



ELSEVIER

Contents lists available at ScienceDirect

Nurse Education in Practice

journal homepage: www.elsevier.com/locate/nepr

Original research

Mental well-being among nursing students in Slovenia and Northern Ireland: A survey

Leona Cilar^{a,*}, Owen Barr^b, Gregor Štiglic^a, Majda Pajnkihar^a

^a University of Maribor, Faculty of Health Sciences, Žitna ulica 15, 2000 Maribor, Slovenia

^b School of Nursing, Ulster University Faculty of Life and Health Sciences, Northland Rd, Londonderry, BT48 7JL, United Kingdom

ARTICLE INFO

Keywords:

Nursing students
Mental well-being
Personal satisfaction

ABSTRACT

Mental well-being is a key for successful and productive living of each individual. An imbalance can occur due to various stressors and environmental factors. Due to academic pressures, distance from home and financial burden, nursing students often meet with mental health problems. The objective of this study was to determine the mental well-being of nursing students in Slovenia and Northern Ireland, and to compare the results obtained. A descriptive cross-sectional study design was used. The survey was carried out in 2017 among nursing students in Slovenia and Northern Ireland using the Warwick-Edinburgh Mental Wellbeing Scale. The study included 90 students from Slovenia and 109 from Northern Ireland. Nursing students in both countries reported average level of mental well-being. Nursing students in Slovenia have significantly higher ($p < 0.001$) level of mental well-being than nursing students in Northern Ireland. There are some areas that demand special attention by nurse educators to support the mental well-being of students and the impact of this on their education. Further research needs to be undertaken to find out how to improve students' mental well-being and identify factors that are influencing mental well-being of nursing students.

1. Introduction

Positive mental health is the foundation of an individual's health and well-being (World Health Organization - WHO, 2014). It has been argued that it provides the basis for optimal psychological development of the individual, developing and maintaining social relationships, effective learning, as well as good physical health (Clarke et al., 2015). Mental well-being affects the social and economic achievements over the entire life of an individual (Barry et al., 2013). Mental health is an essential component of the wider society and can impact on student's learning, productivity, peace and stability in the living environment (WHO, 2008).

Mental health problem is a term normally used for describing mental health difficulties, which can range from lower levels of mental distress to serious and specific mental illnesses (Department of Health, Social Services and Public Safety, 2011). Mental health problems can affect an individual's way of thinking, feeling and behaving all of which can impact on their learning. Common mental health problems are depression and anxiety and less common conditions schizophrenia and bipolar disorder (Dunn, 2016). Research findings from the survey conducted in Scotland among general public show that the most commonly experienced mental health problems are depression, panic

attack, severe stress and anxiety disorder (Braunholtz et al., 2007).

There are many factors, that may contribute to poor mental health such as: reduced educational achievement, childhood abuse, trauma, social isolation or loneliness, experiencing discrimination and stigma, severe or long-term stress, poverty, unemployment or losing your job, a long-term illness, physical causes, substance misuse, or genetic factors (Dunn, 2016). Poor mental health is also associated with rapid social change, workplace stress, social exclusion, unhealthy lifestyle, risk of violence and physical illness (WHO, 2014). It has also been reported that people in minority groups develop more mental health problems than people in the majority groupings, but have a lower rate of using health systems (White, 2015). "Different cultures also develop different responses for coping with psychological stress. As a consequence, mental health interventions that emphasise individualism may not be appropriate for all cultures and belief systems" (Department of Health, Social Services and Public Safety, 2009, p. 138).

It has been shown that university students may have increased vulnerability to poor mental health. Aldiabat et al. (2014) pointed out that university students around the world are vulnerable to developing mental disorders caused by a variety of stressors. This is due to changes they experience when transitioning from being a high school student to university student. Surveys in Canada and the USA have reported that

* Corresponding author. Žitna ulica 15, 2000 Maribor, Slovenia.

E-mail addresses: leona.cilar1@um.si (L. Cilar), o.barr@ulster.ac.uk (O. Barr), gregor.stiglic@um.si (G. Štiglic), majda.pajnkihar@um.si (M. Pajnkihar).

university students, when compared with the general population of the same age, have more mental health problems, such as depression, anxiety, suicidal thoughts, psychosis, addiction, suicide risk, the use of mental health drugs and other chronic mental illnesses (Aldiabat et al., 2014; MacKean, 2011; Gallagher, 2008). A report issued by the Association of Psychiatrists in the Republic of Ireland in 2003, came to the conclusion that various stressors in the lives of students including, leaving home, unstructured school environment, exams and financial burdens (Student Services Committee, 2008). The results of the WHO World Mental Health International College Student project which was conducted across eight countries shows that mental health disorders are correlated to age, sex, marital status, religion, parents, school ranking, sexual identification and college motivation (Auerbach et al., 2018). A study in the Philippines has shown that university students with higher levels of perceived stress have poorer physical, mental and social health (Labrague, 2013).

Research conducted in Northern Ireland, found that only 4% of university students seek help from their institution or Students' Union (National Union of Students - NUS, 2017). This is an alarming fact because every year university students are confronting with more stressors which can cause poor mental health and well-being. Another study found out that a total of 10% of new entry students with emotional problems received help, when 22.3% of students stated that they would not seek help if needed (McLafferty et al., 2017). Davis (2010) undertook research at the University of Birmingham and reported that at least 9 000 cases of mental difficulties can be expected each year at a university with 36 000 students and staff. These mental difficulties can range from temporary emotional distress to mental illness which requires treatment (Davis, 2010). Effective promotion of mental health in educational institutions includes promoting general mental well-being of staff and university students and also the care for individuals with mental health problems (Crouch et al., 2008). Furthermore, there is a need for providing mental well-being of nurses so that they can provide a quality health care for patients. In order to do that managers must provide workspace where working practices promote nurses' mental well-being (Perry et al., 2015).

Nursing students are future health professionals whose tasks include the promotion of mental health and mental well-being. To be able to help others and provide person centred care, they must care for their own mental well-being and be empathetic with people who are experiencing mental health difficulties. Empathy enables nurses to perceive the internal frame of reference of another person with accuracy and emotional components. Mental well-being may differ among different countries because of various cultures, habits and beliefs. That is why we wanted to investigate mental well-being among nursing students and compare results between the two differing countries. This research was undertaken as part of international links between universities in Northern Ireland and Slovenia.

The purpose of this study was to determine the mental well-being of nursing students in Slovenia and Northern Ireland as measured using the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) and to compare the results obtained.

2. Methods

2.1. Study design

A quantitative research methodology and a cross-sectional study using a survey was undertaken in both countries. Participants were asked to complete an online questionnaire that incorporated the WEMWBS and additional biographical information.

2.2. Ethical considerations

Before the start of the study, ethical permission was sought from the institutional ethical committees at both faculties. Participants in the

Table 1
Gender and age distribution by countries.

			Total	Slovenia	Northern Ireland
Gender	Female	n	169	72	97
		%	84.9	80	89
	Male	n	30	18	12
		%	15.1	20	11
Age	< 20	n	17	1	16
		%	8.5	1.1	14.6
	21–30	n	147	85	62
		%	73.9	94.5	56.9
	31–40	n	25	3	22
		%	12.6	3.3	20.2
> 40	n	10	1	9	
	%	5	1.1	8.3	

n = number of students; % = percent.

study (nursing students in Slovenia and nursing students in Northern Ireland) were provided with information about the purpose and nature of the study and were informed that their information would be collected anonymously. They were also informed that their decision to participate in the study was voluntary and that this would affect any aspect of their studies.

2.3. Participants

Participants in the survey were invited to complete the online questionnaires using e-mail and social media invitations. A total of 199 students completed the survey (90 nursing students in Slovenia and 109 nursing students in Northern Ireland). The age and gender of respondents is reported in Table 1.

2.4. Data collection

The WEMWBS is a scale that includes 14 items related to individual's state of mental well-being in previous two weeks. It is five-point scale ranging from "none of the time" to "all of the time". The WEMWBS measures all attributes of mental well-being, except spirituality. The questionnaire was developed in 2006 through research in Scotland and was validated in the UK (Taggart et al., 2015). The questionnaire is in English, and for the needs of the study conducted in Northern Ireland, no adaptation was needed. For the use in Slovenia, the questionnaire was translated independently into the Slovenian language by two experienced bilingual researchers (a specialist in the field of nursing and an expert in the field of language). These translations were compared, discussed and agreed by the two translators. The agreed version has been back translated into the original language. An expert compared translated version to the original and confirmed the final version of the translated questionnaire.

As a pilot study, 40 participants completed the pre-final version of the questionnaire and based on their feedback and how they answered the questions, the final version of the translation was confirmed. Demographic questions related to age, gender, physical activity, accommodation through the academic year, alcohol consumption, smoking and drug use were added to the questionnaire as these factors have all been reported as potentially impacting on emotional well-being. Demographic questions (age, gender, physical activity, accommodation through the academic year, alcohol consumption, smoking and using drugs) have been added for the needs of this survey. Internal consistency of used questionnaires has been tested with Cronbach's α coefficient and it was excellent for Slovenian version of the questionnaire ($\alpha = 0.925$) and good for English version ($\alpha = 0.898$) used in Northern Ireland.

The calculations using G*Power ($d = 0.5$, $\alpha = 0.05$, $1 - \beta = 0.9$, $N2/N1 = 1.2$) resulted in required sample size of 98 (Northern Ireland) and 82 (Slovenia) which allows adequate generalizability of the results.

At the same time it is important to be aware that convenience sample represents a limitation in generalizability of the results to the whole population. Data were collected during spring semester in both countries.

2.5. Data analysis

Data have been analysed using IBM SPSS Statistics (version 22). Student's *t*-test of independent samples has been used to analyse the differences in mental well-being between nursing students in Slovenia and nursing students in Northern Ireland. Also, non-parametrical tests (Mann-Whitney *U* test and Kruskal-Wallis test) have been used depending on the distribution of the data. To test the construct structure of WEMWBS, factor analysis using principal component analysis was performed in both groups.

3. Results

The study has involved 90 (45.3%) nursing students in Slovenia and 109 (54.7%) nursing students in Northern Ireland, 15.1% ($n = 30$) of which were male and 84.9% ($n = 169$) female students (Table 1). A total of 94.5% ($n = 85$) students in Slovenia and 56.9% ($n = 62$) in Northern Ireland belonged to an age group between 20 and 30 years.

Total distribution of the questionnaires was 60 (66.7%) among undergraduate nursing students and 30 (33.3%) among postgraduate nursing students in Slovenia. Nursing students in Slovenia were not asked about the year of study. Distribution of the questionnaires in Northern Ireland was among undergraduate nursing students. Distribution among undergraduate nursing students was the following: 34 (31.2%) of the 1st year, 46 (42.2%) of the 2nd year and 28 (25.7%) of the 3rd year.

All nursing students (100%) in Slovenia were studying general nursing. On the other hand, 74.3% ($n = 81$) of nursing students in Northern Ireland were studying adult nursing and 28.7% mental health nursing ($n = 28$). There were not enough participants in each group to compare mental health nursing and general nursing. The WEMWBS scores were normally distributed among nursing students in both Slovenia and Northern Ireland.

Factor analysis was undertaken on item responses from both, the students in Northern Ireland and students from Slovenia to test the presence of a single factor in WEMWBS. In Slovenian sample the first factor had an eigenvalue of 7.149 (6.154) with an explained variance of 51.06%. On the other hand, the second factor had an eigenvalue of 1.112, with an explained variance of 7.94%. In Northern Ireland sample the first factor had an eigenvalue of 6.154 with an explained variance of 43.96% and the second factor had an eigenvalue of 1.316, with an explained variance of 9.4%. Both screen plots indicated a single construct. Thus, the single construct structure of the WEMWBS was confirmed in both groups.

Socio-demographic data was collected from participants, such as frequency of physical activity on a weekly basis, accommodation during academic year, consumption of alcohol, smoking and using illegal drugs (cannabis, cocaine, amphetamines, and ecstasy). A one-way ANOVA was performed to test for differences between sociodemographic factors and mental well-being in both countries (Table 2).

Answers were similar between both countries. Almost half (48.9%) of nursing students in Slovenia are physically active once or twice a week while 18.9% of them do not undertake any planned exercise. Activity levels among the students in Northern Ireland was lower at 35.8% of students reporting they were physically active once to twice a week, but 25.7% of students do not undertake planned exercise. During the academic year most of the students in Slovenia (43.3%) live at home with parents, similar to Northern Ireland (39.4%). A majority of students (81.1% in Slovenia and 77.1% in Northern Ireland) consume alcohol occasionally. Most of the nursing students in Slovenia (77.8%) and Northern Ireland are non-smokers (71.6%). A minority of students

self-reported that they had tried illegal drugs, 4.4% ($n = 4$) in Slovenia and 5.5% ($n = 6$) in Northern Ireland. In Slovenia, participants reported trying cannabis, 4.4% ($n = 4$) and in Northern Ireland, 2.8% ($n = 3$) have tried cannabis, 0.9% ($n = 1$) cocaine, 0.9% ($n = 1$) ecstasy and 0.9% ($n = 1$) other illegal drugs.

The one-way analysis of variance (ANOVA) has been used to determine whether there are any statistically significant differences between socio-demographic factors and the WEMWBS scores in both countries (Table 2). Results show that there are statistically significant differences ($F(30, 59) = 1.932, p = 0.016$) between alcohol consumption and the WEMWBS scores in Slovenia and there is a statistically significant difference ($F(31, 77) = 1.645, p = 0.041$) between smoking and the WEMWBS scores in Northern Ireland. Alcohol was more used in Slovenia and smoking was more common in Northern Ireland.

Table 3 shows results of the WEMWBS questionnaire for each question by country. Statistically significant difference in results between the participants in each country are highlighted. In eight items participants in Northern Ireland reported significantly lower scores and in six items there was no significant difference reported.

The results have been interpreted according to the following classification of mental well-being by National Health Service (2011) as very low mental well-being (results from 0 to 32 points), below average mental well-being (results from 32 to 40 points), average mental well-being (results from 40 to 59 points), and above average mental well-being (results from 59 to 70 points).

According to the results (Fig. 1), most of the nursing students in Slovenia (61.1%) and Northern Ireland (70.6%) reported average mental well-being in the previous two weeks. Above average mental well-being has been reported by 28.9% ($n = 26$) of nursing students in Slovenia and 2.8% ($n = 3$) of nursing students in Northern Ireland. On the other hand, very low mental well-being has been reported by 1.1% ($n = 1$) of nursing students in Slovenia and 3.7% ($n = 4$) of nursing students in Northern Ireland.

The Mann-Whitney *U* test was undertaken to establish if the results of the WEMWBS questionnaire differ by age and gender (Table 4). The test showed that there was no statistically significant difference in the WEMWBS scores between male and female students in Slovenia ($U = 534, p = 0.250$) and Northern Ireland ($U = 450, p = 0.201$). There is also no statistically significant difference between age groups in the average WEMWBS scores in Slovenia ($\chi^2(3) = 1.312, p = 0.726$). On the other hand, there is a statistically significant difference between age groups and the WEMWBS scores in Northern Ireland ($\chi^2(3) = 7.903, p = 0.048$).

A further analysis was undertaken to investigate the effect on lower results of the WEMWBS questionnaires in Northern Ireland. Students in Northern Ireland had been asked to provide their field of practice and year of study. The Mann-Whitney *U* test showed that there is no statistically significant difference ($p = 0.667$) in the WEMWBS score among different fields of practice. The Kruskal-Wallis-H test showed that there is no statistically significant difference ($\chi^2(3) = 3.578, p = 0.311$) in the WEMWBS score among different years of study in the undergraduate study programme.

4. Discussion

Mental well-being has been recognised as an important component of health. Poor mental well-being is a risk factor for developing mental health problems or mental health disorders (Taggart and Stewart-Brown, 2015). It is known that many university students have felt stress or some kind of worries during their university education. Studies show that 85% of the UK students and 59% of German students suffer from stress (Rückert, 2015). A recent study undertaken by the National Union of Students showed that the majority of university students (78%) have experienced mental health problems during their study. The most prevalent mental health problem among university students was stress (NUS, 2017). The aim of this research was to find out what

Table 2
Characteristics of students' socio-demographic factors.

		Slovenia			Northern Ireland		
		n	%	P (F)	n	%	P (F)
Physical activity	1-2/week	44	48.9	0.539 (0.959)	39	35.8	0.607 (0.909)
	2-3/week	21	23.3		20	18.3	
	3-4/week	4	4.4		19	17.4	
	More than 5/week	4	4.4		3	2.8	
	Never	17	18.9		28	25.7	
Accommodation	At home with parents	39	43.3	0.604 (0.909)	43	39.4	0.357 (1.102)
	Student accommodation	29	32.2		15	13.8	
	Rented home	19	21.1		24	22	
	Other	3	3.3		27	24.8	
Alcohol consumption	No	11	12.2	0.016 (1.932)	9	8.3	0.309 (1.146)
	Yes, occasionally	73	81.1		84	77.1	
	Yes, regularly	5	5.6		16	14.7	
Smoking	No	70	77.8	0.733 (0.809)	78	71.6	0.041 (1.645)
	Yes, occasionally	5	5.6		12	11	
	Yes, regularly	15	16.7		19	17.4	
Drug use	No	86	95.6	0.678 (0.852)	103	94.5	0.256 (1.201)
	Yes	4	4.4		6	5.5	

n = number of students; % = percent, p = probability-value.

Table 3
Results of the WEMWBS questionnaire for each question by countries.

WEMWBS question	Slovenia		Northern Ireland		p	t
	M	SD	M	SD		
I've been feeling optimistic about the future	3.79	0.93	3.63	0.78	0.199	1.288
I've been feeling useful	3.83	0.77	3.49	0.78	0.002	3.152
I've been feeling relaxed	3.52	0.93	2.50	0.91	< 0.001	7.791
I've been feeling interested in other people	3.82	0.84	3.70	0.82	0.293	1.055
I've had energy to spare	3.64	0.94	2.28	0.90	< 0.001	10.377
I've been dealing with problems well	3.57	0.93	3.40	0.89	0.209	1.161
I've been thinking clearly	3.89	0.79	3.39	0.76	< 0.001	4.594
I've been feeling good about myself	3.68	0.92	3.01	0.93	< 0.001	5.074
I've been feeling close to other people	3.52	0.88	3.27	0.85	0.038	2.091
I've been feeling confident	3.82	0.94	2.95	0.88	< 0.001	6.726
I've been able to make up my own mind about things	4.14	0.82	3.75	0.76	< 0.001	3.507
I've been feeling loved	3.87	0.95	3.77	0.78	0.434	0.784
I've been interested in new things	4.09	0.80	3.35	0.97	< 0.001	5.803
I've been feeling cheerful	3.88	0.78	3.29	0.81	< 0.001	5.165

M = mean; SD = standard deviation; WEMWBS = Warwick-Edinburgh Mental Wellbeing Scale; p = probability-value.

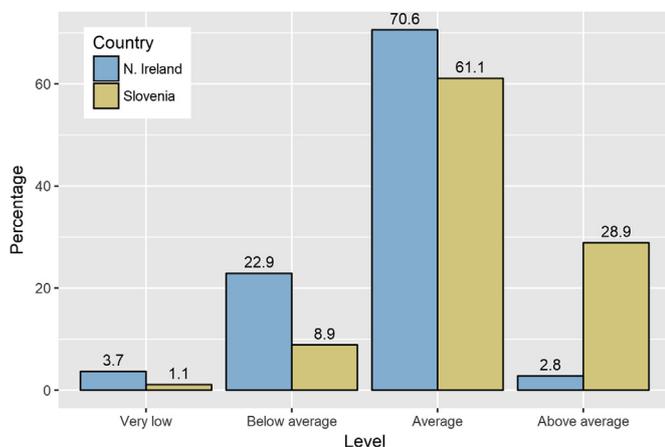


Fig. 1. Percentage of mental well-being scores classified in four groups among nursing students in Slovenia and Northern Ireland.

the level of mental well-being is among nursing students and compare them between two countries.

According to the results of this project, nursing students in Slovenia and Northern Ireland have an average level of mental well-being,

Table 4
WEMWBS scores by gender and age in Slovenia and Northern Ireland.

			Slovenia		Northern Ireland	
			n	M	n	M
Gender	Male	n	18	12		
		M	54.72	49.17		
	Female	SD	10.17	9.08		
		n	72	97		
Age	< 20	M	52.65	45.37		
		SD	8.32	7.52		
	p	0.250	0.201			
	21–30	n	1	16		
		M	55	48		
	31–40	SD	5.97	5.97		
		n	85	62		
	> 41	M	52.85	44.87		
		SD	8.82	8.54		
	p	31–40	n	3	22	
M			58.67	44.86		
> 41		SD	7.10	6.54		
		n	1	9		
p	M	53	50.44			
	SD	5.73	5.73			
p			0.726	0.048		

n = number of students; M = mean; SD = standard deviation; p = probability-value.

according to the mental well-being classification by [National Health Service \(2011\)](#). They classify mental well-being as very low, below average, average and above average. According to this classification, most of the nursing students in Slovenia (61.1%) and Northern Ireland (70.6%) have average level of mental well-being. There was a statistically significant difference between the students in the two countries.

The findings of this international study are consistent with studies undertaken with university students and previous studies into nursing students and support the finding that many nursing students may experience mental health difficulties during their course. A study carried out in the Republic of Ireland has also showed that university students have an average level of mental well-being and that those who have experienced low levels of mental well-being were unlikely to seek support ([Goodwin et al., 2016](#)). There is not much research done in the field of mental well-being relating to nursing students at university students. A study conducted in the Philippines shows that nursing students perceive moderate level of stress and have good level of physio-psycho-social health ([Labrague, 2013](#)). A study conducted in Thailand indicates that there is a moderate prevalence of anxiety and high prevalence of depression among Muslim nursing students ([Ratanasiripong, 2012](#)).

Mean value of the WEMWBS score is significantly higher ($p < 0.001$) among nursing students in Slovenia ($M = 53.07$, $SD = 8.70$), than among nursing students in Northern Ireland ($M = 45.79$, $SD = 7.75$). It was found that mental well-being among the nursing students in Northern Ireland is poorer and also that minimum value in Northern Ireland (20), which is lower than minimum value in Slovenia (30). Although, to our knowledge, there is no existing research on mental well-being among nursing students in Slovenia and Northern Ireland, there was research undertaken that measured students' well-being by measuring life satisfaction, sense of belonging at school and schoolwork-related anxiety. The study was conducted in 2015 among 72 countries, including Slovenia and Northern Ireland. Most of the data on well-being were collected using a questionnaire and some data were collected through self-reporting. According to the results, school students in Northern Ireland scored slightly higher results and have better well-being than students in Slovenia. Average score among all included countries was 7.30. Average score in Northern Ireland was 7.24 and 7.20 in Slovenia ([Organisation for Economic Cooperation and Development - OECD, 2017](#)). Another study conducted in Northern Ireland among university students has showed that almost half of the students felt that student mental health in Northern Ireland had deteriorated in the past five years ([NUS, 2017](#)). A possible reason is lack of financial support for mental health promotion and prevention in Northern Ireland's schools ([Wilson et al., 2015](#)).

A study conducted in the Republic of Ireland among 220 university students using the same instrument shows that mean value was 45.5 ($SD = 9.5$), which is similar to our results in Northern Ireland. They also observed difference in scores between those who had accessed university support systems and those who had not. Those who accessed university support systems ($n = 9$) had lower average mean value ($M = 38.22$) compared to those who had not accessed university support systems ([Goodwin et al., 2016](#)).

Results show that only 26 (28.9%) nursing students in Slovenia and 3 (2.8%) nursing students in Northern Ireland have felt above average mental well-being in the last two weeks. Most of the students in Slovenia (61.1%) and Northern Ireland (70.6%) have felt average mental well-being. This is important in nursing students to provide resilience needed for their future role in practice. The results are similar as those in the study conducted in the Republic of Ireland. Their results show that only 4.7% of university students have had above average mental well-being. Most of them (66.3%) have felt average mental well-being in the last two weeks ([Goodwin et al., 2016](#)).

Another study conducted in the Republic of Ireland among nursing students, has investigated which factors had had an influence on mental well-being. It has been reported that the WEMWBS scores were higher

in men than in women and that lifestyle and habits did not have statistically significant impact on mental well-being ([Davoren et al., 2013](#)). Our results show that there is no statistically significant difference between males and females in the WEMWBS scores in both countries (Slovenia: $p = 0.250$, Northern Ireland: $p = 0.201$) and among age groups in the WEMWBS scores in Slovenia ($p = 0.726$). However, there is statistically significant difference ($p = 0.048$) between age groups in the WEMWBS scores in Northern Ireland. Students older than 41 years of age scored the highest results. The study also showed that there is no statistically significant correlation between most of the lifestyle factors and the WEMWBS scores in both countries. Statistically significant differences were only detected between alcohol consumption and the WEMWBS scores in Slovenia and smoking and the WEMWBS scores in Northern Ireland. [Hughes et al. \(2018\)](#) emphasize that academics are the key components in detecting students who are at higher risk of developing mental health problems, because they build interpersonal relations with students and are directly in interaction with them. To change the system and help the students there must be changes made by the higher education system and management.

4.1. Limitations

First, a convenience sample was used and the generalization of the findings to the entire population of nursing students is limited. There is also a lack of prior research studies on this topic. Only few studies have been done among nursing students that investigated mental well-being.

Furthermore, only 28 students of mental health nursing have fulfilled the questionnaire. That is a small sample size of students and cannot be compared to the sample of adult nursing students, therefore their results in Northern Ireland were considered as one group as both sets of students were registered on a university course of the same length and shared much of the course content. As there is no undergraduate course in mental health nursing in Slovenia, it is not possible to compare results to a corresponding group of students.

5. Conclusion

The findings of this study highlight the need for universities to take specific actions to promote mental health and support for people experiencing mental health difficulties (one such initiative at Ulster University is called 'Mind your Mood'). These interventions should ensure there are equally accessible to nursing students who may spend up to 50% of their course off campus on practice based placements. There are also significant differences in compared countries regarding counselling provided to students. For example, University of Ulster provides a 24/7 confidential counselling service that is free to all students. On the other hand, there is no similar service provided for Slovenian students.

The development of modern technology has allowed us to communicate widely and to access evidence based resources. The Internet and social media are innovative tools that enable people to communicate and deliver useful information and advices, throughout commercials, blogs and articles. Studies show that there are effective online mental health prevention interventions for young people. Effective activities are also lectures, seminars, campaigns and initiatives undertaken by faculty that raise mental health awareness, diminish risk behaviours and prevent occurrence of mental health problems. Furthermore, there is a need for curriculum changes which would be more students oriented and sensitive to cultural changes.

Nursing students in Slovenia had higher results than nursing students from Northern Ireland in items that related to feeling useful, relaxed, having energy to spare, thinking clearly, feeling good about themselves, feeling confident, being able to make up their own mind, being interested in new things, and feeling cheerful. Although, results of this study show that nursing students are experiencing average level of mental well-being, many are reporting lower mental well-being and

may find access to supportive services to talk about their mental well-being helpful when at university. There is also a need to further investigate factors that influence the mental well-being of student nurses, the impact they feel this has on their practice and success of university mental health promotion initiatives at improving the mental health of nursing students.

Conflicts of interest

None.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Acknowledgments

Our sincere appreciation to all participants who were involved in this research. We would also like to thank Professor Siobhan O'Neill for her helpful suggestions.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.nepr.2019.07.012>.

References

- Aldiabat, K.M., Matani, N.A., Le Navenec, C.L., 2014. Mental health among undergraduate university students: a background paper for administrators, educators and healthcare providers. *Univ. J. Publ. Health* 2 (8), 209–214. <https://doi.org/10.13189/ujph.2014.020801>.
- Auerbach, R.P., et al., 2018. The WHO world mental health surveys international college student project: prevalence and distribution of mental disorders. *J. Abnorm. Psychol.* (in press).
- Barry, M.M., et al., 2013. A systematic review of the effectiveness of mental health promotion interventions for young people in low and middle income countries. *BMC Public Health* 13 (835), 1–19. <https://doi.org/10.1186/1471-2458-13-835>.
- Braunholtz, S., et al., 2007. Well? What do you think? (2006). In: *The Third National Scottish Survey of Public Attitudes to Mental Health, Mental Wellbeing and Mental Health Problems*. Scottish Government Social Research, Edinburgh.
- Clarke, A.M., Kuosmanen, T., Barry, M.M., 2015. A systematic review of online youth mental health promotion and prevention interventions. *J. Youth Adolesc.* 44 (1), 90–113. <https://doi.org/10.1007/s10964-014-0165-0>.
- Crouch, R., Scarffe, P., Davies, S., 2008. Guidelines for mental health promotion in higher education. [pdf] Available at: http://services.unimelb.edu.au/_data/assets/pdf_file/0003/437421/Guidelines_for_Mental_Health_Promotion_in_Higher_Education_UK.pdf [Accessed 04. 09. 2019].
- Davis, A., 2010. Guidance on Promoting Mental Health and Wellbeing. The University of Birmingham, Birmingham.
- Davoren, M., et al., 2013. Positive mental health and well-being among a third level Student Population. *PLoS One* 8 (8), 1–8. <https://doi.org/10.1371/journal.pone.0074921>.
- Department of Health, 2011. Social Services and Public Safety. *Delivering excellence: supporting recovery. A professional framework for mental health nursing in Northern Ireland (2011 – 2016)*. [pdf] Available at: http://www.nipec.hscni.net/download/projects/current_work/promote_profdevelopment/mh-nursingframework-recoveryorientatedpractice/publications/mental_health_nursing_framework_-delivering_excellence_d6.pdf, Accessed date: 9 March 2017.
- Department of Health, Social Services and Public Safety, 2009. Delivering the Bamford Vision: the Response of Northern Ireland Executive to the Bamford Review of Mental Health and Learning Disability: Action Plan 2009–2011. [pdf] Available at: <http://www.niassembly.gov.uk/globalassets/documents/employment-and-learning/inquiries/post-sen/government-academic-papers/delivering-the-bamford-vision-action-plan-2009-2011.pdf>, Accessed date: 9 March 2017.
- Dunn, K., 2016. Understanding mental health problems. [pdf]. Mind, London Available at: <https://www.mind.org.uk/media/3244655/understanding-mental-health-problems-2016.pdf>, Accessed date: 3 April 2017.
- Gallagher, R.P., 2008. *National survey of counseling center directors*. The international association of counseling services. [pdf] Available at: http://www.collegecounseling.org/pdf/2008_survey.pdf, Accessed date: 4 August 2016.
- Goodwin, J., et al., 2016. Help-seeking behaviors and mental well-being of first year undergraduate university students. *Psychiatry Res.* 246, 129–135. <https://doi.org/10.1016/j.psychres.2016.09.015>.
- Hughes, G., et al., 2018. *Student Mental Health: the Role and Experiences of Academics*. Student Minds, London.
- Labrague, L.J., 2013. Stress, stressors, and stress responses of student nurses in a government nursing school. *Health Sci. J.* 7 (4), 424–435.
- MacKean, G., 2011. Mental health and well – being in postsecondary education settings: a literature and environmental scan to support planning and action in Canada. [pdf] Canadian association of college and university student services. Available at: http://www.cacuss.ca/_Library/documents/Post_Sec_Final_Report_June6.pdf, Accessed date: 4 August 2016.
- McLafferty, M., et al., 2017. Mental health, behavioural problems and treatment seeking among students commencing university in Northern Ireland. *PLoS One* 12 (12), 1–14.
- National Health Service, 2011. Wellbeing self-assessment. [Online] Available at: <http://www.nhs.uk/Tools/Documents/Wellbeing%20self-assessment.htm>, Accessed date: 1 June 2017.
- National Union of Students, 2017. *NUS-USI student well being research report 2017*. [pdf] National Union of Students. Available at: https://nusdigital.s3-eu-west-1.amazonaws.com/document/documents/33436/59301ace47d6320274509b83e1bea53e/NUSUSI_Student_Wellbeing_Research_Report.pdf, Accessed date: 3 May 2017.
- Organisation for Economic Co-operation and Development, 2017. *PISA 2015 Results (Volume III): Students' Well-Being*. OECD Publishing, Paris.
- Perry, L., et al., 2015. The mental health of nurses in acute teaching hospital settings: a cross-sectional survey. *BMC Nurs.* 14 (15), 1–8.
- Ratanasiripong, P., 2012. Mental Health of Muslim Nursing Students in Thailand. *International Scholarly Research Network*, pp. 1–7. <https://doi.org/10.5402/2012/463471>. 2012.
- Rückert, H.W., 2015. Students' mental health and psychological counselling in Europe. *Ment. Health Prev.* 3 (1–2), 34–40.
- Student Services Committee, 2008. A mental health strategy for the students of NUI Galway. [pdf] Galway: National University of Ireland. Available at: http://www.nuigalway.ie/student_services/documents/mental_health_strategy.pdf, Accessed date: 10 August 2016.
- Taggart, F., Stewart-Brown, S., 2015. A review of questionnaires designed to measure mental wellbeing. [pdf]. The Royal Society for Public Health, London Available at: https://www.rspsh.org.uk/filemanager/root/site_assets/membership/members_area/a_review_of_questionnaires_designed_to_measure_mental_wellbeing.pdf, Accessed date: 20 August 2016.
- Taggart, F., Stewart-Brown, S., Parkinson, J., 2015. *Warwick-Edinburgh Mental Well-Being Scale (WEMWBS): User Guide – Version 2*. NHS Health Scotland, Edinburgh.
- White, C., 2015. Incarcerating youth with mental health problems: a Focus on the intersection of race, ethnicity, and mental illness. *Youth Violence Juv. Justice* 14 (4), 426–447. <https://doi.org/10.1177/1541204015609965>.
- Wilson, M., et al., 2015. *The Scottish Health Survey Topic Report: Mental Health and Wellbeing*. The Scottish Government, Edinburgh.
- World Health Organization, 2008. Social cohesion for mental well-being among adolescents. [pdf] Copenhagen: World Health Organization. Available at: http://www.euro.who.int/_data/assets/pdf_file/0005/84623/E91921.pdf, Accessed date: 10 September 2016.
- World Health Organization, 2014. *Social Determinants of Mental Health*. [pdf] Geneva: World Health Organization. Available at: http://www.lisboninstitutegmh.org/assets/docs/publications/9789241506809_eng.pdf, Accessed date: 10 September 2016.