

## **Chapter 4**

### **Findings**

#### **4.1. Introduction**

This chapter presents and summarises the data provided by the participants, and the categories and subcategories that emerged from the constant comparison method of data analysis. The main aim of the study was to identify the perceptions and experiences of female Saudi nursing students about using social media for personal and academic purposes, and to determine the positive and negative influences of this from the perspectives of 12 female nursing students registered for the undergraduate and postgraduate nursing degrees at KSU. A semi-structured interview consisting of open-ended questions was developed by the researcher and was used to conduct face-to-face interviews. All the participants who volunteered were females aged 20-40, and were from a variety of nursing educational levels (Table 7). The researcher collected data before COVID-19, as discussed in detail in Chapter 3. The current chapter discusses the study's findings in relation to the three categories that emerged from analysis of interview data.

#### **4.2. Categories and subcategories**

Three main categories were identified from the data analysis: personal interests, extending knowledge, and challenges. Each category consisted of three to four subcategories (Figure 8). All the categories were interlinked as showed in the Venn diagram in Figure 9. Although all of the categories were interconnected, personal interests emerged as a category that appears to be fundamentally important for all other categories, thus it is identified as the study's core category. To explore and illustrate the three categories, excerpts were selected from participant interviews for their relevance in order to show the data's significance and variance.

Participant	Age*	Educational level
Farh	25-30	Postgraduate, 1 <sup>st</sup> year
Jood	20-25	Undergraduate, 4 <sup>th</sup> year
Lora	20-25	Undergraduate, 3 <sup>rd</sup> year
Rwan	20-25	Undergraduate, 4 <sup>th</sup> year
Nora	20-25	Undergraduate, 3 <sup>rd</sup> year
Mela	20-25	Undergraduate, 4 <sup>th</sup> year
Arwa	35-40	Postgraduate, 1 <sup>st</sup> year
Tala	30-35	Postgraduate, 1 <sup>st</sup> year
Yasmeen	25-30	Postgraduate, 1 <sup>st</sup> year
Najd	20-25	Undergraduate, 3 <sup>rd</sup> year
Renad	20-25	Undergraduate, 2 <sup>nd</sup> year
Sama	20-25	Undergraduate, 2 <sup>nd</sup> year
*Age is given as a range to avoid potential identification of the study participants		

**Table 7. Demographic details of research participants**

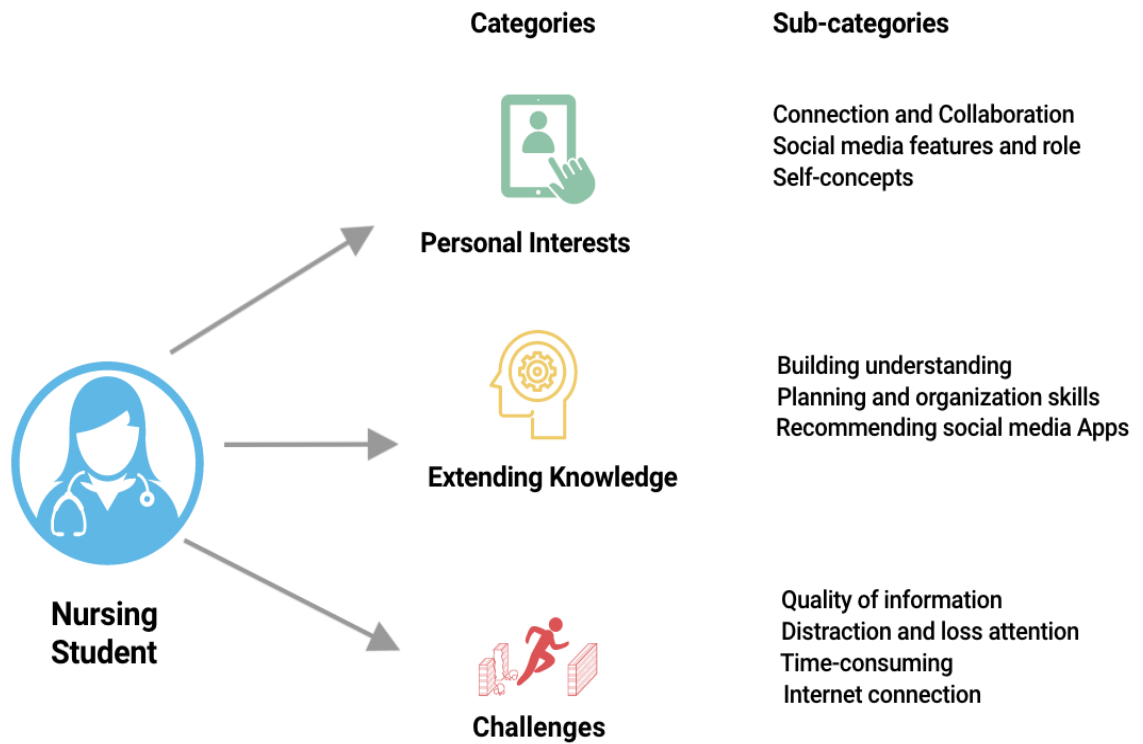


Figure 8. Study categories and subcategories

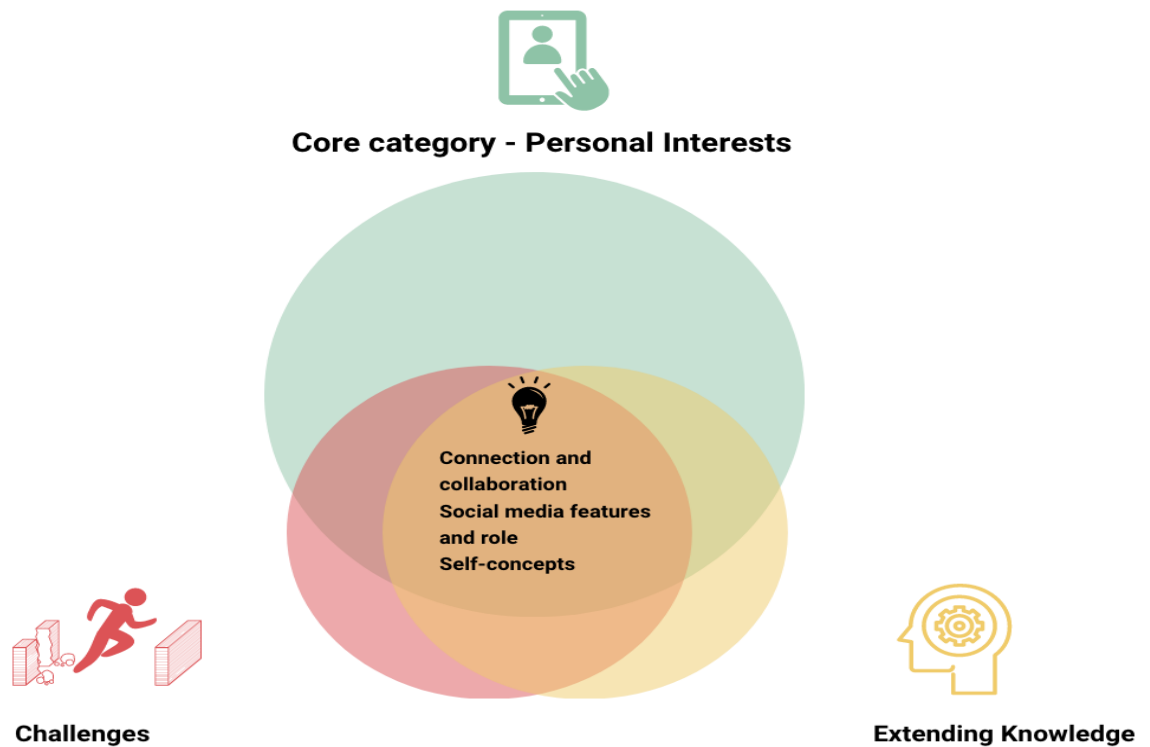


Figure 9. Categories and subcategories connection Venn diagram

### **4.3. Key category: Personal interests (core category)**

Personal interests were identified as the core category because this category was critical to how nursing students used social media to connect and collaborate, extend their knowledge, and deal with challenges. The analysis showed that this core category was consistent with all the other categories, comprehensively maintaining connections between codes and helping in the explanation of category variance, which are essential features of a theory (McCann and Clark 2003). According to Glaser (1978), the core category links all the other categories by integrating them at the level of their properties and/or dimensions, thus providing “substantive meaning” through the categories’ relations. In this study, nursing students used social media to connect and collaborate personally and academically, and used social media features to enhance their learning and to handle challenges. Additionally, self-concepts were identified in students’ personal usage as online self-presentation; in educational use as self-development; and in challenges as self-control.

It is important to define “personal interests” as the core category of this study. The American Psychological Association Dictionary (2021) defines interest as “an attitude characterised by a need or desire to give selective attention to something that is significant to the individual, such as an activity, goal, or research area”. Based on this, “interest” is defined in this study as a psychological condition of attention and affection toward a particular topic, and a tendency to reengage over time. Additionally, interest is associated with the belief that the topic is enjoyable and deserving of further exploration (Hidi and Renninger 2006; Harackiewicz et al. 2016). Moreover, Harackiewicz et al. (2016) stated that interest is a powerful motivator that promotes learning, leads academic and professional paths, and is important for academic achievement.

In this category, students discussed their own experiences with social media and the characteristics and roles of social media in their lives. Furthermore, it related to their self-concepts such as self-control, self-development, and online self-presentation.

In terms of frequent social media usage, the students indicated that their regular use of social media was dependent on mood, time, and tasks. As for mood, for example, Nora used social media when feeling bored, which she reported as helping her to develop a positive mood:

“According to my mood during the day. If I feel bored, I will definitely use social media because it is possible for me to find entertainment in social media. For example, I follow some movie companies on Twitter, If I feel bored, I can search for new movies or watch movies trailers on YT, because that will help me to be in a good mood”.

Similarly, the use of social media by Yasmeen was dependent on her time and mood:

“I can’t really tell exactly, because it depends on my free time, or when I’m bored, or I get some notification”.

As for time, Renad mentioned that she used social media for entertainment purposes more frequently when she had free time, such as during holidays, compared to when she was engaging in academic work:

“Depending on time, for example, on holidays, I use them for approximately ten hours per day, while during studying, I limit the time from four to five hours”.

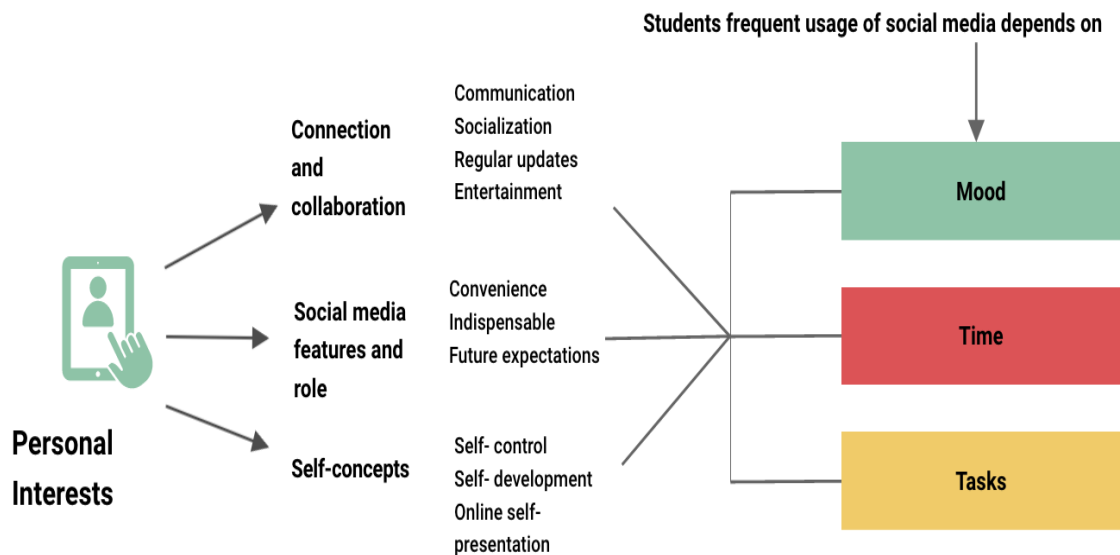
Farh described a comparable usage pattern, with less frequent usage around examination times, and more frequent usage given the availability of free time:

“My usage of social media varies from day to day; when I have to study for the exam, I use social media less than in my free time”.

In terms of tasks, Arwa indicated that the usage of social media depends on personal duties, obligations, or responsibilities. The participant demonstrated an awareness of the difficulties associated with failing to balance social media use with other responsibilities, such as family obligations. In particular, she stated that students who lack self-control often fail to strike an appropriate balance between their obligations and their time spent on social media, which lead to wasting time:

“If someone does not control himself, he could waste his time, particularly for those who have no other obligations. For example, if a student was used to going to the gym, she wouldn’t go to the gym, if she has a social life, because she feels content with her mobile, unlike those who have other responsibilities, like mothers, they could control themselves”.

As revealed by the participants’ responses in this section to questions concerning their frequency of social media usage, their usage patterns, and the role of social media in their lives, there are several consistent and comparable findings across the students in this category. Most importantly, the participants highlighted the context-dependent nature of their social media usage, which included reduced time allocated to social media platforms during exam times and greater time spent during holidays, free periods, and times of boredom. The participants also showed recognition of the dangers of failing to balance social media usage with other aspects of life such as exam preparation or obligations at home. However, for the participants, a usage pattern involving more intensive social media activities during free time and less intensive use when addressing academic duties appeared to be relatively common. This first category of personal interests can be further subdivided into three subcategories: connection and collaboration, social media features and role, and self-concepts (Figure 10).



**Figure 10. Conceptual map of the personal interests**

#### **4.3.1. Subcategory: Connection and collaboration**

This subcategory addresses the reasons for using social media, such as communication, entertainment, socialisation, and regular updates. Students used social media to communicate and collaborate with others, and they classified communication as being about work, family friends, colleagues and faculty members. For example, Arwa classified her communications on WhatsApp, noting that she used work groups to share work-related information and WhatsApp voice messages to communicate with family members:

“As I am a master’s student and also work as a nurse in a health centre in the chronic disease clinic, I have many WhatsApp groups, work, study and family groups. I use the work group to know any update as well as dates of meetings, and I can share information regarding work. As for my family, I don’t often call them, I prefer to communicate with them through WhatsApp via voice messages. It is a lot easier than chatting”.

Similarly, Rwan described the utility of WhatsApp groups for work-related communication, along with the value of WhatsApp as a tool for staying in contact with family members. She reported:

“For example, If I have any questions regarding the study materials. I use WhatsApp groups to communicate with my colleagues. Also, I use WhatsApp to communicate with my family members because I do not like to use phone calls, so using WhatsApp is essential during my daily life”.

As for collaboration, Mela reported that their use of WhatsApp was limited to interacting with colleagues to gather work-related information about test dates, lecture times, and course information. In particular, the student reported:

"I use WhatsApp only to communicate with my colleagues to ask about the dates of the tests for example I have WhatsApp group of my classmates that we usually use to communicate about lecture times or submitting assignments or asking questions about our courses".

Similarly, Jood used WhatsApp for academic purposes, including sharing information and communicating with classmates:

"I personally benefited from the WhatsApp application in the study because I have a WhatsApp group with my colleagues in which we share information and communicate with each other".

The primary use of WhatsApp by Najd was to communicate with peers and share video content relating to nursing. This student reported:

"I use WhatsApp mostly to communicate with my colleagues and share YT videos on nursing procedures".

In terms of entertainment, Nora reported that she often turned to social media to remedy boredom, given its usefulness as a store of content like movies and animations posted by other users:

"If I feel bored, I will definitely use social media because it is possible for me to find entertainment in SM. Things that interest me most are watching animation and movies".

Also, Farh reported that social media was useful for them in terms of keeping her in contact with her hobbies, which served as a source of entertainment:

"In terms of personal use in my daily life, I follow accounts of cooking, fashion, and I like to follow the news. These are all for entertainment".

Similarly, Renad used social media for entertainment and engaging in diverse activities such as shopping and watching films:

"Shopping as well as watching movies and series. As well as following diaries on Snapchat".

Najd used a variety of social media platforms for entertainment, including Instagram and TikTok, and noted that each one was typically used for a different purpose:

"I use Instagram, Twitter, and TikTok for entertainment. On TikTok, I watch some videos of challenges, landscapes, tourist places and pictures of some cities. On YT, I watch movies and series as well as listen to music".

Finally, Arwa mentioned that for entertainment she used certain social media platforms for entertainment purposes exclusively, including Instagram and Snapchat:

“Snapchat and Instagram, I use them for entertainment only”.

In terms of socialisation, Jood mentioned that she liked to use SM for socialising with friends. Furthermore, the student indicated that certain social media platforms are better suited for socialisation activities compared to others:

“I use SM applications that have more socialisation, such as Snapchat”.

Also, Rwan noted that social media connects people from all around the world, thereby contributing to “globalisation”, because it decreases the effect of physical distances. She also noted that the features offered by social media platforms made it possible for her to engage in activities such as daily communications with her family from a long distance:

“SM helps people to communicate despite the distance, for example, I live far away from my parents, but I use SM to communicate with them on a daily basis”.

Similarly, Tala noted the value of social media in facilitating socialisation through exposure to local and global events:

“Knowing about the outside world and communicating with people, whether locally or globally”.

Lora highlighted the intercultural aspect of social media, also emphasising its utility in aggregating local, global, and international news. In particular, the student noted that:

“SM provides us with a service to communicate with people from different cultures and follow their news not only in our society but also from around the world”.

Moreover, Nora reported that they used social media in volunteering activities by posting nursing content weekly in their WhatsApp group to help students from different levels understand courses:

“I participate in a volunteer nursing group on WhatsApp to post topics about nursing on a weekly basis, for example, nursing students of the seventh educational level send educational materials to the fourth level, to help them to understand some of the nursing courses”.

Similarly, Jood described her use of Instagram to remain connected with current opportunities and up-to-date information in the nursing field. In particular, the student noted:

“For Instagram, I follow accounts that specialised in training and volunteering opportunities in the nursing field”.

Students also use social media for regular updates with events and news. Arwa reported that social media platforms not only enable students to share information but also to access current news and updates about seminars, lectures, and other academic programmes:

“I know news regarding educational courses and seminars easily via social media. It also facilitates access to and exchange of information, particularly among students”.

Additionally, Rwan noted that nursing students can use social media platforms, including Snapchat, to keep updated about events such as workshops:

“They can use Snapchat to know about events or workshops held at the university”.

In describing their use of Twitter, Farh emphasised its usefulness for academic purposes and, in particular, for keeping up-to-date about news and events in the local health organisations, Saudi universities, and notable journals:

“As for Twitter, I follow specialised accounts in the nursing field, especially all aspects of nursing care. Following these accounts helps me to get the latest news in nursing research. For example, on Twitter, I follow these accounts the Saudi Commission for Health Specialties the Ministry of Health, and the Faculties of Nursing at King Saud University, Princess Nora University, and King Abdulaziz University. Also, on Twitter, I follow some medical journals to follow the latest developments and research in the nursing field”.

Also, Tala reported that they use Twitter on a periodic basis to stay updated about critical news items such as articles and headlines relating to the ongoing COVID-19 pandemic. Twitter was integrated into this student’s daily routine in terms of being used to deliver recent and high-quality information on news and events:

“I open Twitter daily in the morning to check new news and events. I follow coronavirus news on Twitter, including its beginnings in China, numbers of infections, deaths, causes, and people’s reactions”.

The participants in this study used social media platforms such as WhatsApp, Instagram, Snapchat, YT, and TikTok for various purposes, including: entertainment; academic, socialisation, and work-related communication; collaboration (such as concerning exchange information, test dates, and lecture times); coordinating social and academic events and workshops; and viewing local and international news. In terms of entertainment, the participants found social media platforms useful in terms of offering diverse content for videos and shopping, while others highlighted the value of keeping in contact with their hobbies via YT videos or Snapchat diaries. At the same time, many of the participants used social media platforms such as Twitter to stay updated about

essential news in real-time, such as Covid-19 news, or to learn about academic developments and opportunities such as nursing programmes, volunteering activities, and announcements from Twitter accounts, such as prominent universities or government departments. Altogether, the participants' reasons for using social media were varied, commonalities were evident in terms of each participant's use of different social media platforms (typically two or more) for various purposes, including entertainment, communication, and collaboration.

#### **4.3.2. Subcategory: Social media features and role**

This subcategory addresses the benefits of using social media, such as simplicity, accessibility, flexibility, affordability, and efficiency. Also, it covers the indispensable role of SM and students' future expectations about social media.

All students described their social media usage as convenient due to intrinsic simplicity, accessibility, flexibility, affordability, and efficiency. As for the dimensions of simplicity and accessibility, Farh described her reasons for using social media as relating partly to the value of these platforms in facilitating information-sharing for academic issues. In her case, she was interested in the convenience and ready availability of nursing-related information on social media platforms:

“The reason why I am using social media in nursing education because it is an easy and inexpensive way to access information”.

Similar to Farh, the availability of educational content and course-related information on social media platforms was an attractive aspect for Nora. In particular, the student highlighted that the concise and compact delivery of academic information on social media platforms was a major advantage:

“One of the advantages I can find in social media – some clips which explain educational topics in a simple, concise form, and this helps me to quickly understand the topics”.

Just as students Farh and Nora stated that the use of social media was associated with a range of academic benefits, Sama mentioned specifically that social media could function effectively as a tool for improving the process of learning and clarifying key concepts and practices. This student also emphasised the value of social media in enabling quick and efficient communication on academic matters. In particular, the student noted that:

“Social media helps simplify the learning process, makes communication easier, and is a useful clarification tool”.

Farh also offered several similar remarks, particularly regarding the utility of social media platforms in enabling ready access to course-related data and academic data, including information on nursing-specific techniques and practices. For example, the student highlighted the value of being able to access up-to-date in nursing research:

“As for the benefits, social media has made it easier for me to access information especially with regard to nursing procedures and to see the latest research in the nursing field”.

One of the key advantages highlighted by Tala relates to the previously discussed issue of learning convenience and the promotion of ready access to data. For example, Tala discussed the usefulness of having quick and on-demand access to essential learning resources, like guides to assist in the completion of academic activities, such as writing a thesis proposal:

“Advantages include easiness of learning and accessibility to information. For example, instead of looking up information in a book for an hour or two, with possibility that I may end up not understanding, I can open a YT video explaining the information in minutes. For example, there was a video explaining how to write a thesis proposal in just five minutes”.

The advantages highlighted by Renad touched on several similar areas, including the benefits of social media platforms in enabling ready and quick access to medical data and up-to-date evidence. This student described how older clinical colleagues also found the availability of digital information useful, especially when compared to previous times when physical handbooks and reference libraries were needed:

“Advantages include easy access to information, diversity and interesting display of information, and the ability to get numerous information at the same time. For example, when I went to practical training at hospital, one of the nurses told me that they used to use a handbook to search for information when they were students, and they always carried it with them, but now we can search for medical information easily via social media”.

Similarly, Najd emphasised the value of social media platforms in enabling information-sharing, but she also drew attention to the role of social media in enabling the verification of the information that a user views and interacts with. The student cited the example of being able to communicate with experienced staff members to acquire information like nursing procedures when one is unsure. Specifically, as mentioned by Najd:

“They facilitate access to and verification of information. For example, if I have doubts about a specific information, I can communicate with my colleagues on WhatsApp, like how to perform a specific nursing procedure: are the steps correct or not? This way, I get a quick answer via WhatsApp”.

As for flexibility, Lora noted that a key difference between traditional modes of delivering learning content, including lectures and seminars, and using social media for learning, including YT videos, is that social media platforms can be accessed without time or geographical restrictions. The student reported that this feature of flexibility in the case of social media platforms enabled them to learn much more effectively, with the ability to rewind and fast-forward through educational videos:

“One of the most important advantages of SM is that it is flexible, saves time, and I can use it anytime and anywhere. For example, I can watch a YT clip and stop it to do anything else, then go back to watch the same clip without missing anything. Unlike the lecture, if I leave the lecture, I will miss a lot. Compared to class lectures, using SM is more beneficial. Because in the University I should attend the lecture at a specific time and place, but I can use SM at anytime and anywhere”.

The perspective of Najd was similar, with the student noting that due to the flexibility of social media, she could access a wide variety of academic services remotely at home rather than on campus, including submitting assignments and accessing educational content:

“Advantages include saving time and effort, and accessibility at home, or anywhere else, which means convenience. Submission of assignment online instead of hard copies”.

It is worth noting that Mela specifically highlighted the value of the features of social media, whereby instant accessibility via the internet and an internet-enabled device makes it possible to complete academic activities efficiently. In particular, the student noted that:

“The speed and ease of exchanging information saves a lot of time, instead of searching in books for a long time”.

Similarly, Jood discussed the time-savings she achieved by using social media compared to traditional modes of accessing information:

“Actually, by using SM I can get information in a few minutes and it saves my time”.

As for affordability, the response given by Rwan highlighted several key aspects of social media platforms, including their freely-available nature and their perceived usefulness in terms of enabling communication, information-sharing, and access to information:

“I use SM in education because it is an easy and fast way to communicate with people or to obtain information at any time. Also, because it is inexpensive, and all the apps are free”.

In a similar way, Farh emphasised the inexpensive nature of using social media platforms, which is a notable feature given the useful services that these platforms offer. As the student noted, social media platforms are

“An easy and inexpensive way to access information”.

Jood reported that social media platforms make interactions more efficient between students and help students to catch up. In particular, the student noted that her peer group used WhatsApp to maintain a record of key dates for their academic programme, and that members of the group communicated via audio and text messages on academic issues. As a case in point, after missing a lecture, group members could access necessary files via WhatsApp and receive clarifying explanations by using audio messages from their peers. As Jood described:

“We use WhatsApp messages to remind us of the dates of the tests or to review the materials before the test by using text messages or voice messages. For example, if any student was absent from the lecture, she can get a copy of the lecture via WhatsApp by sending the lecture to her as an attachment or explaining it to her via voice messages”.

Efficiency was another feature noted by Rwan in their discussion of social media, and this student focused especially on data collection. As she noted, it was possible for students to disseminate questionnaires to members of a target population using social media applications such as WhatsApp and, furthermore, to receive rapid feedback:

“We can send any research questionnaire via WhatsApp, so participants can fill it out and send it easily and quickly”.

In terms of the role of social media in the lives of nursing students, Sama described social media platforms as occupying an important role in her life, whether for educational purposes or communicating with friends and family:

“Very important. Social media’s role is undeniable, whether in communication, education, or other things. Social media is very helpful, and it has its own role to play in this context. For example, we use these platforms to communicate with the students and faculty members on certain courses, and to ask questions and get some answers. So, social media makes a lot of things much easier”.

Farh also reported on the way in which her use of social media has become part of her daily routine. In particular, the student noted that she used social media for multiple purposes entertainment or academic work, which highlights that although the student was extensively using social media, the purpose for using these platforms is not always the same:

“SM has become an important part of my life. For me, not a day goes by without using SM, whether it is for entertainment or to obtain useful information in my studies. In the end, I want to say that social media has become an important part of our lives and it has facilitated many things for us in our daily lives, whether in terms of access to information or entertainment”.

Similarly, Rwan described social media use as the most important aspect of her life, reporting that:

“Using SM is the main thing in my life”.

Tala also described the importance role of social media in her life and reported a remarkably high level of dependence on social media platforms. She described the close integration of social media into her daily routine, noting that she accessed social media applications every morning:

“Indeed, they are important tools in life to learn about useful things. It is very important to me. Frankly, I cannot live without it. As soon as I wake up, I grab my phone to check Twitter and WhatsApp. Life without social media is not life”.

Similar to the abovementioned students, Mela described herself as integrating social media use into her life as a daily and routine feature:

“I feel it is impossible for me a day goes by without using SM. I feel that I have become used to using SM daily. I feel that it has become part of my daily routine. For example, for me, it became necessary to follow the followers’ diaries on SM every day”.

Conversely, Nora reported that her use of social media – and her intention to use these platforms – is a context-dependent and, in particular, a mood-dependent phenomenon:

“I think SM usage is important and not important at the same time. For me, it depends on time and mood”.

Similarly, Renad emphasised that while it is occasionally crucial to remain connected to social media applications like when global news is published, she does not typically access social media on a daily basis:

“I do not think they are necessary or important to use as they can be dispensed for a day. However, sometimes it is necessary to follow news, particularly in the current situation, I follow coronavirus news”.

The attitude of Arwa contrasted with those of several other students, with her view being that social media platforms are generally unimportant and only serve as a way to spend one’s free time:

“Not important, just spending my free time”.

As for future expectations of using social media, all the students expected that social media usage would increase. For example, Tala suggested that the use of social media in the future would continue to increase due to the high level of social media dependence in modern society:

“It will increase, because people now have become totally dependent on social media. Also, nurses use their cell phones significantly, particularly in calculating drug doses, and they may also share some information with each other via social media. Accordingly, I expect usage will increase in the future”.

Rwan highlighted the value-adding offerings of social media platforms, using this to justify her expectation that social media usage would increase in the future. According to the student:

“I think the usage of SM will increase in the future. Because SM provides students with all services in an easy and quick way, especially in terms of communication between students and faculty members”.

In the case of Mela, they reported that social media usage rates would grow in the future due to the value of these platforms in academic contexts, particularly for students. As noted by this student:

“The use of SM will increase, because students may face a problem in understanding some nursing procedures and for sure they will use SM to face this lack of information”.

In the domain of nursing, Arwa suggested that social media usage would grow owing to the educational value of social media platforms. In particular, the student said,

“I think it will increase, particularly in nursing. Maybe due to health education learning through short videos clips. I feel that SM can innovate and help these students to become health educators”.

Regarding the Saudi context, Lora suggested that the usage rates of social media would increase among nursing students in the future due to the rising enrolment rates among females in higher education, as well as the advancement of social media applications. In particular, the student reported that:

“The use of SM by Saudi nursing students will increase in the future. This is due to the increase in the number of female students enrolled in nursing programmes in Saudi Arabia. Also due to the continuous development of these applications and their features”.

Jood justified their prediction of growth in social media usage in Saudi Arabia by referencing the pivotal nature of social media adoption for the Saudi Vision 2030 initiative, stating that

“Compared to our usage of SM in the present time, I think the use of social media will increase in the future. Now, Saudi Arabia has developed in many fields, and SM is one of the objectives of Saudi Vision 2030”.

Similarly, Sama speculated that social media popularity would increase in the future, particularly given their growing prominence across Saudi Arabia:

“I think social media platforms are gaining more popularity, as the Saudi society is relying more on them in their daily lives”.

Participants in this research highlighted that communication and connection through social media were important in influencing their use of multiple social media platforms. Regarding their dream social media application, Rwan described their desire for a multi-purpose application focused on the field of nursing, providing functions such as contact with faculty members, multimedia learning by both text and video, and assignment submissions:

“I hope that there will be a specialised application for nursing students to facilitate communication with faculty, to accomplish tasks, to submit assignments and to exchange information, and provide students with e-books and educational videos, especially for basic nursing skills”.

Arwa described her dream social media application as one offering nursing-specific information, including guidance on creating nursing care plans. In the student’s own words:

“An app to explain nursing care plan, particularly NANDA, as some undergraduate students face a problem in writing nursing care plans. For example, in the app, the student may upload a patient’s complaint, and the app would provide her with a complete treatment plan from which she could choose the most suitable for the patient’s condition”.

Similarly, Najd highlighted the value of a nursing application offering patient-specific guidance on the procedural aspects of nursing:

“A nursing process app, because there are things, I do not know. I mean, I would upload the problem and it would give me solutions, from which I would choose the most fitting for my patient”.

The application described by Yasmeen was also marked by its focus on the skill-related and procedural aspects of nursing, which she viewed as useful. Specifically, she mentioned that an application offering high-quality information, paired with convenient search functionality for users to find what they are looking for, would be ideal:

“An application on all nursing skills and procedures; to help student nurses in looking up any kind of procedures, with enough details and verified information”.

In addition, the application imagined by Mela was centred on nursing procedures, especially the simple delivery of high-quality knowledge. This student also discussed the potential value of a platform that offers nursing training schemes:

“I hope that there will be an application to explain nursing procedures correctly and simply. Such as intravenous (IV) cannulation. This would help students to understand, and also include detailed information so that students find answers to all of their questions. Also, providing training courses in the nursing field”.

Renad reported the desire for a general nursing application that could serve as a valuable reference for nurse interns, with functionalities such as learning support, procedural and practical information, and opportunities to register officially for qualifications:

“I wish there was an app that provides information relevant to nursing in general, such as registration in educational courses, information on nursing specialties as well as explanations of nursing procedures, to facilitate access to information and to act a reference for nursing students, particularly during nursing internships”.

For new nursing students, Sama highlighted the potential value of an application centred on the fundamentals of nursing:

“An application that explains what nursing is, what the role of a nurse is, and shows nursing procedures, since some freshers may join nursing school without any prior knowledge of these things”.

The usefulness of an application oriented toward promoting continuing professional and academic development for nursing students in Saudi Arabia was highlighted by several of the students. For example, Lora highlighted the distinctive nature of Saudi society in terms of its regulatory landscape for healthcare, discussing the implications of this in relation to the fact that there is no Saudi-specific nursing application. In view of this, the student suggested that it would be beneficial to create a nursing social media application that delivered information about health-related topics in Saudi Arabia:

“An application provides nursing students with specialised training courses and also provides video clips to explain the basic skills in nursing by Saudi nursing students. Especially with the availability of all capabilities such as simulation laboratories and availability of Saudi nursing experts. This is because all the applications that we followed are located in other countries. In Saudi Arabia, we need an application that is specialised for our Saudi society, and that follows the regulations of the Ministry of Health”.

Another student whose dream social media application promoted academic and professional development was Nora. She highlighted the value of making fundamental nursing information such as nursing specialties and qualifications available to everybody

and conveniently accessible through an application. At the same time, she noted that an application to assist postgraduate nursing students in their academic affairs, like choosing a place to study, would be valuable. In her own words:

“An application that contains courses and workshops like online courses. Also, which provides students with available nursing specialisations and classifies them, because many students don’t know what the nursing departments are. Also, provides postgraduate specialisations in the field of nursing and the place of study and study requirements”.

Farh expressed their desire for a specialised application focusing on specific nursing departments, offering high-quality, up-to-date, and discipline-specific information about each one:

“I hope that there will be a special application for all nursing departments such as surgical and medical nursing, paediatric nursing, mental health, and community health nursing. This application should provide information for each department, and be supervised by specialised people. Also, the application should have updated information on the latest nursing research, during the past five years”.

The value of an application for health education guidance on practical, patient-related matters in nursing was highlighted by Najd. In addition, the student highlighted the potential utility of an application enabling student-patient communication:

“It should also include info on health education, to help the student in offering patients correct information without being distracted or having to search in more than one reference. Also, it should enable the student to communicate with patient by sending them videos explaining the information simply, and help the student respond to patient’s inquiries”.

Dissimilar to the previously mentioned students, Tala reported their view that the available applications, including Telegram, are more than adequate to satisfy the needs of nursing students:

“I think that there is no shortage or need for any new app because all existing apps are sufficient and fulfilling the purpose. For example, Telegram has a group dedicated for nursing in all specialties, and offers info on courses, information as well as e-books”.

The participants’ statements in this subcategory, particularly those relating to their dream social media applications, highlighted the core features of social media platforms that nursing students or nurse interns may benefit from, as well as potential future directions for the development of social media. For example, for nursing students, as well as nurse interns, the participants suggested that nursing-specific social media applications that offer high-quality information about nursing skills and procedures, nursing care plan, patient health education, nursing specialties, current research, and relevant courses

would deliver substantial practical value. However, all participants felt that due to the simplicity, accessibility, flexibility, affordability, and efficiency of social media, the available platforms already offer significant benefits both practical and academic for nursing students in terms of entertainment, information-sharing, collaboration, communication, and facilitating the teaching and learning process in higher education. Due to this, many participants reported that they used social media platforms in their daily routine, both for academic and entertainment-related purposes, but some participants still expressed reservations about the importance of social media. It is also notable that most of the students believed that social media's popularity would grow both in Saudi Arabia and worldwide in the future.

#### **4.3.3. Subcategory: Self-concepts**

This subcategory focuses on students' self-concepts such as self-control, self-development, and online self-presentation. For many participants it was important to differentiate between the use of SM for entertainment and work or study. Some participants focused on the need for self-control. For example, Tala reported that due to willpower and self-control, personal use of social media did not interfere with her academic use:

“My personal use does not affect my academic use, because I can control myself and set time to study, particularly if the topic that I consider important. For example, on YT, some ads are displayed, so I skip these to keep watching the video”.

Similarly, Rwan emphasised her effective self-control regarding social media use, and described strategies used to enable self-control, including removing smartphones from their study area. In particular, the student noted that:

“My personal use of SM does not affect academic use, because I can control my use of SM. For example, when I want to start studying, I keep the phone away from me for a specific time, so I can focus and finish my study on time”.

Nora discussed how her social media usage habits had been negative at an earlier stage in their life, but that she had developed the self-control skills needed to benefit from social media:

“My thinking skills improved also, my ability to manage time, for example, during my high school, I used SM very much, from the morning until bedtime sleep, but now I can control my use of SM in a better way. It does not affect my academic use. For example, when I am busy doing my homework and I receive a message on WhatsApp, I usually read it and return again to continue my homework, because I set this time to study”.

Sama attributed her strong self-control to her respect for patients' lives, as well as her commitment to being a diligent student:

"I can control myself and manage my time, and I dedicate most of my time to studying. And when I feel bored, I remember all the lives that I am responsible for at the hospital, so I immediately get back to studying".

In contrast to the above-mentioned students, several students described experiences of social media interfering with their academic progress. For example, Najd reported having to delete certain social media applications due to their distracting nature, as well as having to develop strategies for using social media positively, including using social media as a reward:

"I suspected that it affected my study so at first, I deleted Snapchat, because I felt it was distracting me from studying. For example, if I opened YT to search for a study topic, I got recommendation clips of movies I searched for previously. I started saving these in my favourites, so I could watch them after I finished studying, as a reward. Thus, I try to control my personal use".

Jood described how the entertainment functions of social media could interfere with academic functions, emphasising the importance of engaging in academic work without having a social media application nearby:

"Actually, my personal use affected my educational use a lot. I think the main reason is because I have more interest in the personal entertainment side more than the study or work side. Also, personal use is more enjoyable. I think I spend more time browsing SM apps accounts. So, I decided to do my assignments while intentionally keeping my phone away. So, I can complete my homework".

Mela described the feeling of becoming distracted when using social media applications for learning purposes, as well as their detrimental influence on learning critical topics and practices in nursing. In particular, after logging into a social media application like YT to find an educational video, the student described how the platform's recommender systems would quickly recommend an irrelevant video, thereby leading to a substantial distraction:

"I feel that my personal use of SM affects my studies a lot. Because sometimes it wastes my time, I feel. Sometimes I waste an hour or two hours, which I could have used time to study. For example, when I watch any nursing procedure on YT, I find some clips that attract my attention away from my study. Then, I watch them and forget totally what I was doing".

Since social media platforms offer functionalities to assist in learning, information-sharing, professional work, and entertainment, it is unsurprising to have found, as this section indicates, that many of the participants highlighted the criticality of self-control

when using social media. The participants clearly recognised the necessity of tightly regulating and optimising their social media usage, particularly as a way to increase their likelihood of academic and professional success in the future. Many participants made it clear that they take various measures, such as avoiding the use of smartphones during studying, set a specific time for studying, and having a sense of responsibility, in order to ensure that social media does not distract them from their academic responsibilities, and that they can still benefit from its educational and entertainment value. However, several participants reported difficulties in maintaining concentration due to the distracting nature of social media platforms while attempting to use them for academic purposes, such as when features of the platform like SM recommendation systems distract students from their original intentions, like watching recommended videos rather than educational videos. As such, the participants' responses highlight the essential nature of self-control in order to realise the diverse benefits of social media platforms and avoid the negative effects.

In terms of self-development, Farh reported that social media platforms had improved her research skills, reading skills, and ability to find information quickly:

“Social media helped me to develop my searching skills for information, as I noticed my improvement in my search skills day by day. Also, it improves my reading skills, by improving my skimming and scanning techniques, so I can obtain the information in an easy and fast way”.

Rwan highlighted skill-related benefits in terms of communication, research, and rapid information retrieval:

“SM improve my communication skills, especially in getting know people. Also, SM improved my search skills. for example, now if I want to search for anything, I can get information easily”.

Najd reported the same benefits, highlighting the following:

“Now, I know how to look up information. Searching for information has become easier and faster. Also, my communication skills with people have improved. My English has improved, particularly when I watch YT videos of nursing procedures”.

Sama reported benefits of social media usage in terms of advancing research skills, English language skills, and nursing-specific topics:

“It developed my research abilities; as I found myself looking for information expediently. I also developed my English language skills. I was able to improve my nursing skills by watching YT videos that correspond to our nursing checklist. For example, I learned the correct way to wash my hands, which is different from the method used in laboratories, as you need to wash them for one whole minute”.

Conversely, Yasmeen was doubtful about the possibility to learn nursing skills via social media, due to the practical nature of such skills:

“I believe I learned more via social media. With respect to nursing skills, I don’t think social media has any effect on developing them. It’s true that one can watch videos of nursing procedures, but I don’t think these can improve in any way, since these kinds of skills need hands-on application and training”.

Arwa also emphasised the view that developing skills through practical activities would be more valuable compared to learning on social media platforms such as YT:

“For skills, I prefer practical application of skills than learning through YT”.

Regarding the subcategory of self-development and its relationship to social media usage, a majority of students reported clear and meaningful improvements in specific core skill areas such as academic, nursing, and communication skills. In contrast, a smaller number of students expressed scepticism over the question of whether social media platforms could improve their practical nursing skills. Areas of improved self-development for some students included research skills, reading skills, language skills in terms of second-language acquisition, and nursing-specific knowledge. As a case in point, students reported that social media platforms such as YT enabled free and immediate access to vast resources of nursing information like videos of procedures or explanations of checklists. Importantly, however, there was some doubt among the participants over the ability of social media content like YT videos to substitute for opportunities to apply key nursing skills in a practical and real-world setting. Evidently, nursing students must have access to real-world training and development opportunities, but these participants’ responses strongly indicate the value of social media platforms in offering supplementary content to facilitate self-development.

So far, the analysed excerpts highlight that self-control and the disciplined use of SM can lead to self-development. Linked to these subcategories, the participants also focused on online self-presentation. Lora reported using anonymous accounts:

“On Instagram, I have two accounts, one account to communicate with my family and the other account I use it to post my writing”.

Yasmeen described herself as not being active on Snapchat, and mainly using the platform for entertainment or academic purposes:

“On Snapchat, I’m not personally very active, so I don’t post much unless it’s something useful or funny. And that’s not something I do on a daily basis”.

Regarding social media activity, Nora reported that she was most active on WhatsApp and Twitter, the former of which she used to access study groups, and the latter to follow accounts and engage with the public:

“I think I am more active on WhatsApp study groups and also on Twitter, to follow accounts and write some tweets”.

Additionally, Farh reported being active on most social media applications, and explained that she used each platform for a different purpose:

“Also, I am active in all applications in SM. As for Snapchat, I use it to view my diary, and everyone can view it because my Snapchat status is public”.

Sama mentioned that she used social media to post information:

“I mostly use TikTok to post my daily life as a nurse”.

The practices used by this study’s participants to present themselves online in terms of social media accounts, posting content, and user status were identified in this section based on the obtained data. At the same time, the responses given in this section regarding online self-presentation revealed notable points about the following issues: levels of social media activity on particular platforms; and participants’ reasons for using specific social media applications. In terms of online self-presentation, one participant revealed that she used anonymous accounts, one for communication with her family and the other account for posting her writings.

In addition, levels of social media activity were generally high among the participants when using these platforms for academic and communication purposes, like study groups on WhatsApp. Another important pattern to emerge relating to the participants’ reasons for using specific social media applications was that each platform was typically used for a different purpose. Also, among the participants, diverse social media platforms were mentioned. For example, compared to postgraduate students, undergraduate students used more novel platforms such as TikTok, and most participants appeared to use at least two or more with regularity.

#### **4.4. Key category: Extending knowledge**

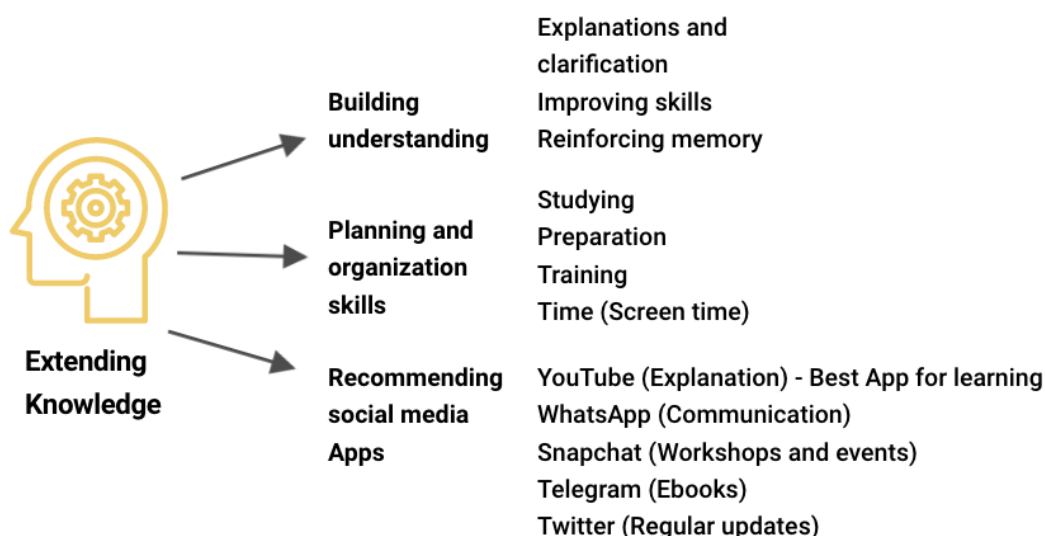
This category describes the benefits of using social media in education by extending students’ knowledge, building understanding, and helping them in planning and organisation. Also, it covers students’ recommendations for social media applications. For example, Tala described how social media platforms such as YT helped her to expand her knowledge while writing her master’s proposal:

“Social media help expand a student’s knowledge because they provide detailed explanations. For example, YT has helped me a lot in writing my master’s thesis proposal, particularly in writing my research objectives, paraphrasing, avoiding plagiarism and statistical analysis”.

Similarly, Jood mentioned that social media provided access to rich resources compared to only using information from teachers:

“Social media has helped me to expand my perception by searching for information on more than one site and not just relying on the teacher’s information”.

It is possible to classify extending knowledge into three subcategories: building understanding, planning and organisation, and recommending social media applications. All of these are subcategories emerged from the data (Figure 11).



**Figure 11. Conceptual map of extending knowledge**

#### **4.4.1. Subcategory: Building understanding**

This subcategory focuses on social media benefits in helping students understand educational topics, such as helping students with information explanation and clarification, improving skills, and reinforcing memory. As for understanding and providing informative explanations of educational topics, Mela described her usage of social media in education, reporting that YT was her platform of choice due to the availability of nursing-related exam preparation videos that could be rapidly consumed:

“I prefer to use YT in education because it provides me with videos to explain information and that helps me to understand information more quickly. For example, I am following a Registered Nurse channel on YT

to review some nursing skills and to search for more explanation of course topics as well, to prepare for the NCLEX exam”.

Similarly, Sama described her use of YT, as well as more novel platforms such as TikTok, to learn about techniques and practices in nursing, including as a way to reinforce and revisit knowledge and skills already covered in lectures:

“On YT, I follow the channels that offer explanations on nursing procedures. For example, last semester I took a course on nursing principles, and I came across some difficult procedures. So, I used to look them up on YT, which gave hundreds of explanation videos. There is also a nurse whom I follow on TikTok. She uploads useful vids that explain nursing procedures in an easy way”.

Najd discussed their educational usage of social media platforms such as YT to acquire and comprehend information in a convenient and concise format:

“I use YT to search for explanation of some information. For example, a professor of epidemiology asked us to look up the difference between experimental and observational study. We searched and exchanged a YT video explaining the difference between these two concepts easily and briefly”.

Lora also described their use of social media platforms to aid in their understanding of complex topics, noting that YT was valuable in offering additional resources to facilitate comprehension and effective learning:

“I use SM because sometimes I find difficult to understand some educational materials. For example, I had difficulty to understand some topics in the physiology. So, I decided to use YT for more clarification and explanation”.

Rwan noted the value of explanations accompanied by videos and animations in social media, which greatly assisted her understanding of lecture topics:

“I use YT more than other applications because it has more features, like providing explanations with videos and animations, which helps me a lot in understanding the topics that I did not understand in the lectures. YT also gives more details of the information”.

Lora described the specific value of social media platforms, particularly YT, in enabling her to develop her knowledge in the field of nursing, as well as to understand key topics such as nursing care plans:

“I use YT to get information and explanations, and in my opinion, YT is the most important educational platform in all fields, and especially in the nursing field, because it provides me with more information and details to understand the study materials. Also, I think using YT to explain scientific information makes it easier for the student to understand the study materials in a better way. And for me, YT helped me a lot in understanding

many important topics in the nursing field. For example, I use YT to help me to write the nursing care plan”.

Jood, similar to Lora, viewed YT as the most useful social media platform for accessing detailed course-specific information:

“The application I use most often for education is YT, because it explains the information in more detail. For example, I use YT to get more explanation of the pathophysiology of diseases. Also, in nursing procedures, YT gives a full explanation of nursing procedures from A to Z, so I can follow it step by step”.

Renad highlighted the practical value of YT in showing visualisations and examples of procedure and practices, but also described the use of Twitter hashtag searches to learn about symptoms, diseases, and other medical data:

“I use YT to follow explanations of nursing practical courses, such as some nursing procedures, like giving injections and performing physical examinations. On Twitter, I look up some diseases, their symptoms and treatment, via hashtags, or through accounts providing medical information”.

Unlike the above students, Nora reported that although social media platforms are valuable to a certain extent, their usefulness is limited. In particular, she described her view of social media platforms as serving only as an effective complement to in-class learning and traditional modes of instruction like classroom explanation:

“I find it useful, but I do not think it is used effectively at the University by students. I think the explanation in the classroom is better than relying entirely on social media”.

As for improving skills, Mela noted that her ability to skim read and research for specific information had improved due to their interactions with social media platforms:

“Skimming reading skill, as well as [other] research skills, have improved. For example, when I search for a specific topic, I can quickly read an article and choose what works for me”.

Jood described their growth in terms of academic autonomy and research skills due to the availability of networking technologies and social media platforms:

“In the past, I relied on the teacher’s explanation, but now I am searching for the information by myself. This way improved my search skills”.

Tala also reported improved research skills, along with an enhanced capability to give clear explanations of concepts:

“My ability to research and explain information easily has improved”.

Arwa reported themselves as having improved their research skills and ability to skim read:

“My research skills and skim reading have improved, particularly when searching for scientific article”.

Lora explained how her engagement with foreign language resources on YT, like videos with spoken English, had assisted in the development of her language skills:

“SM improved my English language because I watch many videos and vlogs on YT in the English language”.

Najd described improved information search capabilities, communication skills, English language skills, and practical knowledge such as nursing practices:

“Searching for information has become easier and faster. Also, my communication skills with people has improved. My English has improved, particularly when I watch YT videos of nursing procedures”.

Nora described having acquired cognitive enhancements:

“My thinking skill improved”.

Regarding reinforcing memory, Sama discussed the manner in which videos on social media platforms such as YT aided not only in her comprehension of practical topics, but also in her ability to memorise key facts:

“Some videos are really useful in helping me memorise and understand a specific topic easily”.

From the standpoint of Lora, learning using social media platforms was more effective and useful in comparison to traditional modes of learning. The student highlighted several reasons for this, including the ability to access social media without geographical or temporal limits, the ability to focus more within the home compared to in lecture halls or classrooms, and the ability to view information on social media multiple times:

“Compared to class lectures, using SM is more beneficial. Because in the University I should attend the lecture at a specific time and place, but I can use SM at anytime and anywhere. I noticed that my focus at home is better than being in the classroom, because usually in the classroom my mind is busy with other lectures or exams. Also, on SM I can repeat the information more than once until I understand the topic”.

The first of the subcategories in the broader category of “extending knowledge”, namely “building understanding”, focused on the way in which the students’ use of social media platforms may have improved their knowledge including academic, general, and domain-specific knowledge via an extension of their understanding by clarifying information,

assisting memorisation, and enhancing skills. Based on the participants' responses, which were centred mainly on the field of nursing, most believed it is evident that there is considerable value in exploiting at least one social media application to build understanding. In particular, YT was described as a diverse and vital reference and source of information for the students – one that can be accessed remotely, at any time, and to clarify almost any educational materials. While some students did report a preference for in-person tuition like lectures to build understanding and, consequently, to extend their academic knowledge, almost all of the students referred to social media platforms positively in terms of their educational benefits. For the participants, the reported benefits in terms of skills included general academic skills such as research, reading, and writing, language skills such as English comprehension, and skills specific to nursing, such as nursing procedures. In addition, the participants indicated that benefits also resulted from social media use when seeking to build understanding through memorisation, such as the use of YT videos to aid in memorisation before important assessment dates.

#### **4.4.2. Subcategory: Planning and organisation skills**

This subcategory focuses on students' usage of social media in planning and organisation in studying, preparing, training, and time management. As for studying, Renad reported on her regular use of YT to learn about and reinforce her knowledge of practical content:

“I use YT when studying. For example, when I study physical examination, I follow some channels that explain such topic”.

Also, Mela described her view of social media as valuable in enabling her to acquire academic information relating to nursing, as well as practical information such as detailed explanations of nursing procedures:

“I feel using SM in my study is good and very useful. For example, when I want to review what I studied in the nursing lab, I find a lot of videos on YT that explain the nursing procedures in detail. Also, I use SM to help me to write the nursing care plan, as well as in research and presentations”.

Some students used other social media platforms, including WhatsApp, which was used by Farh. This student described the beneficial nature of WhatsApp's group functionality in enabling her to coordinate and contribute to study groups:

“For example, WhatsApp, I have groups for studying, through these groups we exchange information and news about the subjects we study”.

Sama also reflected on her use of WhatsApp for learning purposes, highlighting several functionalities of the WhatsApp application that added value in her education:

“Selecting the educative clip depends on the checklist we use in College, so if I find a video that is related to the list, I use it for studying purposes. There are a lot of study groups on WhatsApp, where students upload summaries of certain topics for us to benefit from. So, this app is used in summarising and organising topics/course. We also utilise voice messaging to send queries and answers”.

Arwa described how social media platforms had a positive impact on her learning motivation. In particular, the student reported on her use of Twitter to “follow” peers and colleagues, and she described the motivating effect of obtaining this information on her academic work:

“SM increases motivation, for example, on Twitter, I am following accounts of people to track her development and finding out their starting point and current status, which gives me motivation to study”.

By contrast, Arwa explained that her scepticism about the quality of data disseminated via social media platforms, particularly health-related data, caused her to doubt the educational value of these resources:

“For studying, I do not rely on all social media as a source of knowledge, because I, as a student, think they are unreliable. For example, last week we had a lecture on health promotion, and there were some things I could not understand, so I watched YT videos to help me understand them. So, I used them only to search for specific things. I do not use any information that can be found on social media as a source of knowledge”.

In terms of academic preparation, Mela described how the information that she regularly received from sources on social media played a valuable role in her development as a nursing student in terms of nursing exam preparations:

“I am following a Registered Nurse channel on YT to review some nursing skills and to search for more explanation of course topics as well, to prepare for the NCLEX exam”.

Najd offered an account of her routine use of WhatsApp to access academic information, schedules, assignment timetables, and study groups. The student reported that:

“As soon as I wake up, WhatsApp is the first app I open to check lectures’ schedules and to inform the group members if a lecture is cancelled or an assignment’s due date approaches”.

Similarly, Lora reported on her use of WhatsApp to coordinate critical aspects of her academic life such as timetabling, lecture dates, and lecture readings. This student noted the following:

“The important thing that I do in SM, especially in my study, is I open the study section group in WhatsApp to see if there is anything new in my school day. For example, before I leave home, I check the WhatsApp group to see if there is anything new about school subjects, for example, lecture cancellation, changing the lecture time, or preparing for the lecture by pre-reading”.

Nora described a similar usage scenario for WhatsApp, involving extensive use of the social media platform to coordinate study groups and communicate:

“As for WhatsApp, I use it for study, because I have groups for studying on WhatsApp, for example, today we had a group presentation, so communication between us was via WhatsApp to prepare and divide the topic. Also, if anyone finished their assigned part in the presentation, they can send it via WhatsApp to add or modify it. This means that we use WhatsApp mainly to communicate and exchange information”.

Several other students (including Jood, Lora, Rwan, Mela, Arwa, Tala, and Renad) reported comparable usages of WhatsApp for educational purposes. As a case in point, Rwan reported on her reliance on WhatsApp for communication and information sharing with peers at the University. Notably, this student used several modes of communication on WhatsApp, including sending audio messages like voice recordings, text messages, files like Microsoft Word documents, and links to online resources:

“I use WhatsApp groups to do assignments and discuss educational materials with other students. Also, I use WhatsApp to exchange information with students by explaining the voice messages or video clips or by sending links of e-books or sending word attachments “.

In discussing her use of WhatsApp for academic preparations, Tala explained that she found the social media platform useful as a way to learn about timetabling issues such as lecture dates. At the same time, this student used Twitter to interact with students working on similar majors, particularly to share helpful course-related information:

“I use WhatsApp to know lectures and tests schedules as well as exchange e-books. I use Twitter to communicate with nursing accounts. For example, I am following nursing students accounts where we exchange information via links, such as sending and downloading links of some e-books”.

Arwa also used WhatsApp for file-sharing, timetabling, and communication, noting that:

“I use WhatsApp to communicate with my colleagues as I’m the course leader, for example for sending lecture schedules. For example, when a professor sends us files on Blackboard, I download and send them to my colleagues on WhatsApp. It is easier than logging in to Blackboard to view them”.

Renad made diverse use of WhatsApp, noting its value in coordinating study groups, timetabling, and file-sharing and general communication in advance of examinations:

“On WhatsApp, I have several groups for studying and groups for class sections to exchange course test dates, send voice messages, exchange some files for revision before tests and exchange information”.

Jood similarly discussed the value of WhatsApp messages to learn about test dates or missed lecture materials, describing that:

“We use WhatsApp messages to remind us of the dates of the tests or to review the materials before the test by using text messages or voice messages. For example, if any student was absent from the lecture, she can get a copy of the lecture via WhatsApp by sending the lecture to her as an attachment or explaining it to her via voice messages”.

As for training, Mela reported that she used the social media platform of Instagram to obtain real-time information and updates from other students. An especially valuable aspect for this student was her ability to use social media to learn about the experiences of nursing interns and other students, which had substantial educational value:

“On Instagram I’m following an account of a nurse intern student who displays her diaries during the training period to benefit from her experience”.

In terms of time management, Lora described a feature that is available in modern smartphones like iPhones and Android devices, whereby a user can view statistics relating to her usage rates of different applications, such as time spent on social media applications and time spent on messaging applications:

“As for calculating the time of using SM, the iPhone provides a service named “Screen Time”, to calculate the time you spent in Apps. By calculating daily or weekly average, depending on your usage of SM apps and activities that you have done via your cell phone. I will check my screen time to tell you how many hours I spent on SM Apps”.

In this subcategory, the participants’ responses highlighted that they practiced a broad variety of activities and techniques for using social media platforms to assist in academic preparation, studying, and time management. Most of the participants explicitly indicated that social media platforms played an important role in their revision for exams, despite their acknowledgement of the potential for obtaining low-quality information. At the same time, the participants emphasised the benefits to their academic planning and organisation of the communication capabilities afforded by social media platforms, including the use of WhatsApp groups to coordinate group projects with peers and receive updates and alerts about key dates. The value of these platforms in enabling effective planning and organisation was attributed to factors such as their utility in

facilitating convenient file-sharing, links to internet pages, and real-time communication with faculty members and other students. In addition, the students were positive about the ability of social media platforms, along with modern technologies such as screen time monitoring features in iPhones, to promote effective time management.

#### **4.4.3. Subcategory: Recommending social media applications**

This subcategory addresses student's recommendations for social media applications such as YT, WhatsApp, Telegram, Snapchat, and Twitter. All students considered YT to be the best social media app for learning. For example, as noted by Sama, acquiring detailed knowledge about nursing techniques and procedures was less effective on other social media platforms compared to YT:

"I think YT is the best app when it comes to learning nursing procedures in detail. You don't find that on Snapchat, Facebook, or Instagram".

Tala described the value she derived from the ability to exploit the search capabilities of YT, noting that:

"YT is the best app for education because I use it to search for explanation of some topics".

Farh expressed a similar opinion regarding YT's value as the strongest social media platform for advancing one's nursing education, highlighting the usefulness of YT's large pool of nursing content creators:

"In my opinion, YT is the number one application in nursing education. Because there are many educational channels specialised in the nursing field in YT".

Yasmeen described the usefulness of YT in her dual role of university teacher and postgraduate student. As an educator, she could use the social media platform to foster her students' learning, and as a learner herself, she could use YT as a rich learning resource. According to this student, YT is the optimal social media platform at present for teaching and learning:

"I can use YT as a source of information in both my work as a teacher at university and as a postgraduate student. I find the information it provides very useful and helps deliver the content easily to the students. For example, in nursing practices, I can recommend students to check a specific video on YT in case they missed the practice session. That's why I think YT is the best clarification and elucidation tool among all social medial platforms".

According to Lora, all nursing students should learn to use YT effectively for educational purposes. This is mainly due to the value of the social media platform in presenting essential information in a visual way, such as videos on nursing skills and procedures:

“I advise every nursing student to use YT, because I personally benefited from it very much in my studies. For example, I used YT to review nursing skills, such as physical assessment implementation. Also, I benefited from YT to know the differences when hearing heart sound such as murmur sound”.

Nora also described the utility of YT, including several specific content creators on the platform, for nursing education. In particular, the student said:

“I suggest that nursing students use social media for education, and the most useful educational application is YT because there are many channels that provide an explanation to understand the lectures, for example, I follow Khan Academy, Registered Nurse, and Osmosis channels. Also, I use Nurseslabs for nursing care plans”.

The availability of practical information and explanations of key concepts on YT was the basis for one student’s recommendation that nursing students should use the platform. In particular, Mela said:

“I advise them [students] to use YT because it provides a lot of information, especially in the field of nursing procedures, compared to other applications. For example, it is easy for a student to search on YT for an explanation of nursing procedures or search for specific information”.

Similarly, Renad discussed the academic value of YT for acquiring nursing information, noting the following:

“I advise students to use YT because it provides useful explanations for many academic subjects”.

Several students recommended the use of other social media platforms, including WhatsApp and Snapchat, for educational purposes, particularly as a means of facilitating interpersonal communication, data sharing, and timetabling such as clarifying lecture and assessment dates. For example, Jood reported:

“I recommend students use social media apps like WhatsApp for communicating and exchange information”.

While Najd stated in more detail the following:

“I always advise them [students] to use WhatsApp, because it is used amongst students for communicating, particularly to check lectures schedules as lectures can be cancelled at any time. For example, once our course professor messaged us on WhatsApp that the practical lecture was postponed for another day, and I never checked WhatsApp, and went to University [the lecture] without knowing this”.

Further to the value of WhatsApp, Rwan emphasised the aspects of data sharing, study groups, and timetabling. In particular, the student noted that:

“They can use WhatsApp groups to communicate with other students, exchange information and know the dates and times of the lectures”.

Jood described her interactions with Snapchat to learn about up-to-date information regarding course-specific events such as workshops and other university events, as well as the lives of university staff. For example, the student noted,

“They can use Snapchat to know about events or workshops held at the University, or to follow the accounts of faculty members to benefit from their educational experiences”.

Tala noted the value of another social media platform specifically as a way to facilitate convenient e-book downloads:

“Telegram only to download e-books, because it helps in downloading large-size books”.

Similarly, Renad reported that she used the same platform for data and file sharing:

“I use Telegram to exchange files and textbooks”.

Rwan suggested that Twitter serves as another valuable social media platform for students whenever they need to arrange appointments at the University:

“I advise them to use Twitter if they want to book appointments for physicians, or know the dates for course registration at the university”.

Similarly, Arwa described using Twitter to receive real-time updates about the news and events of her College, as well as the University in general:

“Regarding study, when I enrolled at the University, I followed the KSU account on Twitter to see schedules dates, the College of Nursing account, in addition to the postgraduate studies, admission and registration accounts. I also follow some faculty members”.

Sama described her use of Twitter to remain updated about high-quality sources of nursing information:

“For example, there is the MyWay Twitter account that offers a lot of medical and nursing information, and links to nursing procedures, like the correct way to wash one’s hands, give injections, and dress and clean wounds”.

The most highly recommended social media platform among the participants was YT, which was attributed to its breadth, search capabilities, educational value, detailed and high-quality content, and nursing-specific value (i.e., for nursing education). One of the participants suggested that learning how to use YT effectively as nursing students ought to be made mandatory, given the unique for educational value that it offers essential

information in a visual way such as videos on nursing skills and procedures. At the same time, other social media applications were described as essential in the lives of many of the participants, one of the most prominent among which was WhatsApp. Opportunities to share data, create study groups, timetable, and receive real-time updates were highly valued in the case of WhatsApp. Twitter was commonly mentioned by the participants for its prominent usage by institutions such as universities as well as some faculty members; due to this, using Twitter was reported as a way to interact with university departments, to learn about their faculty members and to maintain pace with associated news and events. For the participants, Telegram was also referred to as a useful social media platform for file-sharing, while Snapchat was mentioned by one participant as worthwhile for receiving information about faculty members and departmental activities and events.

#### 4.5. Key category: Challenges

This category focuses on the difficulties that students face when using social media, such as information quality, distractions and loss of attention, time consumption and internet connection. Challenges were classified into four subcategories that emerged from the data: information quality, distractions and loss of attention, time consumption, and internet connection (Figure 12).

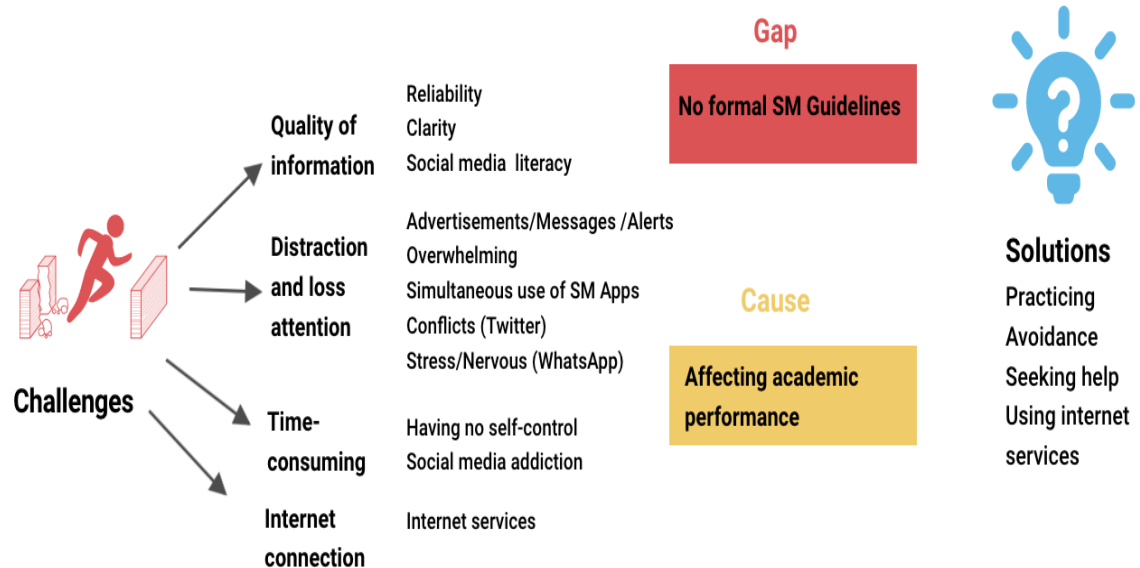


Figure 12. Conceptual map of challenges

##### 4.5.1. Subcategory: Quality of information

This subcategory focuses on reliability, clarity, and social media literacy. In terms of information reliability, Arwa described the difficulties she experienced in reading articles and obtaining high-quality information:

“For example, I could not read articles, particularly if I wanted to know whether such article is suitable for the topic I am researching or not. Also, difficulty of accessing information from a reliable source, for example Wikipedia is not always a reliable source as it can be edited”.

In a similar way, Nora mentioned how her main challenge, especially when she first encountered the internet and social media platforms, was to access high-quality information:

“The first difficulty was how to use SM to find information, in the past, I wasted a lot of time without getting any benefit. The reason is that in the past I did not know how to obtain information from the correct sources”.

In addition, Jood referenced a limitation of social media platforms in that there is a high prevalence of low-quality academic content such as incorrect nursing information:

“As for the disadvantages, not all the information in SM is correct. Also, the teachers’ explanation differs from the information in the SM, and this affects my answers in the exam”.

Nora even highlighted the availability of false information and misinformation about aspects of nursing, such as nursing skills:

“Posting false information about the nursing profession. For example, some people post incorrect information about nurses about nursing skills like giving vaccines, not all nurses not qualified. I don’t like it when they generalise this idea”.

In terms of clarity, Farh described her experience of how the information she accessed via social media platforms often lacked clarity due to the poor qualifications and knowledge of content creators:

“Sometimes the information on social media may be unclear and requires more effort to search for the correct and clear information. The information may be incorrect because it provided by unqualified person especially in nursing producer. Sometimes the procedure steps are not clear”.

Regarding ensuring the correctness of information, Jood recommended that all nursing students should develop the ability to locate and utilise high-quality resources, particularly so as to enable verification of the data obtained via social media:

“One of the important recommendations for nursing students is to use reliable scientific references such as books. Also, they shouldn’t depend on only the information from SM, because not all the information provided in SM is correct. To ensure the correctness of the information in SM, I took a lecture in education subject and the teacher explained how to search for accurate information in Google Scholar by using Boolean searching [operators], such as AND, NOT, and OR”.

Similarly, Farh mentioned how the prevalence of low-quality information on social media necessitates the development of effective techniques for retrieving data from social media platforms and the internet. One of the platforms highlighted by the student as being valuable for this purpose is Google Scholar, since the information published on there can be considered more robust:

“The use of SM as an educational tool for nursing education is very important, but we must focus on how to choose the information because not all of the information in SM is correct. For example, when I am searching for treatment of a specific disease, I find a variety of information differs from one application to another. So, students should pay attention to how to choose the correct information. With regard to how to choose the correct information, I am always referring to Google Scholar by searching in electronic books or by searching in scientific journals. When I found the information repeated in many journals and books, I use it because I trust the information source”.

Najd also mentioned her ability to confirm information encountered on social media platforms by consulting more credible sources. Notably, the student described how she had developed this skill due to a higher education course, specifically informatics:

“I can verify the information by searching through reliable internet sites, such as sites ending in .ORG or GOV. I learned this in the informatics course, which we studied last year. We studied how to search for verified information sources”.

In a similar manner, Nora stated that she use teacher-recommended resources to support information retrieved from social media platforms. She reported:

“Now I can make sure of the correct information by searching on the course syllabus because there are some educational sites suggested by the lecturers”.

Advances in skim reading capabilities were reported by Arwa as an area of improvement, especially in terms of enabling the rapid verification of information:

“Regarding the difficulty of searching for a specific article, with practice, my skim reading skill has improved. To verify if a certain information is statistically approved, I look it up through the WHO website. For example, I go through the Saudi MoH Twitter account to find out about coronavirus cases in KSA. I mostly use the Saudi Digital Library (SDL) and Google Scholar. SDL provides me with more sources and doing research through it is easier”.

In view of the detailed process of source verification followed by Arwa, it is noteworthy that Yasmeen mentioned her experience of formal education in finding information. As she noted:

“I learned and took courses on finding resources”.

In terms of social media literacy, Jood described her experience of having had to advance and develop as a social media user, eventually gaining the capability to use social media platforms easily:

“Actually, in the beginning, it was difficult for me to use SM apps because I didn’t use SM before in the research and learning, but over time the difficulties disappeared, and I like to use SM apps in learning. I mean the difficulty was in the way of dealing with the information sent from the external sources because in the past, there were no many learning resources. We were just depending on the information we get from the teacher”.

Similarly, Farh reported initial difficulties followed by a solution to the challenges through practice:

“As for the problem of searching for the information correctness. At the beginning of my use of social media, it was difficult for me to search for correct information, but I solved this problem by more practicing, and I noticed that my searching skills developed day by day”.

Rwan mentioned how certain difficulties in using social media applications arose from the dominant nature of the English language in online services and websites:

“Previously, I had a problem with downloading some SM apps, because some instruction of applications is written in the English language. I didn’t face any other difficulty in SM”.

Dissimilarly, Renad mentioned her experience of the ease of use of social media platforms. In particular, she stated,

“There are no difficulties in using social media, it is very easy now. However, in the past, the use of some apps was difficult because they were new, and I needed practice”.

Likewise, Tala mentioned how social media ease of use was high for her personally:

“I never faced any difficulties; on the contrary, they made my life much easier”.

Najd and Sama made the same remark, noting “I did not face any difficulty; I use it very easily” and “Luckily, I found no difficulty in using social media platforms” (respectively). As for social media guidelines, none of the students had any idea about these. For example, Arwa described the lack of guidelines in the field of nursing, noting:

“I have no information regarding any guidelines on using social media, particularly in the nursing field”.

Nora similarly mentioned how she did not know about any social media usage guidelines:

“Actually, this the first time I have heard that there are regulations and policies to use SM for nurses”.

The only advice that Lora reported themselves as having received related to the need to avoid capturing photographs in the hospital setting:

“During my study at the College of Nursing, I did not read any regulations or policies on how to use SM, but some instructors before going to hospitals informed us only verbally to not take photos while we are in hospitals”.

Similarly, Jood had not encountered guidelines for social media usage, but had received some instruction on the use of other digital technologies such as cameras. As she reported:

“Unfortunately, I am not aware of any manual or guidelines of SM in the College of Nursing. But I remember when I did a volunteer training at King Faisal Specialist Hospital, in the introductory lecture, they told us that taking photos of patients, corridors, or buildings is forbidden”.

Najd had never received social media usage guidelines from the University, noting that:

“I never got any information from our University on using social media”.

Similarly, Sama reported on the absence of guidelines for social media use at her educational institution:

“Our University never provided us with guidelines on using social media”.

Despite the participants’ limited awareness of social media guidelines and the limited application of such guidelines at the University, evaluating the reliability, quality, and correctness of information – especially nursing-specific information – disseminated on social media platforms was widely considered by the participants as an essential task. Indeed, for the participants, accessing high-quality information on social media platforms and avoiding low-quality content, false information, and misinformation were priorities, but challenges were reported in each of these areas. These challenges included the complex and difficult nature of reading articles and finding high-quality information, the time-consuming practice of quality evaluation, and the dominance of the English language on social media platforms.

The challenges experienced in obtaining high-quality information are important to recognise given the participants’ regular use of these platforms for educational purposes, but it is noteworthy that solutions to these challenges were mentioned. These solutions included the use of teacher-recommended resources such as the course syllabus, developing academic skills such as critical analysis and research skills, and holistically

extending social media literacy. A clear picture emerged within this study that social media literacy skills were an essential strategy to use social media apps. Although the development of social media apps is having an enormous impact and allowing participants to use social media apps for the first time, it is still clear that some participants highlighted particular challenges, such as downloading and searching in some social media applications, as well as handling the information obtained from external sources.

#### **4.5.2. Subcategory: Distraction and loss of attention**

This subcategory addresses distractions such as advertisements, messages, and alerts; overwhelming, simultaneous use of social media applications; and conflicts and feeling stressed and nervous. Distractions from advertisements, messages, and alerts were attributed by Lora to the distracting nature of social media platforms, which often undermined her productivity and educational tasks:

“I consider distraction as one of the main disadvantages of using SM, because of ads, messages, and alerts that I receive from all SM apps. Also, I think following up on different accounts in different fields causes distraction. Because when I search for a specific topic, I get distracted by advertisements or by watching other clips or diaries that are available, for example, on YT or Snapchat. Also, distraction affects my educational use. For example, in the WhatsApp group, when I want to check information related to assignments or lectures, sometimes I find messages from my friend discussing a different topic or sending videos, so, I find myself distracted and I forget what I wanted to do”.

Yasmeen made similar remarks about the distracting nature of social media platforms, noting:

“It is distracting; for instance, I could be working on an assignment and I’d get a notification on Arabic calligraphy, so I’d check that out and forget what I was originally working on”.

Regarding Twitter, Farh highlighted the impact of advertisements on her use of the social media platform for educational purposes. As she mentioned,

“For example, when I use Twitter, I see some tweets of advertisements for other sites or accounts. So, this distracts my attention to what I am searching for on Twitter. I think that distraction due to ads is the most important reason that affects my academic use”.

Regarding the simultaneous use of social media applications and feeling overwhelmed, Rwan described how she often lost track of time when using social media:

“For example, sometimes I discovered that I used SM for more than an hour without any benefit, because I open many applications at the same time”.

Similarly, Farh noted that distraction from advertisements was a key limitation of social media:

“Another disadvantage of using SM is the loss of time due to distraction by ads and opening more than one application at the same time while searching for information”.

As for feeling stressed and nervous, Lora discussed her experience of feeling pressured to use social media platforms like WhatsApp so as not to miss out on academic information:

“Sometimes I think to leave the WhatsApp study group because I think it makes me nervous, but I decide to retreat from this idea in order not to miss anything important for the study”.

In the area of conflicts, Lora described the predominance of negative attitudes on certain social media platforms such as Twitter. As she reported,

“Twitter has very negative energy, because there are some hashtags that have a lot of conflicts”.

The controversial nature of Twitter was mentioned by Sama as a reason for avoiding its use:

“I’m not active on Twitter that much because there’s too much controversy on it”.

In this subcategory, it was common among the participants to suffer from distraction and loss of attention when using social media platforms. Significantly, this was associated with a range of negative effects in terms of both academic and personal life, including reduced productivity arising from the sense of repeatedly “forgetting what I was working on” due to certain features of social media, and simultaneous use of social media platforms (as stated by at least four participants). The participants attributed the distracting quality of social media platforms to these platforms’ reliance on advertisements, which draw users away from what they intended to search for; notifications, which cause attention to break from specific tasks due to noises or vibrations; and messages, which can draw students away from academic work to their personal lives.

Notably, the participants’ responses also highlighted the potential for social media platforms to stimulate negative emotions, including feelings of stress, anxiety, and nervousness. In particular, one participant drew attention to the feeling of being forced to become a social media user for educational reasons, which generated stress and nervousness. At the same time, the participants reported on the prominent nature of

controversy, conflict, and negative attitudes on social media platforms, particularly Twitter, which could serve as sources of stress and anxiety.

#### **4.5.3. Subcategory: Time-consuming**

This subcategory focuses on time consumption, having no self-control, and social media addiction. Lora believed that social media consumed excessive amounts of her time, reporting that:

“The primary disadvantage of using SM is that it wastes a lot of my time. For example, today when I checked the time screen in my phone, I was surprised that I had spent seven hours in just one day on SM apps”.

Najd also mentioned the time-wasting quality of social media platforms:

“Disadvantages include wasting time, if I do not control myself, particularly on TikTok, because it consists of short videos on different topics, so I feel that my time is wasted a lot on it”.

Sama expressed the same sentiment as follows:

“It is a time-waster, as we spend a lot of time browsing useless accounts”.

At the same time, Mela emphasised the opportunity cost arising from spending too much time on social media platforms:

“The disadvantages are wasting time without benefits. For example, it can waste your time when you watch useless things”.

Similarly, Rwan described how users can be left feeling short-changed after investing time in social media platforms and receiving little in return:

“The most important disadvantage of SM is wasting time without getting any benefit”.

The following remark from Yasmeen reflects the same sentiment:

“As for the disadvantages, I find social media definitely a time stealer. Sometimes, I’d waste half an hour on social media without noticing, especially when I have an assignment to complete”.

As for social media addiction, Tala described herself as being a social media addict:

“I am addicted to YT”.

Showing similar evidence of admitting of the high dependency on social media platforms and integrating them in routine aspects of daily life, Rwan noted:

“It is impossible for me to not use Snap, WhatsApp, or Instagram in my daily life. For example, when I wake up in the morning, it is very important

for me to check WhatsApp and Snapchat. I have a craze of SM because I open it frequently on the day and night. Actually, I cannot live without SM”.

Lora drew attention to the time consumption of social media, noting how a substantial portion of her time during the day is allocated to this pivotal aspect of her life:

“Honestly, I spent a lot of time on SM, so I consider it very important in my daily life”.

Regarding frequent usage of social media, Tala estimated her usage level at approximately seven hours each day, specifically:

“95%, meaning all day long. The total number of hours is seven almost hours intermittently. For example, 10 minutes, then half an hour. I use them for different periods of time”.

Rwan was a self-reported social media user at all times of day, noting that:

“I use SM permanently on the day and night. I have a craze of SM because I open it frequently on the day and night. Actually, I cannot live without SM. I don’t have a specific time, but I think I use it more than 10 hours from morning to night”.

The participants were generally confirming the ability of social media platforms to lead users to consume substantial amounts of their time using them, typically engaging in activities that they considered to be unproductive. For example, some participants described themselves as “watching useless things” on YT or not “getting any benefit” by posting tweets. This is a notable observation because it suggests that all of the participants, despite not all making explicit admissions, have previously used social media platforms excessively and, moreover, evaluated their experience negatively on reflection. As one of the participants noted, social media is a “time stealer”, and if self-control is limited as it was with some participants, especially those with a self-reported social media addiction, it can begin to account for a significant proportion of each day for e.g., up to seven hours for some participants. Perhaps most significantly, many of the participants, despite their awareness of the ability of social media platform to lead to addiction, time-wasting, and reduced productivity and academic performance, were still regular and committed users.

#### **4.5.4. Subcategory: Internet connection**

This subcategory focuses on internet connection problems and how students find solutions for this issue. Regarding the issue of internet connection, Lora explained how her lack of a router at home prevented her from freely accessing the internet at all times, especially at an affordable rate. She reported:

“Another difficulty is the internet disconnection. For example, at home, we do not have an internet router, and everyone uses only the internet on their mobiles. When I do not have enough credit in my mobile phone, I cannot use the internet, but that rarely happens, not always. I tried to solve it by recharge my internet card and also by using the University’s internet”.

The problem of slow connection speeds was noted by Mela, who said:

“Sometimes I face a problem with a slow internet connection”.

Additionally, Nora highlighted the problem of disconnection due to failure to pay for services:

“Also, internet disconnection problem. I solve this problem by paying the bill regularly”.

Farh described the same problem of being temporarily or permanently disconnected from the internet, but she discussed the possibility of addressing the problem by hiring a high-quality network provider:

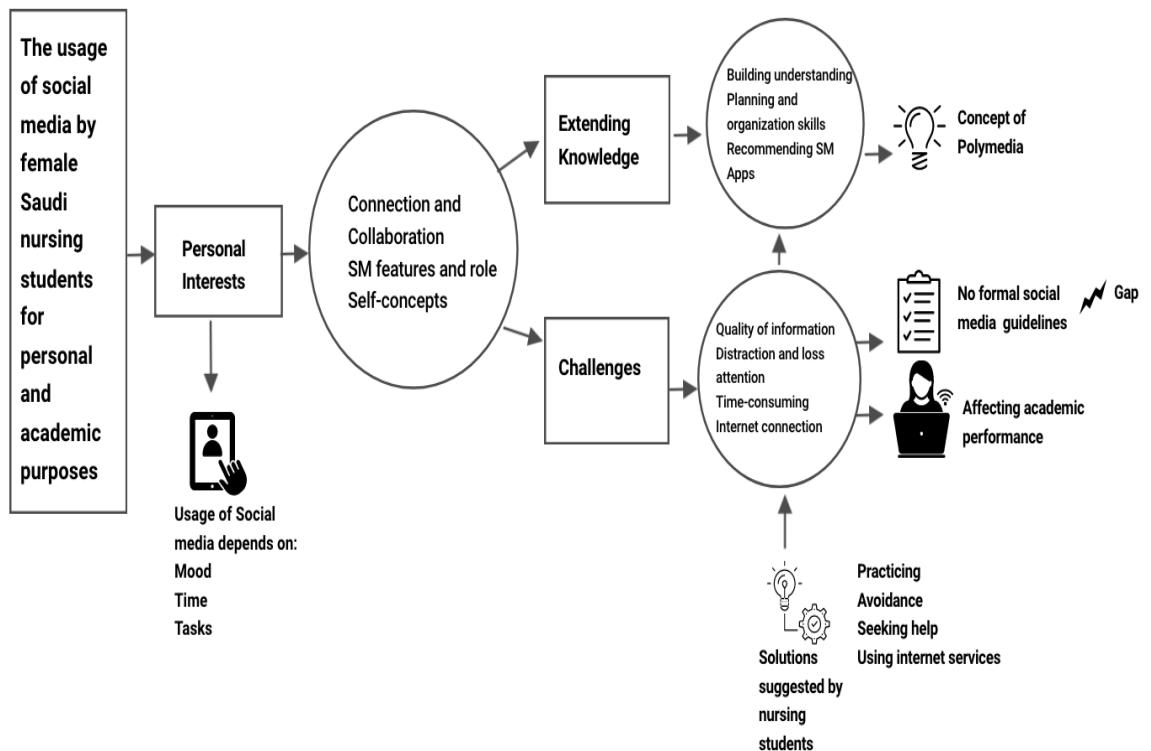
“Secondly, internet connection problem. Sometimes internet unavailable permanently or disconnected, which makes it difficult to access social media easily. I can solve this problem by connecting or searching for faster internet [providers]”.

Successfully connecting to the internet is a prerequisite for using social media applications and obtaining their educational benefits. Due to this, the connectivity problems among this study’s participants are a matter of great interest. Some participants referred to the limited affordability of home internet routers, which they reported as sometimes preventing them from connecting to social media applications, including due to service shutdown after bill non-payment. At the same time, slow and intermittent connections were highlighted by some participants as a crucial challenge to accessing and using social media applications.

#### **4.6. The theoretical model of the study findings**

Figure 13 presents a theoretical model that summarises the structure of the grounded theory developed at the end of the data analysis process. The goal of this section is to provide a description of this model to facilitate the understanding of the findings of this research. Diverse responses were obtained from the interviews with nursing students regarding their use of social media platforms for various purposes, including entertainment and academic purposes. At the same time, however, a number of consistent patterns and noteworthy differences were reported by the participants, which may usefully illuminate how to optimise the exploitation of the educational value of social

media platforms, particularly in the context of nursing education. Based on this study's analysis of the qualitative interview data, three major categories were identified, each of which consisted of several subcategories: (1) personal interests; (2) extending knowledge; and (3) challenges associated with the use of social media platforms. The purpose of this concluding section is to provide an overview of these categories, to summarise the main findings associated with each one, and to highlight notable views of the participants and relevant implications. Figure 13 illustrates an overview of the theoretical model of the study findings.



**Figure 13. Theoretical model of study findings**

#### 4.6.1. Personal interests

The first category identified from the analysis of the nursing students' responses was that of personal interests, which consisted of the following subcategories: (1) connection and collaboration, (2) social media features and role, and (3) self-concepts, such as self-development, and online self-presentation. The findings suggest that this category is crucial to developing an understanding of the participants' usage patterns of social media platforms, their usage motivations, and the types of platforms used. In particular, the use of social media platforms – typically more than one – was identified as integral to the participants' academic and personal communication. In turn, this was linked to the observation of prominent and frequent social media usage among the participants, with these platforms serving different roles depending on the context and the functionality of

the platform, such as the academic use of WhatsApp groups and YT videos and entertainment use of Snapchat and Instagram.

Awareness of the dangers of social media overuse was high among the participants, particularly in terms of the importance of developing self-control and discipline; and at the same time, first-hand experiences were common regarding the value of social media platforms for self-development, personal communication, and academic tasks. Taken together, the findings in this category present a scene in which nursing students – similar to the general population – are frequently and increasingly using social media platforms for diverse context-dependent purposes. Evidently, the participants recognise that aspects and roles of social media platforms are beneficial, and they are also generally positive about the future of social media in Saudi Arabia and worldwide. However, many are also aware of the challenges and threats associated with social media use.

#### **4.6.2. Extending knowledge**

The second category derived from the nursing students' responses was that of extending knowledge, which contained the following three subcategories: (1) building understanding, (2) planning and organisation skills, and (3) recommended social media applications. The significance of this category relates to the interest of the present study in exploring the usage patterns and potential educational value associated with nursing students' use of social media platforms. Regarding the first of these subcategories, it was clear that the participants believed that social media platforms offered new, engaging, and readily available opportunities to develop both their general understanding and their domain-specific knowledge like in the domain of nursing or medicine. As such, despite the fact that some participants reported a preference for traditional modes of teaching and learning as a way to build domain-specific understanding, there was consensus that social media platforms could be productively, efficiently, and freely used for this purpose.

It is notable that YT was one of the most commonly mentioned social media applications used by the participants to build their understanding, including nursing knowledge, skills, and abilities. Regarding planning and organisation skills, many participants highlighted the value of social media platforms – particularly WhatsApp – to promote effective planning and organisation. Specific functionalities of social media platforms, such as file-sharing or direct messaging on WhatsApp, were also highlighted as factors underpinning the value of these applications in enabling planning and organisation. Finally, almost all of the participants appeared to strongly recommend the use of social media platforms for academic and personal purposes, ranging from YT and WhatsApp to Telegram and Twitter, which further evidences the perceived knowledge extension that participants gained from social media usage.

### **4.6.3. Challenges**

Four principal challenges associated with the use of social media platforms were identified: (1) quality of information, (2) distraction and loss of attention, (3) consumption of time, and (4) internet connection issues. It is noteworthy that each of the challenges highlighted here by the participants has been discussed extensively elsewhere in the literature (as discussed in Chapter 5), indicating an overwhelming consensus and consistent trend that despite the potential educational value of social media platforms which may be very substantial in fields such as nursing, there are also significant pitfalls. This entails that measures are introduced to mitigate the possible negative effects in the context of nursing and higher education. Importantly, the main gap identified in this study was the lack of formal social media guidelines for Saudi nursing students. This is an important finding that will guide further research and highlight the need to create formal social media guidelines for Saudi nursing students.

For the participants, each of the four aforementioned challenges appeared to be an issue, which reflects the prevalent nature of risks when using social media platforms for example a high likelihood of suffering from distraction, time-wasting, poor-quality information, and loss of opportunity due to defective internet connection. In this study, participants suggested valuable solutions to overcome the potential challenges of using social media apps, and to help nursing students make the right decisions when they experience similar issues. They provided some practical solutions like more practising in social media apps, avoiding distraction, setting a specific time for studying, seeking help from others, using teacher-recommended resources and using internet services. However, as this study's data suggest, it is always important to consider the context when addressing challenges faced by specific types of social media users, which may include issues such as personal factors such as social media addiction or socioeconomic such as their influence on internet connection.

## **4.7. Chapter summary**

This chapter has presented the findings of the data analysis, manifest in three core categories developed from related focused codes. The three categories represent the most important components of the usage of social media as identified by the participants in this study. The next chapter presents a discussion of the findings of the study within existent literature.