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Nursing students' perceptions regarding well-being and healthy use of digital technology: A qualitative thematic analysis

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Abstract:

BACKGROUND: The health and well-being of nursing students are of the utmost importance. Well-being is affected by many factors, ranging from day-to-day hassles to severe stressors in students' college lives. In addition to many other challenges, one new component is added with the advancement of technology, that is, the use of digital technology. The objectives of the study were to explore the perceptions of nursing students regarding well-being, its associated factors, digital technology usage and association between well-being and digital technology use.

MATERIALS AND METHODS: A qualitative descriptive design using focus group discussion (FGD) was adopted in this study. A purposive sampling technique was followed for selecting the participants. Five nursing colleges in the city of Bengaluru from Karnataka state (Central Government-1, State Government-2, and Private-2) were selected based on their willingness to allow their students to be a part of the study. Around 12–15 students from each college who might provide potentially rich data were invited to participate in the study. Six FGDs were conducted during June–August 2018 with a total of 80 participants. All the participants were informed about the study. Written informed consent was obtained. All FGDs were audio recorded, and audiotapes were transcribed. Thematic analysis was done using Atlas.ti software.

RESULTS: The emerging themes were clustered under the following broad categories: understanding the concept of well-being and associated factors; understanding digital technology; ways to healthy use of digital technology; strategies to maintain well-being; and a felt need for professional help.

CONCLUSION: This study provides an insight into the experiences of well-being, stress, and use of digital technology among undergraduate nursing students. The findings have led to elicit the components required to develop an intervention program that may help the undergraduate nursing students to enhance well-being as well as promote healthy use of digital technology.

Keywords:

Digital technology, focus group discussion, healthy use, nursing students, well-being

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Introduction

The health and well-being of nursing students are of the utmost importance when considering their inexperience in the field, the demands of the course and profession, and the implications for patient care.^[1] Well-being enables them to be more productive in the future, and

the more psychologically healthy and successful they are, the more likely it is they will be able to provide care to the patient as well as contribute to the nursing profession.^[2,3] Well-being is associated with the experiences individuals encounter in their daily lives. It may be affected by many factors, ranging from day-to-day hassles to severe stressors in the college life of a nursing student. Research focusing on

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nurses has commonly found that this population reports high levels of stress,^[4,5] and levels of stress are higher among healthcare professionals than in other workers.^[6] Comparison studies have shown that nursing students have a higher level of stress and related symptoms as compared to non-nursing students.^[7-9] During the course, the demands of the profession pose many challenges to the students.

Along with common life changes as experienced by other college students, such as the loss of support from family, friends, and familiar surroundings, the transition from high school, and the acceptance of a career choice^[10] nursing students experience many new situations when they are exposed to the clinical setting for the first time. Seeing patients attached to multiple devices such as monitors, infusion pumps, ventilators; exposure to blood or having to participate in end-of-life care may create distress and sometimes these are overwhelming for them to cope with. Nursing students' stress in confronting the clinical environment affects their general health and disturbs their learning processes. Due to nursing students' young age when entering the clinical environment, loneliness, and a social and emotional lack of experience can lead to stress and psychological difficulties.

In addition to many other challenges, one new component is being added invariably with the advancement of technology, that is, the use of digital technology. Digital technology is a wonderful and easy way to connect with people on a personal or professional basis. Most platforms are free and easy to use. It is not difficult to find people and topics of same interest. People can find and connect with their peers, family, and friends all over the world.

Excessive use of digital technology in the form of internet addiction, smartphone addiction, or problematic use of the internet has been a concern for all and evoked much research interest in the past two decades. Studies have shown a bidirectional effect of stress and technology use.^[11,12] Nursing is a stressful profession, and students may adopt maladaptive coping strategies for stress reduction, and possibly technology use is one of those. First-year nursing students join immediately after high school education and have to adjust to hostel life, which in turn may lead to free time, boredom, or loneliness. Hence, it is necessary to give importance to their well-being and healthy use of technology.

There is a plethora of literature of quantitative studies on stress among nursing students^[6,13,14] as well as an association of the excessive use of technology with psychological distress.^[12,15,16] Although a few qualitative studies documented the stress among this

population,^[34,17,18] published studies capturing nursing students' voices in order to get their perceptions or beliefs regarding well-being and healthy use of technology are lacking. Ultimately, it is the students who should take responsibility for their own mental health and well-being, although others may help them. Hence, there is a need to understand their perspectives on the same, as excessive use of digital technology may have a negative impact on well-being. Furthermore, focus group discussion (FGD) allows greater freedom of response to the participants, which may provide in-depth information and enrich the existing literature as well.

The objectives of the study were to explore: (1) The perspectives of nursing students about factors associated with well-being; (2) The pattern of digital technology use among undergraduate nursing students; and (3) The perception of nursing students regarding the association between well-being and digital technology use.

Material and Methods

Study design and setting

A qualitative descriptive design using FGD was adopted in this study. Qualitative descriptive study is the method of choice when straight descriptions of phenomena are desired.^[19]

Thematic analysis was used for analysis, which resulted in connecting large textual data into concise themes. This method was chosen because little is known about students' perspectives on well-being and digital technology use.

Study participants and sampling

A purposive sampling technique was followed for selecting the participants. Five nursing colleges in the city of Bengaluru from Karnataka state (Central Government-1, State Government-2, and Private-2) were selected based on their willingness to allow their students to be a part of the study. Around 12-15 students from each college who might provide potentially rich data were invited to participate in the study during June-August 2018. The inclusion criteria were: (a) studying first-year B.Sc. Nursing; (b) both genders; and (c) students who have not undergone any stress management or well-being programme earlier.

The FGDs were conducted in the free hours available without disturbing their regular clinical/class schedule. The rest of the students in the class were either in the library or went to meet their faculty to discuss their assignments.

Ethical considerations

Ethical approval of the study was obtained from the Institute Ethics Committee as a part of a doctoral study

titled, “Development of an Intervention for Well-being and Healthy Use of Digital Technology among Nursing Students” (No.NIMH/DO/IEC (BEH.Sc.DIV)/2016). Written informed consent was obtained from the participants prior to their participation in the study after a thorough explanation of the study and its procedures.

Data collection methods

Six FGDs were conducted with the nursing students each lasting from 60 to 90 minutes. The overall FGD sample comprised 80 participants across 6 FGDs, with an average of 12–15 participants in each FGDs. The FGDs were audio recorded with prior permission from the participants. Broad areas were identified, and semi-structured topic guides were developed based on a review of a literature and discussion with experts working in the mental health field. Probes for each topic guide were prepared, which were used as guiding prompts for the researcher to ensure adequate coverage of the topics as well as for generating discussion with a focus on the study and eliciting responses from each participant.

Data analysis

Data transcription and initial coding generation

All the audio recordings were transcribed into text. Coding and analysis of the transcribed FGD data were carried out using the different steps of thematic analysis described by Braun and Clarke (2006). While transcribing the verbatim into text, the audio recordings were repeatedly heard to gain familiarity with the language and conversation style of the participants. While doing so, short descriptive notes that would act as a cue to make sense of the data were written on the hard copy of the printed text. The text was read carefully more and more to gain greater familiarity.

Later, the transcripts were imported into Atlas.ti 8, a qualitative software. With the help of the short descriptive notes, data-driven codes were generated for each potentially relevant segment of the data. Codes that did not appear more than one time were reviewed again and either merged with other appropriate codes or discarded unless they seemed relevant as standalone codes.

Generating and reviewing the potential themes

The codes were examined for potential patterns based on interconnections, similarities, and overlaps for generating/identifying themes. The codes were collapsed/clustered around 32 initial sets of themes. These themes were reviewed based on their relevance to the study objectives. A final set of 21 themes was arrived at based on consensus between the researchers, and these were clustered under the broad categories. Five broad categories (termed as ‘super families’ in Atlas.ti) were finalized. The categories and themes were reviewed and

suitably modified in keeping with the nature of the final set of codes and themes.

Rigor

Rigor was ensured for the study. Credibility was enhanced by recruiting participants who were familiar with the topic under investigation^[20]; all participants had experiences regarding their well-being and use of digital technology. An in-depth description was provided to ensure transferability. The first author (MS) was involved in conducting the interviews, transcribing, coding, and data analysis. Three researchers (SG, MKS, and SM) reviewed the findings for meaning and relevancy.

Results

The participants were between 18 and 21 years of age, with the average participant being 19 years old. Table 1 describes the socio-demographic characteristics of the participants. The broad categories identified were: understanding the concept of well-being and associated factors; understanding digital technology; ways to a healthy use of digital technology; strategies to maintain well-being; and a felt need for professional help [Table 2].

Broad category I: Understanding the concept of well-being and associated factors

The first broad category that emerged was understanding the concept of well-being. The participants expressed what they thought about the meaning of well-being, sources of stress, how do they feel when they are stressed, and the inner blocker that comes in their way of having well-being. The participants had their own perceptions about well-being, which were reflected in the following three themes.

Table 1: Socio-demographic variables $n=80$

Variables	Category	Frequency (%)
Gender	Female	65 (81.25)
	Male	15 (18.75)
Family type	Nuclear	58 (73.3)
	Joint	22 (26.7)
Living with/at	Family	32 (40)
	Hostel	48 (60)

Table 2: The broad categories that emerged from FGDs

Broad categories (BC)	No. of themes under the categories	
BC-I	Understanding the concept of well-being and associated factors	4
BC-II	Understanding Digital Technology	7
BC-III	Ways to healthy use of Digital Technology	3
BC-IV	Strategies to maintain well being	3
BC-V	Felt need for professional help	4

Meaning of well-being

Participants' reflections about well-being revolved predominantly around the ideas of "being happy," "feeling good," or "not having stressors." One participant said, "To me, well-being means feeling good," whereas another participant mentioned, "I think well-being means not having stressors, and if it is there also, we should be able to cope with those easily." Few participants expressed that problems are part of life, and for them, well-being was "to be happy despite having problems in day-to-day life."

Sources of stress experiences (stressors)

The sources of the participants' stress experiences were diverse, and different sources were reflected in the FGD excerpts. It included academics, clinical exposure, hostel life, and family. To some of them, completion of requirements was quite difficult, as reported by one participant, "There are too many requirements i.e., assignments, deadlines, tests which are too much stressful." Quite a few participants felt more stress due to clinical exposure and the fear of making some mistakes: "Procedures or clinical exposure make me stressful, thinking that if I mess up in the procedures or any other things, it will be a big problem." Sometimes, balancing between clinicals and classes was utterly difficult for the participants, as expressed by a participant, "Morning we should go to clinical area followed by classes and tests will be there in the afternoon. Sometimes we get stuck in the ward and we will be late for classes; all this make me stressed." For some participants staying away from home, adjusting to a new environment led to the buildup of stress. For instance, one participant said, "Staying away from home, getting adjusted to hostel life, food problem, language barrier: all these lead to stress." Few participants narrated their stress experience in the context of family issues: "I get some or other problems in the family, which make me stressful."

Feelings while stressed

When the participants felt stressed, they experienced various kinds of emotions that were difficult to handle by themselves. The participants mentioned, "When I feel stressed, I become very confused, I get palpitation and feel too anxious." Sometimes the severity goes beyond control, as narrated by one participant: "I felt too low, even after lot of preparation, I could not do well in the examination. I tried a lot but could not perform well. I was feeling like committing suicide, but I have never attempted suicide and now I am adjusted." For quite a few participants, stress and physical symptoms were a vicious cycle: "If I cannot come on time to college, that is stressful and if I am stressed, I will get migraine and managing that is another stress for me. Thus, stress is part of my life."

Inner blockers

There were a few inner blockers, as perceived by the participants, that were a hindrance for them to maintain

well-being, such as negative thinking, lack of motivation, and procrastination.

Some of the participants thought that negative thinking was the main barrier to their well-being: "Sometimes I feel that I can not do anything." Few of them literally felt incompetent for this profession because of the high negativity, "Sometimes I feel that I lack the required qualities for nursing and not fit for the profession."

Lack of motivation was one of the most common challenges that majority of the participants envisaged, as expressed by one of them: "At times it is so difficult to motivate myself for doing the pending work. Especially when I am using phone, I do not feel like leaving the phone and starting my work."

Most of the participants said that due to easy access to digital technology, they were procrastinating more than earlier. For example, one participant said: "Always I keep my work postponed till the last moment and then get tensed."

The participants perceived well-being to be free from stressors or being able to deal with the stressors that arise from academics, clinical exposure, hostel life, and family. However, sometimes their inner blockers, that is, negative thinking, lack of motivation, and procrastination, come in the way to maintain their well-being.

Broad category II: Understanding digital technology

Digital Technology, in the present study, refers to methods used for online communications and engagement. It includes calls, text (SMS, email), web browsing, social media, for example, WhatsApp, Facebook, Instagram, Twitter, WeChat, Snapchat, etc., YouTube, and different applications for gaming, online shopping, etc.

Types of digital technology

Most commonly used types of digital technology were web browsing; social media, for example, Facebook, WhatsApp, and Instagram; games; and YouTube, as expressed by one participant: "I am on all the social media, but would love to use WhatsApp, Instagram and Facebook". Another participant stated: "I love games, so I have downloaded many games and I play them." A smaller number of participants used digital technology for purposes of e-mailing and watching motivational videos.

Reasons for excessive use

Reasons for using digital technology among participants varied from academic purposes to entertainment and daily use as well. One participant said: "I use it to keep myself updated and also for calculations, alarm, google map, sharing things, entertainment, communication, cab,

navigation, torch etc.” Others mentioned, “It is useful for writing assignments and searching any new thing easily.” Participants stated that it was difficult to avoid as it was a “must for official purposes” and “for calling home”. What the majority of the participants had reported was a matter of concern: “Most of the time we use it without any purpose, as we are habituated.”

Usage pattern

Use of digital technology was part and parcel of the participants’ everyday lives. The day started with looking at the screen, and the day ended late because of excessive use of technology, as expressed by the participants: “After getting up in the morning, first thing I do is check my phone for all types of notification for about 15 mins”. The continuous and uncontrollable impulse of using technology was evident from the following FGD excerpt: “I try to keep my phone aside, while studying. But in between I see my phone and whenever I touch my phone it is for minimum more than 1 hour to keep it down. After keeping the phone aside, I will feel like checking once more, thus I use continuously more than 4 hours. It is too difficult for me to keep the phone and concentrate on study. In the college days, it is less; whereas on Sundays it is almost whole day. At the end of the day, when the charge gets over, I will keep down the phone.” Use of technology has become more of a habit than a matter of necessity: “Whenever I get free hours during academics or clinicals, I check WhatsApp frequently and it is a kind of habit.”

Effect on academics

The participants felt that digital technology caused distraction and reduced quality time for studying, and they felt the need to reduce the use of technology as well: “I feel that I use technology too much and I cannot control. I should reduce the use.” Another participant stated: “It leads to only distraction. Sometime I feel, if phone is not there, I can study better.”

Shallow sleep

Quite a few participants experienced sleep disturbances because of technology use: “I am so much addicted that always 15 minutes break extends to 1 hour. I do not use any application, but I will be browsing and continue like that, and will be late for sleep every day.” Another participant realized the negative effect of overusing technology after one incident and shared that: “Once I have given my phone for repairing and surprisingly, I went to sleep at 9.30 pm and had sound sleep at night. I felt a lot, I realized that it is disturbing my sleep too badly.” Some of the participants did not put their phones on silent mode or switch off their mobile data. Hence, in between, whenever the notification came, they used to get up and look at the phone.

Negligent nursing care

Though most of the institutions do not allow mobile phones during clinical hours, sometimes they were

allowed to keep them with them but forbidden to use them unless it was urgent. Nursing care was also affected by use of technology to some extent as expressed by the participants: “If we are in hospital and we do not have a phone, we can focus on patients, we can give attention to them. But if we have phone, sometimes we tend to neglect them. Most of the students sit and chat over phone and they are least bothered about the patient.” Another participant stated: “If we are using mobile phone previous night too much, we are late to sleep. But morning we have to get up early for getting ready. Thus, in the morning, we do not feel fresh and sometime feel drowsy.”

Stress from overuse of digital technology

Overuse of digital technology also led to stress: “Overusing social media, makes me stressed. When I use more, I feel that, I am wasting time more and this is not right.” Especially limited accessibility to mobile phones made the participants restless or more stressed, as expressed by them: “Sometime I get frustrated when internet is slow or server is down.” Another participant mentioned that: “If my phone battery is getting low or going to switch off and I need to use, I get stressed.”

Though use of digital technology is a necessity for the students, many of them are too much connected to their phone, which is a major concern considering its negative effect on their academics and health.

Broad category III: Healthy use of digital technology

Some participants had tried a few methods to reduce overusing digital technology on their own and succeeded to some extent. The themes included in this category are keeping the phone away, time management, and offline activities.

Keeping phone away

The participants felt that if “the phone was out of sight,” it reduced “distraction,” and it was easier to concentrate in the study. One participant mentioned that: “I used to keep my phone silent in the drawer and sit for studying. Otherwise, I will spend my whole evening over phone.” Another participant thought that if the data pack was not recharged, it might be helpful: “I have tried not recharging my phone for 2 months and uninstalling apps, but in vain.”

Time management

Most of the participants realized that time management would be the best option to have a fixed schedule and controlled use of digital technology. For example, one participant said that: “Though not possible always, I try to follow schedule and do time management.”

Offline activities

The participants tried to engage themselves in offline activities, which reduced the time for online activities.

As expressed by one of the participants: *“I try to focus on my outdoor activities especially in the afternoon, which keeps me away from my technology use.”*

The students attempted to avoid the use of digital technology during study hours in order to have more concentration in the study. They also made an effort for time management and focusing on other leisure activities to inculcate a habit of using digital technology in a controlled way.

Broad category IV: Strategies to maintain well being

Though stressors were present and the participants had to face some or other challenges, be it in their personal or professional lives, they had their own ways of dealing with them and maintain their well-being. The themes identified were as follows:

Pursuing hobbies

Most of the participants had some kind of hobby that they did not pursue once they had joined the course. Some of them wanted to revive their passion again and said that: *“Cherishing my old hobby gives me immense pleasure. After joining the course, I did not get time for dance practicing. Now onwards, I will try to practice regularly.”*

Ventilation and diversion

The most common strategies followed by the participants to maintain well-being or reduce stress were diversion and ventilation. One of the participants said: *“Ventilating to family members is a great relief for me. Whenever I feel stressed out, I engage myself with some diversional activities such as cooking, arranging clothes in cupboard and I feel quite good after that.”* While some participants used healthy mechanisms for diversion, few among them chose digital technology to forget their problems and make themselves happy for the time being, which needs to be addressed. As expressed by a few among them: *“I use phone or internet for diversion and I continue for 2-3 hours until I feel alright.”* Some of them used to cherish good times when they were upset. One participant said: *“I generally reminisce my previous good memories which makes me happy.”*

Relaxation techniques

Some of the participants felt that relaxation was one of the best methods, which helped them a lot. *“Listening to the music”* was the most cited technique followed by the participants. Fewer rare practices were *“walking through nature”* or *“practicing Art of Living.”* Spirituality also helped them when they felt low. For instance, one participant said: *“I listen to music and pray to God.”* Another participant said: *“I read Bible whenever I am stressed out”.*

The participants strived to maintain well-being despite the presence of many challenges. Diversion activities,

support from loved ones and spiritual beliefs were to mention a few among the most practiced strategies.

Broad category V: Felt need for professional help

Though the participants were able to manage by themselves to some extent, their young age, immaturity, inexperience in the field, overwhelming stressors, as well as the uncontrollable nature of technology use, made them receive help if offered.

Majority of them wanted to have some sort of *“guidance and counselling”* or *“learn few strategies for stress management.”* *“Time management”* was another option that they felt they should do, as expressed by one participant: *“I want to know about how to do time management because I have noted that if time is managed properly, we do not feel stressed.”* Managing emotions was another challenge for the participants as many of them had to stay in hostel and adjust to a new environment. One participant mentioned: *“How to control myself when I cannot control environment (too much sound in the room, as we 15 students stay in the same dormitory)”*. Another participant narrated: *“Even though it is a small issue, I get too much irritated and I react very fast. I know that it is unnecessary to get angry, but due to stress, frustration, I will get angry very fast and later I will feel bad. Because I do not know how I have reacted at that time.”* Few of them wanted to learn *“how to cultivate positivity instead of being negative towards self”*, as expressed by one participant: *“I think some encouragements, positive words towards ourselves would help us.”* Most of the participants felt that some strategies or techniques for healthy use of technology would help them, *“We should be given some activities which will distract us from use of technology or any other ways to reduce excessive use of technology so that we can concentrate on our study.”*

Managing stress, maintaining well-being, and handling excessive use of digital technology may be difficult for young minds, where professional help may play a crucial role in supporting them to grow personally as well as academically.

Discussion

The present study provides the perspectives of the nursing students regarding the well-being and healthy use of technology. The major categories identified were: understanding the concept of well-being and associated factors; understanding digital technology; ways to healthy use of digital technology; strategies to maintain well-being; and a felt need for professional help. Additionally, the findings are considered and corroborated in relation to the available previous literature.

Findings for meanings of well-being are echoed by a study where lay meanings of subjective well-being were

also found to be “feeling happy,” “stress free,” “feeling relaxed,” or “tension free.”^[21]

Some of the factors associated with well-being and experiences that acted as sources of stress for the students are similar to those found in previous literature, such as academics, clinical exposure, and personal problems.^[4,17,22] The majority of the participants reported academic difficulties, which entailed many intricate aspects, including assignments, deadlines, and preparations for exams, which is in line with previous studies^[4,23] In this study, fear of clinical exposure and perceived apprehension of making mistakes were common stressors for the participants. This finding is supported by Sharif and Masoumi, where similar codes “fear of failure” and “fear of facing the procedures” were part of the theme “initial clinical anxiety”.^[24] The participants also reported about other stressors, that is, family issues and personal problems, which were found in previous research.^[13,17]

Excessive use of technology as a new factor affecting well-being is evident from the participants’ narration, which is on par with other descriptive studies from India and abroad.^[15,25–27] Shambare, Rugimbana, and Zhoua report six types of behaviors attached to excessive use of technology: *addictive* (major focus of a person’s life to the exclusion of other activities), *compulsive* (strong desire to continue the behavior), *dependent* (attached importance of social norms), *habitual* (performed with little mental awareness), *voluntary* (reasoned by specific motivations), and *mandatory* (officially required and parentally mandated).^[28] Out of these, *addictive* and *habitual* behavior were reported frequently by the participants that need to be addressed.

Majority of the participants opine that digital technology affects their academics, sleep, and indirectly nursing care. Most frequently reported phrases for impact of digital technology on academy are “distraction” and “reduction in quality time” that lead to lower concentration for study as well as inability to complete assignments on time. This, in turn, results in added stress to meet the deadlines and finish the urgent work. This finding is supported by previous studies,^[29–31] where the authors found that teens who used their Myspace, cell phone, and instant messaging while doing their homework and during class hours reported having lower grades than those who did not use the technology.^[30] On the contrary, Javid, Ashraf Malik, and Gujjar found technology to be useful for university students,^[32] whereas Usman, Alavi, and Shafeq found no significant difference in technology use in terms of academic grade.^[33] This reiterates the fact that if the students are guided properly, digital technology can be a useful tool for learning and not impact academics and their health negatively.

Sleep was also affected by the participants’ digital technology use. This perceived sleeping experience was better when the mobile phone was not with them for sometimes. Similar to the present study finding, one study found that the participants who abstained from using their smartphone at night for one week, reported improved ability to fall asleep faster with better sleep quality.^[34]

The participants reported that the use of digital technology has an indirect impact on patient care too. For instance, being distracted by a mobile phone during clinical hours, sleeping late, and a lack of a proper amount of sleep due to the use of digital technology have resulted in depleted energy in the next morning^[35] and the inability to give their full energy and concentration to patient care. Studies have also documented the presence of distraction and interruption as frequently as once every 2 minutes when using technology devices among the pharmacists, technicians, and nurses who are involved in the process of medication dispensing and administration.^[36] Among 98 nurses who prepared and administered a total of 4271 medications to 720 patients in an Australian hospital, each interruption resulted in a 12.7% increased risk of a medication error, and the error rate tripled when a nurse was interrupted six times.^[37] The findings gave rise to the need to work with the students to help them to adopt strategies for healthy use of digital technology.

Most importantly, the majority of the participants tried some methods on their own for managing their stressors and reducing the use of digital technology so that these do not affect them much. Sometimes, along with the external stressors, the inner blockers – such as negative thinking, procrastination, and a lack of motivation – come in their way. In fact, it is not always within the students’ capacity to reduce their stress, improve their well-being, or incorporate the habits of healthy use of digital technology. Thus, under the category of “help seeking behaviour,” the repeated themes that emerged were: “stress management”, “time management”, “managing emotions”, “strategies for healthy use of digital technology” “cultivating positivity” which give the lead to develop an intervention in order to support them for their self-development.

The findings emphasize the need for researchers to work upon personal growth goals of the students, as these may help them attain the capacity to plan and work toward their own future in terms of mastering new skills, coping with life stressors, and forming and maintaining close relationships. The ability of an individual to work toward self-improvement is otherwise known as personal growth initiative, which includes both cognitive and behavioral components. Through intentional

self-development, the individuals contribute to their own development and work toward their growth goals, while self-regulation helps to address the inner blockers such as procrastination, negative thinking, and other emotional issues.^[38,39] Hence, it reflects the needs for personal development of the students, which can be attained through an intervention program that incorporates these major areas.

Strengths and Limitations

The current study has several strengths, such as it is the first study to explore the perspectives of nursing students about well-being and digital technology usage, and the qualitative nature of the study provides in-depth findings that may lay the foundation for many other research questions.

The present study also has certain limitations; for example, findings are subject to potential bias from the researcher's perception and prejudices, and member checking was not done, which could have enriched the study results further.

Implications

This study provides an insight into the experiences of stress and use of digital technology among undergraduate nursing students and adds to the existing literature in this area. These are preliminary findings that have led to elicit the components required to develop an intervention program that may help the nursing students to enhance well-being as well as promote healthy use of digital technology in colleges of nursing.

Conclusion

Undergraduate nursing students experience stressors as well as use digital technology more than they intend to. Young minds should be guided in the right direction for optimization of their learning and boosting their mental health as well as well-being. The findings reflect the need for developing appropriate interventions for enhancing well-being and promoting healthy use of digital technology, which has been taken up by the researcher in the next phase.

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Ethical approval

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Conflicts of interest

There are no conflicts of interest.

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