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University student's internalising problems in the context of mental support in Poland – a Latent Profile Analysis

Problemy internalizacyjne studentów w kontekście wsparcia psychologicznego w Polsce – analiza profili latentnych

Abstract: University students are exposed to a number of stressors that may affect their mental state. However, they do not receive sufficient psychological support, although the demand for it seems to be increasing. The current study examines what psychological profiles can be identified among students based on how often different subjective problems affect their functioning. The participants were 1,499 students from one university in northern Poland (63% women, ages 18-26, 7.4% had previously used professional support). The research sample included randomly selected students from all faculties of the university. The research method was a diagnostic survey and the measure was a self-designed questionnaire that accounted for 20 potentially problematic behaviours and experiences. Five profiles, differing in the intensity of the seven internalising problems, were identified in latent profile analysis: in crisis (IC, 2.1%); increased risk – with (IR-S, 7.5%) and without suicidal thoughts or behaviours (IR-NS, 8.8%); increased risk – experiencing tension (IR-T, 19.1%); and not needing support (NNS, 62.5%). Gender, place of origin, and the use of professional psychological support significantly differentiated the profiles. The results of the study allow us to draw indications

that are important for the design of preventive measures in the academic environment. Particularly important is the implementation of activities that fall into the area of selective prevention, targeting IR-NS and IR-T groups (about 28% of survey participants).

This is supported by the percentage of people belonging to these groups, as well as the nature of the difficulties they are facing.

Keywords: university students; higher education; emerging adulthood; subjective problems; mental support availability.

Introduction

According to some researchers, the risk of psychological distress is higher among university students than their non-college-attending peers (Cvetkovski, Reavley and Jorm, 2012; Stallman, 2010), whereas no such differences were reported in other studies (Auerbach et al., 2016) or even the reverse trend was noted (Kovess-Masfety et al., 2016). Approximately 30-40% of the surveyed university students have experienced at least one mental problem (Auerbach et al., 2018; Bantjes et al., 2019; Pereira et al., 2020). Depression and anxiety are most commonly reported (Pereira et al., 2020). Stress levels can be exacerbated in successive years of study due to growing housing and academic requirements, and fear of the future (Böke, Mills, Mettler and Heath, 2019; Stallman, 2010). The percentage of college students who have attempted to commit suicide was estimated at 3-7% but was lower than in the general population (Eskin et al., 2016; Mortier et al., 2018; Pereira et al., 2020) and the percentage of students reporting suicidal ideation in the past 12 months ranged from 7% to 12% (Eskin et al., 2016; Mortier et al., 2018; Sivertsen et al., 2019; Wang et al., 2019).

The prevalence of mental issues varies between the sexes. A study of university students demonstrated that women are at a greater risk of experiencing psychological issues (Auerbach et al., 2018; Stallman, 2010). Women are more prone to experiencing anxiety and depression (Van de Velde, Bracke and Levecque, 2010). Depression is diagnosed 1.5 times more frequently (Pearson, Janz and Ali, 2013), or according to some studies, twice (Dahlin, Joneborg and Runeson, 2005) or even three times (Karmolińska-Jagodzik, 2019) more frequently in female than male students. Stress-induced anxiety and depression are more frequent among women (Calvarese, 2015), who are generally more susceptible to stress (Dubczak, 2020; Kneavel, 2021). Women experience anxiety and phobias more often, they have lower self-esteem and are more emotionally dependent than men (Boyd et al., 2015; Rosenfield and

Smith, 2009). In turn, concentration difficulties, hyperactivity, externalising disorders, antisocial behaviours, and overuse of psychoactive substances are more frequently reported in men (Boyd et al., 2015; Pearson et al., 2013; Rosenfield and Smith, 2009). Suicidal ideation (Mackenzie et al., 2011) and suicide rates (World Health Organization, 2019) are also higher among men than women.

Mental health disorders are usually established before university enrolment (Auerbach et al., 2016), but most of them are not diagnosed or adequately addressed. Supreme Audit Office in Poland reports that while 9% of children and adolescents require professional psychiatric and psychological treatment, they do not receive comprehensive care in the public health system. This situation is mainly related to organisational and personnel problems (Supreme Audit Office [Najwyższa Izba Kontroli], 2020).

In 2021, there were 4,347 professionally active general psychiatrists, but only 482 child and adolescent psychiatrists (Polish Chamber of Physicians and Dentists [Naczelna Izba Lekarska], 2021). Equally worrying is the fact that there are only nine psychiatrists per 100,000 population, and this number is two times higher on average in Western Europe (Eurostat, 2020). Due to the limited access to mental health support, many Polish young adults may not have received support before entering a university. In addition, dedicated psychological support is available to students in only around 35% of universities in Poland. Support is offered generally on an incidental basis and is not a part of a comprehensive mental health programme (The Commissioner for Patients' Rights [Rzecznik Praw Pacjenta], 2020). In this respect, Polish schools of higher education lag behind West European and American colleges.

Current study

The presented data indicate that mental health issues among college students have long been neglected and should be urgently addressed by Polish universities. These institutions should develop the appropriate methods for identifying students who need psychological counselling or psychiatric treatment and diagnosing symptoms of mental health disorders, including in students who are experiencing a crisis or difficulties associated with adapting to a new environment. A correct diagnosis, the availability of institutional solutions, and basic psychological skills training for academic teachers (who are supposed to support students with mental health problems and refer them to appropriate care centres) play a key role in this process (Gulliver, Farrer, Bennett and Griffiths, 2019).

Polish universities could address these challenges by describing the profiles of students' psychological functioning to better adjust preventive and intervention strategies to the current needs. From the methodological point of view, this is accomplished by identifying and classifying groups of individuals with similar patterns of psychological behaviour. Such approaches include the latent profile analysis (LPA) and the latent class analysis (LCA) (Collins and Lanza, 2013; Magidson and Vermunt, 2002). In LPA, the name of the profile most often reflects the specificity of the group of people that creates the profile, and this specificity is taken from the configuration of variables that form it. The obtained profiles can be compared with each other qualitatively and with the use of variables (dichotomous or continuous) that are not considered in the profiling process. The LPA has been used in research studies analysing the mental health of university students (Barton, Barkin and Miller, 2017; van der Velden, Das and Muffels, 2019) and other groups, e.g. nurses (Shi, Ma, Huang, Zhang and Ren, 2021).

The present study had two main goals related to the research questions explored. The first research goal was focused on the issue of professional mental health support usage. The study attempted to determine the percentage of university students who have relied on professional help and recognize whether participation in counselling is influenced by gender and place of origin. First question related to that goal was: how many students have ever taken up the offer of professional mental health help (i.e. from psychologist, therapist or psychiatrist)? The second question related to help seeking: whether gender and place of origin make a difference to whether someone seeks professional mental health support? The students' willingness to use mental health support services offered by universities was also investigated, and was followed by a question: how many students are willing to use mental health support offered by the university?

The second goal was to identify the psychological profiles of university students with the use of the LPA. The analysis was preceded by PCA to reduce the number of variables and select only those that formed a cohesive construct. This activity was intended to enable the following research question to be answered: what profiles of young adults can be distinguished based on characteristics related to the experience of subjective internalizing problems? The comparisons between the profiles involved sociodemographic variables (gender, place of origin) and the use of professional support to obtain data which allow to answer the last research question: whether gender, place of origin and previous experience of professional support are associated with the identified profiles?

Method

Participants and procedure

The study involved students from one Polish university (located in northern Poland). The analysed sample consisted of first, third, and fifth-year students (or second-year Master's degree students) enrolled in all faculties. The examined population comprised 1,499 students (Table 1), including 938 women (62.6%).

Table 1. Sociodemographic characteristics of studied sample, *N* = 1499

Variables	<i>n</i>	%
Gender		
Women	938	62.6
Men	561	37.4
Age group		
18-20	474	31.6
21-23	827	55.2
24 and more	198	13.2
Year of study		
1st year of first cycle	628	41.9
3rd year of first cycle	574	38.3
5th year of 5 years Master's degree or 2nd year of second cycle	297	19.8
Place of residence		
Rural area	612	40.8
Small or medium city (up to 100.000)	576	38.4
Large city (over 100.000)	311	20.8
Use of professional mental health services (i.e. psychologist, therapist, psychiatrist)		
Yes	111	7.4
No	1300	86.7
Missing values	88	5.9
Willingness to use mental health support services offered by the university		
Yes	186	12.4
No	1299	86.7
Missing values	14	0.9

It has been assumed that the research is to cover at least 10% of the population of each university faculty, taking into account the year of study, i.e., the first, third, fifth, or second year of second-cycle studies. Students from each analysed year and faculty were selected randomly. The survey was conducted in groups, in a traditional face-to-face format using a paper questionnaire. During a preliminary meeting, students were informed about

the purpose of the study, their voluntary participation in the research (they could withdraw from the study at any moment), and that the collected data would be used solely for research purposes. The study was conducted during the 2019/2020 academic year. The research was approved by the Scientific Research Ethics Committee of University of Warmia and Mazury in Olsztyn.

Measures

The measure used in the study was a self-designed questionnaire that accounted for 20 potentially problematic behaviours and experiences (such as the inability to cope with stress, feelings of isolation, or problems with emotion's control). The basis of the measure were problems reported by students during counselling sessions, conducted by the university support centre. In the questionnaire, the respondents indicated the extent to which they related to the described mental issues with the use of the following scale: 0 – not relatable at all, 1 – relatable, but doesn't affect my functioning, 2 – relatable and sometimes affects my functioning, 3 – relatable and often affects my functioning, 4 – relatable and always affects my functioning. Each item was analysed separately.

The respondents were also asked to indicate whether they had ever relied on professional support (psychiatrist, therapist, psychologist) (dummy coded with 0 = no, 1 = yes) and whether they would use mental support services offered by the university (dummy coded with 0 = no, 1 = yes).

Data analysis

Data were processed in the IBM SPSS Statistics (Version 26) software. Descriptive statistics were calculated, and a correlation analysis was performed with the use of Pearson's r coefficient. The chi-square test was also performed with a Cramer's V as an effect size measure. A principal component analysis (PCA) was conducted to identify variables that formed cohesive constructs and could be used to develop psychological profiles.

The main analysis was the Latent Profile Analysis (LPA), which was conducted with the use of R (v. 4.0.2, R Core Team, 2020) and the tidyLPA package (Rosenberg, Beymer, Anderson, van Lissa and Schmidt, 2018). The models were evaluated, and the optimal number of profiles was determined based on the following criteria (Nylund, Asparouhov and Muthén, 2007): Akaike information criterion (AIC), Bayesian information criterion (BIC), and sample-size adjusted BIC (SABIC). The lower the result, the better the model's fit to the data. The p value was calculated in the BLRT bootstrap likelihood ratio test to determine the number of profiles, where a non-significant result indicated that the previous solution (with a smaller number

of profiles) was preferable. The value of entropy greater than 0.8 was desired (Muthén and Muthén, 2007). The chi-square independence test was used to determine whether the assignment to individual profiles is independent of gender, place of origin, and previous use of professional support.

Results

Preliminary analyses and professional support use

Descriptive statistics (means, standard deviations and Pearson correlation coefficients) for all variables are presented in Table 2.

Only 7.4% of the surveyed students had previously relied on professional support in the past, and less than 12.4% of the respondents would be willing to use mental health support services offered by the university. The use of professional support services was not related to gender ($X^2 = .002$, $p = 0.964$) but was significantly related to the place of origin ($X^2 = 18.64$, $p < .001$, $V = .16$), where differences in proportions occurred within rural dwellers and inhabitants of large cities, but not among small or medium city inhabitants. Among participants who used professional mental health services more participants than expected (Observed, $n = 39$; Expected, $n = 23.3$) were present in group from large cities (over 100,000 inhabitants) compared to participants from rural area (Observed, $n = 28$; Expected, $n = 45.2$).

Principal Component Analysis

In the next step, a PCA was performed to reduce the number of variables for the LPA and to determine which subjective problems formed groups. It was decided to use the Oblimin rotation due to the possibility of coexistence of relations between all analysed variables. A five-factor solution explained 55.24% of the variance. Kaiser-Meyer-Olkin test statistic value was 0.85, which proves a good sampling adequacy.

In PCA, the first component, among others, grouped the highest number of variables, which were (ordered from the highest to the lowest values of factor loadings): apathy and depression (.83), anxiety (.78), suicidal thoughts or behaviours (.77), low self-esteem (.57), coping with stress (.54), sense of loneliness (.52) and fear of the future (.47). This component also explained the highest percentage of variance (27.85%). The internalisation of subjective psychological problems was a common feature of that component. Based on PCA results, a decision was made to use these seven variables as a basis for the LPA.

Table 2. Descriptive statistics and intercorrelations among variables included in the study, N = 1499

Variable	M ± SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1 Drinking alcohol	0.93 ± 0.50	-																		
2 Taking drugs	0.14 ± 0.39	.15																		
3 EIU	1.44 ± 0.94	.17	-.04																	
4 EMPU	1.46 ± 1.02	.19	.02	.70																
5 Suicidal T or B	0.31 ± 0.76	.09	.15	.10	.05															
6 Apathy and depression	0.67 ± 0.97	.02	.15	.17	.14	.62														
7 Anxiety	0.78 ± 1.02	.02	.05	.21	.16	.49	.67													
8 Coping with stress	1.18 ± 1.08	-.01	-.05	.21	.27	.29	.42	.58												
9 Emotion control	0.90 ± 1.02	.03	.01	.18	.23	.25	.31	.41	.48											
10 Feelings of superiority	0.43 ± 0.85	.13	.19	.14	.14	.14	.22	.17	.01	.19										
11 Fear of the future	1.30 ± 1.15	.11	.06	.20	.21	.28	.37	.41	.40	.33	.16									
12 Low self-esteem	1.17 ± 1.15	.01	-.02	.17	.20	.33	.39	.45	.44	.35	-.01	.45								
13 Life crisis	0.75 ± 1.03	.05	.08	.12	.15	.26	.31	.29	.22	.27	.16	.17	.26							
14 Learning problems	0.92 ± 0.97	.13	.11	.24	.20	.23	.28	.29	.32	.24	.10	.33	.24	.23						
15 Lack of motivation	1.27 ± 1.09	.08	.12	.25	.23	.27	.34	.31	.31	.25	.13	.37	.30	.21	.55					
16 Sense of loneliness	0.89 ± 1.07	.04	.09	.17	.14	.46	.53	.51	.35	.34	.21	.37	.43	.28	.33	.41				
17 Family conflicts	0.58 ± 0.93	.03	.06	.11	.12	.26	.26	.30	.19	.25	.20	.24	.24	.29	.21	.25	.35			
18 Aggression control	0.37 ± 0.77	.07	.03	.15	.11	.28	.27	.30	.20	.40	.20	.18	.19	.24	.24	.20	.33	.30		
19 R-R problems	0.54 ± 0.88	.10	.16	.09	.11	.05	.14	.15	.09	.17	.12	.06	.02	.10	.16	.13	.21	.22	.22	
20 P-R problems	0.47 ± 0.72	.03	.04	.16	.09	.19	.24	.25	.21	.19	.13	.16	.23	.16	.23	.21	.40	.22	.24	.27

EIU = Excessive Internet Use; EMPU = Excessive Mobile phone use; Suicidal T or B = suicidal thoughts or behaviors; R-R problems = Romantic relationship problems; P-R problems = Peer related problems; Significant correlations at the 0.05 level are shown in bold

Latent profile analysis – number of profiles, description, and comparison of variables

The psychological profiles of university students were developed based on seven variables (subjective problems) in the LPA. A preliminary analysis revealed that out of the four models analysed in the tidyLPA package in CRAN R, Model 1 postulating equal variances within profiles and zero covariance between profiles (Rosenberg et al., 2018) would be most suitable. The solutions generated for one to six profiles were compared. The fit indices for each model are presented in Table 3.

Table 3. Fit indices of Model 1 with 1-6 classes

Latent profile model	LL	AIC	BIC	SABIC	Entropy	BLRT_p
One-class model	-15099.16	30226.31	30300.69	30256.21	1	-
Two-class model	-13516.69	27077.37	27194.25	27124.36	.95	< .01
Three-class model	-12998.13	26056.25	26215.63	26120.33	.9	< .01
Four-class model	-12644.96	25365.92	25567.79	25447.08	.91	< .01
Five-class model*	-12462.28	25016.56	25260.94	25114.81	.91	< .01
Six-class model	-12813.99	25735.98	26022.85	25851.31	.57	.52

LL log-likelihood, AIC Akaike Information Criterion, BIC Bayesian Information Criterion, SABIC sample-size adjusted BIC, Entropy standardized index of model-based classification accuracy, BLRT_p p value of BLRT bootstrap likelihood ratio test.

* Chosen as best solution.

An analysis of fit indices for different configurations revealed that the solution with five profiles was optimal due to the lowest values of BIC and SABIC. Entropy exceeded 0.84, and the value of p was statistically significant in the BLRT test, which indicates that the selected solution was more suitable than the solution with four groups. The profiles and the average values of the examined variables are presented in Figure 1.

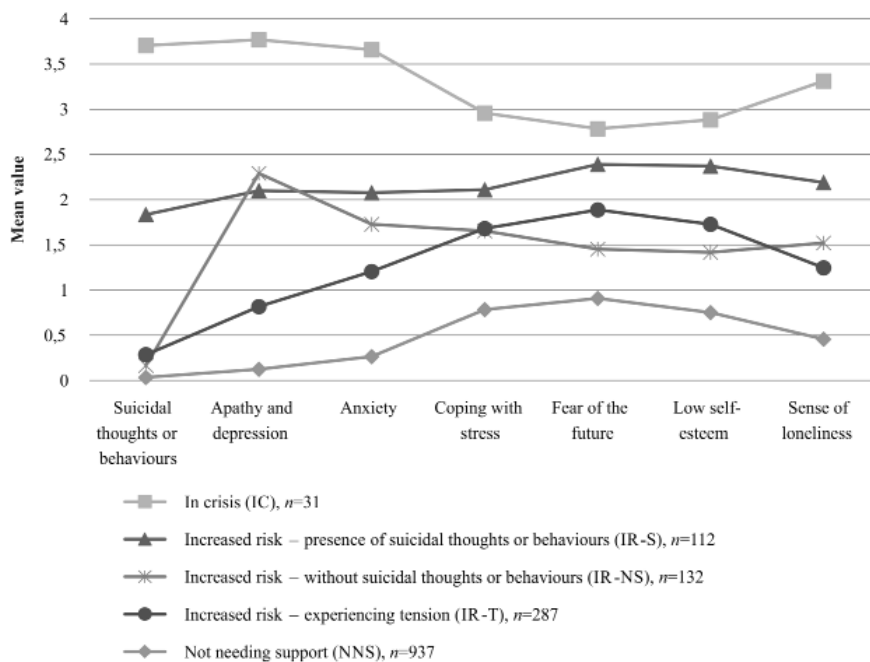


Figure 1. Five Profiles of Internalising Problems among Students

Profile: In crisis (IC)

This was the smallest profile (2.1%) and was characterised by the highest values of all analysed variables. The four dominant variables were suicidal thoughts or behaviours, apathy and depression, anxiety, and a sense of loneliness.

Profile: Increased risk – presence of suicidal thoughts or behaviours (IR-S)

The average values of seven variables in this group approximated 2. This result indicates that the described problems were relatable and sometimes affected the respondents' functioning. Unlike the students in IC profile, the respondents in IR-S were not in crisis, but experienced difficulties in many areas. Group IR-S differed from profiles IR-NS, IR-T, and NNS in that the respondents had experienced suicidal thoughts or behaviours.

Profile: Increased risk – without suicidal thoughts or behaviours (IR-NS)

This group, compared to the others, is characterised by the so-called depressive peak. This profile records the highest value within the variable

apathy and depression, but it is not accompanied by suicidal thoughts or behaviours. The values of most variables were below 2, which suggests that the difficulties experienced by respondents in this profile were less likely to affect their functioning.

Profile: Increased risk – experiencing tension (IR-T)

This profile was characterised by the highest values of three variables: coping with stress, fear of the future, and low self-esteem. The above problems were experienced by students from this group, but they did not affect the respondents' functioning. Suicidal thoughts or behaviours, depression, and anxiety were not reported here. However, the highest values of the variables in this profile suggest that students experienced tension and suffered from low self-esteem.

Profile: Not needing support (NNS)

This profile was the largest and accounted for 62.5% of the studied population. It had a similar structure to group IR-T, but the average values of the examined variables were lower, and none of them exceeded 1. This result suggests that the problems identified by the students did not affect their functioning. Similarly to group IR-T, fear of the future was the highest scoring variable.

Comparison of profiles by gender, place of origin, and the use of professional mental health services

The last analysis (Table 4) was performed to determine the presence of potential relationships between the identified profiles and sociodemographic variables (gender and place of origin) and between the profiles and the use of professional mental health services.

Significant associations were observed between the profiles and gender and place of origin, but their strength measured with Cramer's *V* was low. Groups IR-T and NNS differed significantly in the gender ratio. The proportion of women to men was higher in group IR-T (75.3%) than in group NNS (58.2%). The greatest differences between the observed values and the expected values, expressed by adjusted residuals for the place of origin and profile, were noted between rural dwellers and residents of cities with a population higher than 100,000. The use of professional support was also related to the profiles. The percentage of students who had used professional counselling services was highest in group IC and lowest in groups IR-NS, IR-T, and NNS.

Table 4. Profiles comparison according to gender, place of origin, and mental support

Variable	IC	IR-S	IR-NS	IR-T	NNS	X ²	df	p	V
Gender (N=1499)									
Female	17 (19.4) ^{ab}	76 (70.1) ^{ab}	84 (82.6) ^{ab}	216 (179.6) ^b	545 (586.3) ^a				
Col %	54.8%	67.9%	63.6%	75.3%	58.2%				
Adjusted residual	-9	1.2	.3	4.9	-4.6	29.70	4	<.001	.14
Male	14 (11.6) ^{ab}	36 (41.9) ^{ab}	48 (49.4) ^{ab}	71 (107.4) ^b	392 (350.7) ^a				
Col %	45.2%	32.1%	36.4%	24.7%	41.8%				
Adjusted residual	.9	-1.2	-.3	-4.9	4.6				
Place of residence									
Country	7 (12.7) ^{ab}	23 (45.7) ^b	45 (53.9) ^{ab}	133 (117.2) ^a	404 (382.6) ^a				
Col %	22.6%	20.5%	34.1%	46.3%	43.1%				
Adjusted residual	-2.1	-4.5	-1.6	2.1	2.3				
City with up to 100,000 inhabitants	10 (11.9) ^a	50 (43.0) ^a	61 (50.7) ^a	111 (110.3) ^a	344 (360.0) ^a				
Col %	32.3%	44.6%	46.2%	38.7%	36.7%	47.28	8	<.001	.13
Adjusted residual	-.7	1.4	1.9	.1	-1.8				
City with over 100,000 inhabitants	14 (6.4) ^a	39 (23.2) ^{ab}	26 (27.4) ^{bc}	43 (59.5) ^c	189 (194.4) ^c				
Col %	45.2%	34.8%	19.7%	15.0%	20.2%				
Adjusted residual	3.4	3.8	-.3	-2.7	-7				
Use of professional mental support (n=1411)									
Yes	11 (2.3) ^a	21 (8.3) ^{ab}	9 (9.4) ^{bc}	25 (21.3) ^c	45 (69.6) ^c				
Col %	37.9%	19.8%	7.5%	9.2%	5.1%				
Adjusted residual	6.1	4.7	-2	.9	-5.0				
No	18 (26.7) ^a	85 (97.7) ^{ab}	111 (110.6) ^{bc}	246 (249.7) ^c	840 (815.4) ^c				
Col %	62.1%	80.2%	92.5%	90.8%	94.9%	67.19	4	<.001	.22
Adjusted residual	-6.1	-4.7	.2	-.9	5.0				

IC = In crisis, IR-S = Increased risk with suicidal thoughts or behaviors, IR-NS - Increased risk without suicidal thoughts or behaviors, IR-T = Increased risk - experiencing tension, NNS - Not needing support; Within a row, cell values without common superscript letters differ significantly (p < 0.05)

Discussion

The main aim of this study was to identify the profiles of variables describing the extent to which subjectively perceived psychological problems affect university students' functioning. Five profiles were identified in the LPA based on seven out of 20 variables that were selected in PCA. The selected variables included internalising problems – in particular, depressive symptoms (suicidal thoughts or behaviours, apathy and depression, anxiety, and low self-esteem). In other studies of university students, depression was the key variable (Barton et al., 2017) or a significant component in the identified profiles (Ma and Lai, 2018).

The identified profiles can be divided into three groups if all respondents are to be regarded as potential recipients of mental health services. The first group (NNS) includes students with a relatively low risk of psychological issues. These persons should be targeted by universal prevention programmes aiming to strengthen psychological resilience and weaken risk factors. The second group comprises respondents who should be addressed by selective prevention measures, namely students at higher risk of mental issues in groups IR-S, IR-NS, and IR-T. These respondents recognised and reported psychological difficulties in the questionnaire, and they can be classified as persons at high risk of mental problems. The third group (IC) includes students in crisis who require an indicated preventive intervention.

A comparison of the identified profiles based on the respondents' gender, place of origin, and reliance on professional support services produced valuable information that can be helpful in the process of organising counselling services for university students. Three of the five profiles did not differ in the gender ratio, but differences were observed between groups IR-T and NNS. The proportion of women was significantly higher in group IR-T than in group NNS. The proportion of women was higher than expected in group IR-T and lower than expected in group NNS. Group IR-T was characterised by a predominance of three variables: coping with stress, fear of the future, and low self-esteem. These findings indicate that mental health services should be addressed mainly to women to reduce stress and promote constructive strategies for coping with stress. Fear of the future was a variable that received a high score in group IR-T; therefore, this issue should also be addressed by mental health services. Personal development workshops could be recommended to resolve the reported problems, and they could also be incorporated into preventive programmes focusing on the use of psychoactive substances (Böke et al., 2019) and depression (Calvarese, 2015).

The respondents' place of origin was yet another variable that differentiated the identified profiles. The evaluated profiles differed in the number of rural dwellers and inhabitants of cities with a population higher than 100,000. The proportion of rural dwellers was lower than expected, and the proportion of students residing in cities with a population higher than 100,000 was higher than expected in groups IC and IR-S. Contrary results were reported in other studies, where suicide attempts and psychological problems were found to be more prevalent in rural than urban areas (Hirsch and Cukrowicz, 2014). Research evaluating Polish university students (mostly medical and humanities students, where the vast majority of the respondents were female) demonstrated that persons residing in rural areas and small towns were more susceptible to depression than large city dwellers (Mojs et al., 2012). In the present study, a lower-than-expected proportion of rural dwellers in groups IC and IR-S could be attributed to the fact that these respondents were less likely to acknowledge psychological difficulties due to the social stigma surrounding mental illness in small rural communities (Rost, Smith and Taylor, 1993). The availability of professional support could also be lower in rural areas (Teleon and Włoszczak-Szubzda, 2018), which could be related to lower self-awareness of the experienced difficulties.

The last variable was the use of professional mental health services. The results of the present study and other authors' findings indicate that the vast majority of university students have never attended counselling programmes offered by the university or the public health service (Stallman and Shochet, 2009). In this study, the highest number of respondents who had used mental health services was noted in group IC (approx. 38%), which is consistent with the observation that university students suffering from depression and suicidal thoughts are more likely to rely on public health care services (Mackenzie et al., 2011). The percentage of students in group IR-S who had used professional counselling services was estimated at 20%, and it did not differ significantly from the result noted in group IC. These findings give cause for concern because psychological issues, including suicidal thoughts and behaviours, apathy, and anxiety, were prevalent in the analysed groups. Students could be reluctant to seek help out of fear that their education and future employment opportunities would be compromised if they admitted to their problems (Rosenthal and Okie, 2005). The sources of the low percentage of using professional mental health services among students may also include the fear of stigmatisation and discrimination (Barney, Griffiths, Christensen and Jorm, 2009; Martin, 2010).

Limitations and Future Directions

The main limitation of the current study was that psychological difficulties were evaluated based on subjective experiences without the use of objective measures for assessing constructs such as depression, coping with stress, and low self-esteem. These tools could be incorporated in the study to determine whether subjective perceptions are consistent with the results produced by objective measures of analysed variables. In case of continuation, the usage of the own measure, it is advisable to separate the categories that were used as one in the mentioned study, i.e., apathy and depression. As a complex construct, depression should be evaluated more comprehensively due to the broad spectrum of the accompanying symptoms. The separation of the categories, suicidal thoughts or behaviours, treated so far in own measure as one, has its justification in the literature (Dębowska, Horec-zy, Boduszek and Doliński, 2020; Mortier et al., 2018; Son, Hegde, Smith, Wang and Sasangohar, 2020) and facilitates the interpretation of received responses. This is especially because the occurrence of suicidal thoughts is more frequent than suicidal behaviours (Dębowska et al., 2020; Mortier et al., 2018; Son et al., 2020).

The low percentage of students who had used or would be willing to use professional mental health services offered by the university indicates that further research is needed to explore the etiology of this phenomenon. The main causes of reluctance to seek professional help should be identified in the studied population to overcome the existing barriers, build trust in mental health professionals, and develop support services that adequately meet university students' needs. The results could also be used to explain the differences in the proportion of rural and urban residents in the analysed profiles. There is therefore a crucial need to repeat the study in order to monitor any changes in the emergent profiles caused by both the passage of time and the occurrence of a number of stressors that were absent at the time of the study (the COVID-19 pandemic, the war in Ukraine and the economic crisis).

Conclusion

The arguments cited above, apart from the necessity to take action in the area of health promotion, justify the need for early intervention in order to prevent the deterioration of mental health problems. Young adults should receive comprehensive support in their area of residence, and programmes that can be flexibly adjusted to the recipients' specific needs and that rely on local resources and focus on the recipients' strengths should be implemented,

regularly evaluated, and monitored. Such measures can alleviate and, in many cases, eliminate mental health issues in the population of young adults, and they can generate educational, economic, and social benefits (Nami, Nami and Eishani, 2014).

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