PROFESSIONAL IDENTITY IN A FLUID PANDEMIC CONTEXT. MEASURING ACADEMIC WORRIES OF UNIVERSITY STUDENTS: INITIAL VALIDATION OF A SCALE

ALEXANDRU-COSMIN APOSTOL[1], **MIHAELA RĂDOI**[2],
CRISTINA MARIA BOSTAN[3], **GABRIELA IRIMESCU**[4]

Abstract

The aim of the paper is to test the validity and highlight the psychometric properties of a scale about the academic worries of students in the pandemic context (Pandemic Academic Worries among University Students scale - PAWAUS scale), following a quantitative research study consisting of a self-administered questionnaire within a university in north-eastern Romania in May 2021. The sample comprised 282 undergraduate and master students in the Social Work field. The factor analysis performed shows an initial validity of the PAWAUS scale. Generally, the findings of this study indicate that the students adapted rapidly and (relatively) fluidly to the new context but reported worries related to their academic and professional path. The premise from which we started was the following: the Social Work students follow, in the pandemic context, a speciality where the combination of theoretical knowledge with practical skills even from the undergraduate period is essential, which may contribute to the formation of their professional identity. The second objective of the paper consisted of analysing the emotional impact of the pandemic among the Social Work students using a recently-developed tool – PEIS (Ballou et al., 2020). Through the specific analysis of the relationship between the two scales, we have identified that the worries of the Social Work students are influenced significantly by the emotional impact generated by the Covid-19 pandemic.

Keywords: Social Work students, academic concern, professional identity, Covid-19, fluid identity

---

[1] PhD assistant professor "Alexandru Ioan Cuza" University, The Faculty of Philosophy and Social-Political Sciences, The Department of Sociology and Social Work. E-mail: alex.apostol87@gmail.com

[2] PhD Associate professor "Alexandru Ioan Cuza" University, The Faculty of Philosophy and Social-Political Sciences, The Department of Sociology and Social Work. E-mail: radoi.mihaela73@gmail.com

[3] PhD Scientific Researcher, "Gh. Zane" Institute of Economic and Social Research, Romanian Academy, Iasi Branch. E-mail: cmbostan@gmail.com

[4] PhD Associate professor "Alexandru Ioan Cuza" University, The Faculty of Philosophy and Social-Political Sciences, The Department of Sociology and Social Work. E-mail: gabriela.irimescu@gmail.com

Résumé

L'objectif de l'article est de tester la validité et de mettre en évidence les propriétés psychométriques d'une échelle sur les inquiétudes académiques des étudiants dans le contexte de la pandémie (Pandemic Academic Worries Among University Students scale - PAWAUS), à la suite d'une étude de recherche quantitative consistant en un auto-questionnaire administré dans une université du nord-est de la Roumanie en mai 2021. L'échantillon comprenait 282 étudiants de premier cycle et de master dans le domaine du travail social. L'analyse factorielle réalisée montre une première validité de l'échelle PAWAUS. De manière générale, les résultats de cette étude indiquent que les étudiants se sont adaptés rapidement et (relativement) avec fluidité au nouveau contexte mais ont signalé des inquiétudes liées à leur cheminement accadémique et professionnel. La prémisse initiale de laquelle nous sommes partis était la suivante: les étudiants en travail social suivent, dans le contexte de la pandémie, une spécialité où la combinaison de connaissances théoriques avec des compétences pratiques même dès le premier cycle est essentielle, ce qui peut contribuer à la formation de leur identité professionnelle. Le deuxième objectif de l'article consistait à analyser l'impact émotionnel de la pandémie sur les étudiants en travail social à l'aide d'un outil récemment développé - PEIS (Ballou et al., 2020). Grâce à l'analyse spécifique de la rélation entre les deux échelles, nous avons identifié que les inquiétudes des étudiants en travail social sont influencées de manière significative par l'impact émotionnel généré par la pandémie de Covid-19.

Mots-clés: Etudiants en travail social, préoccupation académique, identité professionnelle, Covid-19, identité fluide

Rezumat

Obiectivul central al articolului este de a testa validatatea şi de a evidenţia proprietăţile psihometrice ale unei scale despre îngrijorările pe plan academic, în context pandemic, în rândul studenţilor (scala PAWAUS), în urma efectuării unei cercetări cantitative, prin intermediul unui chestionar auto-administrat, în cadrul unei universităţi din partea de nord-est a României, în mai 2021. Eşantionul a cuprins 282 de studenţi care urmau programe de studii de licenţă şi masterat în domeniul Asistenţei Sociale. Analiza factorială efectuată arată o validare iniţială a scalei PAWAUS. La nivel general, rezultatele acestui studiu indică faptul că studenţii s-au adaptat rapid şi (relativ) fluid la noul context, raportând însă îngrijorări legate de traseul lor academic şi profesional. Premisa de la care am pornit a fost că studenţii de la Asistenţă socială urmează, în context pandemic, o specializare în care îmbinarea cunoştinţelor teoretice cu abilităţile de ordin practic încă din perioada studiilor universitare este esenţială, fapt care poate contribui la formarea identităţii lor profesionale. Un alt doilea obiectiv al articolului a constat în analizarea impactului emoţional al pandemiei în rândul studenţilor de la Asistenţă socială, apelând la un instrument recent construit – PEIS (Ballou et al., 2020). Prin analiza particulară a relaţiei dintre cele două scale am identificat faptul că îngrijorările studenţilor de la Asistenţă socială sunt influenţate semnificativ de impactul emoţional generat de pandemia de Covid-19.

Cuvinte cheie: studenţi la asistenţă socială, îngrijorare academică, identitate profesională, Covid-19, identitate fluidă

1. Introduction

The pandemic COVID-19 is unprecedented in what concerns the impact on the education system because it imposed the forced and very rapid passage to online learning. To ensure the students' safety, the senate of "Alexandru Ioan Cuza" University Iași (UAIC) decided on March 12, 2020, to have all didactic activities (course and seminar and final evaluations online. This decision led to a significant deviation from the typical educational experience of the students by giving up an essential component of Social Work training: the direct work with the beneficiaries performed during the practicum/volunteering hours.

Though essential to control the infection and protect the population, the measures taken to manage the pandemic worldwide produce economic, social, and psychological effects (Brooks et al., 2020; Pfefferbaum & North, 2020; Taylor et al., 2020a, 2020b; Taylor & Asmundson, 2020, Farris et al., 2021), are still not fully understood and investigated.

Clinical research and observations suggest that during pandemics, many people display manifestations associated with stress or anxiety, including fear of getting infected, fear of getting in contact with possibly contaminated objects or surfaces, fear of foreigners potentially carrying the disease (disease-related xenophobia), fear of the socioeconomic consequences of the pandemic, traumatic stress symptoms related to a pandemic or compulsive data collection regarding possible threats related to the pandemic (Taylor et al., 2020a, 2020b). Concerning the last aspect, the World Health Organisation (2020) features the current situation of the Covid-19 pandemic as a "massive infodemic" characterised by an over-abundance of information – some accurate, others misleading – making it harder for people to find reliable sources of information when they need it. It may influence considerably the perception of dangers associated with diseases, on the one hand, or minimise them alarmingly, on the other hand (i.e., even ignoring the condition or being indifferent to it (Simon & Camargo, 2021). Lack of information and misinformation, often escalated by the sensationalistic titles in the media has been shown to fuel health-related fears and phobias (Taylor & Asmundson, 2004).

The closure of university campuses – a measure necessary to mitigate the spread of the virus, protect the students and the teaching and auxiliary staff – had negative effects on the didactic process, amplified by uncertainty regarding their reopening. Students had to adapt to a new learning way rapidly during the semester, which required the quick acquisition of technical skills, the purchase of computers, audio-visual equipment and Internet services. Another effect generated by the closure of campuses was moving back home. Hence, students changed the learning setting with an inadequate one in many cases (i.e., poor Internet connection, lack of personal space adjusted to study in the shared family area, worries related to their health state and that of the loved ones, without access to libraries and reading halls) (Driessen et al., 2020, Baltà-Salvador, 2021). Furthermore, students are also lacking the opportunity to build a professional community of social workers through practical activities and social interaction.

The degree and way in which the Social Work students effectively coped with these changes have been little studied, despite acknowledging that understanding how personal experiences and affective reactions influence judgment and professional conduct represent a fundamental skill in Social Work (Apgar & Cadmus, 2021).

Indeed, even during non-pandemic periods, young adults going through a transition period marked by instability are more prone to depression, anxiety, and stress than the general population (Arnett, 2007, Beiter et al., 2015). Developing to adulthood is a period dominated by uncertainties and unpredictability. When we add uncertainties and worries related to health, social and economic stability, their effects may impact negatively on the youth's wellbeing (Glowacz & Schmits, 2020, APA, 2020). Though they may develop creative solutions and new skills to cope with the pandemic, youths are still the most affected psychologically (APA, 2020). Communication via digital media causes anxiety, and it can never replace face-to-face communication. Distance learning and remote exams may increase the level of uncertainty and stress, either because they involve new and unknown teaching and assessment methods for students or because remote monitoring and communication (i.e., with and by teachers) have not been straightforward and structured enough (Glowacz & Schmits, 2020).

The first studies carried out on students during the pandemic indicate that the primary sources of anxiety during the COVID-19 pandemic have been academic activity delays, loss of social support, economic pressure (i.e., loss or reduction of family income) and the fact that the family have or may have contracted the SARS-COV2 virus (Cao et al., 2020). It negatively impacted the educational development and the psychological well-being of millions of students worldwide (Paluszek et al., 2020; Taylor & Asmundson, 2020).

Students face significant worries and uncertainties regarding the potential consequences of online learning on their educational development in the medium run, and employment opportunities after graduation in the long run. These worries may cause anxiety (Cao et al., 2020) and are exacerbated to a certain extent by economic challenges like financial instability and fears related to income loss. Unstable family income and/or job loss by one or both parents can be very worrisome for students (Cao et al., 2020).

Social workers are considered essential or first-line workers during crises (Alston et al., 2018). During this pandemic, social workers had to adapt quicker than ever to face all challenges. However, as the world keeps on fighting against the COVID-19 difficulties, the literature includes only a handful of studies on the degree and way in which Social Work students, especially those who seek employment during the pandemic, manage their adjustment process. Our investigation wishes to highlight the primary worries affecting university students as future Social Work professionals. Research has shown that students face high levels of stress and are more likely to develop stress-related physical and mental disorders (Hirsch et al., 2019; Leppink et al., 2016). The perceived risk

may have a significant influence on the involvement of youths in the educational process (Shi, 2019).

The most invoked risk factors for students include transition towards a new environment far from home, family and friends, the pressure generated by the volume of earning tasks, financial and future-related concerns, namely the transition towards labour market (Shi, 2019). The "COVID Stress Syndrome" (Taylor et al., 2020a) is a proposed construct reflecting the multiple and varied dimensions of the suffering caused by the SARS-COV2 virus. Researchers who describe psychological disorders associated with COVID-19 wonder whether anxiety is correlated with the effects of the pandemic on the progress of the learning process and the professional path, career opportunities and transition towards labour market or caused by social distancing because of generalised quarantine (Cao et al., 2020).

2. Brief considerations about fluid identity and professional identity formation among Social Work students

Being a Social Work student means, among others, covering a preliminary stage of professional socialisation (Paterson et al., 2002), training and acquiring skills necessary for working in multidisciplinary and interprofessional teams, which also reflects on professional identity formation. In addition, the scientific literature concerning this aspect has developed significantly in recent years (Best & Williams, 2019). When discussing professional identity overall, we can analyse "the sense of being a professional" (Paterson et al., 2002, p. 6) alone, without detailing the multivalence of the concept.

While debating the aspects characterising the professional identity of social workers, Webb (2016) pointed out that "professional identity is not a stable entity; it is an ongoing process of interpretation and customisation which is shaped by contextual workplace factors". Starting from this idea, we may consider professional identity as a "fluid" identity, thus supporting the statements of Du and Chan (2021), who pinpointed that "identity is not static, but fluid as it is constantly changing and modified in different interactive relationships" (p. 303). Furthermore, the same authors highlight that the concept of identity "is often fluid, as different individuals will have different interpretations about their own expectations and practices, which will produce different results, such as degree of satisfaction, frustration, or self-reconciliation." (Du & Chan, 2021, p. 303). Whereas other studies focus on the analysis of professional identity among social workers already activating in the field and having faced the pandemic context (González et al., 2021, Du & Chan, 2021), we believe it is essential to focus on the university students, in the middle of their professional identity formation. Moreover, Webb (2016) stated, in this respect, "identity formation is viewed as more interactive and more problematic than the relatively straightforward adoption of the role or category of *professional social worker*". Not least, we can view the Covid-19 pandemic as a highly fluid period at the society level, marked by deep changes in our opinion of all elements making up the social life.

Other related theoretical guidelines emphasize the role of a social identity as a resource for managing psychological health issues and also to professionally integrate in an organizational setting (i.e., social identity theory, organizational identification Tajfel, 1978; Asforth & Mael, 1989, van Dick, 2001). More specifically, there are several ways in how the development of a complex academic and professional identity can affect young students in the Social Work domain, both socially and psychologically (Leach et al., 2008). For example, research results emphasize that a specific identity with a group can intensify identification (i.e., with the academic and professional group of students) and in return this allows them to easily and naturally develop prosocial behaviours, increase well-being, and can help ensure the psychological need of being valued and increase self-esteem (Cruwys et al., 2014). Other similar resources emphasize theoretically and empirically that the lack of social identity and social identification can thwart the knowledge about social relations and increase existential anxiety (Haslam, Jetten, Postmes, & Haslam, 2009; Sani et al., 2012).

3. Participants, research methods and procedure

We conducted the investigation featured in this paper within "Alexandru Ioan Cuza" University Iași (UAIC), the Faculty of Philosophy and Social-Political Sciences (FPSPS), the Department of Sociology and Social Work, in the period 17 May 2021 - 30 May 2021. We collected the data in the last two weeks of didactic activity of the second semester (the academic year 2020-2021) before the weeks dedicated to final assessments. In addition, the study started approximately a year after the end of the lockdown generated by the spread of COVID-19. The emergency state period in Romania lasted between 16 March 2020 and 15 May 2020. We also point out that the didactic activity of the second semester within the academic year before the study (2019-2020) began on-site in the first three weeks. However, the UAIC Senate decided on 12 March 2020 to organise the courses, seminars, and final assessments online. From that moment until the present, successive decisions made by the faculty or university management have kept the online regime; the pandemic context and the health crisis have not allowed the safe reprisal of on-site didactic activities.

Given this background, we collected the data online using the self-administered questionnaire method (on Google Forms); the participation of students was voluntary, based on informed consent, without any material and/or symbolical benefits. At the same time, we observed the research ethics and deontology principles; the answers were confidential and anonymous; we did not collect various data allowing the individual identification of the subjects. Additionally, we reassured the participants that we would analyse their answers globally, not individually.

The study sample, whose characteristics are featured in Table 1, comprised 282 students (n) following study programmes in the Social Work field (SW), both bachelor's studies - BSW (n = 213, 75.5%), and master studies - MSW (n = 69, 24.5%). Among all students, 20 were males (7.1%) and 262 females (92.9%). The

participants' age ranges between 18 and 59 (a mean of 22.55 and standard deviation of 5.95). Among the undergraduate students (BSW), the age mean was 20.35 years old (std. dev. = 0.95), while among the master students within our study - MSW the mean was 29.33 years old (std. dev. = 9.03). Concerning the sample distribution by the year of study, 37.6% (n = 80) were in the first year BSW and 40.6% (n = 28) in the first year MSW, 32.4% (n = 69) in the second year BSW and 59.4% (n = 41) in the second year MSW – final year of the master studies, while 30% in the third year BSW – final year of the bachelor's studies (n = 64). Hence, considering the findings and in relation with the general characteristics of the population studied, we note that the sample may be considered representative for undergraduate and master students in the Social Work field, within UAIC Iași, FPSPS.

Also, we have measured the academic achievement among the SW students in the last semester prior the research has been conducted by using a ratio scale. Thus, most respondents obtained in the first semester means ranging between 9 and 10 (n = 133, 47.2%), followed by those with means between 8 and 8.99 (n = 103, 36.5%), between 7 and 7.99 (n = 37, 13.1%), between 6 and 6.99 (n = 6, 2.1%), and under 6 (n = 3, 1.1%). Concerning the residence area, over half of the students reported living in urban areas in the past year (n = 156, 55.3%), while 44.7% lived in rural areas (n = 126). Approximately two thirds of the respondents reported living with their family in the last 12 months (n = 187, 66.3%), while 19.5% lived in a rent-based system (n = 55). In exchange, the weightings of those who continued living in students' dorms (n = 19, 6.7%) or in their own place – excluding living with the family or in students' dorms, in a rent-based systems (n = 21, 7.4%) were significantly lower. The mean of monthly income available to students for various expenses, scholarships, wages or received amounts included, was Lei 1418 (n = 236, std. dev. = 1176.26).

Table 1.
Demographic characteristics of respondents

Variable	N	% or Mean (Std. dev.)
Gender		
Male	20	7.1%
Female	262	92.9%
Cycle of studies		
Bachelor's degree (BSW)	213	75.5%
Master studies (MSW)	69	24.5%
Age of respondents	282	22.55 (5.95)
Age of respondents BSW	213	20.35 (0.95)
Age of respondents MSW	69	29.33 (9.03)
Year of study BSW		
First year	80	37.6%
Second year	69	32.4%

Variable	N	% or Mean (Std. dev.)
Third year	64	30%
Year of study MSW		
First year	28	40.6%
Second year	41	59.4%
Area of residence in the last year		
Urban	156	55.3%
Rural	126	44.7%
Residential status in the last year[a]		
With the family	187	66.3%
In students' dorms	19	6.7%
In a rent-based system	55	19.5%
In their own place (excluding family, students' dorms, or rent-based systems)	21	7.4%
Academic achievement in previous semester[b]		
Between 9 and 10 grades	133	47.2%
Between 8 and 8.99 grades	103	36.5%
Between 7 and 7.99 grades	37	13.1%
Between 6 and 6.99 grades	6	2.1%
Below 6 grades	3	1.1%
Income	236[c]	1418 lei[d] (1176.26)

Notes. [a] **Q**. Where have you lived mostly within the past 12 months? Check the box with the space where you have mostly lived during the past year.
[b] **Q.** In what interval was your grade point average in the previous semester?
[c] 46 respondents provided no answer
[d] Approx. 287 €
Std. dev. = Standard deviation
Source: Authors' own work

We analysed the data statistically using IBM® SPSS® Statistics Version 20.

4. Tools and data analysis

In the following lines, we feature the tools used within our investigation and data analysis.

a. Pandemic Academic Worries among University Students. An analysis on Social Work students

To analyse the level of students' worries from an academic and professional perspective, we developed a scale of Pandemic Academic Worries among University Students (PAWAUS scale) comprising five items, measured through a Likert scale, structured on five levels: from 1 (= "to a very great extent") to 5 (= "to a very small extent"). We designed and structured this scale on one dimension; subsequently, we assessed its psychometric properties. In the

aggregate interpretation of data, the scores obtained ranged between a minimum of 5 and a maximum of 25. Low scores indicate a high level of worries, while high scores highlight a low level of worries. Table 2 features a series of descriptive statistical data concerning the PAWAUS scale.

A certified translator transposed the scale into English; hence, any other researcher interested in the topic may use it (Appendix 1).

Table 2.
The descriptive statistics of the PAWAUS scale

Item[a]	Mean[d]	Std. dev.	Skewness	Kurtosis	Minimum	Maximum	ITC[b]
Social Work University students (n = 282)							
1.Finalisation of the study year	2.70	1.32	0.21	-1.09	1	5	0.786[c]
2.Finalisation of undergraduate/master studies	2.52	1.37	0.44	-1.03	1	5	0.805[c]
3.Decrease in the academic training level	2.25	1.18	0.77	-0.25	1	5	0.836[c]
4.Lack of possibilities to exercise practical skills	2.02	1.21	1.14	0.38	1	5	0.814[c]
5.Finding a job in the training field	1.99	1.31	1.17	0.14	1	5	0.718[c]

Notes. [a] **Q.** Given the pandemic situation of the past year, on what extent are you concerned about the following aspects?
[b] ITC = Item Total Correlation [Pearson Correlation]
[c] $p < .000$
[d] The lower the score means (close to 1), the higher level of students' concern level regarding the aspects measured
Source: Authors' own work

b. *Exploratory Factorial Analysis, Reliability and Validity of the PAWAUS scale*

To underline whether in the PAWAUS scale one may identify one or more subscales, we performed an exploratory factorial analysis with varimax rotation. By applying, initially, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (= .712) and a Bartlett`s Test of Sphericity ($\chi2$ (10) = 936.41, p = .000), we concluded that the exploratory factorial analysis can be applied. As the Graph clearly shows (Graph 1), the scale can be structured on one dimension, featuring one factor with Eigenvalue exceeding 1 by far.
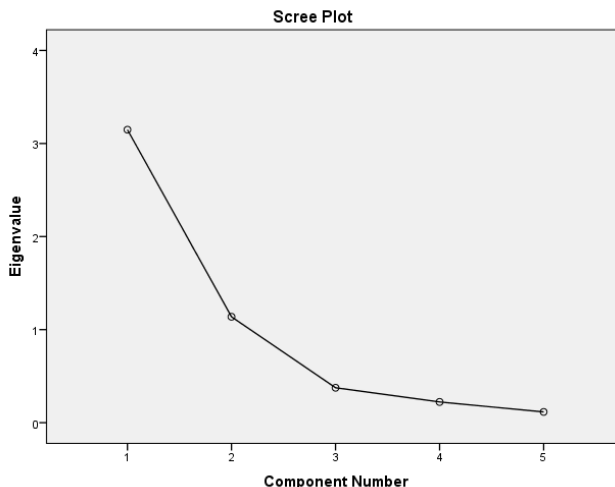
Graph 3: Scree plot of the exploratory factorial analysis of PAWAUS scale.

Source: Authors' own work

Furthermore, as illustrated in Table 3, the extraction of data was performed using principal component analysis, which pointed out that a factor is highlighted (the variance score is 62.96%, much higher than the second variance score − 22.75%).

Table 3.

Factorial Structure Analysis for the PAWAUS Scale (n = 282)

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.148	62.964	62.964	2.250	44.993	44.993
2	1.138	22.757	85.721	2.036	40.728	85.721

Source: Authors' own work

Moreover, as we have shown in the correlation matrix (Table 4), all the five items are correlated, the coefficients obtained are statistically significant, which confirms a linear relationship between the variables.

Table 4.

Correlation matrix between the variables of the PAWAUS scale (n = 282)

Item	Item 1	Item 2	Item 3	Item 4	Item 5
Item 1		0.881[a]	0.530 [a]	0.393 [a]	0.266 [a]
Item 2			0.524 [a]	0.428 [a]	0.307 [a]
Item 3				0.726 [a]	0.569 [a]
Item 4					0.720 [a]
Item 5					

Note. [a] $p < .000$

Source: Authors' own work

After processing the data, we have concluded that the coefficients concerning the factor loadings are high (Table 5). We conducted scale rehabilitation by analysing internal consistency; Cronbach's alpha score (α) for the unidimensional PAWAUS scale was high (Cronbach α = 0.849).

Table 5.
Factor loadings and communalities for the PAWAUS scale (n = 282)

	Factor Loadings	Communalities
Item		
1.Finalisation of the study year	.77	.937
2.Finalisation of undergraduate/master studies	.79	.925
3.Decrease in the academic training level	.85	.756
4.Lack of possibilities to exercise practical skills	.82	.858
5.Finding a job in the training field	.71	.809
Eigenvalues	3.14	
% of variance	62.96	

Source: Authors' own work

c. Pandemic Emotional Impact among Social Work University students – PEIS

The second tool used in the investigation is the Pandemic Emotional Impact Scale (PEIS) developed by Ballou, Gray & Palsson (2020). Initially, they validated the tool on a sample of 1500 subjects, representative for the population of the United States of America (Ballou et al., 2020). The scale includes 16 items, structured by the authors on two dimensions (Factor 1 – "Emotional Effects" and Factor 2 – "Pragmatic Worries"). Compared to the proposal of the PEIS authors, who measured the items using a 5-level Likert scale from 0 (= "Not at all") to 4 (= "Extremely"), we applied a number system from 1 (= "Not at all") to 5 (= "Extremely"). Furthermore, in the text of the question, we did not relate to the "last four weeks", like the authors of the tool (Ballou et al., 2020, p. 6), but to the "last months", thus not imposing a strict timeframe. On this background, following our approach, the total, global scores obtained ranged between 16 and 80; low scores indicate the lack of the emotional impact of the pandemic among the study participants, while high scores show high, extreme emotional impact. A certified translator transposed the items into Romanian (Appendix 2). Consequently, by applying this tool, we wished to measure the emotional impact generated by pandemic on a specific subgroup of population (i.e., the Social Work students). Table 6 comprises a descriptive analysis of the items within PEIS.

Table 6.
The descriptive statistics of the PEIS

Item[a]	Mean[b]	Std. dev.	Factors[c]
Social Work University students (n = 282)			
1.More worried about your finances	2.74	1.11	F2
2.More anxious or ill at ease	2.59	1.26	F2
3.More difficulty concentrating	2.82	1.23	F1

Item[a]	Mean[b]	Std. dev.	Factors[c]
4.Being less productive	2.88	1.26	F1
5.More worried about your personal health and safety	3.10	1.23	F2
6.Being more bored	3.08	1.34	F1
7.More difficulty sleeping	2.91	1.46	F1
8.Feeling more lonely or isolated	2.77	1.38	F1
9.Feeling more down or depressed	2.69	1.34	F1
10.More worried about getting necessities like groceries or medications	2.19	1.14	F2
11.More worried about the health and safety of family members or friends	3.26	1.29	F2
12.Feeling more frustrated about not being able to do what you usually enjoy doing	3.22	1.26	F1
13.More worried about possible breakdown of society	2.92	1.25	F2
14.Feeling angrier or more irritated	2.71	1.32	F1
15.Feeling that the future seems darker or scarier than before	2.83	1.31	F2
16.Feeling more grief or sense of loss	2.56	1.32	F1

Notes. [a] We have used the following formula **Q.** How much has your wellbeing and functioning been different in the following ways in the last months, compared to the way it was before the beginning of the COVID-19 pandemic?
[b] The lower the means (close to 1), the lower the impact emotional of the pandemic
[c] F1 = "Emotional Effects"; F2 = "Pragmatic Worries"
Source: Authors' own work

The reliability analysis performed on PEIS regarding all 16 items, as well as the two subscales making up the tool – "Emotional Effects" (9 items) and "Pragmatic Worries" (7 items), indicate high Cronbach's alpha coefficients, as illustrated in Table 7.

Table 7.
Reliability Statistics on PEIS scale and PEIS subscales (n = 282)

Scale/ subscale	Cronbach`s alpha	N of Items
PEIS	0.942	16
PEIS/ Emotional Effects	0.926	9
PEIS/ Pragmatic Worries	0.862	7

Source: Authors' own work

d. The relationship between the PAWAUS scale and PEIS

Subsequently, we analysed the association between the scale regarding the students' academic and professional worries and PEIS, with the corresponding subscales, calculating the coefficients of Pearson's Correlation. Hence, we identified low but statistically significant correlations (Table 8).

Table 8.

Pearson correlations between variables of the study (n = 282)

Scale/ subscale	1	2	3	4
1.PAWAUS		-0.341[a b]	-0.315 [a b]	-0.338 [a b]
2.PEIS			0.966 [a]	0.923 [a]
3.PEIS/ Emotional Effects				0.793 [a]
4.PEIS/ Pragmatic Worries				

Notes. [a] p < .000
[b] The coefficients obtained are negative because the low scores from the scale concerning the professional and academic worries (PAWAUS scale) indicate a high level of worries recorded among students, while the low scores related PEIS indicate a low emotional impact of the pandemic on the population studied.
Source: Authors' own work

Given how the measuring scales were designed (as described above), the Pearson's correlation coefficients that we have obtained suggest the existence of statistically significant correlations between the variables studied. Hence, students who report high levels of worry experience a high emotional impact generated by the Covid-19 pandemic. Furthermore, the same students face emotional effects generated by the pandemic (i.e., they are sadder, depressed, anxious, bored; they have a hard time focusing, are less productive; they feel increasingly alone and isolated). They also report high pragmatic worries (i.e., they are more worried regarding financial aspects, health state, personal security, the health and safety of family members and a potential collapse of the society).

5. Conclusions, discussions, and future directions

The forced shift from on-site to online education had significant repercussions on the higher education specialities and fields where the applicative side dominates. Such an example is Social Work, on which we have focused in our investigation because it is a field where students have to combine the theoretical and practical skills even from the undergraduate period. In addition, our concerns as authors and researchers, dedicated to analysing the impact of the Covid-19 pandemic on university students in general (Apostol, 2020, Apostol & Netedu, 2020) and Social Work students (Rădoi et al. 2021, Apostol & Vasiliu, 2021) are salient.

As they were building an academic and professional identity, university students had to face sudden changes in their view of life. They had to adapt to all these changes rapidly (to continue their social and educational path) despite all obstacles and challenges generated by the pandemic. For almost four semesters in a row, Social Work students have had to observe the rules set for preventing and stopping the spread of the SARS-COV-2 virus, which has involved (almost implicitly) the transfer of all didactic and practicum activities in the online setting. In such a tremendously fluid context, we have wondered about the extent to which Social Work students are concerned with their professional and academic future (i.e., the process of building their professional identity).

Thus, we created the Pandemic Academic Worries among University Students scale (PAWAUS). Through this paper, we tested the initial validity and highlighted its psychometric properties. As the data analysis has revealed, the scale proposed by us is valid, with good internal consistency, thus recommending its configuration on one dimension. Given the relevant difference between the two variance scores on the two components of the scale (Table 3), we believe it is more efficient to design a unidimensional PAWAUS scale. As the descriptive data analysis has underlined, another argument refers to the high coefficients obtained by correlating the items with the total score (Item Total Pearson Correlation – Table 2). Thus, we found a high similarity between them, which shows that the PAWAUS scale may be structured on one dimension. When configuring the items, we measured both the academic and the professional worries. An explanation is that students are in the middle of forming their professional identity in the academic context, marked in the last two years by the Covid-19 pandemic.

Therefore, we recommend the application of the scale to various populations of students (to test its validity in other educational contexts, too) to any other researcher interested in the topic. Furthermore, we suggest applying the scale during the semester, but not in the period of final evaluations or exams (students are more likely to report acute academic and professional worries).

The second significant objective of our paper consisted of analysing the emotional impact of the pandemic among the Social Work students using a recently validated tool – PEIS (Ballou et al., 2020). Though we only performed a reliability analysis, obtaining a similar score to that reported by the authors Ballou, Gray & Palsson (2020), pen the future, we wish to study the factor structure of PEIS, too. In this paper, we used the version proposed by the authors, who dimensioned the scale on two factors (Emotional Effects & Pragmatic Worries). Whereas we made minor adjustments to questions and scale numbering, we did not observe any modifications of the psychometric properties of PEIS. After correlating PEIS and PAWAUS, we have identified that the worries of the Social Work students are influenced significantly by the emotional impact of the Covid-19 pandemic.

The findings of this study indicate that university students have adapted rapidly and (relatively) fluidly to the new context. However, students report worries related to their academic and professional paths. The Social Work students have mentioned significant concerns regarding their capacity of providing adequate social care services, considering the challenges generated by the shift towards the online learning system.

As a future direction, we propose to get a better insight into the students' academic and professional worries and the correlation with their wellbeing. At the same time, we consider approaching this research topic through a qualitative endeavour, following the model of existing studies performed among Social Work professionals.

Appendix 1
PANDEMIC ACADEMIC WORRIES AMONG UNIVERSITY STUDENTS scale

(PAWAUS scale)

PAWAUS scale in Romanian language
In conditiile situatiei pandemice din ultimul an de zile, in ce masura va ingrijoreaza urmatoarele aspecte?

	În foarte mare măsură	În mare măsură	Nici în mare, nici în mică măsură	În mică măsură	În foarte mica măsură
1.Finalizarea anului de studiu					
2.Finalizarea studiilor de licenţă/ masterat					
3.Scăderea nivelului de pregătire academică					
4.Lipsa posibilităţilor de exersare a abilităţilor practice					
5.Găsirea unui loc de muncă in domeniul de pregatire					

PAWAUS scale translated in English language
Given the pandemic situation of the past year, on what extent are you concerned about the following aspects?

	To a very great extent	To a great extent	To a moderate extent	To a slight extent	To a very small extent
1.Finalisation of the study year					
2.Finalisation of undergraduate/master studies					
3.Decrease in the academic training level					
4.Lack of possibilities to exercise practical skills					
5.Finding a job in the training field					

Appendix 2
THE PANDEMIC EMOTIONAL IMPACT SCALE – PEIS (Ballou et al., 2020)

PEIS Translated in Romanian language
Cât de mult vi s-au schimbat starea de bine şi rutina zilnică în ultimele luni din punctele de vedere de mai jos, în comparaţie cu starea de dinainte de pandemia COVID-19?

	Deloc	Puţin	Moderat	Mult	Extrem de mult
1.Mai îngrijorat/ă în legătură cu banii					
2.Mai neliniştit/ă; nu reuşesc să mă adun					
3.Îmi este mai greu să mă concentrez					
4.Sunt mai puţin productiv/ă					
5.Mai îngrijorat/ă în legătură cu sănătatea şi siguranţa personale					
6.Sunt mai plictisit/ă					
7.Stau mai prost cu somnul					
8.Mă simt mai singur/ă sau mai izolat/ă					
9.Mă simt mai trist/ă şi deprimat/ă					
10.Mai îngrijorat/ă în legătură cu procurarea nevoilor de bază, precum cumpărăturile sau medicamentele					
11.Mai îngrijorat/ă în legătură cu sănătatea şi siguranţa membrilor familiei sau prietenilor -					
12.Mai frustrat/ă de faptul că nu pot face tot ce îmi place să fac de obicei					
13.Mai îngrijorat/ă în legătură cu un posibil colaps al societăţii					
14.Mă simt mai furios/oasă sau mai iritat/ă					
15.Cred că viitorul pare mai întunecat sau mai înfricoşător decât înainte					
16. Mă încearcă, mai mult decât înainte, un sentiment de durere sau de pierdere					

References
1. American Psychological Association. (2020). *Stress in America 2020: A National Mental Health Crisis*.
2. Apgar, D., & Cadmus, T. (2021). Using Mixed Methods to Assess the Coping and Self-regulation Skills of Undergraduate Social Work Students Impacted by COVID-19. *Clinical Social Work Journal*, 1-12.
3. Arnett, J. J. (2007). Emerging adulthood: What is it, and what is it good for?. *Child development perspectives, 1*(2), 68-73.

4. Alston, M., Hargreaves, D., & Hazeleger, T. (2018). Postdisaster social work: Reflections on the nature of place and loss. *Australian Social Work*, *71*(4), 405-416.

5. Apostol, A. C. (2020). Students perceptions about the impact of COVID-19 on learning process. A sociological approach. *Technium Social Sciences Journal*, *9*(1), 495-500.

6. Apostol, A. C., & Netedu, A. (2020). University Students During Pandemic. A Case Study on a Faculty of Philosophy and Social-Political Science Undergraduates. *Scientific Annals of the "Alexandru Ioan Cuza" University, Iaşi. New Series Sociology and Social Work Section*, *13*(1).

7. Apostol, A. C., & Vasiliu, R. M. (2021). Social Work Students' Well-being: A Literature Review. *Social Work Review/ Revista de Asistenta Sociala*, (2), 21-33.

8. Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organization. *Academy of management review*, *14*(1), 20-39.

9. Ballou, S., Gray, S., & Palsson, O. S. (2020). Validation of the pandemic emotional impact scale. *Brain, behavior, & immunity-health*, *9*, https://doi.org/10.1016/j.bbih.2020.100161.

10. Baltà-Salvador, R., Olmedo-Torre, N., Peña, M., & Renta-Davids, A. I. (2021). Academic and emotional effects of online learning during the COVID-19 pandemic on engineering students. *Education and Information Technologies*, 1-28.

11. Beiter, R., Nash, R., McCrady, M., Rhoades, D., Linscomb, M., Clarahan, M., & Sammut, S. (2015). The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *Journal of affective disorders*, *173*, 90-96.

12. Best, S., & Williams, S. (2019). Professional identity in interprofessional teams: findings from a scoping review. *Journal of interprofessional care*, *33*(2), 170-181.

13. Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *The lancet*, *395*(10227), 912-920.

14. Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry research*, *287*. https://doi.org/10.1016/j.psychres.2020.112934.

15. Cruwys, T., Haslam, S. A., Dingle, G. A., Haslam, C., & Jetten, J. (2014). Depression and social identity: An integrative review. *Personality and Social Psychology Review*, *18*(3), 215-238.

16. Driessen, E., Beatty, A., Stokes, A., Wood, S., & Ballen, C. (2020). Learning principles of evolution during a crisis: An exploratory analysis of student barriers one week and one month into the COVID-19 pandemic. *Ecology and evolution*, *10*(22), 12431-12436.

17. Du, Y. Z., & Chan, T. S. (2021). Professional identity of Wuhan and Hong Kong social workers: COVID-19 challenges and implications. *Qualitative Social Work*, *20*(1-2), 297-304.

18. Farris, S. G., Kibbey, M. M., Fedorenko, E. J., & DiBello, A. M. (2021). A Qualitative Study of COVID-19 Distress in University Students. *Emerging Adulthood*. https://doi.org/10.1177/21676968211025128.

19. Glowacz, F., & Schmits, E. (2020). Psychological distress during the COVID-19 lockdown: the young adults most at risk. *Psychiatry research*, *293*, https://doi.org/10.1016/j.psychres.2020.113486.

20. González, L. A., Flores-Martos, J. A., Cipriano-Crespo, C., & Pulido-Fuentes, M. (2021). Strengths and Weaknesses of Healthcare Professionals' Identity during

the COVID-19 Pandemic: A Qualitative Study within the Spanish Context. *Social Sciences, 10*(2), 1-15.

21. Hirsch, J. K., Rabon, J. K., Reynolds, E. E., Barton, A. L., & Chang, E. C. (2019). Perceived stress and suicidal behaviors in college students: Conditional indirect effects of depressive symptoms and mental health stigma. *Stigma and Health, 4*(1), 98-106.

22. Leach, C. W., Van Zomeren, M., Zebel, S., Vliek, M. L., Pennekamp, S. F., Doosje, B., ... & Spears, R. (2008). Group-level self-definition and self-investment: a hierarchical (multicomponent) model of in-group identification. *Journal of personality and social psychology, 95*(1), 144.

23. Leppink, E. W., Odlaug, B. L., Lust, K., Christenson, G., & Grant, J. E. (2016). The young and the stressed: Stress, impulse control, and health in college students. *The Journal of nervous and mental disease, 204*(12), 931-938.

24. Paluszek, M. M., Landry, C. A., Taylor, S., & Asmundson, G. J. (2020). The psychological sequelae of the COVID-19 pandemic: Psychological processes, current research ventures, and preparing for a postpandemic world. *The Behavior Therapist, 43*, 158-163.

25. Paterson, J., Higgs, J., Wilcox, S., & Villeneuve, M. (2002). Clinical reasoning and self-directed learning: key dimensions in professional education and professional socialisation. *Focus on Health Professional Education, 4*(2), 5-21.

26. Pfefferbaum, B., & North, C. S. (2020). Mental health and the Covid-19 pandemic. *New England Journal of Medicine, 383*(6), 510-512.

27. Rădoi, M., Apostol, A. C., Irimescu, G., & Ioniţe, C. (2021). Perspectives and Concerns of Final Year Medical and Social Work Students regarding Online Education during the Covid-19 Pandemic Lockdown: A Comparative Study. *Social Work Review/ Revista de Asistenta Sociala*, (2), 35-47.

28. Sani, F., Herrera, M., Wakefield, J. R., Boroch, O., & Gulyas, C. (2012). Comparing social contact and group identification as predictors of mental health. *British Journal of Social Psychology, 51*(4), 781-790.

29. Shi, W. (2019). Health information seeking versus avoiding: How do college students respond to stress-related information?. *American journal of health behavior, 43*(2), 437-448.

30. Simon, F. M., & Camargo, C. Q. (2021). Autopsy of a metaphor: The origins, use and blind spots of the 'infodemic'. *New media & Society*, https://doi.org/ 10.1177/14614448211031908.

31. Tajfel, H. (1978). Interindividual behaviour and intergroup behaviour. *Differentiation between social groups: Studies in the social psychology of intergroup relations*, 27-60.

32. Tajfel, H. E. (1978). *Differentiation between social groups: Studies in the social psychology of intergroup relations*. Academic Press.

33. Taylor, S., & Asmundson, G. J. (2020). Life in a post-pandemic world: What to expect of anxiety-related conditions and their treatment. *Journal of Anxiety Disorders, 72*. https://doi.org/10.1016/j.janxdis.2020.102231.

34. Taylor, S., Asmundson, G. J.. (2004). *Treating health anxiety: A cognitive-behavioral approach* (pp. 80015-4). New York: Guilford Press.

35. Taylor, S., Landry, C. A., Paluszek, M. M., Fergus, T. A., McKay, D., & Asmundson, G. J. (2020a). COVID stress syndrome: Concept, structure, and correlates. *Depression and anxiety, 37*(8), 706-714.

36. Taylor, S., Landry, C. A., Paluszek, M. M., Fergus, T. A., McKay, D., & Asmundson, G. J. (2020b). Development and initial validation of the COVID Stress Scales. *Journal of Anxiety Disorders, 72,* https://doi.org/10.1016/j.janxdis.2020.102232.
37. Van Dick, R. (2001). Identification in organizational contexts: Linking theory and research from social and organizational psychology. *International Journal of Management Reviews, 3*(4), 265-283.
38. Webb, S. A. (2016). Professional identity and social work. In *The Routledge Companion to the Professions and Professionalism,* 373-388.
39. World Health Organization (WHO) (2020). *Novel coronavirus(2019-nCoV). Situation report 13, 2 February. Geneva.* Available at: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200202-sitrep-13-ncov-v3.pdf