

Research Article

Social Media in Nursing Education: The View of the Students

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Social media usage in nursing education is limited and the active use of various new developed learning environments are left behind. The purpose of this research was to survey second-year nursing students' social media usage in studies and in their free time. The research was also interested to know students' interest and skill level in using different social media applications. The research presented a descriptive survey research design. The data was collected from second-year nursing students ($n = 150$) through electronic and paper questionnaire in 2012. The questionnaire contained 20 structured questions and was analyzed statistically. The response rate was 61.4%. Students used social media applications more in their free time than in their studies. The most used applications in studies were an e-learning environment. Web video and online community services were the most used applications in their free time. The least used application was online games, in studies and in free time. Students were evaluated as having an excellent skill level in using social media, and they felt that the social media application was interesting. The relationship between age and application skill level was statistically significant. Younger students had better skills in using social media applications than older students.

1. Introduction

Social media in nursing education has been seen to have great potential [1, 2]. Usage of social media, defined as information networks and information technology that utilizes a form of communication dealing with interactive and user-generated content and creating and maintaining relationships between people, is increasingly expanding [1, 3]. Eighty percent of Americans and Canadians use the Internet, and between 70 and 80% of these users seek health information through this medium. In Europe in 2012, almost half of all adults (48%) used social networking sites such as Facebook and Twitter [1, 4]. Social media usage in education has increased 21.3% from 2012 to 2013 [5].

Individuals use blogs, Twitter, and other social networking sites to communicate both personally and professionally with others [5]. Different kinds of social media tools are used to share documents, work in groups, and learn from videos, which are good applications to use in schools [1, 6]. According to previous research, 53% of nursing schools

reported using social media applications, and Twitter has been used in critical care simulations [7]. The most well-known social media applications in education are Facebook, Twitter, different kinds of blogs, and Second Life [1, 5, 6, 8, 9].

Social media is considered as developing communication skills among students and also between students and faculty [1, 10, 11]. Social media enables group learning [1, 5, 10, 11] and develops social skills relevant to nursing. Social skills are developed by social media, which enable students to communicate together not depending on the time and place [12]. Students highlighted the strengths of social media, such as flexible learning and more self-determination. According to previous studies, social media has been seen as cost- and time-effective [13–16].

Despite the advantages of social media, it has also been criticized. Social media is seen as the only place to present PowerPoint slides, and old teaching methods were seen to be more motivational than social media [17]. In addition, studies have highlighted an increase in student's responsibility for learning when teaching is transferred to the social network

for execution. Students even hoped that teaching should be organized so that difficult courses were organized in classrooms and easier courses through social media [12, 18]. Other difficulties have also been seen, such as difficulties in using computers when using social media in nursing education. But it has also been shown that, when developing teaching methods and when students get familiar with social media, such problems have been solved [10]. Responsibility, independent work, and decision-making skills are the skills that are emphasized in nursing and for which social media applications provide opportunities [12, 19, 20].

The use of social media applications allows students to integrate resources and enable students' different strengths. Social media creates new types of teaching method opportunities but will also provide new opportunities for the application of the old methods. Social media's one of the most significant advantages is that the required information is quickly accessible and peer support and learning through social media is possible. Social media applications give extensive opportunities to be involved in both national and international operations, thus developing nursing [5, 12, 13, 19].

When social media usage numbers are increasing, more new learning environments are also being built [1, 7]. Nowadays, students have smartphones and tablet computers that could be used to support learning. These students are considered to be digital natives, and new technologies are a normal part of their lives. Even though there are lots of different learning environments being built, the active use and development of those are left behind. More efficient use should be taken seriously as educational technology opportunities to meet the needs of development in teaching. The usability of these methods should also be evaluated [21]. The usage could be developing in a student-centred fashion where those digital native student views of social media usage are justified to be researched. Previous studies show that social media is becoming a part of education and how we teach and learn in the healthcare field [1, 5, 7].

Despite a rather large amount of research published in the field of social media, it seems to be a lack of the nursing students' perspective on social media usage in their studies and in their free time. It is important to understand nursing students' ability to engage with and interest in social media, in order to assess the potential for its use in teaching methods.

2. Materials and Methods

2.1. Purpose. The purpose of this research was to survey second-year nursing students' social media application usage in their studies and in their free time. The ultimate goal was to gather knowledge to develop the use of social media in nursing education in Finland. Six research questions were answered.

- (1) What social media applications do students use in their studies?
- (2) What social media applications do students use in their free time?

- (3) How often do they use social media applications in their studies?
- (4) How often do they use social media applications in their free time?
- (5) What are the student's interests in social media?
- (6) What are the student's social media application skill levels?

2.2. Sample. Descriptive survey research design was used with a purposively selected sample of all second-year nursing students ($N = 244$) at a particular polytechnic faculty of health care and nursing in Finland. All second-year nursing students were selected because, when viewing the curriculum, second-year students had worked with social media more than first- and third-year students. The first-year students did not have any experience, and the third-year students only had a lot of clinical practice in hospital sectors and it was difficult to reach those students.

2.3. Data Collection. The data were collected in autumn 2012 using both electronic and paper/pencil data collection methods. The questionnaire was sent electronically to 59 students, and the paper questionnaire was delivered to 185 students. Both the electronic and paper questionnaires were used because some of the students were doing their practice period, which made it impossible to reach them with a paper questionnaire.

Data were collected using a questionnaire based on the Laitinen and Rissanen [22] research, "Do you know how to wiki/Report on the use of social media in the university sector?" which measured the respondents' social media usage experience. The questionnaire was modified from the original questionnaire to be usable in nursing education. The permission for utilizing and the form was obtained from the developers.

The modified questionnaire consisted of 20 items, divided into three parts. The first part consisted of student background information: gender, education, and age.

The second part asked about students' use of social media applications in studies and in their free time. Eight various social media applications were listed: blogs, image distribution, e-learning environment, online community services, web video, network communication tools, communal writing, and online games. Students estimated their social media application usage using a 4-point scale (monthly, weekly, daily, or no use), both in studies and in free time separately.

The third part consisted of eight items measuring students' interest towards social media applications (five items) and student's thoughts about application development (two items). In the third part, students also evaluated their application skill level (one item) on a structured school scale (4 to 10).

2.4. Data Analysis. Data were analysed with statistical methods using SPSS 19 statistics software. The target range of indicators (age, gender, and previous education) was analyzed

using descriptive statistics (frequencies, percentages, means, and SD). Age was categorized into five categories.

Students' use of social media applications in their free time and in their studies was viewed using the frequency and percentage of the variables. Students' use of social media applications and experience were examined for categorical variables. The results were analyzed using the percentage distribution.

Social media applications' interest, importance, and application skill level was viewed with Finnish school grades (scale 4–10; 4 = lowest skill level; 10 = highest skill level). According to Laitinen and Rissanen's [22] research, the variables were divided into three categories for easier analysis: low interest, low importance, and moderate skill level (grades 4–6); interesting, importance, and good skill level (grades 7–8); very interested, very important, and commendable skill levels (grades 9–10). The results were analyzed using percentage distributions and background variables associated with the social media application skill level with a correlation coefficient.

2.5. Ethical Considerations. Good scientific practice was followed throughout the research [23]. Approval to conduct the research was obtained from the particular university of applied sciences. An ethics committee opinion was not needed because the responses to a questionnaire were voluntary, the respondents were adults, and there was no risk to cause harm to the respondents through the research.

Answering the questionnaire was voluntary. Respondents agreed to participate after receiving written and oral information about the research. Answering the questionnaire was assumed to indicate informed consent to participate.

After responding to the paper questionnaire, the identification of individual students' responses was not possible because all answer sheets were submitted by the respondents in a sealed envelope. Responding to electronic forms was returned anonymously to the researcher. All information was processed confidentially.

3. Results

3.1. Participants. A total of 150 second-year nursing students responded to the survey. The total response rate was 61.4%.

The majority (92%) of the students were women, their mean age was 24 years (SD 5 years, median 22, and range 19–52), and they were educated mainly (82%) in high school (Table 1).

3.2. Social Media Application Usage in Studies and in Free Time. Nursing students used social media applications differently in their studies. Looking at the use of social media in studies of each 4-point scale together, the most used application in studies was in the e-learning environment. 95% of the students were using the e-learning environment in their studies. Of these students, almost half (45%) were using the e-learning environment in their studies monthly. And almost one-fifth of the students reported that they use the e-learning environment in their studies daily. The second-used application in studies was communal writing. The daily

TABLE 1: Background variables.

Background variables		<i>n</i>	%
Gender	Male	11	8
	Female	139	92
Age	19–25	122	81
	26–32	21	14
	33–39	1	1
	40–46	5	3
	47–53	1	1
Degree	High school	123	82
	Vocational college	14	9
	No reply	13	9

and weekly usages were almost the same as in the e-learning environment. Only the monthly usage was lower (31%). Online community services were the third most used in studies. 59% of the students responded that they use different online community services in their studies. Daily usage (26%) was two times greater than the e-learning environment and almost three times greater than communal writing. In addition, weekly (25%) online community services were used more than the e-learning environment.

The least used applications in studies were online games. The majority (98%) of students responded that they are not using the applications at all in their studies (Table 2).

In their free time, nursing students used different social media tools. Online community services and web videos were the most-used applications in free time. 95% of the students responded that they use online community services, and 96% of the students responded that they use web videos in their free time. The majority (84%) of the students were using different online community services daily in free time, while web videos were less than half of that (38%). Web videos were more used on a weekly basis (42%). The third most-used application in free time was communal writing. 77% of the students responded that they are using communal writing in their free time. Communal writing was most used on a weekly basis (35%).

In students' free time, online games were used the least. 95% of the students responded that they do not use the application at all (Table 2).

When comparing social media application use in studies and in students' free time, some differences were found. Blogs were used more in students' free time than in studies. For example, in the students' daily free time, blogs were twenty times more used in studies. Image distribution was used more in students' free time than in studies (Table 2).

The e-learning environment was used more in studies than in students' free time. Over half (73%) reported that they do not use the e-learning environment in their free time, while only 5% reported that they do not use the e-learning environment in their studies. Even though online community services were much used both in studies and in free time, the daily usage in students' free time was one-third more used than in studies (Table 2).

TABLE 2: Social media applications in studies and in free time.

Application		In studies (%)	In free time (%)
Blogs	Monthly	7	22
	Weekly	0	14
	Daily	1	20
	Do not use	92	43
Image distribution	Monthly	2	17
	Weekly	1	8
	Daily	1	6
	Do not use	96	69
E-learning environment	Monthly	45	9
	Weekly	37	18
	Daily	13	1
	Do not use	5	73
Online community services	Monthly	8	4
	Weekly	25	7
	Daily	26	84
	Do not use	42	5
Web video	Monthly	40	16
	Weekly	9	42
	Daily	1	38
	Do not use	50	3
Network communication tool	Monthly	8	25
	Weekly	3	15
	Daily	1	7
	Do not use	89	53
Communal writing	Monthly	31	24
	Weekly	39	35
	Daily	10	18
	Do not use	20	23
Online games	Monthly	1	1
	Weekly	1	1
	Daily	0	3
	Do not use	98	95

Web videos and different network communication tools were used more in students' free time than in studies. Even though the network communication tools were used more in students' free time, over half (53%) reported that they do not use these applications at all (Table 2).

3.3. Student's Interest in Social Media and Application Skill Level. Almost half of the students (49%) had participated in a course that had utilized social media applications. The majority (82%) of students felt that the learning experiences had been positive. Even though 51% of students stated that they were not involved in courses that used social media applications, 69% of them reported that they would benefit from social media application use.

Students were also asked about the use of social media opportunities. In students' opinions on the execution of

TABLE 3: Summary of social media applications' interest, importance, and skill level.

Skill level	Interest	Importance	Skill level
School scale	% (n)	% (n)	% (n)
4-6	17 (12)	34 (49)	11 (16)
7-8	76 (55)	57 (83)	48 (69)
9-10	7 (5)	9 (13)	41 (60)
No reply	4 (6)	5 (3)	5 (3)

the nursing training online game, over half (57%) stated that they did not want to perform nursing training with an online game, but over one-third (35%) of the students would consider carrying out training through a network. The majority (72%) of students felt that they would benefit from the part of the course that utilized the applications, and 18% of the students felt that they would not benefit from using the applications at all.

Social media applications were considered relatively interesting. Almost one-fifth (17%) of the students showed only a slight interest for social media applications. The majority (76%) of the students considered applications interesting. One-third (34%) of the students felt the importance of social media applications was minimal, but more than half (57%) experienced recovery applications as significant. Almost half the students (41%) estimated their social media application skill level as excellent (9-10) (Table 3).

The correlation coefficient of view and the application skill level had as a statistically significant link between social media applications, as well as the interest in the significance level ($P < 0.01$). The results showed that the students themselves believed they have a good skill level overall in regard to social media application usage but that no specific measure can be independently verified. The level of expertise varies with age. The level of expertise seems to also affect how important students see the use of social media in their studies.

Looking at the relationship between age and application skill level, the age and skill level of the application was statistically significant at the significance level ($P = 0.002$). In general, the younger students (age < 26 years) have better skills to use social media applications than the older students. Other background variables were not seen as having a statistically significant association.

4. Discussion

The results showed that although social media applications were seen in studies as interesting, the use of applications was rare comparing to the use of free time. For example, the use of blogs was substantially higher in free time than in studies. The e-learning environment was the exception to this. It was the most-used application in studies and it was used more often in studies than in free time. Although the e-learning environment (in this case Moodle) is used in nursing education from the very first days and everyone logs onto it at the beginning of the studies, it was surprising that only 13% of the students said they used it daily in their studies. More

surprising was the fact that up to 5% of the students reported that they did not use Moodle at all in their studies.

Facebook was seen as an application whose use should be added to nursing studies. Facebook would be a natural channel for communication and sharing of materials, comparing it to Moodle. Also in earlier studies, Facebook was seen as an important media for students. In particular, Facebook was considered to be a good tool to keep a connection with other students [9]. Furthermore, Facebook allows adding web videos and having conversations with others.

Even though social media is still little used in nursing education, this research showed that some social media applications that students use in their free time are also used in nursing education. For example, communal writing was also used in studies and in students' free time. Some previous studies have shown that wikis are the top platforms used [20]. Still, there are those applications (blogs, e.g.) that are only used in students' free time, but their possibilities in education have not been seen, according to this research. According to previous research social media supports learning and there is a need to increase its usage in studies. Teachers should be more aware of what social media applications are used by students and how they are used. For example, there are a lot of good web videos that can be used in teaching and they may motivate students to search for more information concerning the subject being learned. A teacher should always evaluate the videos before they use them during lessons.

The results showed that the students themselves are estimated to have good skills to use of the social media applications. The students were willing to use social media applications in their studies. Although students are interested and reported a high importance level for different social media applications, there are still students whose skill level or interest is not very high so it is not even possible for them to use different kinds of social media applications. According to the results, 18% of the students felt that they would not benefit from using the applications at all. Also students may be highly skilled using one application but novices on another. For example there can be active Facebook users or bloggers who do not have any experience of Twitter or Instagram use.

According to previous studies [1, 10–12, 18], social media has had both a positive and a negative effect in the classroom. The results show that students already have the experience and knowledge to use different kinds of social media applications in their studies. The results gave encouragement to use social media applications as teaching methods in nursing education. Furthermore, social media could increase the student-centred option. By using these different social media applications, we can also assess which applications are the best to use in nursing education. We should also be aware of those applications that had a negative effect. Teachers should also evaluate the usability of social media applications as well as all digital learning material [1, 21, 24].

The students also have negative preconceptions about social media, which can result in a low application skill level. In general, the older age also has a statistically significant effect on the social media skill level. It is necessary to pay attention to the students' skill level when using different social media applications because low application level could affect

students' motivation and how interesting and important they feel social media and its applications. In particular, the level of students' knowledge of how to use social media applications' in education should be paid attention to in order to ensure that the studies are motivating and would improve learning outcomes through achieved motivation. Older students view about social media usage should be also researched.

Social media has been seen as a platform that can assist teachers to help students gain a greater understanding of what is being taught [1]. Still, this research shows that social media usage in studies is not as used as much as in students' free time. Furthermore, there are already lots of different pedagogical possibilities to use social media in studies. For example, different communal tools could change to keep in contact with the students when they are doing their practice periods in a hospital. Different blogs are a great way to learn from others, to reflect, to share stories, and to connect with people.

Different social media applications require different skills from teachers, both technological skills and pedagogical skills, in order to utilize social media in teaching. It has been seen that the lack of familiarity with technology has been a reason for the delay using social media applications in nursing schools [1, 24]. The training of teachers must therefore include more training in social media usability. This is one way to enable an increase in social media utilization in nursing education. Teachers should be more creative and courageous to use different social media applications [24] and in this way to incorporate these tools into their instruction can build their confidence with employing technology. This impacts students as well. Students are encouraged to be active participants in teaching and in their learning which creates a more motivated way to learn.

Study Limitations. There are some limitations related to the validity and reliability of the research. The questionnaire was based on a previously used international questionnaire [11] and it has also been previously used in Finland, modified to be suitable in the Finnish context and culture. But the reliability of the questionnaire has not been measured, and this may weaken the reliability of the research. Moreover, the questionnaire has been modified, and by doing so, it was sought to build a clear and concise entity to answer the research questions. The modified questionnaire was piloted, and no changes were made to the questionnaire. This increases the validity of the research.

Furthermore, the sample could have had an impact on the research results and their generalizability. The sample is only from one university of applied sciences in Finland. Because the response rate was good (61.4%), it allows for a reliable generalization, however, for a broader group, and, moreover, the respondents had the typical characteristics of nursing students. Also excluding students with less experience of social media usage is likely to significantly affect these research findings.

Because the researcher did not have possibility to collect all the data by self, that may have affected to the scarcity of information about the research. Written instruction had been given for all teachers who were collecting the questionnaires.

5. Conclusion

Based on this research, the various social media applications were seen as generally interesting and necessary to use in nursing education.

Social media creates possibilities to share information and to develop communication skills. Working together via social media nationally and internationally, it can lead to innovative solutions to transform old methods and ways of thinking. This requires educators to be innovative and to engage in new methods for their education. Social media can be the potential for further use (based particularly on current use during students' free time) to provide cost- and time-effective nursing education. Social media is free, easy-to-use, which has now permeated so much of daily life that brings with it the opportunity to enhance learning, participation, communication, and engagement.

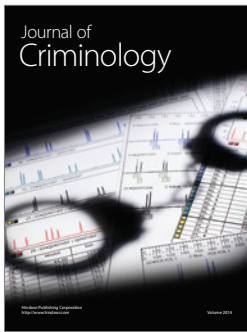
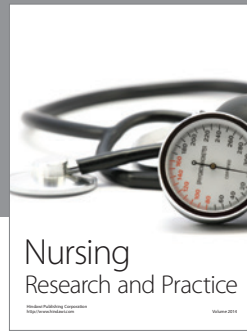
The development of education should be student-centred. Student orientation is an important point that should be paid special attention to in the development of education. To develop education student-centered further research is required to identify the most widely used applications. Even though social media applications are widely used in free time, it needs different kinds of skill levels not only from teachers but also from students to use these applications in studies. Social media enables students to work independently, but it also allows extensive networks between students. The utilization of technology in education should be understood as an opportunity, not just the technology itself. In this way, we can enable deep learning and learning development.

Conflict of Interests

The authors declare that there is no conflict of interests regarding the publication of this paper.

References

- [1] T. L. Schmitt, S. S. Sims-Giddens, and R. G. Booth, "Social media use in nursing education," *Online Journal of Issues in Nursing*, vol. 17, no. 3, 2012.
- [2] C. Paton, P. Bamidis, G. Eysenbach, M. Hansen, and M. Cabrer, "Experience in the use of social media in medical and health education," *Nursing and Health Professions Faculty Research* 6, 2011.
- [3] M. Hachman, "Facebook now totals 901 million users, profits slip," <http://www.pcmag.com/article2/0,2817,2403410,00.asp>.
- [4] "Social Networking: The UK as a leader in Europe," 2014, <http://www.ons.gov.uk/ons/rel/rdit2/internet-access—households-and-individuals/social-networking—the-uk-as-a-leader-in-europe/sty-social-networking-2012.html>.
- [5] J. Seaman and H. Tinti-Kane, "Social media for teaching and learning," 2013, <http://www.pearsonlearningsolutions.com/assets/downloads/reports/social-media-for-teaching-and-learning-2013-report.pdf#view=FitH,0>.
- [6] T. Lemley and J. F. Burnham, "Web 2.0 tools in medical and nursing school curricula," *Journal of the Medical Library Association*, vol. 97, no. 1, pp. 49–51, 2009.
- [7] L. Peck J, "Social media in nursing education. Responsible integration for meaningful use," *Journal of Nursing Education*, vol. 53, no. 3, pp. 164–169, 2014.
- [8] Y. Liu, "Social media tools as a learning resource," *Journal of Educational Technology Development and Exchange*, vol. 3, no. 1, pp. 101–114, 2009.
- [9] C. Giordano and C. Giordeno, "Health professions students' use of social media," *Journal of Allied Health*, vol. 40, no. 2, pp. 78–81, 2011.
- [10] P. Moule, R. Ward, and L. Lockyer, "Nursing and healthcare students' experiences and use of e-learning in higher education," *Journal of Advanced Nursing*, vol. 66, no. 12, pp. 2785–2795, 2010.
- [11] D. White, "Results and analysis of the Web 2.0 services survey undertaken by the SPIRE project," 2007, <http://www.jisc.ac.uk/media/documents/programmes/digitalrepositories/spiresurvey.pdf>.
- [12] J. Barry and N. Hardiker, "Advancing nursing practice through social media: a global perspective," *The Online Journal of Issues in Nursing*, vol. 17, no. 3, 2012.
- [13] J. Good, K. Howland, and L. Thackray, "Problem-based learning spanning real and virtual words: a case study in Second Life," *Research in Learning Technology*, vol. 16, no. 3, pp. 163–172, 2008.
- [14] D. A. Morley, "Enhancing networking and proactive learning skills in the first year university experience through the use of wikis," *Nurse Education Today*, vol. 32, no. 3, pp. 261–266, 2012.
- [15] J. Waycott, K. Gray, R. Clerehan et al., "Implications for academic integrity of using web 2.0 for teaching, learning and assessment in higher education," *The International Journal for Educational Integrity*, vol. 6, no. 2, pp. 8–18, 2009.
- [16] S. K. W. Chu, C. K. K. Chan, and A. F. Y. Tiwari, "Using blogs to support learning during internship," *Computers and Education*, vol. 58, no. 3, pp. 989–1000, 2012.
- [17] M. S. Brady, "Social networking: implications for nurse educators," *Journal of Nursing Education*, vol. 50, no. 12, pp. 663–664, 2011.
- [18] C. Kohtz, C. Gowda, P. Stockert, J. White, and L. Kennel, "The use of web 2.0 technologies," *Nurse Educator*, vol. 37, no. 4, pp. 162–167, 2012.
- [19] J. Anderson, "Social network use: a test of self-regulation," *Journal of Nursing Regulation*, vol. 2, no. 1, pp. 36–41, 2011.
- [20] H. M. Agustin, "More professors use social media as a teaching tool," 2013, <http://www.citytowninfo.com/career-and-education-news/articles/more-professors-use-social-media-as-a-teaching-tool-13102401>.
- [21] P. Nokelainen, "An empirical assessment of pedagogical usability criteria for digital learning material with elementary school students," *Educational Technology & Society*, vol. 9, no. 2, pp. 178–197, 2006.
- [22] K. Laitinen and M. Rissanen, "Osaatko wikitellä? selvitys sosiaalisen median käytöstä korkeakoulusektorilla," 2007, <http://www.oppi.uef.fi/smoot/dokumentteja/Osaatko-wikitella-svy-050907.pdf>.
- [23] Finnish Advisory Board on Research Integrity, 2012, <http://www.tenk.fi/en>.
- [24] J. E. Rodriguez, "Social media use in higher education: key areas to consider for educators," *Journal of Online Learning and Teaching*, vol. 7, no. 4, 2011.



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