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ORIGINAL ARTICLE

Impact of the COVID-19 pandemic on the emotional state of dental hygiene students in the Italian region of Emilia-Romagna

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ABSTRACT

BACKGROUND: In December 2019, the novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was identified in Wuhan, China. By February 2020, the virus had spread to Europe and was subsequently transmitted worldwide. Italy was the fifth-most affected country worldwide and the fourth-most affected country in Europe. Beginning on February 23rd, 2020, the Italian government suspended all teaching activities in schools and universities.
METHODS: In 2020, an anonymous questionnaire was administered to dental hygiene students in the Emilia Romagna Region, one of the most severely affected regions in Italy. The survey evaluated the effects of the coronavirus disease 2019 (COVID-19) pandemic on educational activities and training among students, as well as its emotional consequences. In 2022, the questionnaire was administered to students in the same University courses. Considering the 3-year duration of the course, some respondents to the first survey were working during the second survey, whereas others were scheduled to graduate soon. This survey evaluated the emotional impact of the pandemic on recent graduates and future dental hygienists; it also explored the potential influences of emotions, such as anxiety and anger, in the workplace.
RESULTS: In total, 39, 48, and 41 respondents experienced quite intense/intense, moderate, or mild anger, respectively. The proportion of respondents experiencing anger increased from 46% in 2020 to 67.7% in 2022 (128 of 189). Anger and anxiety persisted at 2 years, as evidenced by responses to the second survey conducted in 2022, although the proportions differed compared with 2020.
CONCLUSIONS: Changes in anger and anxiety among students over time should be monitored. Furthermore, it remains unclear whether anger among students can be replaced by positive emotions after entry into the workforce, suggesting compensation for their efforts. If negative emotions persist, new workers may exhibit emotional responses and aggressive social behaviors.

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KEY WORDS: COVID-19; Surveys and questionnaires; Oral hygiene.

In December 2019, the novel severe acute respiratory syndrome-related coronavirus (SARS-CoV-2) was identified in Wuhan, China. By February 2020, the virus had spread to Europe; it eventually was transmitted worldwide. On March 11th, 2020, the World Health Organization declared a pandemic alert.[1]

Italy was the fifth-most affected country worldwide and the fourth-most affected in Europe. The most affected areas of Italy were Northern regions, such as Lombardy, Veneto, and Emilia Romagna.[2] Teaching activities in Italian schools were suspended on February 23rd, 2020, even before the global pandemic alert had been declared.[3, 4]

Several measures were implemented to flatten the contagion curve and reduce the burden on public hospitals due to coronavirus disease 2019 (COVID-19), including flight constraints, border closures, and the interruption of non-essential activities. Subsequently, self-isolation, movement restrictions, and a complete lockdown were eventually instituted.[5]

COVID-19 is caused by a single-stranded RNA virus that belongs to the β-coronavirus genus. Transmission of the coronavirus between humans occurs directly through airborne saliva droplets or indirectly through contact.[6, 7] Air contamination occurs through Flügge microdroplets and aerosols emitted during speaking, exhaling, coughing, and sneezing. Indirect transmission occurs through contact with contaminated surfaces followed by touching the eyes, nose, or mouth.[6, 7] Saliva plays a crucial role in the spread of infection because it can be contained in aerosols directly emitted near another individual; it can also land on (and thus, contaminate) surfaces.[6, 7]

The typical incubation period for SARS-CoV-2 is 1-14 days. The most common clinical manifestations of COVID-19 are cough, fever, and dyspnea. Additionally, patients may experience diarrhea, anosmia, dysgeusia, skin manifestations, or no symptoms. Notably, the incubation period and clinical manifestations can differ among SARS-CoV-2 variants.[8-11]

Due to airborne transmission of the virus and the nature of dental procedures, dental clinics have been associated with the highest risk of COVID-19 transmission among various workplaces.[7, 12-14] During interactions between patients and dental hygienists or dentists, patients cannot wear a face mask, which is the main personal protective device. Thus, when patients speak, they emit potentially infected aerosols that remain suspended in the air. When the operator uses the main working instruments, such as ultrasonic scalers with cavitation effects, turbines, and micromotor-mounted contra-angle handpieces, the patient's aerosols and saliva are intercepted and contained within the air-water jet of the instruments. Consequently, a potentially infected patient's saliva and aerosols can be expelled into the surrounding environment at a high speed.[14]

If the first operator and dental assistant do not wear masks properly, or if the masks have reduced filtering capacity, these individuals would be the first practitioners at risk of contracting COVID-19, considering that their working distance is 25-45 cm from the patient's mouth. A March 2020 article in The New York Times reported that dental hygienists and dentists had 100% and 95% risks of contracting COVID-19, respectively.[15] If the operating unit is exited while it contains contaminated disposable protective clothing or gowns, there is a risk of contamination affecting surfaces in other areas not directly exposed to COVID-19 (such as the secretariat and waiting room). Furthermore, inadequate ventilation and incomplete air exchange in operating units before the next patient enters may lead to exposure among subsequent patients if a previous patient carried COVID-19.

In summary, COVID-19 transmission in the dental environment can occur through four main routes,[16, 17] including direct exposure to respiratory secretions containing droplets, blood, saliva, or other materials from the patient; indirect contact with surfaces and/or instruments; inhalation of viruses suspended in the air; and mucosal (nasal, oral, and conjunctival) contact with droplets containing infections and aerosols produced by dental procedures.

During the lockdown period between March and May 2020, although dental activities were not suspended, the workflow was reduced due to the travel ban except in emergencies.[5] Therefore, deferrable dental care was postponed, and only urgent services were provided. This reduced workflow

provided the sector with an opportunity to plan the safe resumption of regular clinical practice by adopting measures to enhance safety for operators and patients. A working group was established at the Ministry of Health to draft guidelines for the safe resumption of dental activities.[17, 18]

The main points identified for controlling COVID-19 spread were the consistent use of appropriate personal protective equipment, such as masks, goggles or visors, caps, disposable gowns, and overshoes; adequate ventilation of operating units between patients; and use of disinfectant oral rinses, rubber dams, and double suction, recommended at high speed.

The desire to reduce the spread of COVID-19 and related hospitalization of patients with severe symptoms led to several restrictive measures, including the suspension of in-person teaching in schools at all levels.[3-5] At the beginning of the second semester of 2020, university classes commenced remotely. Each Italian Athenaeum organized virtual classrooms using individual or mainstream platforms, which enabled students and faculty to follow a modified teaching schedule that was adapted to the new requirements. As the lockdown ended and the blended phase began, each Athenaeum selected the modalities of teaching delivery, including remote, in-person, and blended. These decisions were made in accordance with the regional guidelines, considering pandemic trends.

Similar approaches were adopted for examinations and graduation sessions. Overall, both governmental and individual universities were committed to ensuring that students were not hindered in their courses of study, thus allowing the continuation of classes, acquisition of credit, and achievement of academic goals. After a prolonged period of mixed-mode instruction, there was a gradual return to unrestricted in-person university activities in 2022.

Within the framework of existing degree programs in Italy, programs within the medical and health sectors have undergone considerable changes. These courses typically require a substantial portion of annual credits to be acquired through practical exercises and internships.

However, after the pandemic had been declared, several challenges emerged. First, there was an inability to access facilities designated for internships, such as hospitals, outpatient clinics, and affiliated facilities, due to severe restrictions and access limitations. Some facilities were solely designated for the treatment of COVID-19 patients; others were COVID-19-free but had to safeguard existing activities from potential disease spread. Second, there was a lack of mentors in the health and medical fields because these individuals often served as frontline workers managing the pandemic, which placed them at high risk of disease spread. Third, there was concern regarding student safety when internship activities were conducted in environments where students were exposed to at-risk patients, which would contribute to a higher contagion curve. Fourth, there was a shortage of patients because non-urgent medical services were postponed or suspended, leading medical and health activities to predominantly focus on COVID-19 patients or individuals requiring urgent care. This shift made it challenging to organize regular activities for students who required experience in other areas. Specifically regarding dental hygiene students, we previously discussed the increased risk of COVID-19 in the dental sector.[7, 12-15] Considering that the services provided by dental hygienists are not urgent, the nationally regulated suspension of clinical placements was a sensible choice.

Professional degree programs heavily rely on practical internships, which provide students with the opportunity to apply their classroom knowledge and refine their behavioral, clinical, and manual skills. Considering the inability of students to attend internships in the traditional manner, after endorsement by the National Commission of Study Courses in Dental Hygiene and in accordance with Prime Ministerial Decree,[5] distance learning internships were initiated nationwide, including at the University of Modena and Reggio Emilia. Faculty responsible for practical teaching and tutors organized virtual meetings with students using videos, scientific articles, clinical cases, and group discussions to enhance their skills and level of engagement and motivation while awaiting the resumption of regular activities.

Although distance learning modalities ensured that students' training was not interrupted and proved effective in managing lectures, gradua-

tion ceremonies, and oral and written examinations (through assistance from administrative programs and virtual supervision), they could not fully replace in-person practical activities. To graduate, students were required to complete a certain proportion of their in-person practicum. Prime Ministerial Decrees encouraged universities not to hinder students' academic progress,[5] emphasizing that such academic progress should not be adversely affected due to the pandemic.

As the mixed-mode instruction phase began, face-to-face teaching and tutorial activities were resumed in small groups; priority was given to prospective undergraduates and final-year students for internships. Before engaging in clinical activities, students and tutors were administered the COVID-19 vaccine. As vaccination cycles were completed and healthcare services returned to full capacity, all students gradually resumed laboratory activities and patient internships in 2022. In this environment, characterized by initial uncertainty and requiring extensive adaptation from all stakeholders, a group of researchers from University of Modena and Reggio Emilia explored the emotional impact of pandemic-related changes on dental hygiene students.[19-22]

Materials and methods

An online survey comprising 34 questions was distributed to 150 students enrolled in the Dental Hygiene program at universities in the Emilia Romagna region. The survey investigated students' behavior and response to the restrictive measures introduced by the Prime Ministerial Decree published on February 23rd, 2020.

The questionnaire was created using the freely available Google Forms software, and the link to the online survey was sent via email to all students by the administrative offices. Participants typically required approximately 6-8 min to complete the survey. The first stage of survey administration was conducted between April 27 and May 4, 2020, followed by a second stage between March 21 and 28, 2022.

Survey[22]

The questionnaire included 34 questions organized into five sections. The first section collected demographic information, such as age, gender, and region of residence. The second section gathered information related to the study course, including the study year, number of examinations needed to complete the program, and whether the clinical internship had been completed, as well as whether students were working on their thesis before the COVID-19 outbreak and educational suspensions. Those who answered "yes" were then asked about the type of thesis (review, research, or other), challenges related to completing the thesis, and whether they had considered converting the thesis to a desk-based format if it was a research thesis. The third section evaluated whether students attended distance learning classes, as well as whether they regarded these classes as a viable alternative to traditional lectures. It also explored the perceived impact of the COVID-19 pandemic on the quality of coursework and professional training. Furthermore, students were asked if they had considered changing their major in the previous 2 weeks. The fourth section focused on the students' knowledge related to COVID-19 transmission, their concerns and their family members' concerns regarding contracting COVID-19 during daily activities, the precautions and prevention measures implemented during daily activities, and their perceived risk of contracting COVID-19 during clinical internships and university classes. Additionally, this section asked about students' perceptions regarding the infection risk in dental hygienists and patients during dental care; it also asked about measures that they considered useful for preventing infection transmission during oral hygiene services.

The final section evaluated the psychological responses, feelings, and emotions related to the COVID-19 pandemic. The presence of anxiety was evaluated using the Generalized Anxiety Disorders (GAD)-7 scale, which evaluates the presence of anxiety symptoms in various populations and conditions.[18-21] This scale asks individuals how often in the past 2 weeks they have felt nervous or anxious, unable to stop or reduce worrying, excessive worry, difficulty in relaxing, agitation, irritability, or fear that something terrible might happen. Responses of "not at all," "somewhat," "moderately," "very," and "extremely" were assigned scores of 0-4, respectively.

For the question "Which of the following emotions, namely fear, anxiety, threat, worry, sadness, and anger, do you feel when you think about COVID-19?," scores of 0-4 were assigned (0 = "I don't feel it"; 4 = "I feel it intensely").

In the GAD-7 scale, responses of "Not at all," "Several days," "More than half the days," and "Almost every day" were assigned scores of 0-3, respectively. The item scores were summed to obtain the total score (range: 0-21); scores of 0-4, 5-9, 10-14, and 15-21 indicated minimal, mild, moderate, and severe levels of anxiety, respectively.

Results

First stage

In the first stage, the questionnaire was administered to 150 students, 141 (94%) of whom completed the questionnaire. The results of the first stage were published in 2022.[22]

Second stage

In the second stage, the questionnaire was administered to 192 students and recent graduates, 189 (98.4%) of whom completed the questionnaire.

Demographic information

In total, 75.1% and 24.9% of the respondents were women and men, respectively. Furthermore, 96 (68.09%) respondents were aged 19-59 years, whereas 115 were aged 19-23 years (Figure 1). One hundred (52.9%) students lived in Emilia Romagna; the remaining 92 (47%) students lived in other Italian regions, mainly Veneto (22.8%).

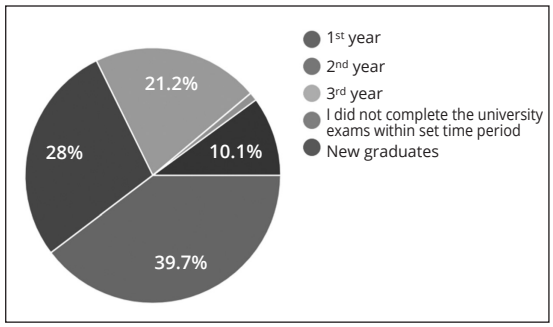

Figure 1.—Study year.

Career and thesis

Among the study participants, 75, 53, and 40 were enrolled in the first, second, and third years, respectively, whereas two were enrolled in other courses and 19 were recent graduates (Figure 1). In total, 138 students had not begun preparing their thesis, 16 were preparing for it without facing any significant challenges, and 16 were experiencing significant challenges. The main challenges included difficulty in contacting the thesis advisor (37.5%) and the suspension of clinical placements (31.3%) (Figure 1). Eighteen (56.3%), nine (28.1%), and five (15.6%) students were writing an experimental, desk-based, or compilatory degree thesis, respectively. Furthermore, four (17.4%) students had planned to change their thesis from experimental to non-research due to the COVID-19 pandemic.

Organization of distance education

None of the students believed that distance education could fully replace traditional teaching. Whereas 47.4% (9 of 19 recent graduates) believed that distance education could partially replace traditional teaching, 52.6% believed that traditional teaching could not be replaced.

Impacts of COVID-19 on career and future profession

Among the 19 recent graduates, 9 felt that the pandemic had a "very" or "extremely" negative impact on their professional preparedness. However, 16 (84.2%) graduates stated that they would repeat their choice of coursework.

Knowledge and risk perception

Only 12 (6.4%) of 189 students were "very" or "extremely" concerned that they might contract COVID-19 during daily activities. To prevent infection, 186 students used face masks, 155 adopted handwashing with disinfectants, and 146 washed their hands with soap and water. Furthermore, 41 students were concerned about the risk of viral transmission to their family members.

With regard to the risk of contracting COVID-19 during oral hygiene procedures, 112 (59.3%) respondents considered transmission to

patients unlikely to occur (Figure 2); a similar proportion of respondents considered transmission to the operator unlikely to occur (Figure 3). Most respondents agreed that COVID-19 in the operating unit could be prevented by sanitization and ventilation of rooms, as well as the use of personal protective equipment.

Psychological responses

Quite intense/intense, moderate, and mild anger was experienced by 39, 48, and 41 respondents, respectively; anger of all severities was experienced by 128 of 189 respondents in 2022. Furthermore, quite intense/intense, moderate, and mild anxiety was experienced by 24, 41, and 63 respondents, respectively; anxiety of all severities was experienced by 128 of 189 respondents (Figure 4). The fear that something terrible might happen was experienced on some days, more than half of the days, and almost every day by 63, 30, and 14 respondents, respectively. Uncontrollable worry was experienced on some days, more than half of the days, and almost every day by 81, 29, and 14 participants, respectively. Furthermore, 94, 39, and 19 respondents felt more anxious than usual on some days, more than half of the days, and almost every day, respectively. The participants' responses are presented in Figure 5.

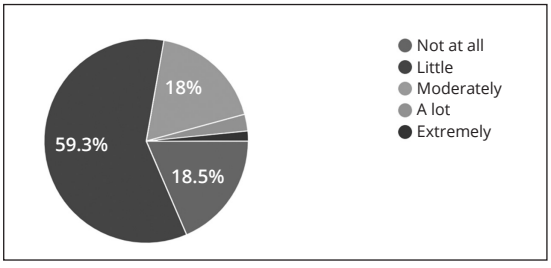

Figure 2.—In your opinion, how likely is it that a patient can get Coronavirus during an oral hygiene service?

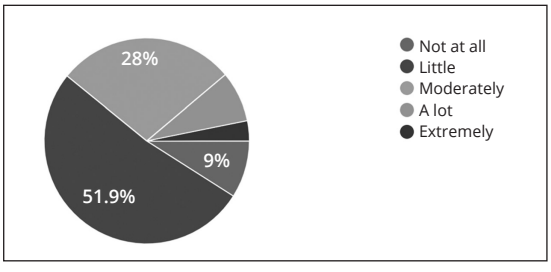

Figure 3.—In your opinion, how likely is it that a dental hygienist can contract COVID-19 during an oral hygiene service?

Emotions

Emotions serve as adaptive responses to the surrounding environment. Although they are experienced passively, several factors actively modulate emotions, resulting in the perception of heterogeneity. External stimuli attract attention and induce changes in arousal; individual characteristics and social and cultural experiences contribute to conditioned responses. Each person's experiential history influences their reaction to stimuli. Moreover, an individual's susceptibility at a certain time can amplify or attenuate their response and alter the interpretation of a stimulus, depending on the level of stress experienced. Emotions primarily serve a protective role, prompting individuals to avoid potential risks. For example, fear prevents humans from approaching dangerous situations, such as falls.

Although there is a hypothesis that certain fundamental emotions exist, their frequencies and intensities vary among individuals. Furthermore, the same stimulus may evoke distinct types and severities of emotions in different people. Prior experiences can shift emotions toward positivity or negativity and influence their intensity. For example, a person previously hospitalized may feel depression, fear, or worry upon encountering a doctor; alternatively, if they have positive memories of healing, they may experience joy, trust, and optimism.

The relationship between emotions and experiences is bidirectional. Prior experiences can evoke certain emptions, which can influence an individual's action and attention to certain factors. Moreover, emotions impact various aspects of an individual's life, including their work environment. Some emotions may have a protective role in certain aspects of an individual's life, increasing their functional ability, but have a negative impact on their work. Considering the responses obtained from dental hygiene students, prospective dental hygienists, and recent graduates, there is a need for further exploration of two basic emotions: anger and anxiety.

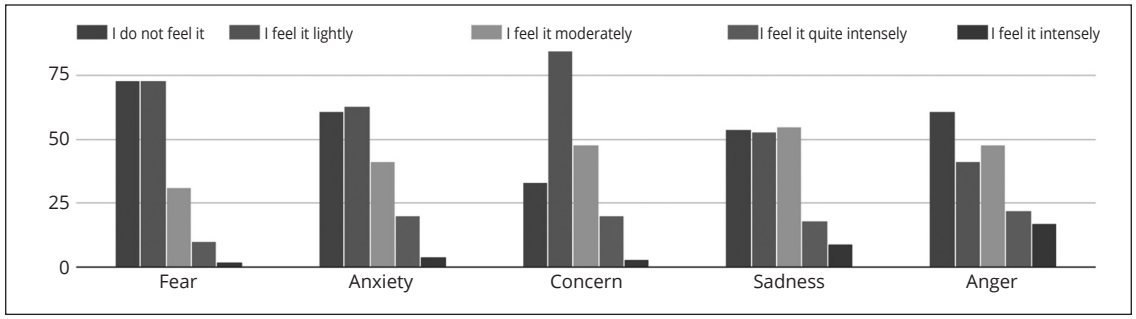

Figure 4.—Which of the following emotions do you feel when thinking about COVID-19? Distribution of responses about emotions.

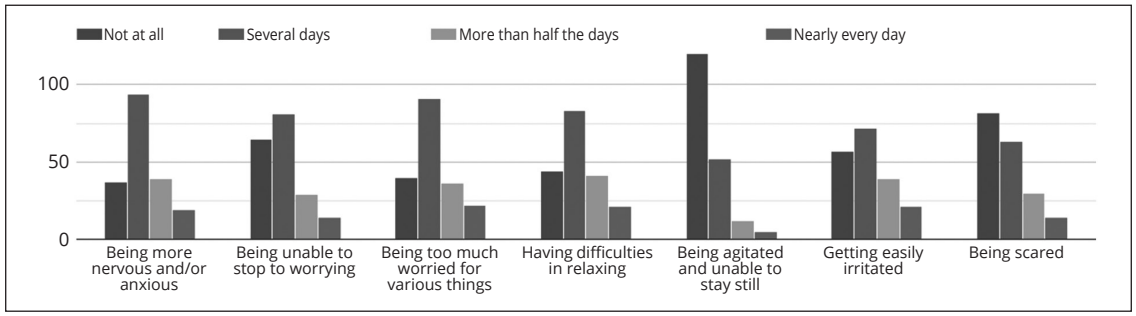

Figure 5.—How frequently one of these issues bothered you in the past two weeks?

Anger

Anger is an emotional state of varying intensity,[23] related to but conceptually distinct from its associated behavior.[24] It is typically accompanied by physiological activation, muscle tension, neuroendocrine changes, and autonomic nervous system arousal.[25] It is often associated with antagonism,[26] sensitivity to challenges and threats,[27] aggressive thoughts or feelings of persecution,[28] cognitive distortions, and cognitive and perceptual deficits. Anger may arise in response to feelings of injustice, lack of reward, or the presence of fear. Individuals experiencing anger typically perceive a sense of offense or deep humiliation, which affects their sense of identity. Underlying anger leads to an inability to acknowledge one's identity, resulting in the preservation of self-confidence.

Anger can lead to aggressive behavior in individuals, including in the workplace, thus reducing productivity. If this behavior extends to the surrounding environment, the entire work area may be affected, thereby damaging the work environment and creating disputes among colleagues and workers at various levels. When multiple individuals experiencing anger share the same environment, their aggressive behaviors may escalate; this escalation is not easily neutralized by workplace competition. Furthermore, widespread aggressive behaviors can escalate into riots and uprisings.

Although anger is generally viewed negatively, there is some speculation that it also has positive effects. Individuals experiencing anger may undergo catharsis, releasing tension and experiencing a calming effect.[28, 29] Generally, when faced with a threat, anger can be considered an egosyntonic emotion: aggressive behavior is expressed because there is a perception of injustice and devaluation of self-identity, which is inconsistent with an individual's self-esteem. Conversely, if an individual feels fragile and inadequate in the presence of a threat, they may experience anxiety.

Anxiety

Anxiety develops in response to a perceived imminent danger. Individuals facing a test or challenge who believe they are insufficiently pre-

pared may feel anxious. Anxiety arises from a perceived sense of vulnerability experienced in concrete situations, such as problems with daily life, as well as more abstract contexts including the inability to progress, thrive, or survive. Although anger is considered egosyntonic, consistent with an individual's self-perception, anxiety is egodystonic and inconsistent. Individuals often perceive their inability to adapt as unwanted, stressful, and beyond their adaptive capacity.

It has been hypothesized that anxiety can have a positive connotation, similar to anger. Anxiety and anger develop in response to distinct stimuli. It would be about challenge and not threat. This positive connotation suggests a desire to overcome challenges within the grasp of an individual experiencing anxiety.

A worker experiencing anxiety may experience increased vulnerability, believing their resources are insufficient to cope with work challenges. If met with a positive response and a willingness to improve, anxiety can serve as a positive stimulus, prompting the individual to make efforts to overcome the challenge. However, if the challenge is deemed insurmountable or approached during highly stressful periods, negative coping strategies may emerge, leading to a desire for escape, avoidance, and the inability to improve oneself.

Discussion

This study demonstrated the substantial effects of the COVID-19 pandemic on dental hygiene students transitioning into healthcare work and on newly graduated dental hygienists. The imposed restrictions have curtailed daily activities, disrupted schedules, and led to uncertainties, resulting in heightened emotions and fear for the future.[19-22]

The project of the study started in 2020, and the goal was to create a questionnaire that would meet the needs of study programs in a specific geographical area, Emilia Romagna. The questionnaire was developed in agreement with all three universities involved and with the consultation of the Department of Statistics.

The 2020 survey revealed that students were aware of effective infection prevention strategies and were well-informed regarding COVID-19 transmission. However, they expressed worry and moderate-to-high levels of anxiety, as evidenced by the GAD-7 scale. Many respondents felt anxiety and anger, which is reasonable considering the circumstances at the time of the first survey.[18-20] In this survey, 40 (28.4%) and 29 (20.6%) respondents felt anxiety at moderate or intense levels, respectively, whereas 25.3% felt anger quite intensely (11.3%), intensely (14%), or moderately (19.9%). Therefore, in spring 2020, almost half of the respondents (N.=65, 45.2%) experienced anger of varying severity. Although most respondents (85.1%) had not considered changing their study course, this proportion increased to 97.4% among final-year students, reflecting uncertainty about their daily activities and educational path. These factors explain the high levels of anxiety and anger among young individuals, which persisted for some time.

Two years later, in 2022, anger and anxiety persisted but affected different proportions of respondents compared with the proportions in 2020,[19-21] revealing intriguing trends. The proportion of respondents experiencing anger increased to 67.7% (128 of 189) in 2022 compared with 46% in 2020;[19-21] quite intense/intense, moderate, and mild anger were experienced by 39, 48, and 41 respondents, respectively. Furthermore, the proportion of respondents experiencing anxiety decreased to 34.39% (65 of 189) respondents in 2022 compared with 54.6% in 2020; quite intense/intense and moderate anxiety were experienced by 24 and 41 individuals, respectively.

Changes in students' daily lives from the lockdown period to spring 2022 were characterized by increased awareness of managing COVID-related risks, clinical understanding of COVID-19, availability of vaccines, and affordability of personal protective equipment. Despite the complete disruption of daily activities worldwide during the COVID-19 pandemic, recovery has slowly and steadily occurred; businesses have reopened, streets have become busy again, and classrooms and libraries have been repopulated. Students have adapted to new ways of learning, including attending classes, participating in internships, and preparing theses; they have demonstrated resilience and adaptability.

Uncertainty about the future has receded and been replaced with a sense of capability, as well as increased anger and anxiety. Anger arises

from an awareness of competence and perceived injustice, whereas anxiety arises from feelings of doubt regarding one's ability to overcome challenges. Increased anger relative to anxiety suggests that students have become aware of their abilities to adapt, persist, and cope with the pandemic-related challenges, thus enhancing their self-esteem. Furthermore, the university has supported the students' journey, ensuring that their dedication was not hindered.

Conclusions

A comparison of survey responses obtained at an interval of 2 years suggests that levels of anger and anxiety should be monitored over time. Furthermore, it remains unclear whether entry into the workforce can replace student anger with positive emotions, considering the effort required during education. However, if negative emotions persist, there is a risk of creating a workforce characterized by emotional responses and aggressive social behavior.

Healthcare workers engage in roles where they are expected to help patients; their emotions can influence life outside of work and affect patients with varying degrees of frailty. Notably, patients have experienced injustice and deprivation during the pandemic, which may have enhanced their negative emotions. If both healthcare workers and patients experience anger and demonstrate aggressive behaviors, these emotions may be particularly enhanced during interactions.

The work environment should support workers, rather than hindering their growth, similar to the manner in which universities supported students during their academic journey. In work environments, the well-being of healthcare workers should be ensured to improve worker and patient care outcomes.

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Conflicts of interest

The authors certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.

Authors' contributions

Pierantonio Bellini and Sabatini Silvia have contributed equally to this work and share first authorship. Conceptualization: Ugo Consolo, Pierantonio Bellini, and Silvia Sabatini. Methodology: Pierantonio Bellini, Ugo Consolo. Formal analysis: Pierantonio Bellini, Silvia Sabatini, Giovanni Zucchelli, Roberto Farina, Ugo Consolo. Investigation: Silvia Sabatini, Martina Stefanini, Giulia Montemezzo, Pierantonio Bellini. Data curation: Pierantonio Bellini, Silvia Sabatini. Writing—original draft preparation: Silvia Sabatini, Pierantonio Bellini. All authors have read and agreed to the published version of the manuscript. Authorship must be limited to those who have contributed substantially to the work reported.

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