Social media fatigue among nursing students. A nationwide cross-sectional study

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ABSTRACT

Introduction: Social media fatigue is a concept used to refer to exhaustion due to the overuse of social media. Websites and social media profiles for nursing professionals are an important aspect of promoting the nursing profession and modern nursing practice.

Aim of the study: To assess the level of social media fatigue among undergraduate nursing students in Poland.

Material and methods: All undergraduate (3-year bachelor's program) Polish nursing students were eligible for the study. Out of 679 study participants, first-year students (n = 397, 58.73%) and women (n = 589, 87.13%) were the largest groups. The Social Media Fatigue Scale (SMFS) was used as a research tool. A p-value of < 0.05 was considered statistically significant in all analyses.

Results: The analysis showed that the surveyed nursing students showed an average level of social media fatigue (M = 51.81, SD = 15.59). The majority of the study participants felt overwhelmed by the amount of information available on social media (n = 137, 20.3%). The respondents admitted to feelings of anger when they realized that using social media took too much of their time (n = 163, 24.1%).

Conclusions: This original study showed that social media fatigue is a noticeable phenomenon among nursing students. In view of the risk of an increase in the level of perceived fatigue, it is advisable to provide adequate health education to improve the informational awareness of nursing students.

Key words: social media fatigue, Social Media Fatigue Scale, nursing students.

INTRODUCTION

Today, more and more aspects of life are being dominated by digital technologies. Over the past few years, there has been a significant development of social media, which has redefined the way we communicate by enabling free contact anytime and anywhere. Social media have become an increasingly popular source of information, displacing the traditional media. However, it should be noted that much information obtained through social media, and thus spread on a large scale, is untrue. The spread of fake news results in the disinformation of the public opinion, which leads to growing feelings of anxiety, apprehensiveness, and being overwhelmed. All this contributes to the increase of social media fatigue [1].

Social media fatigue is a concept used to refer to exhaustion due to the overuse of social media. This phenomenon is mainly triggered by the plethora of information provided to users as soon as they go online [2]. The fatigue arises as a result of the information overflow, which is closely related to the limited ability of the human brain to process information [3].

Ravindran *et al.* attempted to explain the phenomenon of social media fatigue on a larger scale, with reference to the mental health problems of the population as a consequence of social media abuse in the digital age. The definition of social media fatigue

suggested in their study is as follows: "a subjective, multidimensional experience involving feelings such as fatigue, irritability, anger, disappointment, alertness, loss of interest or reduced need/motivation associated with various aspects of social network interaction and use" [4]. Bright, on the other hand, defines social media fatigue as the tendency for users to withdraw from social networks [3]. The factors that induce social media fatigue the most are fear of loss of privacy [5], information overload [6], and fear of missing out [1, 7].

Running social media websites and profiles dedicated to the nursing profession is an important aspect of promoting the nursing profession and practical aspects associated with nursing practice. This is aimed at increasing public awareness of the professional responsibilities of a nurse. The biggest drawbacks resulting from being active in social media are as follows: being exposed to hate speech online, unfounded/false accusations, and being accused of a lack of professional solidarity. All of these may increase the level of perceived social media fatigue. At work, nurses are exposed to stress every day, and additionally, conflicting feedback from the audience following their social network profiles can greatly exacerbate this feeling [8].

AIM OF THE STUDY

The aim of this original study was to analyse the level of social media fatigue in a group of undergraduate nursing students in Poland.

MATERIAL AND METHODS

Design and setting

From March to April 2021, all 12 Polish universities offering undergraduate nursing programs were invited to participate in our cross-sectional, national online survey.

Participants and sample size

As many as 11 universities decided to participate in the study; thus, with all students enrolled in undergraduate nursing study programs being eligible for the study, the total possible number of respondents was 5122. Each university appointed a coordinator, who was knowledgeable about the study protocol. We received complete questionnaires from 679 students. With this sample size and the total number of undergraduate nursing students (N = 5122), the error margin was 3.50% (95% confidence level and a proportion of 0.50).

Instrument

The Social Media Fatigue Scale (SMFS) published in 2021 by Zhang *et al.* (Collaborative Innovation Centre of Assessment for Basic Education Quality, Beijing Normal University, Beijing, China) consists of 15 statements [2]. We used the Polish adaptation of the scale developed by Świątek *et al.* [9].

This 3-factor model uses a 7-point Likert scale (1 – *strongly disagree*, 2 – *disagree*, 3 – *rather disagree*, 4 – *have no opinion*, 5 – *tend to agree*, 6 – *agree*, 7 – *strongly agree*) to assess the level of social media fatigue in 3 subscales: cognitive aspects – 5 statements, behavioural aspects – 5 statements, and emotional aspects – 5 statements.

Data collection

The questionnaire was distributed online via the LimeSurvey web platform due to a limited chance for direct contact with the respondents resulting from the COVID-19 pandemic restrictions imposed by the Minister of Health. The investigators at the participating universities supervised the process whereas the online approach enabled access to respondents and ensured everyone's safety [10, 11].

Ethical consideration

The study protocol was approved by the University's Ethics Committee (IRB approval no. KB/76/2021). Before entering the study, participants were informed about the confidentiality of the data collected and processed. To ensure data anonymity no personal or sensitive data were collected. We did not track computer IP addresses either.

Data analysis

Quantitative and categorical variables were analysed with descriptive statistics methods. The central tendency (mean – M) and dispersion (standard deviation – SD) were determined for quantitative variables, while the number (n) and frequency (%) were determined for categorical variables.

Null hypothesis testing was used for statistical inference. The Mann-Whitney U test with continuity correction was used to assess differences between females and males, and the level of social media fatigue. All calculations were performed with STATISTICATM 13.3 software (TIBCO Software, Palo Alto, CA, USA). For all analyses, a p-value of < 0.05 was considered statistically significant.

RESULTS

Sample characteristics

A total of 679 Polish undergraduate nursing students participated in the study. The largest groups within the study participants consisted of first-year students (n = 397, 58.73%) and women (n = 589, 87.13%), which is similar to the average gender dis-

tribution in nursing faculties in Poland. The mean age of the study participants was 21.02 years (SD = 4.04). The selected characteristics of the study group are presented in Table 1.

Analysis of social media fatigue in a group of undergraduate nursing students

The theoretical range of the Social Media Fatigue Scale takes values from 15 to 105 [2]. The analysis showed that the surveyed nursing students had a medium level of social media fatigue (M = 51.81, SD = 15.59). The detailed results that the respondents obtained in each subscale are presented in Table 2.

The majority of the study participants felt overwhelmed by the amount of information available on social media (*n* = 137, 20.3%). The surveyed group mostly did not consider receiving invites from friends on social media (*n* = 146, 21.6%) or being tagged in other users' posts (*n* = 217, 32.1%) as factors arousing negative feelings including anxiety or nervousness. On the other hand, the respondents admitted that they felt angry when they realized that using social media took too much of their time (*n* = 163, 24.1%).

Social Media Fatigue Scale and gender

The results showed no statistically significant relationship between gender and the level of social media fatigue. The occurrence of the above relationship was observed in the entire questionnaire and in all its subscales. A detailed analysis of the differences in the level of social media fatigue by gender is presented in Table 3.

DISCUSSION

Social media fatigue is a new phenomenon that has not yet been widely described in the Polish literature.

The results of our study demonstrated that Polish nursing students feel overwhelmed by the amount of information they find on social media, but their average level of tiredness with the social media platforms

Table 1. Characteristics of study group (*N* = 679)

Parameter	*n* (%)
Nursing department	
Medical University of Białystok	179 (26.48)
Jagiellonian University Medical College	132 (19.53)
Pomeranian Medical University	119 (17.60)
Medical University of Lodz	61 (9.02)
Poznan University of Medical Sciences	59 (8.73)
Medical University of Warsaw	50 (7.40)
Medical University of Gdansk	21 (3.11)
Medical University of Lublin	20 (2.96)
Jan Kochanowski University Medical College	17 (2.51)
Medical University of Silesia	14 (2.07)
Ludwik Rydygier *Collegium Medicum* in Bydgoszcz	4 (0.59)
Year of study	
1	397 (58.73)
2	176 (26.04)
3	103 (16.24)
Gender	
Female	589 (87.13)
Male	66 (9.76)
Refusal to answer	21 (3.11)
Age (years)	
M ±SD	21.02 ±4.04
Range	18.0-60.00

Table 2. Level of social media fatigue among nursing students (score for the entire SMF scale and for each subscale)

SMFS	Mean	SD	Minimum	Maximum	CV (%)
SMFS_TOTAL	51.81	15.59	15.00	105.00	30.10
SMFS_CE	20.29	6.32	5.00	35.00	31.12
SMFS_BE	16.35	6.43	5.00	35.00	39.34
SMFS_EE	15.17	6.06	5.00	35.00	39.95

SMFS – Social Media Fatigue Scale, CE – Cognitive experiences subscale, BE – Behavioural experiences subscale, EE – Emotional experiences subscale

Table 3. Analysis of differences in the level of social media fatigue by gender

	Mann-Whitney *U* test (with correction for continuity)								
	Sum ranks		*U*	*Z*	*p*	*Z* Correction	*p*	*N* valid.	
	Female	Male						Female	Male
SUMA_SMFS_ Cognitive aspect	191537.0	23303.00	17782.00	–1.13495	0.256398	–1.13671	0.255662	589	66
SUMA_SMFS_ Behavioural aspect	192426.5	22413.50	18671.50	–0.52477	0.599742	–0.52623	0.598726	589	66
SUMA_SMFS_ Emotional aspect	191794.5	23045.50	18039.50	–0.95831	0.337908	–0.96006	0.337024	589	66
SUM_SMFS	192841.5	21998.50	19086.50	–0.24009	0.810259	–0.24018	0.810191	589	66

in question is relatively low. A similar relationship was reported in a study by Świątek, in which respondents demonstrated low to moderate levels of fatigue [9]. It should be noted that the surveyed students belong to Generation Z (those born after 1995), the first generation to grow up in a digital technology-led world [12]. At the same time, studies have shown that more than half of the members of this generation have reduced the use of online platforms, and one-third have completely abandoned their use [13]. Nursing students in our own study and respondents in other studies point to difficulties in coping with the amount of information provided by, and the number of social contacts obtained through, social media. These difficulties may be a direct cause of increased social media fatigue [14].

Malik *et al.* conducted a study to compare the correlation between the triggers of social media fatigue and the decline in academic performance in students. Their results indicate that social media fatigue translates into a decline in academic performance. Moreover, the study determined overuse of social media as the factor most responsible for social media fatigue. The feeling of fatigue is most pronounced in those who spend too much time using social media [15]. This is consistent with the results obtained in our own study, as the vast majority of respondents admitted to feelings of anger over spending too much time using their social media accounts. Moreover, it is worth noting that research indicates that students with lower academic performance spend more time on social media compared to those with better grades. It has been emphasized that spending too much time on social media can quickly lead to the onset of fatigue associated with their use [3, 16, 17]. On the other hand, an inverse relationship has also been noted. Students who experience high levels of stress and fatigue resulting from their academic responsibilities use social media more often as a strategy for coping with stress [18].

A study by Bright *et al.* on the relationship between the degree of awareness in identifying the usefulness of social media and experiencing fatigue has demonstrated that users with the ability to determine the usefulness of social media are at the same risk of experiencing fatigue as those with a low degree of awareness. Moreover, users with a high degree of social media self-confidence are less likely to develop fatigue compared to those with a low degree of social media self-confidence [3].

The outbreak of the COVID-19 pandemic contributed significantly to the rapid development of the importance of social media as a channel of communication on health and health-related topics. Social media were used to inform about the emergence of new variants of the coronavirus, its spread, symptoms, and vaccinations against or methods of reducing the risk of infection [19, 20]. However, with the influx of a large amount of information, the phenomenon of misinformation has become increasingly apparent. The problem became particularly noticeable from the perspective of healthcare workers, who often struggled with false depictions of their work posted in social media. In a study by Rossi, most nurses regarded social media as a place where the created image of their profession was divergent with the reality in which they worked. The study participants also noted that the mass media focused on portraying them as stereotypical heroes of the COVID-19 pandemic, without taking into account their skills and knowledge. As a result, nurses were increasingly less likely to post on social media themselves, and less likely to use social media, due to experienced tiredness and the spread of fake news about their professional work [21]. Numerous studies have also indicated that the outbreak of the COVID-19 pandemic contributed significantly to increased social media overload among students, which could eventually lead to a complete abandonment of social media use [22, 23].

Social media are an integral part of everyday life of modern students, including nursing students. Incompetent use of social media may quickly contribute to the development of fatigue, digital overload, or burnout [24]. Therefore, it is extremely important to provide adequate education on the healthy use of technology and to enhance students' sense of self-efficacy and confidence in social media.

LIMITATIONS

Given that the study group consisted of students, there is a limitation of our study concerning the research tool used because it does not measure the relationship between perceived social media fatigue and the degree of academic performance in the course of the undergraduate nursing program. Further research with the use of a more comprehensive research tool is necessary to obtain in-depth study results.

CONCLUSIONS

Our study showed that social media fatigue is a noticeable phenomenon among nursing students. In view of the risk of an increase in the level of perceived fatigue, it is advisable to provide adequate health education aimed at increasing the level of informational awareness of nursing students.

Disclosure

The authors declare no conflict of interest.

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