REVIEWS

Generation Z students: Will they change our nursing classrooms?

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ABSTRACT

The purpose of this paper will be to focus on characteristics of Generation Z students and to provide suggestions for how to create a meaningful learning environment for them. Students who are age 21 or younger, who were born in 1995 or after, are the new Generation Z students. As with any other generational cohort, Generation Z students have their own unique characteristics that influence their approach to education and work. This article presents information about the characteristics of Generation Z students, their views about education and work, information faculty need to understand about this group of students, and implications for nursing educators who are working with Generation Z students.

Key Words: Generation Z, Generations, Nursing students, Nursing educators, Generation values

1. Introduction

Generations have unique cultures that are informed by social trends and world events that occur during their formative years. Generational differences can influence the beliefs and expectations of college students, including how they approach learning and their perception of the roles of teacher and student. Students within generational cohorts have distinct characteristics that influence the dynamics of education and have implications for teaching.^[1] Time and life experiences influence our perspective. Each generation views the practice of nursing through a unique lens formed by life experiences that impact their decision to select nursing as a career.^[2]

Generations are defined as groups of people born within the same span of years who share a unique identity due to life experiences. Economic, political and other major events experienced by generational cohorts as they grew up influence individuals within the group and thereby result in similar generation attitudes and traits.^[3,4] Generations are formed by "discernible patterns of demographic shifts, societal factors . . . and parenting styles", resulting in distinct generational mindsets or group tendencies.^[5] However, it is important to remember that individuals within generations are unique due to their own personality traits and distinct life experiences; thus all individuals within a cohort may not demonstrate characteristic of their group.^[6,7]

A new generation of nursing students, Generation Z (also referred to as iGen, @generation, or the Pluralist Generation)^[5,8] are entering undergraduate educational programs and are beginning to move into the nursing profession. ^[9] Students that are age 21 or younger, who were born in 1995 or after, are the new Generation Z students. Almost 26% of the United States population and 27% of the global population are now Generation Z. ^[10,11] Generation Z grew up

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during a time of socioeconomic uncertainty, chaos, and complexity and were educated in settings that promoted both inclusivity and diversity. Generation Z has been exposed to international terrorism, war, disasters such as earthquakes, Hurricane Katrina, and the global recession that began in 2008. Influenced by their Generation X parents, Generation Z wants to find solutions to problems and knows where to look to search for answers; P per Sparks and Honey, Ithey "intend to change the world". Minimal information has been published in nursing literature related to Generation Z. The purpose of this paper will be to focus on characteristics of Generation Z students and to provide suggestions for how to create a meaningful learning environment for them.

2. CHARACTERISTICS OF GENERATION Z STUDENTS

Although Generation Z students have some of the same characteristics of Millennials, they have their own unique characteristics. In a study conducted by Seemiller and Grace^[7] (N = 759), members of the Generation Z cohort described themselves as compassionate, thoughtful, determined, and responsible. Generation Z is more diverse than any generation^[8] and is open-minded about ethnic diversity in that their social acquaintances are from diverse races and ethnic groups.^[5] Generation Z appears to be more realistic, careerminded,[13] and loyal. They tend to respect authority, are community minded, verbalize feelings of concern for those around them, and are more "we" than "me" oriented.[14] Seventy percent of Generation Z students indicated they don't want to let others down, they will advocate for what they believe in, and they want to make a difference in other people's lives.^[7] Seemiller and Grace^[7] predict that "Generation Z will have a strong work ethic similar to Baby Boomers and the responsibility and resiliency of their Generation X parents, and they may be even technologically savvier than the Millennials" (p. 7).

Geck^[15] notes that Generation Z students are the first to be born into a totally digital world and they are the most electronically connected generation. The internet has enabled them to always be connected, to communicate and collaborate immediately if desired, and to access large amounts of information. Generation Z are electronic multitaskers^[2,12] and have an "information-age mindset"; they have had access to streaming services such as Netflix and YouTube and can watch programs from anywhere on their smart devices.^[16] Generation Z uses their smartphones for 15.4 hours per weeks, which is more time than they spend using any other electronic device; they spend less time watching television than do Baby Boomer and Generation X.^[17]

Students come to class with a cell phone, laptop, I-pad, or other tablet device that gives them immediate connection to the internet and to masses of information. They have access to large amounts of content online that can supplement what is covered in class.

Generation Z is the first truly global generation with limitless interests and avenues for learning. They have been raised in a high-tech, hyper-connected, on-demand, and impatient culture. Some experts expect Generation Z's mantra to be 'good things come to those who act'. This self-directed, entrepreneurial-minded, highly educated, and uber resourceful generation will stop at nothing to make their mark on the world^[18] (Jenkins, R. as cited in Barley).

The average Generation Z person has an attention span of 8 seconds, compared to 12 seconds for Millennials.^[16] Because of their ability to access information immediately in a wired environment that results in instant answers, Generation Z students may not pay as much attention to detail as they could and may believe the first information they hear, instead of checking the accuracy of the facts they have heard or read.^[7] They also may expect prompt feedback and may become frustrated if answers are not clear immediately.^[16]

Generation Z spends a lot of time online and likes to communicate in short bursts of information over time instead of one lengthy message; they do not prefer email and instead "text message a lot".[14] They also like to use images/pictures in their messages. Of significance to today's educators, Generation Z prefers "learning from the internet" over learning from print material such as books.^[14] Facebook is the most frequently used method of mass communication by Generation Z students. However, students may use multiple platforms to share information, to include Twitter, blogs, personal websites, pinboarding, forums, and social gaming. In order to remain anonymous, students may create an alias or avatar identity when sharing some information.^[7] Because of their access to so much information, it is no surprise that Generation Z students learn by observation, visual experiences and practice instead of by reading and by listening to classroom presentations.[16]

3. VIEWS ABOUT EDUCATION AND WORK

Generation Z students view education as a necessity for individual success and societal prosperity. They have more of an entrepreneurial spirit and want to forge their own path. [13,18] According to the Northeastern University survey [19] (N = 1,015 participants between the ages of 16 and 19), almost two thirds of the students wanted to learn about entrepreneurship, including how to start their own business and forty-two percent wanted to be self-employed. Generation Z students

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believe that education leads to success, is an investment in the future and that a more educated society is a better society.^[7] Generation Z students may want to design their own educational plan, as evidenced by results from the survey done by Northeastern University. [19] Eight of ten participants indicated that college was very or extremely important for their career, but approximately three-fourths indicated that colleges should allow students to design their own major or course of study plan. Although they value college, more than two-thirds of Generation Z students verbalized concern about the cost of college and the majority want college to include content about practical skills like financial planning and professional, real-work experience. [19] The concern for the practical, career value from college also has been supported by other research. In a study to determine the work preferences of Generation Z students (N = 276), ^[20] Ozkan and Solmaz found that participants think work is necessary to secure their economic future and to make the future better for their descendants. Similarly Anatole^[21] and Iorgulescu^[22] found that Generation Z has a strong need for financial security and will avoid debt when possible.

Being the children of Generation X who have lived through an economic decline, Generation Z students may be more wary about spending money than the Millennials. Tulgan^[23] notes that Generation Z are dubious about the future and thus may be more cautious, less demanding, and may have lower expectations; however they are open to new ideas and are resilient and pragmatic.^[14] Generation Z is motivated by rewards such as the opportunity for advancement or the achievement of career milestones.^[7] Barley^[18] noted that Generation Z students have a more pragmatic approach to their career and may explore more traditional career paths like teaching and nursing.

Although Generation Z students are very reliant on social media for communication, research indicates that they prefer to work in team settings and also like to communicate in person. Schawbel^[13] reported that 53% of Generation Z preferred in-person communication over use of technology for communication, such as instant messaging and video-conferencing. Iorgulescu^[22] found that students preferred collaborative work in groups and valued team experiences.

4. TEACHING GENERATION Z STUDENTS

Today's nursing educators come from generations with strikingly different social and life experiences during their formative years than Generation Z students had, but are adaptable. We listen to students, pay attention to course evaluation comments, and most importantly observe what happens during in-person and online classrooms and in the clinical setting. Seeing students peruse the internet during class and continu-

ally text can be frustrating. Also, having students constantly using their cell phone for texting or to make personal calls when in the clinical setting can create patient safety risks, and thus needs to be monitored. Clearly students must be engaged in what is going on to capture and retain information.

Generation Z students prefer nontraditional teaching methods and like using logic-based approaches and experiential learning.[7] "How to" videos, online encyclopedias, and multiple other resources are available for students to access to help them do assignments. Generation Z students like interpersonal learning but also want to learn independently and at their own pace. Although Generation Z students enjoy working in groups and in social settings, they want learning in a group to be an option and do not want to be mandated to participate in a group. They also want a convenient designated space for studying that is free from distractions and contains the tools they need for learning.^[7] Further, Generation Z students prefer engaging and passionate instructors; they view instructors as facilitators of learning and do not like lecture as a method of teaching. They also prefer active learning methods.^[7] Like other generations,^[24] Generation Z students will likely find course work to be engaging when they can apply the work they do in the class to real-life situations.

5. IMPLICATIONS FOR EDUCATORS

To be successful as a nurse, one needs to be tenacious, gregarious, methodical, optimistic, patient, and empathetic. ^[25] Nurses also need to have good critical thinking, judgement and communication skills and be able to balance multiple tasks at the same time. Generation Z students bring strengths to the profession that indicate that they may become outstanding nurses.

Undergraduate nursing education programs must prepare students to function effectively in challenging, diverse patient care settings. Since Generation Z students are more technologically savvy than even the Millennial generation, they will expect to rely on internet resources to help them learn. Use of innovative teaching strategies using different forms of technology (i.e. web searches, web games, and appropriate use of social media) will be a basic course expectation for students. Having students find videos about course topics or create videos will cater to their interests and expertise. [16] To respond to Generation Z student's preferences for practical value and active learning, teaching methodologies such as simulation, audience response systems, problem-based learning, games, case studies, and team activities will need to be incorporated into course plans.^[12] A flipped classroom, where students do course reading, review videos, etc. before class, and then apply the content in the class setting may bring value to the Generation Z classroom. Hariadi,

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Dewiyani Sunarto, and Sudarmaningtyas^[26] noted that a hybrid learning model may work well for Generation Z students. Hybrid learning models involve a combination of both internet-supported outside of class learning experiences and traditional in-person, instructor-led inside the classroom education, and thus may meet Generation Z students' needs for both personal communication and use of technology for learning.

In addition to knowing how to maximize the benefits of technology and the internet, Generation Z students have learned about the consequences of sharing too much information. However, students may not realize why they should not post simple information about patients on social media. As Shatto and Erwin note, nursing faculty should emphasize the expectation of patient confidentiality with students and make sure they are aware of guidelines and reasons why they should not post any patient information on social media.

Barley^[18] offers advice that marketers need to know about Generation Z; this advice is also relevant for faculty that work with Generation Z students.

- (1) Be real with Generation Z.^[18] Students expect to obtain value from the educational experience and be prepared to move into a career that offers job security. They want to continually learn/develop and expect to be mentored by faculty and others.^[22] Thus, educators need to ensure that students understand the value of course content, practicum experiences, and how this information will be essential for career success.
- (2) Celebrate Generation Z diversity; diversity to them is normal. [18] Generation Z respects diversity of race, ethnicity, and age, and thus likely will be able to relate well with fellow students and staff from different generations. To meet the preference of Generation Z to be in a social environment but be allowed to work independently, providing opportunities for independent work and time to provide feedback to the group may be an effective group strategy.
- (3) Care about the world as much as Generation Z does.^[18] Taking time to facilitate discussions about disease prevention, population health, and the value of patient education may support the "community minded, we orientation" of Generation Z students. Additionally, the amount of time Generation Z spends connected to a technology screen contributes to a more sedentary lifestyle:^[7] thus this may provide an opportunity to dis-

- cuss the importance of personal wellness. Caring is an essential trait of a nurse; educating a group of students that are community focused and that "live caring" in their relationships with others will be a joy.
- (4) Be brief when communicating with Generation Z.^[18] Having long periods of lecture or expecting students to focus on the same topic for an extended length of time will not hold the attention of Generation Z students. "They prefer multiscreen-optimized snackable experiences. . .They love the engaging nature of video and are huge fans of live-streaming. . . if you fill their precious time with meaningful, awesome experiences, you may just earn their trust".^[18] To meet student needs for short bursts of communication, faculty should talk briefly about content and then allow students to apply the information and test their knowledge.
- (5) Remain focused on the basics with Generation Z.^[18]
 Nurses need to be good critical thinkers and to make the right decisions/judgments throughout their work day.
 Because initial research demonstrates that Generation Z students^[7] may not pay as much attention to detail as they should, faculty need to spend a lot of time helping students learn how to critically think, to filter data, and to use resulting information to make the best decisions for their patients.

6. CONCLUSION

Just like any other generational cohort, Generation Z has its own unique characteristics that influence their approach to education and work. According to Trunk, [27] "Baby boomers changed politics, Gen X changed family, Gen Y changed work, and Gen Z will change education" and our nursing classrooms, whether in on line or in person educational settings. Nursing educators have always met the educational needs of each generation, and we will do so for Generation Z students. In order to help these students maximize their professional potential, educators would do well not only to understand the history that shapes the Generation Z perspective, but also to create opportunities to leverage their uniqueness for positive outcomes. It is an exciting time for nursing and the opportunities facing this newest cohort could revolutionize healthcare as we know it.

CONFLICTS OF INTEREST DISCLOSURE

The authors declare that there is no conflict of interest.

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