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Exploring nursing students' need for social presence and its relevance to their learning preferences

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Abstract

Aim: To explore nursing students' need for social presence in online learning, looking at its relevance to the adopted sensory modality learning styles.

Design: A qualitative descriptive design.

Methods: Two semi-structured online focus groups were held with five second-year and seven third-year undergraduate nursing students, purposively recruited from the Malta College of Arts, Science and Technology. Using a structured guide based on the Social Presence Model, participants were asked about their perceived need for social presence (a construct used to understand online interactions), and its relevance to their learning preferences using the VARK (Visual, Aural/Auditory, Read/write and Kinesthetic) learning styles.

Results: Despite varying learning preferences, all participants remarked on the need for social presence. Social presence was required for their perceived learning and for actively participating in online lectures. Several participants expressed the need for social presence for a collaborative constructivist learning experience, drawing on their diverse learning styles for a better learning experience.

KEYWORDS
learning preferences, learning styles, nursing education, online education, social presence, VARK

1 | INTRODUCTION

The ever-growing availability and use of online teaching and learning modalities by educators has also called for the consideration and examination of the various factors that can influence students' learning outcomes. One such commonly researched feature is the extent to which a programme offers a collaborative learning environment, that provides learners with the opportunity to work together, capitalizing on one another's resources and skills, towards knowledge acquisition (Chen et al., 2018). The Community of Inquiry (CoI) framework (Garrison et al., 1999), a collaborative constructivist process model

of learning, has been widely adopted and researched by nurse educators to ensure a successful higher educational experience when using online platforms (Liu et al., 2021; Mills et al., 2016; Siah et al., 2021). The CoI framework consists of three essential interacting components: cognitive presence, the construction and confirmation of meaning through reflection and discourse; teaching presence, the design, facilitation and direction of the educational experience; and social presence which creates the community through open communication and interaction (Garrison, 2017; Vaughan et al., 2013). Given that the CoI framework is a collaborative constructivist learning experience, social presence may play a higher contributing role

than the original CoI framework suggests. Social presence has been found to be at the core of the CoI framework, being instrumental in the construction of meaningful teaching and cognitive discourse, and student learning (Armellini & De Stefani, 2016).

Social presence has been conceptualized in the works of Short et al. (1976) in terms of immediacy (the level of urgency indicated when communicating with others) and intimacy (the feeling of closeness during an interaction). In simple terms, social presence refers to the extent that one feels "of being there with a 'real' person" (Oh et al., 2018, p.1). Being associated with perceived learning and student satisfaction in higher online education (Richardson et al., 2017), the construct of social presence has been widely referred to when aiming for quality interactions in online learning environments (Garrison, 2017; Lowenthal & Snelson, 2017; Vaughan et al., 2013). The importance of quality online interactions has also been highlighted in online nursing education (Grech & Grech, 2021; Wolf, 2018). Social presence has been found to be associated with satisfaction (Cobb, 2011; Grech, 2021b) and perceived learning (Cobb, 2011) in online nursing education.

Despite the instrumental role of social presence within the online learning environment, the need for social presence can be subjective in nature (Grech, 2021b; Oh et al., 2018). The need for social presence may be influenced by the individuals' learning preferences, thus implying that attempts to increase social presence may not always uniformly result in positive outcomes (Oh et al., 2018). Contemporary online nursing education calls for increased awareness of the diversity within nursing student cohorts, thus making it necessary for educators to understand their students' learning preferences to facilitate their learning (AlKhasawneh, 2013). This has prompted various nurse researchers and educators to also investigate their students' learning preferences for course design and delivery, with most researchers describing learning preferences in nursing education using the VARK (Visual, Aural/Auditory, Read/write and Kinesthetic) learning styles (AlKhasawneh, 2013; James et al., 2011; Zhu et al., 2018). Depending on the learning styles adopted, students may thus require different elements of social presence to accommodate their learning in online education.

Following the declaration of the COVID-19 pandemic in March 2020, the delivery of the three-year undergraduate nursing programme at the Institute of Applied Sciences at the Malta College of Arts, Science and Technology (MCAST), a public higher educational institution in Malta, was shifted online. As part of their online learning, nursing students were provided with live online lectures and self-directed educational resources to accommodate different learning preferences and social presence needs. Given the social presence's instrumental role within the online learning environment and the paucity of its relevance to the learning preferences, the exploration of this possible association was merited.

2 | BACKGROUND

Within the CoI framework, social presence consists of three broad categories, or main indicators of social presence, constructed through a theoretical analysis of the literature and the analysis and coding of online conferences' transcripts (Rourke et al., 1999). These are as follows: affective communication or affective association, which refers to the expression of emotions (communication of respect and welcome, feelings, such as humour, and establishing a personal connection through self-disclosure); open communication or interaction intensity (encouraging reflective participation and discourse based on reciprocity and respect, trust and acceptance); and group or community cohesion which is the initial step for establishing social presence (feeling part of and having a sense of belonging within the online group/community; Garrison, 2017; Garrison et al., 1999; Vaughan et al., 2013). Using the social presence coding scheme utilized by Rourke et al. (1999), Whiteside (2015) re-explored the concept of social presence, ultimately developing a Social Presence Model for use in online and blended education. While the previously identified categories (affective communication, interaction intensity and community cohesion) were also identified and included in her work, Whiteside (2015) found out two other essential elements for social presence: instructor involvement (the role of the lecturer in establishing relationships and making social connections); and prior knowledge and experience (for the building of social presence). While comparable to the social presence concept within the CoI framework, the inclusion of these two elements makes the Social Presence Model more comprehensive for its sole application in online education (Whiteside, 2015).

Despite the comprehensiveness of the Social Presence Model, the model does not consider the preferences of the learner. Definitions of what constitute learning styles or preferences vary (AlKhasawneh, 2013; Chang-Tik, 2018), however, most authors agree that the term learning style simply refers to an individual's preferred way of learning (AlKhasawneh, 2013). This considers the individual's preferred methods of gathering, organizing and thinking about information (Fleming, 2005). Fleming and Mills (1992), who were influenced by research in neurolinguistic programming, suggest that since individuals receive information through sensory modalities, they also have sensory modality preferences. Hence according to Fleming and Mills (1992), learning preferences are about the methods students utilize to interchange information, and these include: learning by seeing, learning by hearing and learning by doing.

According to the VARK inventory (Fleming & Mills, 1992), students may have the following different learning preferences, namely:

- Visual (the preference of information in terms of maps, spider diagrams, charts, graphs, flow charts, labelled diagrams and all the figures that individuals can use to represent what could have been presented in words);
- Aural/Auditory (the preference for "heard" information such as lectures, tutorials and discussion with other students and the lecturers);
- Read/write (the preference for information which is displayed as words, such as books, papers and PowerPoint presentations);
- Kinesthetic (the preference for information which is displayed in practice, such as demonstration videos, simulations, case studies and the preference for learning through experience);

- or a combination of these, that is, multi-modal (bi-modal, tri-modal or quad-modal).

Consistently, nursing literature has found that nursing students tend to be multi-modal learners with a kinesthetic predominance (AlKhasawneh, 2013; James et al., 2011; Zhu et al., 2018).

Despite the potential influence of individual learning preferences on the need for social presence, only one study which explored social presence by learning preferences using the VARK inventory was identified. Chang-Tik (2018) investigated the association between social presence (using the CoI survey) and students' learning styles (using the VARK instrument) in blended learning among four different disciplines. In her study, Chang-Tik (2018) found that only the kinesthetic learning style correlated positively with social presence, and this only within the soft-applied discipline (which included the courses in entrepreneurship, hospitality, events industry, point of sale, research methods and human resources management). Although focus groups were also carried out, these were not conducted with the intent of exploring the association between social presence and the different learning styles utilized by the students, thus leaving much more to be explored. In addition, despite using a psychometrically sound instrument (VARK) to identify students' learning preference (Leite et al., 2010), such tool does not measure learning styles typically used in online learning. Students might have certain learning preferences, however the adaptation of these in online learning can be limited and very much depends on the educators' method of delivery. Given that no studies exploring the association between social presence and the learning preferences utilized by nursing students in online learning were identified, this study aimed to explore nursing students' need for social presence in online learning, looking at the relevance of social presence to the adopted sensory modality (VARK) learning styles.

2.1 | Research questions

RQ 1.1: What are nursing students' needs for social presence in online education?

RQ 1.2: What is the relevance of social presence to the nursing students adopted sensory modality (VARK) learning styles?

3 | THE STUDY

3.1 | Design

A qualitative descriptive design was adopted. While the use of quantitative data collection methods such as the psychometric sound social presence scale by Gunawardena and Zittle (1997) have been recommended for identifying the social presence needs of nursing students in online learning (Cobb, 2011), a previous study by Grech (2021b) found that the use of this scale proved to be limited, as it did not accurately identify the social presence needs of nursing students who had transitioned from class-room based learning to online learning. A qualitative descriptive design was thus deemed more useful to gather in-depth understanding of the perspectives of those experiencing the phenomenon under investigation (Bradshaw et al., 2017). Qualitative description research lies within the naturalistic approach and is based on subjectivism, aiming to construct the meaning of the phenomenon relying entirely on the participants' subjective awareness of it (Bradshaw et al., 2017).

3.2 | Method

Semi-structured focus groups interviews were preferred over individual interviews. The students, some of whom were taught by the researcher, were more likely to genuinely express their feelings and opinions in a group, rather than in individual interviews (Lune & Berg, 2017).

Purposive sampling, that is the sampling of individuals who have the experience of the phenomena (social presence in online nursing education) being researched (Bradshaw et al., 2017), was adopted. Given that the study was carried out in the first semester of the academic year 2020/2021, students had to have participated in online learning during the current and the previous semester to be deemed eligible for the study. First-year students were not included due to their very short experience in online education. At the time of data collection, 47 second-year and 20 third-year students met the eligibility criteria for this study.

Given the unpredictability of focus group interviews and the potential risk of the discussion deviating from the intended objectives set out at the start, Guest et al. (2017) recommend carrying out at least three focus group interviews per population, to ensure data saturation. Despite multiple targeted mailshots sent by the author, inviting all eligible students to participate in the study, only five second-year and seven third-year students indicated their interest. All interested students were female. These were grouped into two, by year of studies, in an attempt to have group members to be at ease with each other and thus to support and empower each other in the discussions (Lune & Berg, 2017).

The focus group interviews were held on Microsoft Teams® in English. Before starting the focus group interview, a slide describing the different VARK learning preferences as outlined in the literature review was shared with all participants. Students were then asked to identify one or more of the learning preferences which they adopted during their online learning. Participants were also asked to state their age. The two focus group interviews were semi-structured and guided by a question and prompt guide based on the five elements of the Social Presence Model (Whiteside, 2015). Students were asked about their perceived need for each element, that is, affective association, open communication, community cohesion, instructor involvement, and prior knowledge and experience (which were outlined earlier), during their online experience, and the relevance of each element to the adopted learning preferences. Both focus group interviews were moderated by the author and took approximately 60 min. The author initiated the discussion, and then guided the

participants towards answering the posed questions, stimulating further responses by using the prompts without imposing any personal views. The focus groups were video recorded with consent.

3.3 | Analysis

The video recordings of both focus group interviews were transcribed verbatim by the author, taking note of the individual participants who spoke and any non-verbal communication conveyed, such as when expressing consensus (by nodding) to the others' opinions. Given that non-verbal communication provides only a fragment of the information necessary for an accurate interpretation (Lune & Berg, 2017), only when this was coupled with obvious verbal information (usually elaboration on such a statement) was this considered as meaningful data, resulting in clearer significant messages for data analysis. Data analysis followed the structured question guide used, that is, the participants responses to the posed questions on each component of the Social Presence Model (Whiteside, 2015) were described and analysed independently. Manifest content analysis, which is the description of the visible content, the participants' own words (Lune & Berg, 2017), rather than latent content analysis, was adopted in analysing the transcripts. Coding and categorization followed the steps outlined by Bengtsson (2016). First, the author read both transcripts, familiarizing himself with the data and started coding the text into meaningful units (decontextualization). The transcripts were re-read again in relation to the study's aim, revising/adding units as necessary (recontextualization). Similar units were then condensed creating categories and sub-categories (categorization) and referred to objectively, providing a quote that best illustrated each category (compilation). Given that the author was aware of his possible influence to the research process, findings were also validated, by carrying out a respondent validation as recommended by Bengtsson (2016) and Bradshaw et al. (2017). The results were thus presented to the participants to ensure they were in agreement.

3.4 | Ethics

Before carrying out the study, ethical clearance was sought from the Institution Review Board at MCAST. No ethical issues were foreseen, and the study was approved.

On indicating their interest to participate in the study, the students were verbally briefed on the purpose of the study and the procedure which was to be followed, answering any queries that they had. They were reminded that participation was voluntary so that they could choose whether to participate or not, thus ensuring autonomy (Cohen et al., 2018). They were also provided with a detailed information letter and a consent form to sign. The students were informed that their focus group was to be held on Microsoft Teams® and that this was to be video recorded. They were also informed that they were not obliged to answer all the posed questions and that they could withdraw from the study at any point in time without

TABLE 1 Participants' learning preferences

Year of studies	Participants' code	Learning preference
Second year	P1	VARK
	P2	VRK
	P3	VAK
	P4	VAR
	P5	RK
Third year	P6	AR
	P7	VA
	P8	VA
	P9	VK
	P10	VK
	P11	AR
	P12	VK

Abbreviations: A, aural/auditory; K, kinesthetic; R, read/write; V, visual.

suffering any repercussions. The students were assured that the data collected were to be pseudonymized on transcription; video recordings were erased after transcription. They were also assured that confidentiality was to be maintained throughout the study and that their identity and personal information were not to be revealed in any data/information arising from this research study. A summary of the results of this research study was provided to all participants.

4 | RESULTS

4.1 | Participants' age and learning preferences adopted

The participants' mean age was 21.25 years $\pm$ 1.42. Table 1 lists the learning preferences adopted by each participant. While adopted learning preferences varied, all participants claimed to have been multi-modal in their learning. All third-year participants were bi-modal.

4.2 | Need of and relevance of social presence (as defined in the social presence model) to the adopted learning styles

Despite varying learning preferences, all participants perceived the need and relevance of social presence in online nursing education, mentioning various reasons (Tables 2–6). Participants associated learning and active participation with all the five Social Presence Model's Elements. Four third-year participants (P6, P10, P11 and P12) and all the five second-year participants identified the need for social presence for their learning, particularly for collaborative learning. All five second-year and five third-year students (P6, P8, P10, P11 and P12) also identified the need for social presence for

their active participation in online lectures. Seven participants (P1, P2, P3, P4, P5, P11 and P12) remarked that having diverse learning preferences was an asset when working together, as this helped them to learn better.

4.2.1 | Affective association

As seen in Table 2, most participants expressed the need to feel emotionally connected with others in online learning. Five participants from both years of studies found that being emotionally connected with others was required for collaborative learning, particularly when working with others who have different learning preferences to improve learning (P4, P5, P11 and P12). Three participants from both groups remarked that feeling emotionally connected with others helped them to feel closer with one another. Emotional connectedness was also found to be required for active participation in class. Three second-year participants remarked that when they could not perceive others' emotions in online lectures, they were less participatory. Five participants (P3, P6, P9, P11 and P12), found that discussing case studies helped them best in feeling emotionally connected, *"Discussing case studies in groups were best in helping us feel emotionally connected."* (P9).

4.2.2 | Community cohesion

As displayed in Table 3, on being asked about their views on the need to feel part of a group (and its relevance to the adopted learning preferences), five students, four of whom were second-year students, highlighted again the benefits of collaborative learning that is capitalized on different learning styles. Four students, three of whom were second-year students, remarked the need to feel part of an online community to feel closer with others. Furthermore, three third-year students and one second-year student highlighted the importance of having a sense of belonging within the online community for active participation. Four third-year students (P6, P10, P11 and P12) remarked that having had classroom-based lectures before their online experience made it easier for them as they already knew each other, *"we had the advantage of having class lectures prior to online lectures. I think that really helped."* (P6).

4.2.3 | Instructor involvement

Six students from both groups stated that having committed lecturers in building the online community facilitated their learning (Table 4). Three second-year students also remarked that lecturers

TABLE 2 Participants' need for feeling emotionally connected with others in online learning

Categories (and sub-categories)		Quote	Participants' code (number of participants)
Collaborative learning	Collaborative learning capitalized on different learning styles	*"I agree with what P4 said (on the importance of feeling connected), because if someone for example prefers reading and writing and others prefer other methods, for example, they are visual learners and some are auditory, and some other they prefer learning through videos, we can work together as a team and will have better outcomes, I think."* P5	P4, P5, P11, P12 (4)
	Collaborative learning capitalized on common interests	*"I think it's good to be emotionally connected... If I know that someone is more interested, for example on the cardiovascular system, I would tend to study more with them and do case studies with them because they might give more information since they are interested in that subject."* P3	P3, P5 (2)
Active participation (discouraged due to limited emotional connectedness)		*"It discouraged me to open my mouth during online lectures because it makes me feel uncomfortable that I'm not seeing the expressions on the people's faces."* P2	P1, P2, P4 (3)
Closeness		*"It's just that we don't feel too far apart, even though we are far apart."* P4	P1, P4, P11 (3)
Understanding		*"For me if I'm able to feel the emotional connections it's like I'm understanding them, and if they feel emotional connected to me it's like they are understanding me."* P1	P1, P4 (2)

TABLE 3 Participants' need for community cohesion in online learning

Categories (and sub-categories)	Quote	Participants' code (number of participants)
Collaborative learning (capitalized on different learning styles)	*"Feeling part of a group during discussions is beneficial because if you are stuck you can rely to others, you can ask them, ask the students to help you out, or to explain something, maybe in the way that you understand. Like for example, if I am auditory and even P6 and someone else is, while P10 is visual, maybe she can explain and adapt to explain to us better, in a way that we understand better."* P11	P1, P3, P4, P5, P11 (5)
Closeness	*"...it's more important to be close to the community because even since we are learning online we have less human contact sort of with others ... and I think it's important to have someone with you."* P3	P1, P3, P4, P11 (4)
Active participation	*"I think that having a sense of belonging makes it easier for someone, cause they feel comfortable... for example, if I had to speak about myself in this class I feel confident cause I know the girls, I know who I am with and I feel easy about opening up during lectures."* P12	P5, P6, P10, P12 (4)

TABLE 4 Participants' need for instructor involvement for the building of the online community

Categories (and sub-categories)		Quote	Participants' code (number of participants)
Learning	Collaborative learning (capitalized on different learning styles)	*"It helped that they divided us into groups. Even if our learning styles are different, when we discuss together we still learn."* P2	P2, P4, P5, P12 (4)
	Individual learning	*"...they* (lecturers) *try to keep us connected with them to participate in the discussions and in lectures so that we still learn."* P11	P1, P4, P11 (3)
Active participation		*"They* (lecturers) *encourage us more, even when they ask us questions they are sort of telling us to participate. I refrain from participating. I would know the answer to a particular posed question. I would know it, but I wouldn't just say it. But when they ask me, I would say it."* P4	P1, P4, P5 (3)
Establishing new relationships		*"I agree with P5* (on lecturers assigning students into groups for group work). *I got to know the students more. I am more comfortable talking to them now... at first I used to find it very difficult to work in group work online from home, now it got much better. I got to know them, I didn't use to know them, so having lecturers assigning us in into groups for group work, I think it helped."* P4	P2, P4, P5 (3)

helped them to actively participate in the online lectures and to establish new relationships when working in groups (Table 4). Despite the commitment taken by the lecturers, all third-year participants remarked that it was a challenge for them to adapt themselves to the online community, as lecturers were using different online educational applications, *"When we started online the problem that we had was that no one* (from the lecturers) *was agreeing on the application that we were going to use."* (P6). Furthermore, two third-year participants (P9 and P11) who went on an Erasmus exchange remarked that it was even more challenging, as they were not at ease and did not know the lecturers, *"Some of us were on Erasmus and we started online ... we didn't know the lecturers and so it was a bit difficult for us to have a conversation with the lecturers, because we were shy, we were afraid to talk, to say something like not appropriate"* (P11). Two third-year students (P6 and P12) also remarked that given that they knew

each other before the pandemic, having lecturers committed to the building of the online community was not that required, *"We already knew each other, so it's not like the first day at school is online and you don't know no one."* (P6).

4.2.4 | Open communication

As seen in Table 5, most students identified the need for open communication, remarking that open communication was required for understanding one another (*n* = 8); for their learning and to provide feedback to the lecturers. Again, some participants (P3, P6, P8, P10 and P11) found that open communication was a requisite for their active participation. Nonetheless, all five second-year students and four third-year students (P6, P9, P11 and P12) highlighted that

TABLE 5 Participants' need for open communication in online learning

Categories (and sub-categories)		Quote	Participants' code (number of participants)
Understanding	Learning	"I think at the end of the day if you don't have that open communication we won't be able to say, 'ohh listen, I'm having these kind of obstacles', and then with the lecturer you can… to improve your learning as well." P5	P1, P3, P4, P5, P6, P10, P11 (7)
	Providing feedback to the lecturer	"I think it's even of benefit to the lecturers, because they will know if we are understanding or not." P11	P5, P7, P10, P11 (4)
Active participation		"I think it's important to have an open conversation because the students will at the end of the day benefit from it because they will be able to communicate, and ask questions." P3	P3, P6, P8, P10, P11 (5)

TABLE 6 Participants' need for having previous knowledge and experience in creating such an online community of learning

Categories (and sub-categories)		Quote	Participants' code (number of participants)
Learning	Adoption of learning styles	"The more knowledge and experience you have the more you will benefit from it … this time it was easier than last year … I also got to know the ways which I will benefit more from learning, for example, I am writing much more notes now. In class I used to write, but not this much like now." P4	P4, P6 (2)
	Awareness of own learning styles	"So knowing my learning style, how I can learn, I think that made it easier for us." P11	P6, P11 (2)
Active participation (limited because of poor knowledge and experience)		"I think even just communication, it was much harder because it's something new, everyone was holding back in participating." P5	P1, P5 (2)

there should be a "respectful limit" in terms of open communication, "*There has to be some sort of a limit on what you say and not. I think there has to be a respectful limit to, like everything.*" (P1).

4.2.5 | Knowledge and experience

Three participants (from both groups) found that having previous knowledge and experience for developing such an online community of learning was helpful for their learning (Table 6). While P6 and P11 remarked that being aware of their learning style helped them to continue learning in transitioning to online education, P4 and P6, found that the current semester was easier as they adopted the learning style which they had found more suitable in online learning.

5 | DISCUSSION

While some participants claimed that discussing case studies helped them feel emotionally connected, the participants in this study did not distinctively adopt the kinesthetic learning style for their learning, as is usually highlighted in the nursing literature (AlKhasawneh, 2013; James et al., 2011; Zhu et al., 2018). Unlike classroom-based and practice learning, online learning restricts the use of the kinesthetic learning style (VARK Learn Limited, 2021), thus limiting students with kinesthetic learning preferences in

adopting this style in online learning. Nonetheless, all students identified themselves as multi-modal online learners, as commonly reported in the nursing literature.

Unlike in Chang-Tik (2018)'s study, where social presence was found to be associated only with the kinesthetic learning preference, in this study all students, irrespective of their learning preference, found that social presence was relevant to their adopted learning styles, associating the need for social presence mostly for their learning. Social presence has been found to correlate positively with perceived learning in higher education (Richardson et al., 2017) and also in nursing education (Cobb, 2011). Most participants in this study also highlighted the need for social presence in online learning for a collaborative constructivist learning experience; the underlying framework for a successful CoI (Castellanos-Reyes, 2020; Garrison, 2017; Mills et al., 2016; Vaughan et al., 2013). This confirms once again the importance of social presence for establishing a CoI for learning.

Having varied learning preferences appears to have had a positive impact on students' learning. The students remarked that they learnt better when working with diverse learners. As remarked by Zhu et al. (2018), when students with diverse learning styles are assigned to learning groups, they are more likely to improve their academic performance, by sharing their learning experiences and optimizing their learning strategies and problem-solving methods used. Having prior knowledge and experience in building an online community of learning was also perceived to be important for the

students' learning. On reflecting on their online learning experience, some students noted that their awareness of their learning preferences made it easier for them to learn, while others noticed that they started to adopt the learning preferences which were more conducive to learning.

Social presence, which is synonymous with quality interactions (Garrison, 2017; Lowenthal & Snelson, 2017; Vaughan et al., 2013), was also found to be a requisite for students' active participation in online education. Some students limited their interactions during online lectures when they could not perceive others' emotions. Furthermore, several participants highlighted the need for a "respectful limit" for open communication, suggesting that social presence, which needs to be based on mutual respect, trust and acceptance (Garrison, 2017; Garrison et al., 1999; Vaughan et al., 2013) was at times limited. This calls for further consideration of social presence when shifting traditional classroom-based nursing education to online platforms.

It is worth noting that given that the third-year students had already classroom-based lectures in their first year of studies and during the first semester of their second year, they were less likely to identify the need of having committed lecturers for the building of the online community, as this was already established. On the other hand, second-year students who had also experienced classroom-based lectures during their first semester in their first year of studies, still highlighted the role that lecturers played in establishing their online community. This may possibly be linked to the fact that students were previously divided into two classes, however when going online, lectures were then provided to both classes at once, becoming a new community. Given the context of the COVID-19 pandemic, which has urged us all to avoid social contact, the need to feel emotionally connected with others and to feel close to the community was rightly expressed by some participants.

Despite the benefits associated with social presence in online learning, students may find it challenging when lecturers fail to take into consideration the needs of students and adopt different teaching and learning modalities. While many educators around the world are being urged to take up online teaching and learning initiatives, given the ongoing COVID-19 pandemic, a critical self-reflective stance that factors in ongoing feedback from students and peers is recommended (Grech, 2021a). This is more likely to help establish a CoI amongst students, who might already be facing their own challenges in getting accustomed to online learning.

5.1 | Strengths and limitations

While Chang-Tik (2018) aimed to identify the association between social presence and the VARK learning preferences, this study provided more depth on the subject area, by taking a qualitative approach to explore the needs and relevance of social presence for different types of learners. Based on the guide by Bradshaw

et al. (2017), various measures to enhance rigor (in terms of credibility, confirmability, dependability and transferability) were adopted throughout this qualitative research study:

- Rapport and a trusting relationship were established (and developed) from the onset of the research study.
- Findings were based on the participants' meanings, as evidenced by the reported direct quotations.
- The study's procedures and data analysis processes were taken note of.
- Findings were member-checked with participants to verify data accuracy.
- Sufficient study details are also presented so that this study can be replicated.

Nonetheless, data were transcribed and analysed by the author only, potentially leading to researcher bias. To contract this bias, the author verified findings with the participants. Nonetheless, this could have possibly resulted in confirmation bias, as unlike the third-year students, the second-year students were previously taught (and could possibly be taught in the future) by the author. This study did not recruit enough participants to achieve the minimum number of three focus group interviews as recommended by Guest et al. (2017). Nonetheless in drawing this recommendation, Guest et al. (2017) state that this is required in case one of the focus groups goes awry, so that one still obtains data from the other two groups. In this study, none of the focus groups went off track, and the recruited participants, who adopted a variety of multimodal learning styles for their learning, were all deemed rich in information on the studied phenomenon, successfully answering the research questions (Bradshaw et al., 2017; LoBiondo-Wood & Haber, 2014). Furthermore, all participants agreed on the need and relevance of social presence in online nursing education, remarking similar reasons for so, thus demonstrating data saturation (Bradshaw et al., 2017). Nevertheless, it is still recommended that future research considers a better recruitment strategy. This will also help make up for the male non-representation. Given that the study was held at one campus, it also suggested that future research aims to explore (and compare) the experiences of undergraduate nursing students attending different institutes.

While this study explored the students' social presence needs in online learning, one must note that the participants had previously also experienced classroom-based education in their undergraduate studies. Furthermore, during the semester when data collection was held, practical sessions, which were previously stopped, had restarted, in small groups of approximately four students. These factors could have possibly impacted the students' views and opinions on the need and relevance of social presence in online education. It is thus recommended that future studies also explore the need and relevance of social presence amongst students with different learning preferences who have specifically enrolled in online nursing studies.

6 | CONCLUSION

Despite varying learning preferences, all students remarked the need for social presence in online education. Social presence was required for the students' perceived learning. Students also remarked on the need for social presence for their active participation in online lectures. This study also supports previous findings which highlight the importance of social presence for establishing a CoI. Participants remarked on the need and relevance of social presence in online learning for a collaborative constructivist learning experience, drawing on the diversity of their community, in terms of learning styles, for a better learning experience.

While the above-mentioned results call for the consideration of social presence within the design of online nursing education, further studies on this subject area are also recommended. A better recruitment strategy, one that recruits a larger and more heterogenous sample, is recommended. Future research should also explore the social presence needs amongst students with different learning preferences who have specifically enrolled in online nursing studies.

CONFLICT OF INTEREST
The author declares no conflict of interest.

DATA AVAILABILITY STATEMENT
The raw data that support the results of this study are available from the corresponding author upon a reasonable request.

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