Internet-Generation Nursing Students' View of Technology-Based Health Care

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ABSTRACT

Background: Today's nursing school applicants are considered "digital natives." This study investigated students' views of new health care technologies. **Method:** In a cross-sectional survey among first-year nursing students, 23 common nursing activities and five telehealth nursing activities were presented along with three statements: "I consider this a core task of nursing," "I look forward to becoming trained in this task," and "I think I will do very well in performing this task." **Results:** Internet-generation nursing students ($n = 1,113$) reported a significantly ($p \leqslant .001$) less positive view of telehealth activities than of common nursing activities. Median differences were 0.7 (effect size [ES], −0.54), 0.4 (ES, −0.48), and 0.3 (ES, −0.39), measured on a 7-point scale. **Conclusion:** Internet-generation nursing students do not naturally have a positive view of technology-based health care provision. The results emphasize that adequate technology and telehealth education is still needed for nursing students. [*J Nurs Educ.* 2017;56(12):717-724.]

Nursing curricula are regularly updated to respond to changes in society and health care practice. Current nurse educators must respond to an increasing use of health care technology in nursing practice. Health care technologies, such as telehealth care (i.e., the remote provision of health care using technologies such as videoconferencing or equipment to monitor vital signs), typically do not provide direct, face-to-face contact (Shea & Chamoff, 2012). This limits the possibility to observe patients and their environments di-

rectly and requires additional digital competencies for contact through technology. Inadequately trained professionals are considered a barrier to the effective provision of telehealth care (Brewster, Mountain, Wessels, Kelly, & Hawley, 2014; Kort & van Hoof, 2012; Sharma & Clarke, 2014; van Houwelingen et al., 2015).

An earlier study identified 14 distinct nursing telehealth activities (van Houwelingen, Moerman, Ettema, Kort, & ten Cate, 2016) or professional activities that can be performed by nurses to support patients using technologies (e.g., triaging incoming calls and alarms, or independently double-checking high-risk medication via videoconferencing). All of the telehealth activities required a specific set of knowledge, skills, and attitudes. Nurses cannot be entrusted with these activities without receiving adequate training in these additional required competencies.

Specific competencies for health care technologies have become a significant part of published nursing curriculum guides (e.g., American Nurses Association, 2010; Australian Qualifications Framework, 2013; Steeringgroup Bachelor of Nursing 2020, 2015; Tuning Project, 2011). These curricular adjustments contribute to overcoming barriers caused by inadequately trained nurses in telehealth care. Nurses currently working in this domain need additional skills to be able to integrate technology applications in practice. However, today's applicants for nursing education are part of a generation known as "digital natives" (Prensky, 2001). This generation, referred to as Generation Z by Glass (2007), knows no world without the Internet, and its members commonly are characterized by their wide experience with and skills in using the Internet and communication technologies. For these

students, the use of health care technology may feel normal because they are already immersed in a world of technology through the use of smartphones, tablets, and social media, both privately and at primary and secondary schools. The question that is being asked by schools of nursing is, "How much technology-based nursing education is necessary for the current new generation of future nurses to provide tele-health care?"

METHOD

Aim

The aim of this study was to gain insight into today's Internet-generation nursing students' view of technology-based health care and to determine whether the Internet generation believes that technology-based health care should be a part of nursing. According to the generation rhetoric of Prensky (2001), today's nursing students already may be familiar with abundant technological opportunities, and special attention to telehealth provisions in the nursing curricula may not be as relevant. However, no studies have explored this assumption. The current study sought to answer the question of whether the current Internet generation of applicants for nursing education actually has a positive view of technology-based health care. This question was addressed through the following sub-questions:

- Do Generation Z nursing students consider nursing tele-health activities to be a core part of nursing, at least as much as common nursing activities?
- Do Generation Z nursing students want to become trained in nursing telehealth activities, at least as much as in common nursing activities?
- Are Generation Z nursing students confident they will perform well in nursing telehealth activities, at least as much as in common nursing activities?
- Do Generation Z nursing students have a more positive view of nursing telehealth activities than students born in earlier generations?

Design, Setting, and Population

This cross-sectional study surveyed a convenience sample of new undergraduate nursing students in August 2015 from seven nursing schools across The Netherlands. Seven schools located throughout The Netherlands that provide bachelor's degree education in nursing were included in the study. The nursing schools volunteered to participate and were willing to recruit freshmen to respond to the survey. Within the first 2 weeks of school, all first-year nursing students ($N = 2,639$) from the seven nursing schools were sent an e-mail by their own school; the e-mail described the study and asked the students to participate by filling out an online questionnaire (via SurveyMonkey®).

No specific inclusion or exclusion criteria were established as all new nursing students were approached. Year of birth was used as a criterion to divide the participating students into generations according to categorization by Glass (2007): Generation Z (born between 1992 and 2000), Generation Y (born between 1977 and 1992), Generation X (born

between 1961 and 1977), and Baby Boomers (born between 1941 and 1961).

Ethics Statement

This study did not require participants to perform actions or impose certain behaviors on them; therefore, the Dutch Medical Research Act (abbreviated in Dutch as WMO [wet medisch wetenschappelijk onderzoek]) did not apply to this study. Nevertheless, all necessary precautions were taken to protect the anonymity and confidentially of the participating students. Students were informed in a letter about their voluntary participation and were told that they were free to decline at any time. Furthermore, students were informed that their responses would be processed anonymously, securely stored, and used for research purposes only. No identifying information was collected.

Survey Instrument

The survey began with four demographic questions regarding participants' age, gender, educational level, and technology experience in daily life. Students' technology experience in daily life was explored by asking how often per day they used a smartphone, the Internet, an iPad/tablet, e-mail, and a laptop or personal computer.

Subsequently, 28 nursing activities were presented with a short definition (**Table 1**). Of these, 23 activities were common nursing activities (e.g., clinical reasoning and monitoring lifestyle) that represented all of the core tasks described in the Dutch nursing standard (Steeringgroup Bachelor of Nursing 2020, 2015). To be able to compare the students' view of telehealth activities with their view of common activities, common activities were included in the survey. In addition, five activities were nursing telehealth activities (e.g., health promotion via videoconferencing) derived from a previous Delphi study (van Houwelingen et al., 2016). In that study, experts reached a consensus about 14 essential telehealth activities for nurses; five of the telehealth activities with the highest consensus were selected for the current study.

After each of the 28 nursing activities (**Table 1**), three items were included as statements: "I consider this a core task of nursing," "I look forward to becoming trained in this task," and "I think I will do very well in performing this task." Students answered these questions using a 7-point Likert scale ranging from *totally disagree* to *totally agree*.

The survey ended with an optional open-ended comment section for participants to include a comment. Because only 13 of 1,451 participants left relevant comments, which represented less than 1% of the sample, the comments were not included in the results section.

Data Analysis

The normal distribution of the data was explored visually using histograms and tested with Kolmogorov-Smirnov tests. Because the data were not normally distributed, nonparametric tests were used. Mann-Whitney U tests were performed to test differences (using $p \leq .05$ as a criterion) in demographic characteristics between the Generation Z nursing students (born between 1992-2000) and nursing students from other generations (born before 1992).

TABLE 1

List of Nursing Activities, Internal Consistency, and Median Scores of Generation Z Nursing Students (*N* = 1,113)

Nursing Telehealth Activity	Median (1st quartile – 3rd quartile)		
	I Consider This a Core Activity of Nursing	I Look Forward to Getting Trained in It	I Think I Will Perform Well in This Activity
1. Triaging incoming calls and alarms	6 (5 - 7)	6 (5 - 6)	6 (5 - 6)
2. Analyzing and interpreting incoming data derived from (automatic) devices for self-measurement	6 (5 - 6)	6 (5 - 6)	6 (5 - 6)
3. Encouraging patients to undertake health promotion activities via videoconferencing	5 (4 - 6)	5 (4 - 6)	5 (4 - 6)
4. Instructing patients and family caregivers in self-care via videoconferencing	5 (4 - 6)	6 (4 - 6)	6 (4 - 6)
5. Independent double-checking of high-risk medication via videoconferencing	6 (5 - 6)	6 (5 - 6)	6 (5 - 6)
	α = .81	α = .84	α = .84
Common Nursing Activity			
6. Clinical reasoning	7 (6 - 7)	6 (6 - 7)	6 (6 - 7)
7. Performing care	7 (6 - 7)	7 (6 - 7)	6 (6 - 7)
8. Strengthening self-management	6 (5 - 7)	6 (5 - 7)	6 (5 - 6)
9. Assessment of care needs	6 (6 - 7)	6 (6 - 7)	6 (5 - 6)
10. Personalized communication	7 (6 - 7)	6 (6 - 7)	6 (6 - 7)
11. Establishing and maintaining a nurse–patient relationship	6 (6 - 7)	6 (6 - 7)	6 (5 - 6)
12. Shared decision making	6 (6 - 7)	6 (6 - 7)	6 (6 - 7)
13. Multidisciplinary collaboration	7 (6 - 7)	6 (6 - 7)	6 (6 - 7)
14. Ensuring continuity of care	6 (6 - 7)	6 (6 - 7)	6 (6 - 7)
15. Investigative capacity	6 (6 - 7)	6 (6 - 7)	6 (5 - 6)
16. Evidence-based practice	6 (6 - 7)	6 (5 - 7)	6 (5 - 6)
17. Professional development	6 (5 - 7)	6 (5 - 6)	6 (5 - 6)
18. Professional reflection	6 (6 - 7)	6 (5 - 6)	6 (6 - 7)
19. Moral sensitivity	6 (6 - 7)	6 (6 - 7)	6 (5 - 6)
20. Prevention-oriented analysis	6 (6 - 7)	6 (6 - 7)	6 (6 - 7)
21. Health promotion activities	6 (6 - 7)	6 (6 - 7)	6 (5 - 6)
22. Nursing leadership	6 (6 - 7)	6 (6 - 7)	6 (5 - 6)
23. Coordination of care	6 (6 - 7)	6 (5 - 7)	6 (5 - 6)
24. Improving safety	6 (6 - 7)	6 (6 - 7)	6 (5.5 - 6)
25. Nursing entrepreneurship	5 (4 - 6)	5 (4 - 6)	5 (4 - 6)
26. Providing quality of care	6 (6 - 7)	6 (5 - 7)	6 (5 - 6)
27. Participating in quality assurance	6 (5 - 7)	6 (5 - 7)	6 (5 - 6)
28. Professional behavior	7 (6 - 7)	6 (6 - 7)	6 (6 - 7)
	α = .97	α = .97	α = .97

Note. The nursing telehealth activities (1 - 5) were derived from a prior study (van Houwelingen et al., 2016). The 23 common nursing activities (6 - 28) represent all core tasks as described in the Dutch nursing standard, Bachelor Nursing 2020: A Futureproofed Training Profile 4.0 *(Steeringgroup Bachelor of Nursing 2020, 2015). All activities were presented along with the three statements at the top of the table.*

Furthermore, Generation Z nursing students' view of technology-based health care was explored with four subques-

tions. A Wilcoxon signed rank test was performed to explore the first three subquestions, which were concerned with Internet-
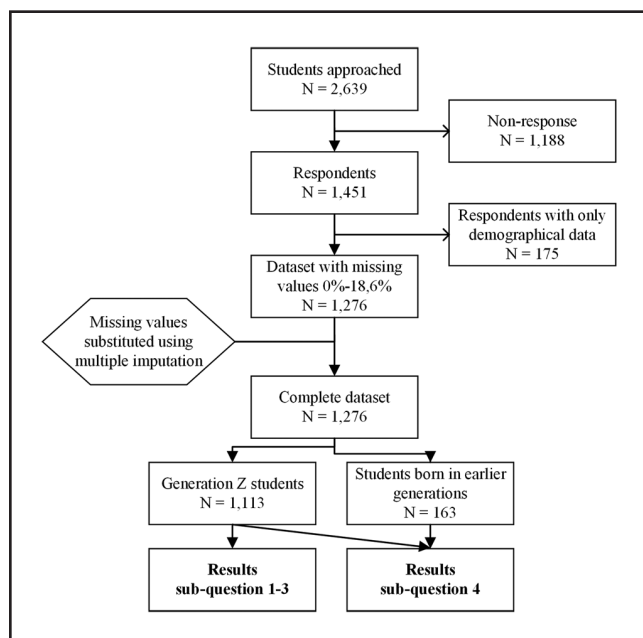
Figure 1. Flowchart showing responses.

generation students' view of telehealth activities compared with their view of other common nursing activities (using $p \leq .05$ as a criterion). The differences were explored using the three statements: "I consider this a core task of nursing," "I look forward to becoming trained in this task," and "I think I will do very well in performing this task." For each of the three statements, the average score was calculated for the 23 common (non-telehealth) activities (derived from the Dutch nursing standard) and the average score of the five telehealth activities (derived from the authors' prior research). Again, for each of the three statements on a sample level, the median of the average scores of these 23 common activities was compared with that of the five telehealth activities. The effect sizes (ES) for the three comparisons were calculated by dividing the Z score (Z) by the square root of the number of observations ($\sqrt{n}$), as suggested by Field, Miles, and Field (2012): $ES = Z$ divided by $\sqrt{n}$.

The fourth subquestion was examined with Mann-Whitney U tests (using $p \leq .05$ as a criterion). The median of the average scores of the five telehealth activities of Generation Z students was compared with that of students born in earlier generations for each of the three statements: "I consider this a core task of nursing," "I look forward to becoming trained in this task," and "I think I will do very well in performing this task."

To avoid selection bias caused by a complete cases approach (Janssen et al., 2010), the missing values for those participants who partially completed the survey were imputed using a linear regression imputation method, which resulted in five imputed data sets. All five data sets showed comparable results. The results of the data analysis are based on one data set.

Data analyses were performed using SPSS® version 23.0 software and the statistical package R version 3.2.2 software.

Reliability and Validity of the Survey Instrument

In this study, students' views of 23 common nursing activities and their views of five nursing telehealth activities were explored with three statements: "I consider this a core task of nursing," "I look forward to becoming trained in this task," and "I think I will do very well in performing this task." For each of the three statements, the average scores were calculated across the 23 common activities and the five telehealth activities. To justify the merging of activities, the internal consistency of the 23 common nursing activities was analyzed for each of the three statements and the five nursing telehealth activities. The complete list of activities and accompanying median scores, first and third quartiles, and Cronbach's alpha are presented in **Table 1**.

Prior to data collection, validity evidence was collected for the survey instrument following the guidelines by Artino, La Rochelle, Dezee, and Gehlbach (2014) for the development of educational research questionnaires. To assess the clarity and relevance of the activities and accompanying statements in the survey, two experts (one lecturer and one nurse) from the authors' network were interviewed. Subsequently, to ensure that the study participants would interpret the items in the manner intended, two students who were about to begin attending the authors' nursing school were interviewed cognitively (Artino et al., 2014). These two students did not always interpret the survey's phrasing adequately, and the phrasing subsequently was changed to increase participants' understanding.

RESULTS

Student Characteristics

A total of 1,451 nursing students responded to the survey. The majority ($n = 1,039$) completed the entire survey. A group of 175 students responded only to the demographic questions and were excluded from further analyses. Students who completed the survey were compared with the students who responded only to the demographic questions; slight but significant ($p \leq .05$) differences were found in two of the demographic items: the educational level of the excluded students was slightly higher than that of the included students, and the frequency of Internet use among the excluded students was slightly lower.

The percentage of missing values for each variable of interest ranged from 0% to 18.6%, which was substituted using the five-times multiple imputation method. As a result, the findings presented in this article are based on 1,276 cases, which reflects a response rate of 48% (**Figure 1**). No significant differences were found with regard to demographic characteristics between students who completed the survey and those who partially completed the survey.

Of the 1,276 cases used for analysis, not every student automatically belonged to Generation Z; 163 students were born in earlier generations. The remaining 1,113 students were born after 1992 and therefore were considered part of Generation Z. The first three subquestions were based on the 1,113 Generation Z students. The fourth subquestion was answered by comparing the 1,113 Generation Z students with the 163 students born in earlier generations.

In some respects, the characteristics of the Generation Z nursing students differed significantly from the students born in earlier generations; Generation Z nursing students reported a higher use of smartphones but a significantly lower use of tablets/iPads, e-mail, and computers or laptops ($p \leq .05$). Students

TABLE 2
Demographic Characteristics of First-Year Bachelor's Degree Nursing Students

Characteristics	Generation Z Nursing Students[a] ($n = 1,113$)	Earlier Generation Nursing Students[b] ($n = 163$)
Gender, % (n)		
Male	12.1 (135)	17.2 (28)
Female	87.9 (978)	82.8 (135)
Age[c], % (n)		
Generation Z (1992-2000)	100 (1,113)	
Generation Y (1977-1992)		73.6 (120)
Generation X (1961-1977)		25.2 (41)
Baby boomers (1941-1961)		1.2 (2)
Daily use of technology[d], % (n)		
Smartphone*	99.6 (1,108)	96.3 (157)
Tablet or iPad*	22.4 (249)	40.5 (66)
Skype/Facetime	4.8 (53)	2.5 (4)
Internet	99.7 (1,110)	98.8 (161)
E-mail*	90.9 (1,012)	98.2 (160)
Computer/notebook*	80.7 (898)	90.8 (148)
Highest completed educational level, % (n)*		
Lowest (primary education)	0.1 (1)	0
Low (lower secondary education)	1.1 (12)	4.3 (7)
Average (general or vocational upper secondary education)	97.3 (1,083)	71.2 (116)
High (bachelor's degree or higher)	1.5 (17)	24.5 (40)

[a] Born after 1992.
[b] Born before 1992.
[c] Generations divided according to Glass (2007).
[d] Participants were asked how often they used these six technologies in their daily life; they answered on a 4-point scale ranging from 1 = daily to 4 = hardly ever. This table presents the frequencies of participants who responded "daily."
*p ≤ .05, Mann-Whitney U test.

born in earlier generations were educated at a significantly higher level. The demographics of the participating students are listed in **Table 2**.

Generation Z Nursing Students' View of Technology-Based Health Care

Figure 2 shows the median and interquartile range scores for nursing telehealth activities and common nursing activities, as reported by Generation Z nursing students. Generation Z nursing students' view of technology-based health care was explored with four comparisons, which were performed to answer the four subquestions of this study.

Do Students Consider Telehealth Activities to Be a Core Part of Nursing? Generation Z nursing students did not consider nursing telehealth activities to be a core part of nursing equal in importance to common nursing activities. Moreover, they appeared to consider nursing telehealth activities a significantly smaller part of nursing than common nursing activities (median, 5.4 versus 6.1 as measured on a 7-point scale, $p \leq$ .001, ES = –0.54).

Do Students Want to Become Trained in Telehealth Activities? Generation Z nursing students did not want to become trained in nursing telehealth activities as much as in common nursing activities. Furthermore, they appeared to be significantly less enthusiastic about becoming trained in nursing telehealth activities than in common nursing activities (median 5.6 versus 6.0 as measured on a 7-point scale, $p \leq$ .001, ES = –0.48).

Confidence in Performing Telehealth Activities. Generation Z nursing students' confidence in performing nursing telehealth activities was not equal to their confidence in performing common nursing activities. Moreover, they appeared to report significantly lower confidence in performing nursing telehealth activities than common nursing activities (median 5.6 versus 5.9 as measured on a 7-point scale, $p \leq$ .001, ES = –0.39).

Generation Z Nursing Students' View Compared with Students Born in Earlier Generations. Students' view of the
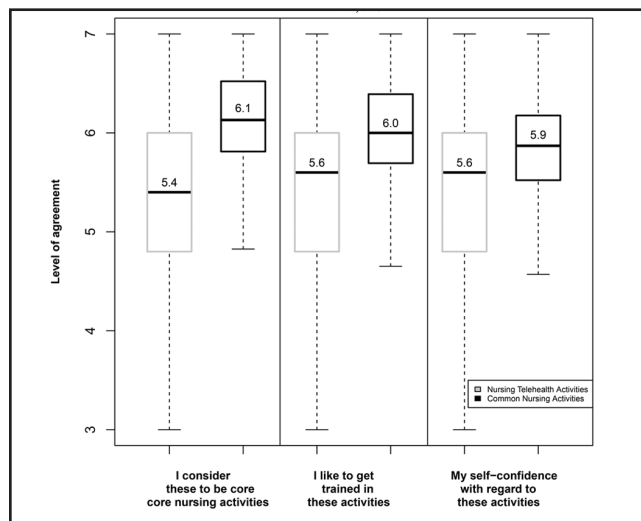
Figure 2. Generation Z nursing students' perceptions of telehealth activities (n = 1,113). Students reported significantly lower scores for nursing telehealth activities than for common nursing activities (using Wilcoxon signed rank test, $p \leq .001$; medium effect sizes for all three categories as measured on a 7-point scale. Outliers were excluded.

five nursing telehealth activities was measured on three levels: "I consider this a core task of nursing," "I look forward to becoming trained in this task," and "I think I will do very well in performing this task." No significant differences were found between the Generation Z nursing students and older generation nursing students in terms of their view of nursing telehealth activities (using $p \leq .05$ as a criterion).

DISCUSSION

This study aimed to explore Generation Z nursing students' view of technology-based health care. The study sought to determine whether Internet-generation nursing students actually have a positive view of technology-based health care, at least as positive as their view of common nursing activities. The results of this study indicate that the answer is they do not. Moreover, contrary to what was expected from the generation rhetoric, the 1,113 participating students in this study reported a significantly less positive view of telehealth activities than of common nursing activities, such as clinical reasoning. Another surprising result was that the Internet-generation students (born between 1992 and 2000) did not have a more positive view of telehealth activities than their fellow students born in earlier generations (born before 1992).

Although the five telehealth activities received significantly lower values **(Figure 2)**, the activities still had fairly high median scores, indicating that the students' valuation of telehealth activities was clearly not negative but ranged between *somewhat agree* and *agree*. In addition, when the activities were analyzed separately **(Table 1)**, the results demonstrated that telehealth activities were not necessarily the least valued professional activity. For example, students reported an even lower median score (5.0) for "nursing entrepreneurship," described as "being aware

of the economic and financial interest of the organization and ensuring this is embedded in your way of working."

Study Limitations and Strengths

To avoid selection bias caused by a complete cases approach, multiple imputation was used to impute the missing values for those participants who partially completed the survey. A group of 175 students completed only the demographic questions; thus, they provided too little information as a basis for imputing their missing values. Therefore, these students were excluded from further analyses. These excluded students had comparable demographic characteristics to the students who were included for analysis. However, there were slight, albeit significant, differences in their educational level and frequency of Internet use, which might reveal a selection bias.

Another limitation concerns the generalizability of these results to other countries. The data were collected only in The Netherlands. Thinyane (2010) found that digital natives can be considered a worldwide phenomenon; however, when focusing on specific types of technology, significant variances in usage patterns were found among students from different countries. This also might apply to health care technologies.

A strong point of this study is that all of the approached schools located throughout The Netherlands agreed to participate. In addition, a response rate of 48% is acceptable for a sampled survey population larger than 2,000 students, according to Nulty's (2008) guideline for surveys in higher education. The response rates differed between the participating schools, ranging from 27% to 98%. As a kind of sensitivity analysis, the results of the school with the lowest response rate were compared with the results of the school with the highest response rate; no differences were found in outcomes related to the four subquestions of this study. Therefore, the selection bias due to non-response was negligible.

Integration With Prior Work

Prior studies (Jones, Ramanau, Cross, & Healing, 2010; Kennedy, Judd, Churchward, Gray, & Krause, 2008) have discovered considerable diversity with respect to the technological literacy of Generation Z individuals. The results of the current study confirm that researcher must be careful in making general statements about the technological literacy of a generation as a whole. The results show that one cannot say that students of Generation Z have a more positive view of telehealth care aspects of nursing than students of previous generations. In addition, the larger interquartile ranges of the telehealth activities in this study compared with the interquartile ranges of the three common nursing activities **(Figure 2)** imply a considerable variance within the study population with respect to their view of telehealth. Technology-based health care might require additional skills than the skills required for the use of common technologies, such as the Internet or a computer.

Although the survey approach does not allow causal inferences, it is suggested that emerging technology-based health care provision might be in contrast with students' expectations of their profession when they begin their nursing education. Dutch nurses feel valued when they take patients for a walk or help them out of bed (Nijhuis & van der Padt, 2003). The fear

of losing this personal contact may impede their willingness to adopt telehealth (Brewster et al., 2014; Bürmann genannt Siggemann, Mensing, Classen, Hornberg, & Terschüren, 2013). These mechanisms also might play a role in the lower valuation of the telehealth activities compared with the valuation of common nursing activities reported by the current study population.

Implications for Nursing Education

Technology has become a core part of nursing curricula around the world (e.g., American Nurses Association, 2010; Australian Qualifications Framework, 2013; Steeringgroup Bachelor of Nursing 2020, 2015; Tuning Project, 2011). Educational institutes can play a key role in preparing future nurses for technology-based health care. Some suggestions are offered for improving the educational preparation of future nurses in the three categories addressed by this study (i.e., "I consider this a core task of nursing," "I look forward to becoming trained in this task," and "I think I will do very well in performing this task").

How to Present Telehealth as a Core Activity of Nursing. The fact that health care technologies emerge at a fast rate and have become a core part of nursing still seems somewhat unreal to students. The rapidly growing market of health care technologies and the many examples of telehealth in current practice demonstrate the development of telehealth into a core part of nursing. Nursing students might fear that older adults lack the capacities to use new technologies. In this case, educators then can indicate that although in general it can be said older adults have poor digital literacy, there are examples from practice and research (e.g., Mitzner et al., 2010; Parker, Jessel, Richardson, & Reid, 2013) that demonstrate many older adults are willing and capable of using modern technologies.

How to Motivate Students to Become Trained in Telehealth. In anticipation of technological developments in health care, training in health professional–patient communication should include electronic communication (e.g., e-consultation and videoconferencing) (Frenkel, Chen, & ten Cate, 2016). As mentioned, however, nursing students might fear they will lose personal contact with patients, and as a result, they might be less interested in education with regard to telehealth. Educators then can respond by emphasizing the relevance of the technology, giving examples in which telehealth is integrated in routine care, and they can assuage the fear of losing personal contact by explaining that face-to-face contact will always continue to exist. This also might help inform students that the assumed negative impact on the staff–patient relationship is widely recognized in the literature but remarkably not experienced by nurses who already have experience with telehealth (Brewster et al., 2014).

How to Increase Nursing Students' Confidence That They Will Do Well in Performing Telehealth. Nursing schools can play a key role in helping students get used to telehealth and can increase their confidence that they will do well in performing telehealth. In general, strategies to increase self-confidence, which were suggested by Bandura (1977) many years ago, include verbal persuasion, vicarious experience, and performance accomplishments. Following this theory, nursing students' confidence can be increased when nurse educators put them in a position where students are informed and encouraged to use telehealth, able to learn from role models (e.g., nurses who already work with telehealth in practice or patients who appreciate telehealth), and able to experience and practice with telehealth equipment (e.g., patient simulations). These educational interventions might support nursing students' confidence and encourage them to integrate health care technologies into their work.

Further Research

In further research, validity evidence must be collected to support these suggestions to improve nursing education. Mixed-method studies (experimental design and in-depth interviews) will increase the profession's understanding regarding what educational interventions support nurses' self-efficacy in providing technology-based health care.

CONCLUSION

Nurse educators must respond to the emergence of technology-based health care provision. According to generation rhetoric, one can argue that digital natives are already adequately equipped for this alternative type of care provision. However, this study shows the opposite and emphasizes the need for adequate telehealth technology education for all nurses, independent of their knowledge or lack of knowledge about the Internet. Educational institutions should play a key role in this transition of health care by integrating health care technology into their curricula.

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