THE IMPACT OF DISTANCE EDUCATION ON THE MENTAL HEALTH OF APPLICANTS FOR EDUCATION: THE ROLE OF DIGITAL PSYCHOLOGICAL SUPPORT

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Abstract: Poor mental health among university students remains a pressing public health issue. The conditions of distance learning causes even more challenges for students' mental health and wellbeing. Over the past few years, digital health interventions have been developed and considered promising in increasing psychological wellbeing among university students. The study attempts to systematize and analyze the existent experience of creating digital psychological support services for university students, including virtual clinics, peer platforms, etc. It is concluded that combining peer engagement and involvement of students in platforms development is the optimal and highly necessary element to be added to the landscape of digital psychological support services for students in distance education.

Keywords: distance education; mental health; wellbeing; digital psychological support; platform.

1 Introduction

Today, distance learning formats are becoming increasingly more widespread, and the effectiveness of online learning is being actively promoted. However, what is often overlooked is the fact that the success and effectiveness of distance learning depends on many factors: the information competence of students, readiness to use information technology, the availability of computers and other telecommunication systems, family support, the regional mentality of participants in the educational process, and professional and educational motivation, health status, and many other factors.

During quarantine, in the fall of 2021, preference was given to the specially prepared Moodle Cisco Webex platform for online training, which was used by the educational institution as an educationally-oriented platform. At first, it seemed to the students that such training would be more convenient, since they would have more free time and knowledge would be absorbed much better, but, unfortunately, this turned out to be far from the case. Studying in an unfamiliar environment led to educational stress and had a negative impact not only on the students' physical health, but also on their psycho-emotional state. They more often noted signs of irritability, anxiety, increased fatigue and aggressiveness, sleep disturbances, and others [23].

One of the reasons for educational stress is associated with such a problem of distance learning as the lack of face-to-face communication with the teacher. The process of communication in distance learning conditions is completely changing. Even modern students, who are often called "digital natives", find it easier to answer teacher's questions in person, i.e., in classrooms [26]. Senior students and masters had time to get used to the teachers, their manner of presenting information and the atmosphere that they create for them, but nevertheless students had to look at computer and phone screens during classes for 5-6 hours straight. At the same time, it is difficult for students to perceive the material due to the fact that they cannot get comprehensive answers to the questions that concern them. They have to figure out a lot of things on their own, but not everyone can do this and not always [9]. In this regard, students may experience dissatisfaction with the work performed and anxiety increases.

Another reason for educational stress is related to the problem of distance learning such as an increase in the teaching load. With the transition to online learning, the volume of educational material in online lectures increases significantly, teachers assign more material for independent study and increase the amount of homework. In addition, due to the large number of online platforms in distance learning, there was a desynchronization of interaction between participants in the educational process, that is, each teacher sent an assignment or conducted a lesson differently, in different manner. In this regard, significant changes occur in the student's daily routine that affect sleep. Many students complain of poor sleep and lack of sleep [12]. There is a critical shortage of time, so students sit late into the night to complete all the work assigned to them independently. This affects a decrease in mental performance, increased fatigue and a general emotional background. In turn, increased sleepiness, difficulty falling asleep, insomnia can cause anxiety, feelings of emotional exhaustion, and cause depression. In particular, this field is actively investigated by Ukrainian scientists, especially Kryshtanovych [11; 13-20; 31].

Due to the "weak" Internet, students in rural areas had problems getting in touch, that is, due to circumstances beyond their control, he could not attend classes. Students feared that they would be recorded as absent, which could affect their final grade [26]. An unstable Internet connection could fail students even when they needed to answer the teacher's questions during an online lesson, and websites and platforms began to freeze or took a long time to load. This makes it difficult to concentrate and work productively during practical and seminar classes. If such situations arise often enough, then students become not just dissatisfied, but very irritable, they may experience outbursts of anger. Also, problems with the Internet may occur during testing or taking a session online. In such a situation, the student is confused and exhibits acute emotional reactions such as fear and even anger. In Ukraine, during a full-scale war that began in 2022, most educational institutions in the country switched to online learning; however, due to hostilities, as well as shelling of infrastructure even in the rear, problems with Internet access arose not only in rural areas localities, but also in large cities.

Baticulon et al. presents a comprehensive study of barriers to online learning in Philippines context (see Figure 1).

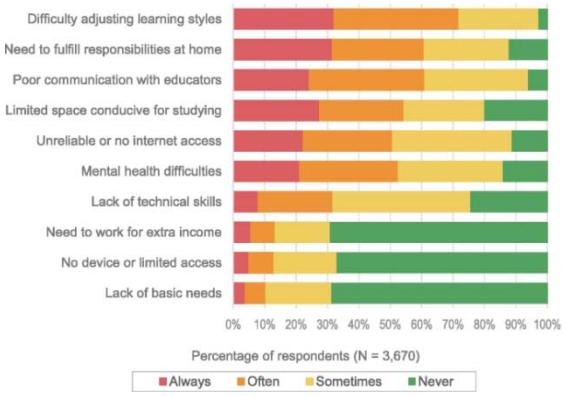

Figure 1. Frequency of occurrence of selected barriers to online learning among medical students in the Philippines during the COVID-19 pandemic [2]

The similar situation is observed in Malaysia (see Figure 2).

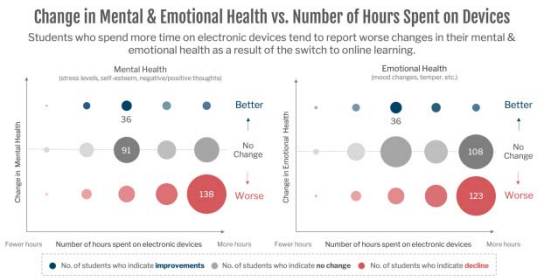

Figure 2. Change in mental and emotional health in students vs number of hours spent on devices [27]

In such conditions, so that distance lectures and practical classes do not cause a decline in the health of students, the implementation of training should be built taking into account the principles of health-saving pedagogy, students and teachers must know the basics of pedagogical psychohygiene and sanitary and epidemiological standards for the organization of distance learning. It is necessary to monitor the health status of all participants in the educational process and, in accordance with it, model a health-saving educational process. The most important component of this process is digital psychological support for students. The study of the theoretical foundations of this support, as well as existing best practices, is today a very important and, without exaggeration, it can even be said, a critical area of research, since higher education is the basis for the formation of the country's social capital and one of the factors in the sustainability of national security.

2 Materials and Methods

The research methodology is determined by a set of system-forming fundamental concepts that underlie the description of the topic: distance learning, mental health, online psychological support.

The methodology was largely predetermined by historically established ideas in the field of theory and practice of individual learning and development, as well as sociological, biological, and psychological concepts and theories that reveal the essence of man, society, and the environment. The specific research methodology is also based on such principles as a combination of personal and activity approaches. To solve the tasks set, an analysis of philosophical, sociological, psychological, and pedagogical literature on the research problem was used, as well as generalization, systematization, and comparison.

3 Results and Discussion

Distance learning environment conditions have different consequences for the psychological state of students. The educational process in the context of social deprivation is the modern norm. This is where the psychogenic nature of distance learning arises, directly or indirectly affecting its subjects.

In pedagogical psychology in the 1970-80s, the issue of environment issues became topical. It is worth taking a closer look at one of the key components of the learning process - the educational environment. The environment is a set of psychological, social, and physical capabilities, as well as barriers in relation to the goals of the subject's activity. In the distance learning format, the environment itself changes, so it is advisable to consider the conditions for the psychological safety of the environment in education.

Within the framework of the concept of psychological safety of the educational environment, there are many approaches and interpretations to the structure and functions of the environment in education. The general and key definition of psychological safety is precisely the state of the educational environment. Humanistic psychology argues that it is necessary to create favorable, special conditions for the iplementation of the positive needs of human nature (J. Bugental, A. Maslow, K. Rogers, R. Snyder, etc.). This is an important rule that helps a person open up in interaction with the environment. And, speaking of security, it certainly includes the concept of threat. In distance learning, the threat is the psychogenic factors of the distance environment.

Since the late 1960s, the phrase "lack of communication" has increasingly appeared in newspaper headlines. The development of industrialization, together with the era of individualism, made some adjustments to the social environment of human communications. The focus of attention gradually shifted towards the consumer sphere, leaving the spiritual need for communication alone. The issue of loneliness, its subjective experience, has been studied by many specialists.

It should be understood that distance learning may not be entirely suitable for some students due to personal characteristics. Under the same conditions of distance learning, adaptation takes place differently for everyone, starting from the physical level of activity familiar to everyone and ending with the accentuation of character, the type of nervous system.

An important factor that is directly related to the training format is the motivational component. Motivation plays a significant role in distance education. A low level of motivation and disorganization forms alienation from the profession and in the future there is insufficient psychological readiness to carry out professional activities. The lack of feedback on mastering the material, in general, reduces the quality of training.

Thus, distance education affects the quality of learning and (or) the psychological state of the student. Forming motivation for a professional role, one way or another, is an important factor supporting success, interest and activity in the context of the educational process. There is a risk that distance learning conditions will have negative consequences on the professional skills and personal well-being of students.

Accepting modern trends in the development of education, it is important to note the need to harmonize the conditions for preparing students for future professional activities, which helps creative, professional self-disclosure of the individual in the social environment. The psychogenic aspect of distance education one way or another makes it possible to increase the experience of self-regulation, space for creative manifestation and self-realization, and a conscious meeting with new distance learning conditions. The essence of harmonizing the learning process in a distance learning environment is the adoption of a new learning format, the ability to adapt and form the creative potential of the individual, respectively, and the professional development of a specialist in the psychogenic conditions of distance education.

Another important consequence of the transition to online learning is the transformation of the functions and purposes of home space. There is a blurring of the boundaries of spatial locations of different formats - places of residence and places of work. For the student, they merge together, that is, where a person sleeps/eats, that's where he studies. Anyone working from home, remotely, faces a similar situation, so such psychological fatigue from the monotony of the same place has become a common problem for millions of people. But while for an adult with established life attitudes and experience it is possible to come to terms with the need to withstand the monotony of the situation (otherwise the alternative is unemployment), then for young people striving for a new daily perception and awareness of the world around them, such spatial localization in one place becomes a serious psychological 'test'. The response is an even greater immersion in the virtual world, in computers and smartphones, and a reduction in the time of face-to-face communication.

To reduce and level out the negative impact of distance education on the mental health of students, digital psychological support services are being created.

The psychological service of a university should be an organizational structure whose purpose is to provide psychological support for the professional and personal development of students in the educational environment of a higher educational institution and to enable psychological assistance to all participants in the educational process to overcome emerging psychological difficulties.

The main tasks in the activities of the psychological service are as follows:

- Identification of at-risk students in need of socio-psychological assistance;
- Providing socio-psychological assistance and support to students during the adaptation period in interaction with participants in the educational process;
- Developing in students the ability to overcome emerging difficulties, goal-setting skills and responsibility for making their own decisions;
- Psychological education of students in the formation of basic skills of understanding themselves, significant others, and surrounding people;
- Activation of students' psychological resources, formation of time management skills and effective organization of free time;
- Development of communicative competencies of participants in the educational process;
- Psychological support for the process of professional self-determination and overcoming anxiety about readiness to perform future professional duties, determining directions for the development of professionally important qualities;
- Providing socio-psychological assistance to students in countering the formation of addictions, as well as deviant and delinquent behavior through the activation of personal resources, increasing resistance to negative external influences;
- Assistance to the management and teaching staff of the university in creating a favorable socio-psychological climate necessary for successful work and the formation of a harmonious personality of students.

However, today there is still a "weakness" of psychological counseling on the Internet in the area of a psychologist's ability to informatively diagnose a client and assess his mental state. This argument is most often found among those who are skeptical about online counseling. Meanwhile, it is hardly possible to completely stay away from the opportunities that online counseling opens up. Quite the contrary, the competent use of online technologies significantly increases the efficiency of interaction in the "consultant-client" system. After all, how quickly a psychologist can establish the authenticity of a client's story about his life and problem depends solely on the practical experience of the specialist himself, and it does not matter whether it is contact counseling, in which the consulting psychologist meets with the client and the conversation takes place face to face, or distant counseling.

According to Pankow et al.'s most recent (2024) research, clinically significant symptoms of anxiety and depression are widespread among university students at admission, persist, and worsen over the academic year. Furthermore, during the COVID-19 epidemic, college students' rates of anxiety, sadness, and sleeplessness have increased [12]. Universities often provide a range of services and resources for mental health, but these are frequently dispersed and infrequently arranged in line with a comprehensive, evidence-based, tiered care framework that takes into account all aspects of students' mental health needs [5].

There is a lot of promise for improving mental health using digital methods to university student well-being and mental health assistance. By pointing students toward additional on-campus services, providing information about triage and clinical follow-up, and providing signposting to options depending on symptom levels, digital platforms can help improve access to treatment. Stakeholders should take this into account because university students have said that they would rather use digital mental health programs as a self-monitoring support system while getting treatment or after leaving it than as a replacement for traditional care [21]. Although additional self-monitoring tools may be helpful for college students, there doesn't seem to be any data on their viability or effectiveness. Moreover, there is a dearth of systematic exploration and integration of digital technologies targeted at enhancing the mental health of university students in a tiered care paradigm.

In order to improve the care experience for students who are seeking assistance, Pankow et al. [24] carried out a pilot study with the goal of determining the acceptability and investigating the usefulness of a novel digital mental health platform created in partnership with students and stakeholders as a resource for student-facing well-being. The internet-based tool utilized in their study, the U-Flourish Digital Well-Being platform (powered by i-spero®), was first created as a component of the PReDicT project, which sought to enhance the management of depression in primary care settings in the United Kingdom. Through automated messaging, the platform offers assistance and advice, schedules the collection of self-reported symptom levels using validated measures to assess treatment response, and, based on user entries that may be shared with providers/clinics, determines when clinical visits are necessary.

For the purpose of the study, Student Wellness Services (SWS) at Queen's University in Canada modified the i-spero® platform to be used as an expanded care route and as a self-guided well-being support for students. Providing two pathways aligned with the concept of a stepped-care framework, enabling care-seeking students to participate in improved self-monitoring alongside their healthcare providers. Additionally, it allowed students to monitor their well-being on their own and receive recommendations for resources based on their level of symptoms. There were not many distinctions between the two care paths other than direct provider access. Core functionality (such as the monitoring schedule, measurements employed, and display dashboard) remained the same, but the terminology and substance (such as "care plans" for those in the care route and "well-being plans" for those in the well-being pathway) varied primarily. The participant's registration status as a student at Queen's University, whether undergraduate or graduate, and their desire for mental health help through SWS (of any kind of provider) were prerequisites for inclusion in the care route. One of the requirements for inclusion in the well-being route was that the individual be enrolled as a graduate or undergraduate student at Queen's University. The well-being pathway was still open to participants who did not use Queen's SWS for mental health treatment, but they were not included in the care pathway. Data from 120 students in the improved care pathway and 121 students in the i-spero® well-being pathway were included in the pilot research. In both routes, the majority of students were in the 19–22 age range.

The following mental illnesses were reported by students as lifelong conditions: mood, anxiety, psychosis, eating disorders, neurodevelopment disorders, sleep disorders, drug use disorders, learning disabilities and/or ADHD, and other disorders. There included information about past and present mental health care. Using questions from the Columbia Suicide Severity Rating Scale, people reported their lifetime history of suicidal thoughts and attempts as well as self-harm without intending to commit suicide.

In order to evaluate the acceptability and perceived utility of utilizing the platforms with fixed and open-text replies, students were invited to complete an Experience Survey. The Client Satisfaction Questionnaire, modified for this actual study's needs, served as the foundation for the experience survey. More than 75% of students in both routes who completed the poll said that i-spero ought to be a regular component of the treatment provided by Queen's Student Wellness Services. About 50% of students in both courses (n = 60) said they were generally happy with the platform and felt that i-spero® was simple to use and comprehend. Forty percent of students in enhanced care agreed that i-spero® helped them know when to ask for help. Most students felt that i-spero® had a good influence on their

emotional self-awareness. There was disagreement among users of the enhanced care platform over whether the platform improved their quality of care and made them feel more supported. Just 10% of students said that utilizing i-spero® prevented them from obtaining more in-depth face-to-face services, while the majority of students believed that the platform had no effect on their academic performance.

By giving them the chance to check in on themselves, students found that i-spero® was a helpful tool for increasing their self-awareness and self-regulation in relation to their mental health. Additionally, students thought that i-spero® had a generally favorable user experience. The most popular recommendation for enhancing user engagement was to better customize i-spero® to match the needs of students by establishing connections to more easily accessible resources and streamlining and streamlining the platform's interface. Last but not least, students receiving improved care through i-spero® found it aggravating that their data was not taken into account when making treatment decisions. This was seen as a lost chance to get more tailored and responsive care. Overall, the findings show that while student acceptance of digital mental health platforms is typically high, engagement and sustained use are still issues.

Some of the answers to these problems are quite simple; one is indirectly affecting the mental health of the kids. In example, LiveCarta, a dynamic digital learning platform, offers creative solutions despite the seeming complexity of the interaction between technology and mental health. It gives teachers the ability to deliver equitable, individualized, and relevant learning experiences that tangentially promote mental health. Handling several resources from several places might be a laborious and daunting task. But LiveCarta streamlines everything into a single platform, making effective time management possible. Students may spend less time on finding and organizing their resources and more time learning. Students' frequent stress connected to time is lessened by their better time management. Although LiveCarta may not be particularly focused on mental health, the platform's developers contend that students' emotional well-being may be positively impacted by the platform's customization and expanded material, which will help them succeed both personally and intellectually in the digital era.

According to a nationwide survey conducted in the United States, stress, anxiety, and depression were the most prevalent issues influencing students' academic performance in college [1]. This may have negative effects including dropping out of school, doing poorly in school, and so having less opportunities for work as an adult. Additionally, Harith et al. [9], in the course of an umbrella review, discovered that low levels of cognitive and behavioral social capital, academic pressures, competitive environments, living away from family, worries about future employment, financial circumstances, psychological conditions like poor resiliency, and interpersonal relationships were all linked to depressive symptoms in students. As was previously indicated, some of these difficulties in distance learning are similar, others are different, and some worsen.

In their article, Farrer et al. [7] mention a study that looked into how students felt about online mental health resources. The study found that nearly half of university students (47%) said they would use an online program for student wellbeing if one existed, and that students who were in extreme distress were much more likely to say they intended to use the program.

Reviews that (a) examined interventions meant to enhance a person's psychological wellbeing, (b) were provided through a digital platform, and (c) were exclusively accessible to university students, regardless of gender, ethnicity, age, or any other social demographic characteristics, were all included in the Harith et al. umbrella review. Interventions related to mHealth and eHealth were covered. eHealth is the term for the application of information and communication technology to computer-based treatments that are often provided online and offline as part of health care services. The use of mobile devices to assist with public health and medical procedures is known as mHealth.

Evidence, however, also suggests that students are concerned about digital treatments for mental health. These include issues including lack of assistance with digital mental health therapies, privacy problems, and developer trustworthiness. Although several studies have acknowledged that user participation may influence efficacy, other evaluations have backed this as a potential path for future research [4]. It has been demonstrated that personalizing digital mental health interventions improves uptake, retention, and results. This may be achieved via conceptualizing user experiences [25]. It is true that younger people find digital mental health interventions appealing and relevant [6; 26]; yet, estimating adherence and attrition rates continues to present difficulties. These and other research findings indicate that this may play a significant role in determining the efficacy of an intervention [3; 6]. As mentioned, by offering chances for timely reminders to guarantee follow-up and completion, digitally delivered interventions might enhance participant engagement and retention among college students.

Referral Coordinators oversee the referral process and assist students in submitting applications for mental health care, which puts them in a critical position at the start of the mental health services chain in US colleges. The demand for mental health services is increasing faster than the available resources, and students have voiced concerns about the accessibility of these services, therefore there is a serious resource shortage within this system as well. They now take an active role in the creation and application of fresh, cutting-edge digital systems.

Universities all around the world have been using digital mental health treatments in order to expand the capacity of their facilities and offer mental health counseling to every student who needs it. Accessibility limitations may be somewhat mitigated by digital mental health therapies, as is often recognized.

Research has shown that digital mental health treatments can successfully treat eating disorders, post-traumatic stress disorder, anxiety, depression, insomnia, stress, and alcohol use disorders in college students [8]. Because of their exposure to digital communications, young people are regarded as one of the most connected demographics [30]. Additionally, they have stated that they prefer to use the internet to get health-related material to address or resolve their own personal health issues and concerns.

The establishment of the Uni Virtual Clinic, an online service aimed at enhancing university students' mental health, is described by Farrer et al. [7].Virtual clinic models usually center on the patient's self-management of their treatment and use a variety of resources, such as information, tools for symptom screening and monitoring, and other therapeutic material, to help manage health issues. They have the ability to offer evidence-based materials that are customized to the user's unique clinical requirements and preferences. The UVC's main characteristics are: (1) Information (services, student tales about mental health and other issues, factsheets customized for university students) (2) Screening (tests, comments, and suggestions) (3) Self-help resources (such as access to online treatment programs and personalized guided and unguided care routes). It is crucial that the UVC provides a selection of self-help resources created by eminent e-health researchers and the Centre for Mental Health Research (CMHR). These resources are grounded in empirically supported psychotherapy tenets, including mindfulness, cognitive behavior therapy (CBT), interpersonal therapy (IPT), exposure therapy, relaxation, and problem-solving therapy. These tools allow users to finish them at their own speed. A few tools are integrated into therapy packages that lead the user through psychoeducation, assessment, and treatment for a specific condition. The authors came to the conclusion that UVC might help colleges become more adept at helping students who are struggling with mental health concerns.

According to research, the primary issue with psychological support and mental health treatment is engagement - the act of asking for assistance [22].

Young people are the primary end-users or patient groups for digital mental health solutions, according to Wies et al. [29]. They are also early adopters of all things digital, including digital health. A wide range of concerns regarding the possible drawbacks and moral dilemmas associated with using digital mental health technology among youth were found in the research of 26 publications that the authors had chosen for their scoping review. Better access to medical care is, according to these authors, the benefit most often associated with the use of digital mental health. Digital mental health technologies were thought to have the potential to improve equality in patient-therapist interactions and across various demographic groups by enhancing accessibility.

However, a major problem with using online mental health services is a lack of trust. Involving service users, their families, and caregivers in mental health technology research is essential to building trust. Even while building trust is essential to the success of digital platforms, the ways in which this might be achieved are still largely unexplored.

It appears that problems with student involvement and confidence in digital psychological support services need to be resolved. It is noteworthy to bring out the University of Lincoln's experiment in this regard, which used digital interventions to help students make the transition from high school or college to university. It included a paradigm of student co-production so that students could take responsibility of the creation of digital tools and materials as well as their assessment. The project's authors asserted that a variety of factors can significantly affect how successful digital treatments are. Specifically, granting students autonomy over how they utilize digital tools and allowing them to contribute to their creation can be critical to fostering self-efficacy, which can be essential for both prevention and rehabilitation [28].

The difficulty is in coming up with fresh, creative ideas that enable kids to form their own support networks and interact with classmates who share their interests. These have to be carried out in a way that minimizes fear associated with making new social connections and maximizes chances to cultivate fruitful, significant relationships. Given that several students are now involved in virtual communities, frequently via social media platforms or mobile applications, digital interventions have the potential to enable both official and informal avenues for fostering peer relationships and community development. Therefore, the University of Lincoln provides pre-entry and post-start students with the chance to network with other students through its Student Life community. Podcasts, videos that are shared on social media, and an app that focuses information at certain student cohorts are examples of resources. Through challenges, mood monitors, blogging, and a news feed within the app, these tools and treatments provide chances for social media conversation and connection.

Giving students the ability to direct and shape project activities is a logical progression from the Student Life community building. Through a variety of student-led activities, students may influence the project's path through the student co-production approach. This include producing material, advising on the app's design, and assessing the information produced, granting them direct control over the support network developed via online peer interactions. The Student Life app's news feed and social media platforms are used to promote co-production opportunities to students who are already involved in the community. Additionally, the initiative offers paid co-production work, providing students with the chance to develop employability and life skills in addition to earning extra income.

Students have embraced digital assistance at a high rate as a consequence of the "designed for students, by students" approach. According to statistics from the project's digital partners, which was used to assess the project's effectiveness, there are twice as many active users of Lincoln's mental health support app as there are of similar apps at other institutions [28].

Furthermore, students are utilizing an average of 13 distinct app features each time they visit it, showing that they are actively interacting with the variety of resources available rather than merely “clicking in and clicking out”.

Additionally, qualitative evidence shows that students appreciate the student-created method: ‘I…. loved the podcast as it was by students and covered a range of topics…’; ‘Good knowing people’s personal experiences and advice’; ‘It’s interesting to hear about their experiences…’; ‘I particularly like the challenges section of the app; I feel like this could help more people feel involved with other students’ [28].

In addition, students are seizing the chance to collaborate on the project by producing information that they believe will be most helpful to both themselves and their peers, then sharing it with the community they have built. By doing this, the project's primary goal of normalizing emotional growth and the use of digital tools to facilitate it as a regular aspect of college life is furthered. Students can develop positive habits that might help them cope with change for the rest of their lives by using student co-production to emphasize the need for them to both peer and self-manage by integrating coping mechanisms both inside and outside of the support system.

Such approach seems to be very promising in designing models for digital psychological support of students in distance learning. The similar platforms would allow students to know each other, to communicate and share experience both in coping with psychological problems and difficulties in studies.

Scoping reviews were carried out in 2021 by Oti and Pitt to investigate digital mental health therapies created especially for college students [23]. There were 23 studies in the review. The treatments that were included focused on a number of mental health issues, such as anxiety, depression, general wellness, and mental health awareness. Typically, desktop, web-based, and mobile apps were used to provide the treatments. Furthermore, the writers delve into the design approaches used in the creation of the interventions: noteworthy aspects include the substantial involvement of stakeholders in the research, the incorporation of various stakeholder groups (students, medical professionals, university personnel, and youth from the broader community), and the sparing use of design frameworks. Lastly, the authors discover that most studies have not advanced far enough (i.e., to the pilot/prototype phases of development) to ascertain the influence of design techniques on the efficacy of these treatments when examining user engagement, attrition rates, and user approval.

According to autors’ assessment, more investigation is required to fully understand how user-centered design principles affect the efficacy of digital mental health therapies for this demographic. Additionally, they offer suggestions that academics and designers working in this area of study ought to think about when creating online mental health treatments for college students. Personalized content, enhanced user interfaces, appropriate measures to protect anonymity, privacy, and security, peer participation, and mental health professionals' accessibility are a few of the suggestions.

One of the possible vectors of further developments in this field could be the structure, concepts, and software of digital talent marketplaces, rapidly growing in the business world – they provide excellent opportunities for participants to communicate with each other and share knowledge and experience, provide consultations of experts, educational resources, etc. To our mind, combining peer engagement and involvement of students in platforms development is the optimal and highly necessary element to be added to the landscape of digital psychological support services for students in distance education.

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Primary Paper Section: A

Secondary Paper Section: AM, AN