que evidenciam menor nível médio de satisfação com o ensino não presencial síncrono em relação com o ensino presencial, sendo essa relação altamente significativa (t=3,09; *p*=0,003). A interação docente-estudante e estudante-estudante é considerada de menor qualidade, contudo, considera-se que o ensino não presencial síncrono demonstra efetividade na manutenção dos percursos formativos dos estudantes. **Conclusão:** as condições tecnológicas de acesso ao ensino não presencial síncrono foram consideradas adequadas, assim como o grau de efetividade, embora com menores níveis de satisfação relativamente ao ensino presencial.

Palavras-chave: educação à distância; satisfação pessoal; estudantes de ciências da saúde; ensino superior

*MsC na Escola Superior de Saúde Norte da Cruz Vermelha Portuguesa, Oliveira de Azeméis - https://orcid.org/0000-0001-5008-3746 - Author contribution: study conception and design, data collection, data analysis and interpretation, drafting of the article, critical revision of the article

**Nursing student - Escola Superior de Saúde Norte da Cruz Vermelha Portuguesa, Oliveira de Azeméis - https://orcid.org/0009-0000-0439-6186 - Author contribution: study conception and design, data collection, data analysis and interpretation, drafting of the article, critical revision of the article

***Nursing student - Escola Superior de Saúde Norte da Cruz Vermelha Portuguesa, Oliveira de Azeméis - https://orcid.org/0009-0000-0354-1978 - Author contribution: study conception and design, data collection, data analysis and interpretation, drafting of the article, critical revision of the article

****Nursing student - Escola Superior de Saúde Norte da Cruz Vermelha Portuguesa, Oliveira de Azeméis - https://orcid.org/0009-0003-0409-5908 - Author contribution: study conception and design, data collection, data analysis and interpretation, drafting of the article, critical revision of the article

Author contribution: study conception and design, data collection, data analysis and interpretation, drafting of the article, critical revision of the article

*****Nursing student - Escola Superior de Saúde Norte da Cruz Vermelha Portuguesa, Oliveira de Azeméis – https://orcid.org/0009-0009-6474-9196 - Author contribution: study conception and design, data collection, data analysis and interpretation, drafting of the article, critical revision of the article

Autor de correspondência:
António Ferreira
antonio.ferreira@essnortecvp.pt

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ABSTRACT

Background: the SARS-COV2 pandemic has conditioned the functioning of Higher Education Institutions, leading to the adoption of measures to ensure the teaching process, until then face-to-face, towards a synchronous non-face-to-face teaching typology. **Objective:** to evaluate the effectiveness of synchronous remote teaching in higher health education in response to the pandemic, from the student's perspective, and their satisfaction. **Methodology:** mixed, descriptive and exploratory study, with data collection through an online questionnaire. The target population are students who transitioned to synchronous non-face-to-face teaching. Statistical analysis using the SPSS® program, version 27.0 and content analysis according to Bardin (2016). Ethical requirements met. **Results:** 48 students participated who showed a lower average level of satisfaction with synchronous remote teaching compared to face-to-face teaching, a highly significant relationship (t=3.09; p=0.003). Teacher-student and student-student interaction is considered of lower quality, however, it is considered that synchronous remote teaching demonstrates effectiveness in maintaining students' training paths. **Conclusion:** the technological conditions for access to synchronous remote teaching were considered adequate, as well as the degree of effectiveness, although with lower levels of satisfaction compared to face-to-face teaching.

Keywords: distance education; personal satisfaction; health occupations students; higher education

RESUMEN

Marco contextual: la pandemia del SARS-COV2 ha condicionado el funcionamiento de las Instituciones de Educación Superior, llevando a la adopción de medidas para asegurar el proceso docente, hasta entonces presencial, hacia una tipología docente sincrónica no presencial. **Objetivo:** evaluar la efectividad de la enseñanza a distancia sincrónica en la educación superior en salud en respuesta a la pandemia, desde la perspectiva del estudiante y su satisfacción. **Metodología:** estudio mixto, descriptivo y exploratorio, con recolección de datos a través de un cuestionario en línea. La población objetivo son los estudiantes que hicieron la transición a la enseñanza sincrónica no presencial. Análisis estadístico mediante el programa SPSS®, versión 27.0 y análisis de contenido según Bardin (2016). Requisitos éticos cumplidos. **Resultados:** participaron 48 estudiantes que mostraron un nivel medio de satisfacción más bajo con la docencia a distancia síncrona en comparación con la docencia presencial, relación altamente significativa (t=3,09; p=0,003). La interacción docente-alumno y alumno-alumno se considera de menor calidad, sin embargo, se considera que la enseñanza a distancia síncrona demuestra efectividad en el mantenimiento de las trayectorias formativas de los estudiantes. **Conclusión:** las condiciones tecnológicas para el acceso a la docencia a distancia síncrona se consideraron adecuadas, así como el grado de efectividad, aunque con menores niveles de satisfacción respecto a la docencia presencial.

Palabras clave: educación a distancia; satisfacción personal; estudiantes del área de la salud; education superior

INTRODUCTION

The recent context of the SARS-COV-2 pandemic in March 2020, the General Directorate of Health (GDH) approved a set of measures to respond to the epidemiological situation, which forced the suspension of in-person teaching activities in Higher Education Institutions (HEIs). In this context, some HEIs have adopted measures to ensure the teaching process (Direção Geral do Ensino Superior, 2020). In this sequence and according to Order No. 2836-A/2020, the institutions developed contingency plans in order to ensure that health security conditions were met (Despacho n.º 2836-A/2020, 2020), as well as, your mission. Following the defined guidelines and regulations, the contingency plans integrated measures that included the adoption of Synchronous Non-face-to-face Teaching (SNT) for theoretical classes, with the exception of practical classes, which will be carried out in a timely manner. According to these plans, classes began to be taught through various digital platforms, such as Microsoft Teams, which allowed communication and interaction using various collaboration tools integrated into Microsoft Office® (UNESCO, 2021). Faced with this change, significant in most HEIs, there has become a growing concern to understand whether the learning and development of skills expected for face-to-face teaching are maintained in a synchronous non-face-to-face teaching type.

The purpose of this study is to understand, from the student's perspective, whether access to synchronous classes was possible and appropriate; its effectiveness in the teaching, learning and assessment process; as well as the level of satisfaction perceived by students regarding the two types of teaching. In this context, the objectives are to evaluate the effectiveness of synchronous non-face-to-face teaching, in higher health education, in response to the SARS-COV-2 pandemic, from the student's perspective, and their satisfaction.

FRAMEWORK / THEORETICAL FOUNDATION

Given the situation of respect for the health measures implemented by the GDH, institutions needed to create alternative ways of maintaining teaching. In this sense, HEIs adopted measures not only to guarantee public health, but also to ensure the teaching process, until then face-to-face, by SNT using digital platforms (Direção Geral do Ensino Superior, 2020).

The closure of face-to-face activities in HEIs led the Higher Education Assessment and Accreditation Agency (A3ES) to comment on the adoption of synchronous non-face-to-face teaching-learning processes, in order to maintain teaching activities using digital platforms. However, and according to the provisions of number 1 of article 4 of Decree-Law no. 133/2019, of September 3, this situation would only be admissible when appropriate to the respective object and objectives of the study cycle (Agência de Avaliação e Acreditação do Ensino Superior, 2020).

Teaching is an extension of education, in which its effectiveness influences the individual's personal and social behavior, where learning represents the possibility of growth, and refers to the acquisition of knowledge and development of skills and attitudes resulting from educational experiences (Castaman & Rodrigues, 2020), which may undergo changes resulting from changes to unforeseen or abruptly adopted regimes. Therefore, it is essential to understand whether the learning expected for face-to-

face teaching took place in a non-face-to-face teaching regime. Taking this concern into account and within the scope of this study, the reference to distance learning refers to non-face-to-face teaching that appears in the deliberation on the temporary teaching-learning processes of March 26 (Agência de Ação e Acreditação do Ensino Superior, 2020) and not as stated in Decree-Law No. 133/2019 (Decreto-Lei n.º 133/2019, 2019). Distance education can be categorized as synchronous or asynchronous. Synchronous technology is one that allows "live" interaction between the teacher and students, for example, video calls. Asynchronous technology involves a significant delay in the time between the provision of information and its reception, such as email and class recording (Klibanov, Dolder, Anderson, et al., 2018).

When online resources are a curricular alternative, the teacher's expectation is that students can access the material to achieve the desired academic success. On the other hand, online resources were developed to be supplementary in nature, where students have freedom to access depending on their needs (Guy, Byrne, & Dobos, 2018). The use of online platforms in distance learning aimed to maintain teaching-learning activities, and this has been significant during the period of isolation, having allowed the temporary replacement of in-person teaching and research activities (Santos & Monteiro, 2020). SNT has advantages compared to asynchronous teaching, as it allows the continuity of teaching, approach and timely contact with the academic community, however, it is still not possible to understand whether this alternative has developed the desired skills when compared to the face-to-face teaching (Cavalcante, Machado, Farias, et al., 2020).

Regarding students, some variables such as gender, age, income, class attendance, study hours (Meirelles, 2019), digital literacy, internet access and housing conditions may have an influence on their perception. about SNT (Gossenheimer, Bem, Carneiro, et al., 2017). The need for confinement, associated with changes in routine, reduced levels of socialization and physical contact with other people, often causes feelings of boredom, frustration and isolation (Brooks, Webster, Smith, et al., 2020). Therefore, it is equally important to take care of mental well-being, as stress, anxiety, apathy, discouragement and agitation together with isolation are also variables that influence the teaching, learning and assessment process, especially if associated with teaching. non-face-to-face synchronous. The rapid adaptation in the creation of environments favorable to synchronous non-face-to-face teaching using digital educational platforms, as well as the monitoring and availability of teachers, are measures that contribute to student satisfaction (Ferreira, Príncipe, Pereira, et al., 2020).

Studies indicate that the educational models of higher education health schools are based on the development of skills for professional practice (ENQA, ESU, EUA et al., 2015), it is considered essential to understand the perception of students in pre-graduate health education regarding the effectiveness of synchronous non-face-to-face teaching in response to COVID-19.

From this context, the research question emerges: *What is the effectiveness of synchronous non-face-to-face teaching in higher health education in response to*

COVID-19, from the student's perspective, and their satisfaction?

In this sequence, we define specific objectives as knowing the contribution of non-face-to-face teaching to students' academic careers in response to COVID-19; identify the characteristics of non-face-to-face teaching that influence student satisfaction levels; understand students perceptions about the effectiveness of synchronous non-face-to-face teaching in higher health education in response to COVID-19; and assess the level of satisfaction with the platform used for synchronous non-face-to-face teaching in relation to face-to-face teaching.

METHODOLOGY

Mixed, descriptive and exploratory study developed at a higher health school in the northern region of Portugal.

The target population consists of 89 pre-graduate students (Higher Professional Technical Courses - CTeSP and 1st Cycle of Studies) who transitioned to synchronous non-face-to-face teaching in the 2019/2020 and 2020/2021 academic years, excluding students from the course's postgraduates (2nd Cycles of Studies, postgraduate and postgraduate degrees) and continuing training.

Data collection was carried out through an online questionnaire consisting of three parts, the first part focusing on sociodemographic characterization, the second part on the synchronous non-face-to-face teaching and learning process and the third part on the SETE methodology – Student Assessment on Educational Quality (Marsh, 1987), in which the variables are operationalized on a Likert-type scale (with one response option) that varies between semantic fields (1- totally disagree to 5- totally agree), and open questions are identified. The data collection period was between March 11th and March 28th, 2022. Regarding data analysis, for quantitative variables, statistical analysis was carried out using the Statistical Package for the Social Sciences (SPSS), version 27.0, and for qualitative variables, categorical content analysis was carried out according to Bardin (2016), defined subsequently. In the statistical analysis, the use of the paired samples t-test was promoted to analyze the relationship between the variable "Level of student satisfaction with face-to-face teaching until moving to synchronous non-face-to-face teaching" and "Level of student satisfaction with non-face-to-face teaching synchronous". The results were considered within a 95% confidence interval and a significance level ($p \leq 0.05$). Participation in the study was voluntary, anonymity and confidentiality were guaranteed, and participants were also given the opportunity to withdraw from the study without any harm. The study was authorized by the School's Board of Directors and a positive opinion from the Ethics Committee (no. 002/2022).

RESULTS

48 students participated in the study, representing a return rate of 53% (N=89). Participants have an average age of 23.8 years (min: 20; max: 46), mostly "female" (91.7%, n=44). It appears that the majority of participants are "single" (93.8%, n=45) and belong to the "Degree in Nursing" course (100%, n=48). By course year, 65.1% (n=28) of students attend the 4th year and 34.9% (n=15) attend the 3rd year. The majority of students have "ordinary" status (79.1%, n=34), however students with "special" (18.6%, n=8)

and "extraordinary" status (2.3%, n=1) also participated in this study.

During synchronous non-face-to-face teaching, 100% (n=48) of participants had "access to a computer and/or cell phone", of which 75.0% (n=33) had access to "adequate quality" internet. In terms of "external environmental factors", 75.0% (n=33) agree that they have "adequate conditions". Likewise, 95.5% (n=42) of participants feel "qualified to handle digital material" aimed at this type of teaching.

From the analysis of the students' level of satisfaction with the course before the transition to synchronous non-face-to-face teaching in comparison with their level of satisfaction after this transition, there is a decrease in the average level of satisfaction, this relationship being statistical highly significant (*t*=3.09; p=0.003) (Table 1).

Table 1

Relationship between levels of satisfaction with the course before and after the adoption of synchronous non-face-to-face teaching

	n	Average	Standard deviation	Minimum	Maximum	*t*	*p*
Level of satisfaction with the course with face-to-face teaching until moving to synchronous non-face-to-face teaching.	48	3,5	0,82	1	5	3,09	0,003
Level of satisfaction with the course after the transition to synchronous non-face-to-face teaching.	48	3	0,86	1	5		

Source: Own systematization
n = Sample size
t = t-test for paired samples
p = Significance leve

Regarding the adequacy of the "duration of intervals", the average agreement of participants corresponds to 3.1 (n= 44; SD=1.09; min=1; max=5). On the other hand, regarding agreement on "compliance with break times", the average number of responses collected was 3 (n= 44; SD=1.28; min=1; max=5).

From the point of view of satisfaction with the platform selected for this type of teaching, namely Microsoft Teams®, the average satisfaction of participants is 3.9 (n=44; SD=0.79; min=2; max=5).

Faced with the question "*What is your opinion regarding synchronous non-face-to-face contact hours when compared to face-to-face teaching?*", the answers were divided into two categories, namely "quantity of contact hours" and "quality of contact hours", which are presented below:

Number of contact hours

Students consider that synchronous non-face-to-face teaching should have a smaller number of hours "... *they should be shorter*." (P19, 2022; P36, 2022), since the number of hours in a synchronous non-face-to-face regime is perceived as "... *too many hours*." (P17, 2022; P39, 2022) and that online teaching "... *requires more effort to concentrate.*" (P4, 2022).

Still in the same context, some participants report that contact hours should "*have been higher*" (P15, 2022),

and there was a "*need for more hours of non-face-to-face contact*." (P8, 2022). Likewise, other students considered that the contact hours were "... *similar*." (P20, 2022) and "... *adequate*." (P14, 2022; P23, 2022; P29, 2022; P43, 2022).

Quality of contact hours

Regarding the category of quality of contact hours, participants report that "*synchronous non-face-to-face contact hours were not as productive as face-to-face contact hours*" (P27, 2022), with "*attention capacity being reduced*" (P38, 2022), making the "*days much busier and tiring*" (P40, 2022).

In the same context, other participants consider that the quality of contact hours was "... *adequate*." (P23, 2022; P29, 2022; P43, 2022) and "... *useful*." (P7, 2022), being also "... *more effective*." (P10, 2022) and allowing "... *to obtain even better results*." (P44, 2022).

Faced with the question "What is your opinion regarding the Microsoft Teams platform for synchronous non-face-to-face teaching?", the answers were divided into two categories, namely "favorable opinions" and "unfavorable opinions", which are presented below:

Favorable opinions

Some participants consider the platform "... *adequate*." (P8, 2022; P17, 2022; P20, 2022; P23, 2022; P29, 2022; P39, 2022), "*well organized*" (P4, 2022) and "... *easy to handle*." (P5, 2022), and in this way "... *it was allowed to continue classes without interruption*." (P41, 2022).

Unfavorable opinions

Some participants consider the platform to be "*not very suitable*" (P14, 2022) and "... *it is not very intuitive or easy to work with*." (P13, 2022), pointing out as the main barrier the "... lack of training for both teachers and students." (P31, 2022).

In the data collected through the SETE methodology to evaluate the satisfaction of synchronous non-face-to-face teaching, in terms of agreement regarding the teachers' performance, lower average values were obtained in the teacher's dynamism and energy when teaching the class, as well as in the enthusiasm demonstrated by the teacher. same. On the other hand, the highest average agreement values were demonstrated in the availability of teachers during office hours and in the approach to content intended for evaluation during synchronous non-face-to-face teaching classes (Table 2).

Table 2

Description of the level of agreement on teachers' performance in synchronous non-face-to-face teaching

	n	Average	Standard deviation	Minimum	Maximum
The teacher shows enthusiasm when teaching the class.	43	3,3	0,87	2	5
The teacher is dynamic and energetic when teaching the class	44	3,2	0,87	2	5
The teacher improves the presentation of content with suggestions for websites and videos.	44	3,4	0,99	1	5
The teacher is interested in student learning.	44	3,6	0,75	2	5
The teacher explains discovery/investigation.	44	3,6	0,65	2	5
The teacher proposes additional reading that facilitates academic success.	44	3,8	0,53	2	5
The teacher relates the implications of the content to various theories.	43	3,5	0,63	2	5
The teacher presents preliminary foundations of ideas/conceptions that are developed in online activities.	43	3,6	0,69	2	5
The teacher presents his point of view when he considers it appropriate.	43	3,9	0,56	3	5
The teacher appropriately comments on current articles developed in the area under study.	44	3,6	0,70	1	5
The teacher is adequate in his relationship with students.	43	3,6	0,73	2	5
The teacher makes students feel comfortable with their support.	43	3,5	0,77	2	5
The teacher has a genuine interest in what is learned by the student.	43	3,5	0,74	2	5
The teacher is available during office hours.	43	3,91	0,61	3	5
The contents for the assessments are covered by the teacher.	43	3,9	0,66	2	5

Source: Own systematization
n= Sample size

Regarding the student being encouraged to participate in discussions, we obtained an average response of 3.8 (n=43; SD=0.72; min=2; max=5). From the point of view of students being invited to share their ideas and knowledge, the average corresponded to 3.9 (n=44; SD=0.69; min=2; max=6).

Furthermore, regarding students being encouraged "to answer the central question", their average agreement value corresponds to 3.8 (n=44; SD=0.55; min=2;

max=5). In terms of the student being encouraged "to propose ideas/questions transversal to the central theme", we obtained an average of 3.7 (n=44; SD=0.79; min=2; max=6).

Regarding the question "What is your opinion regarding teacher-student and student-student interaction in synchronous non-face-to-face teaching when compared to face-to-face teaching?", the answers were categorized into two parameters, one referring to the "amount of interaction" and another to "quality of interaction", which are presented below:

Interaction quantity

Participants report that there is "... *reduced interaction*." (P17, 2022; P38, 2022) between teacher-student and student-student, since "*Student adherence was low*." in the SNT modality (P34, 2022).

Quality of interaction

Participants report that the quality of interaction is "... *lower*." (P28, 2022) between teacher-student and student-student, because the contents were taught "... *faster*." (P30, 2022), being "... *more difficult to learn and maintain attention*." (P16, 2022) even "...*despite the efforts of teachers*..." (P19, 2022) in the SNT modality.

In the same context, there were those who considered that the interaction between teacher-student and student-student in synchronous non-face-to-face teaching when compared to face-to-face teaching was "... *maintained*." (P6, 2022) and "... *adequate*." (P14, 2022), and this interaction "… *even brought us closer because there was actually more concern on the part of the teaching team about whether all the information transmitted was clear*." (P41, 2022).

Regarding synchronous non-face-to-face teaching being "... *intellectually challenging and stimulating* ...", we obtained an average agreement of 3.3 (n=44; SD=1.19; min=1; max=5). In the data regarding learning being relevant, we obtained an average of 3.95 (n=43; SD=0.62; min=3; max=5).

Likewise, considering the question about "Interest in the topic increases as a result of classes", we obtained an average agreement of 3.1 (n=43; SD=0.91; min=1; max=5). With regard to students understanding the contents of the classes, we obtained an average agreement of 3.7 (n=43; SD=0.67; min=2; max=5). Regarding content being "well prepared and carefully transmitted", we obtained an average response of 3.7 (n=43; SD=0.87; min=2; max=5). Regarding the proposed objectives being "in accordance with what is taught during classes", we obtained an average of 3.7 (n=43; SD=0.85; min=2; max=5).

Regarding the existence of "availability of corrections to assessments/work appropriately", we obtained an average agreement of 3.5 (n=41; SD=0.98; min=1; max=6). From the point of view of student assessment methods being "appropriate to the objectives of the curricular unit", we obtained an average agreement of 3.7 (n=43; SD=0.75; min=2; max=5). Regarding classes requiring "the reading of supporting texts" as a complement, we obtained an average agreement of 3.8 (n=43; SD=0.60; min=2; max=5).

In terms of "further reading, chats, forums and portfolios" contributing to the "appreciation and understanding of content", we obtained an average of 3.8 (n=44; SD=0.65; min=2; max= 5).

DISCUSSION

During SNT, participants had access to a computer, cell phone and internet of adequate quality, a fact proven

by the high level of participation in synchronous non-face-to-face activities. The participants were also trained to handle the digital material aimed at this type of teaching, following the study by Pereira, Selvati, Ramos, et al. (2020), where younger students have greater ease in terms of digital literacy and handling the platforms used, which is a factor that significantly influences their satisfaction and the success obtained with this new form of learning.

Regarding the selected platform (Microsoft Teams®) for this type of teaching, students demonstrated high satisfaction, as it was suitable for the purpose, well organized, easy to use and equipped with features capable of facilitating work, similar to the results obtained by Ferreira, Príncipe, Pereira, et al. (2020).

Students believe in reducing the number of hours of synchronous non-face-to-face contact, as this type requires greater concentration and fatigue, as also mentioned by Cavalcante, Machado, Farias, et al. (2020).

Despite the difficulties presented in this teaching process, teachers and students remained available and in contact through synchronous non-face-to-face classes, in order to guarantee a minimum social bond and not interrupt the training processes, with Cavalcante, Machado, Farias, et al. (2020) point to a decrease in teacher-student and student-student interaction in synchronous non-face-to-face teaching when compared to face-to-face teaching, mainly due to the social distancing observed.

However, a decrease in the quality of the interaction established was identified because, although the teachers had demonstrated an effort to maintain as much quality as possible, health teaching is mostly practical and the school environment allows for a higher quality of interaction. Likewise, interaction has become more monotonous and restricted to class moments, inversely to what happens in face-to-face teaching, although the role of the teacher is fundamental, this should not be understood as an exclusive source of knowledge and interaction, so the student must have a proactive, participatory and responsible attitude, as mentioned by Castaman & Rodrigues (2020).

According to Santos & Monteiro (2020), non-face-to-face teaching requires a primary mastery of the quality of the technique and the speed of pedagogical planning. Thus, it is recognized that teachers had little time to plan non-face-to-face activities, forcing the reformulation of teaching materials, teaching strategies and pedagogical proposals, consequently causing them to become more tired, as suggested by Cavalcante, Machado, Farias, et al., (2020), who also point to a low level of dynamism, energy and enthusiasm on the part of teachers when teaching.

On the other hand, a high degree of agreement was demonstrated in terms of availability during office hours and the approach to content intended for assessment during synchronous non-face-to-face teaching classes. The school's rapid adaptation in creating environments favorable to non-face-to-face teaching, as well as the monitoring and availability of teachers, were the measures that most contributed to reducing the impact of the strategies instituted in the face of the pandemic, reinforcing the results obtained by Ferreira, Príncipe, Pereira, et al. (2020).

Likewise, the quality of learning observed during non-face-to-face contact hours was considered lower at the expense of face-to-face teaching, given the intensity and fatigue associated with the pandemic season

experienced and the existing workload. In this sense, training in higher education was modified not only by the suspension of classes, but also by the impact on the teaching and learning routine, mainly due to the possibility of not meeting the biological, psychological and social singularities of students and the risk of development incomplete skills. Therefore, it is important to emphasize that this teaching alternative is carried out in a complementary way, and not as a substitute for face-to-face teaching, as there may be gaps in the quality of learning, as also mentioned by Cavalcante, Machado, Farias, et al. (2020).

The participants' level of satisfaction with the course before the transition to synchronous non-face-to-face teaching is higher compared to the period after this transition. According to Cavalcante, Machado, Farias, et al. (2020), open learning with attitudes of exploration and involvement intrinsic to the student, are the predictive factors for better results in terms of satisfaction with this type of teaching. From this perspective, it is observed that times of crisis are capable of promoting significant changes in the way people think and act, awakening interests and mobilizing different forces in resolving problems. Still in this panorama, the results achieved are corroborated by Klibanov, Dolder, Anderson, et al. (2018), who report that non-face-to-face teaching students finish the course with a lower degree of satisfaction compared to face-to-face teaching students. This aspect may be associated with the negative effects caused by social isolation, such as anxiety, stress, apathy and discouragement, bringing long-term negative consequences, which is why the importance of evaluating and promoting the mental health and well-being of students is emphasized. subject to this temporary transition (Ferreira, Príncipe, Pereira, et al., 2020).

This study points out that distance learning is the most effective solution to continue teaching activities, as reinforced by Sobral (2020), and the assessment methods were developed in a timely manner along the lines used prior to the pandemic.

CONCLUSION

The transition to synchronous non-face-to-face teaching as part of the measures adopted in the School's COVID-19 contingency plan, the context of the study, contributed to maintaining the students' academic journey in response to COVID-19, where everyone involved demonstrated the ability to adapt. to this synchronous online regime. The use of the Teams® platform promoted a high degree of participant satisfaction and proved to be suitable for this type of teaching, where the monitoring and availability verified by teachers proved to be some of the most significant factors in achieving a satisfactory level of effectiveness in the synchronous non-face-to-face teaching and respective levels of satisfaction. However, the level of satisfaction regarding face-to-face teaching is higher than that of synchronous non-face-to-face teaching, although it responded favorably during the pandemic period.

The limitations of the study are related to the small sample size and the fact that it is only one higher education institution. Therefore, it is important that this study is extended to a larger target audience, and that, given these changes in teaching, the possibility of using some of these strategies in traditional teaching is studied, as well as the study of their impact on

students exposed to this transition so that, with the results of these studies, a more holistic view of the impact of COVID-19 can be achieved.

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