Research

A Comparison of Millennial Dental Hygiene Student and Faculty Classroom Expectations

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Introduction

The Millennials, born in the year 1982 or after, have not only matriculated into undergraduate programs, but are also entering graduate and undergraduate health profession programs. In 2007, Mangold wrote an article which outlined the contrast between Baby Boomers and Millennials and the implications this may have on nursing education.[1] Some of these implications include the use of digital media, interactive learning, collaborative team work and mentoring.[1] Since then, nursing educators have examined how to best teach Millennials.[2,3] Nursing is not the only field that is noticing the Millennial students as unique. Recent presentations at the American Dental Education Association's Annual Sessions have focused on Millennial students in dental education.[4] Millennials have entered the health professions, and health care educators must be prepared to provide effective instruction to this new generation.

The characteristics of Millennial students are distinctly different from the Baby Boomer and Generation X faculty who may have different expectations of teaching and learning in higher education. A wealth of research is available regarding the characteristics of Millennials in higher education, but little research exists on the expectations that Millennial students have in undergraduate health professions programs. Currently, no research is available examining the expectations of undergraduate dental hygiene students and the expectations of the faculty that teach them

Abstract

Purpose: Research has shown that Millennial students are different than students in previous generations. This study compares the expectations of the didactic environment of faculty and students in a baccalaureate dental hygiene program. Expectations of faculty and students were examined, and comparisons between Millennial and non–Millennial students and faculty were made in order to improve the educational experience of dental hygiene students.

Methods: Students and faculty completed a survey adapted from McCargar's role expectations survey. Items were chosen from the survey to cover such areas as technology, group work and authority. The survey consisted of a Likert–type scale including strongly agree, agree, neutral, disagree and strongly disagree. Data was entered into SPSS 15.0 database. Scoring on negative questions was reversed so that the score would be positive. Individual answers are given the following scoring assignments: Strongly Agree (+2), Agree (+1), Neutral (0), Disagree (−1) and Strongly Disagree (−2). Scores were added together to create a summative score for each item. Descriptive statistics and an unpaired t–test comparing responses were used to analyze data. Cronbach's alpha was run to measure the internal consistency of the instrument.

Results: Twelve faculty and 94 students returned surveys. Students felt strongly that copies of course notes should be available online and faculty should return emails within 24 hours. Statistically significant differences in the expectations of Millennial and non–Millennial students were found in regards to issues of authority, community service, attendance and evaluation. The majority of significant differences were found between Millennial students and faculty. Significant differences were found in interaction, community service, technology and homework.

Conclusion: Faculty should examine the expectations of their students and should use the findings to create learning experiences that are more effective for students. Expectations change with each generation, and it is important to change techniques and methodologies in order to meet the needs of current students and the profession.

Key words: education, Millennial, expectations, didactic

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related to generational differences. Dental hygiene student and faculty expectations should be examined to provide students with a successful learning experience.

Review of the Literature

As Millennial students overwhelm higher education, there has been a large effort to identify the characteristics and attitudes of the newest generation to better educate this cohort of students. Howe and Strauss have led the way in investigating and publishing the characteristics of Millennial students, and their work has defined characteristics unique to the Millennial generation.[5]

The parents of Millennials have been extremely involved in their children's lives and have provided direction for them. With this direction, Millennials have also been pressured to achieve high levels of performance in sports, academics, arts and many other aspects of their lives. Even though the Millennial generation has been given specific direction, and they feel pressure in their lives from others, they are still a conventional generation, in that they respect authority, rules and other cultures more than previous generations. Millennials are also team–oriented and finds value in community service activities.[1,5,6] Sandfort and Haworth found that this generation thinks a college degree is a way to guarantee a middle class lifestyle. Ninety percent of Millennials interviewed expect to attend college and 70% expect to have professional jobs and put less emphasis on their careers and more emphasis on other aspects of their life compared to their parents.[6] Other researchers have found that Millennials are a connected generation.[7] This means they use electronics and technology to stay connected to friends and obtain information. Mobility is an important aspect of being connected – they stay connected no matter where they are. With this mobility and connectedness, Millennials also expect immediacy.

Jonas–Dwyer and Pospisil examined how the characteristics of Millennial students affect the academic environment.[8] Using technology is a way of life for Millennials, and higher education faculty must incorporate its use into the classroom. Millennials are also looking to faculty as leaders and role models, and they want the faculty to take the lead in the classroom. Yet Millennials demand respect for themselves and their ideas. Millennial students indicate that the use of humor and fun was expected in the learning process. Another study of the needs and expectations of Millennial students in higher education found that Millennials have expectations different from previous generations of students.[9] The survey identified that students do not view comput-

ers and the Internet as technology, but as a necessity and as communication tools.

As outlined by Vella, meeting learner expectations is one of the main principles in adult education.[10] The first principle of adult education is to complete a needs assessment of your learners to define what they expect and need from a course. Needs assessments not only consider course content, but also consider the learners' preferred learning styles and their backgrounds. Several studies in multiple disciplines have identified that student and faculty expectations are different.[10-12]

The health professions have begun to examine generational differences. A comparison study of Generation X and Millennial medical students at one medical school (n=809) revealed strong personality differences between the 2 generations. Millennial students were more open and more willing to change than the Generation X students.[13]

Two studies examined the preferences for teaching methods among Generation X and Millennial students in health care disciplines.[14,15] Both studies found their Millennial students did not have preferences similar to their generational cohort. These studies may indicate that Millennial health professions students may have different expectations than their peers in other fields of study.

Just as Millennials have different needs as learners, faculty who are classified as Boomers or Generation X have different expectations. The body of research related to these differences is limited, and with no research on the expectations of dental hygiene students and dental hygiene faculty. The following research explores dental hygiene faculty and student expectations related to generation.

Methods and Materials

After Institutional Review Board approval was obtained, participants were asked to complete a survey related to faculty and student expectations. Eligible participants were baccalaureate dental hygiene students enrolled at a Midwestern 4 year research university and the dental hygiene and dental faculty who teach dental hygiene courses at the university. Student participants received a recruitment letter asking them to participate in the study. Upon completion of the questionnaire, students placed it in a collection envelope. Faculty received a recruitment letter and questionnaire in their university mailboxes as well as an email asking them to participate in the study. Faculty returned the questionnaires in an envelope to the primary investigator's mailbox. Faculty and student participation was voluntary.

The survey instrument was adapted from Mc-Cargar's survey of role expectations and slightly modified to include items pertaining to the use of technology, group work and Millennial characteristics.[16] Twenty questions for student expectations and 20 questions for faculty expectations were chosen from the McCargar survey. Questions related to the characteristics of Millennials were chosen from the original survey, especially those pertaining to group work and specific technologies used in the classroom. McCargar established the validity of the study with a panel of expert judges, and a field test provided Cronbach's alpha of 0.77. Since minimal changes were made to the instrument, the validity and reliability of the instrument was presumed to remain the same.

Data was entered into a SPSS 15.0 database. Scoring on negative questions was reversed so that the score would be positive. Individual answers are given the following scoring assignments: Strongly Agree (+2), Agree (+1), Neutral (0), Disagree (−1) and Strongly Disagree (−2). Scores were added together to create a summative score. Descriptive statistics and an unpaired t–test comparing responses were used to analyze data. Cronbach's alpha was used to measure the internal consistency of the instrument.

Results

Twenty surveys were distributed to faculty and 12 were returned for a 60% response rate. Ninety–four surveys were distributed to students and 90 were returned for a 96% response rate. The mean age of students was 23.01 and the mean age of faculty was 44.36. Seventy–nine students were Millennials (87.7%) and 11 students were non–Millennial (12.2%). Ninety–nine percent of students were female and 88% were white. All students were entry–level, full–time dental hygiene students. All faculty were full time who teach didactic courses to dental hygiene students, and all were non–Millennial. Two faculty respondents were dentists and 10 were dental hygienists.

Dental hygiene students strongly agreed with many items related to rules, responsibility and attendance. Students also strongly agreed on items related to faculty providing access to class notes and email response time. In general, dental hygiene students were agreeable on most statements, however, students disagreed with calling faculty by their first name, amount of homework and the faculty evaluating students with only a midterm and final.

Comparatively, faculty strongly agreed in areas concerning interaction in the classroom, students

following rules and policies and students accepting responsibility for learning. Mandatory attendance and accepting mistakes as a natural part of learning was an expectation that faculty have of students. Students using computers and the Internet to complete assignments and faculty having proficiency in technology were also areas that faculty strongly agreed upon. Finally, faculty strongly agreed that they should provide a written list of class policies within the syllabus, admit to not knowing an answer to a question and provide periodic evaluations throughout the quarter.

Faculty most strongly disagreed with being called by their first name. They also disagreed with providing copies of course notes, being available at home and exclusively giving a midterm and a final.

Even though the student population surveyed contained mostly Millennial students (87.7%), significant differences between the 2 groups were identified in 5 areas concerning student expectations, and 2 areas concerning faculty expectations. Both Millennial and non–Millennial students disagreed with calling faculty by their first name, but non–Millennial students more strongly disagreed with this statement. Another area of significant difference was encouraging peers to follow rules. Non–Millennial students agreed more strongly than Millennial students that students should encourage their peers to follow class rules. The third area was accepting responsibility for learning. While both groups were in agreement, non–Millennial students agreed more strongly that students should accept responsibility for learning.

Millennial students disagreed that students should be required to do community service, while non–Millennials were in agreement with this statement. There was also a statistically significant difference in agreement in regards to attendance in all class, labs and clinics. Again, non–Millennial students felt more strongly that students should attend all class sessions.

There were 2 differences in Millennial and non–Millennial expectations of faculty. Millennial students agreed that faculty should socialize with students outside of class, while non–Millennials were neutral on this subject. The second difference in faculty expectations was that non–Millennial students agreed more strongly that faculty should provide periodic evaluations throughout the quarter, more so than Millennial students (Tables I–a, I–b).

Significant differences between faculty and Millennial students were found in several areas. Millennial students felt they should not disagree with

Table I–a: Differences in Expectations between Millennial and Non–Millennial Students
Mean based on scale from 2 to –2 (SA=2 A=1 N=0 D=–1 SD=–2)

Question Students Should:	Group	Mean	SD	t	Sig (2–tailed)
Accept the authority of teachers	Millennial	1.55	.658	.412	.682
	Non–Millennial	1.64	.505		
Call faculty by their first name	Millennial	–.91	.894	–2.256	.027
	Non–Millennial	–1.55	.688		
Disagree with the faculty	Millennial	–.28	.783	–.244	.812
	Non–Millennial	–.36	1.120		
Laugh in class	Millennial	.92	.859	–.054	.957
	Non–Millennial	.91	.831		
Volunteer to participate in class activities	Millennial	1.27	.571	–.235	.819
	Non–Millennial	1.18	1.168		
Interact with the teacher and other students during class	Millennial	1.42	.591	–.731	.467
	Non–Millennial	1.27	.786		
Present their own opinions in class	Millennial	1.29	.686	–.801	.425
	Non–Millennial	1.10	.994		
Follow class rules	Millennial	1.73	.445	–.638	.525
	Non–Millennial	1.64	.674		
Encourage peers to follow class rules	Millennial	1.43	.614	2.767	.013
	Non–Millennial	1.82	.405		
Accept responsibility for learning	Millennial	1.53	.502	2.132	.050
	Non–Millennial	1.82	.405		
Learn something because it might be on a test	Millennial	1.29	.682	–.909	.366
	Non–Millennial	1.09	.701		
Ask the teacher how to get a better grade	Millennial	.97	.847	–.234	.816
	Non–Millennial	.91	1.044		
Accept mistakes as a natural part of learning	Millennial	1.18	.615	.931	.354
	Non–Millennial	1.36	.674		
Use a computer and the Internet to complete assignments	Millennial	.78	.943	.723	.472
	Non–Millennial	1.00	.775		
Be required to do community service	Millennial	–.03	1.132	2.498	.014
	Non–Millennial	.91	1.375		
Receive academic credit for community service	Millennial	.51	1.096	.603	.548
	Non–Millennial	.73	1.421		
Be required to work in groups	Millennial	.23	.960	.745	.458
	Non–Millennial	.45	.820		
Receive one grade for everyone in a group project	Millennial	.10	1.223	–.503	.616
	Non–Millennial	–.09	.944		
Be a member of your professional organization	Millennial	.87	.992	1.854	.067
	Non–Millennial	1.45	.820		
Attend all classes, labs, and clinics	Millennial	1.52	.677	3.031	.006
	Non–Millennial	1.90	.316		

Table I–b: Differences in Expectations between Millennial and Non–Millennial Students
Mean based on scale from 2 to –2 (SA=2 A=1 N=0 D=–1 SD=–2)

Question Faculty Should:	Group	Mean	SD	t	Sig. (2–tailed)
Use Power Point Slides for lectures	Millennial	1.41	.610	1.200	.233
	Non–Millennial	1.64	.505		
Distribute copies of class lecture notes	Millennial	1.70	.540	.721	.473
	Non–Millennial	1.82	.405		
Make class notes available online	Millennial	1.53	.617	.522	.603
	Non–Millennial	1.64	.674		
Provide a written list of class policies within the syllabus	Millennial	1.44	.655	1.350	.181
	Non–Millennial	1.73	.647		
Follow the course syllabus exactly	Millennial	.68	.899	–.160	.873
	Non–Millennial	.64	1.027		
Respond to student emails within 24 hours	Millennial	1.59	.543	–.274	.785
	Non–Millennial	1.55	.688		
Be available to students whenever needed, including telephone calls at home	Millennial	–.04	.912	–.173	.863
	Non–Millennial	–.09	1.221		
Require the use of a computer and the Internet to complete assignments	Millennial	.27	.983	–.262	.794
	Non–Millennial	.18	1.079		
Be proficient in the use of technology for class-room instruction	Millennial	1.22	.592	–.659	.512
	Non–Millennial	1.09	.539		
Admit not knowing an answer to a question	Millennial	1.39	.649	–1.430	.156
	Non–Millennial	1.09	.701		
Socialize with students outside of class	Millennial	.71	.834	–2.618	.010
	Non–Millennial	.00	.894		
Use several different teaching methods throughout the quarter	Millennial	.99	.899	.347	.730
	Non–Millennial	1.09	1.136		
Require more than two hours of homework a week, per class.	Millennial	–.57	.915	.401	.690
	Non–Millennial	–.45	.688		
Require students to work in groups	Millennial	–.14	1.028	.146	.884
	Non–Millennial	–.09	1.300		
Assign students to a work group	Millennial	–.19	1.087	–.241	.810
	Non–Millennial	–.27	.905		
Allow students to pick their own work groups	Millennial	1.03	.800	–.097	.923
	Non–Millennial	1.00	.894		
Call on students who don't participate in class	Millennial	–.38	.951	.331	.741
	Non–Millennial	–.27	1.348		
Be a member of their professional organization	Millennial	1.08	.944	.049	.961
	Non–Millennial	1.09	1.044		
Provide periodic assignments, quizzes, and or evaluations throughout the course	Millennial	1.11	.734	2.282	.025
	Non–Millennial	1.64	.505		
Give a midterm and a final only	Millennial	–1.00	.755	–1.806	.074
	Non–Millennial	–.47	.931		

faculty, while faculty were more agreeable to having students disagree. Millennial students also felt that it was acceptable for faculty to socialize with students outside of class, while faculty disagreed with this statement. Faculty also agreed more strongly that students should volunteer to participate in class activities. In the areas of technology, faculty strongly agreed that students should use a computer and the Internet to complete assignments, while Millennials only agreed with this statement. Millennial students agreed that faculty should use Power Point slides for lectures and should make class notes available online. Faculty did not agree as strongly on these statements. Students displayed more agreement for learning something because it could be on a test when compared with faculty. Faculty felt more strongly that students should be required to do community service. Differences were also found in the amount of homework required by faculty. Students disagreed with requiring more than 2 hours of homework per week per class, while faculty agreed with this statement. There was statistically significant data reported that students agreed they should be allowed to pick their own work groups, while faculty did not agree as strongly. Finally, faculty agreed they should call on students who do not participate, while students disagreed with this statement (Tables II–a, II–b).

Discussion

Dental hygiene students generally mirror Millennial students on most factors. Major differences were found with the expectations of Millennial students and faculty. The expectations dental hygiene students have of the didactic classroom environment are similar to literature cited about Millennial student expectations. The survey revealed that students strongly agree that they should accept authority and follow the rules established by the teacher. Similarly, students disagreed that they should call faculty by their first names. These findings are consistent with the findings of Howe and Strauss who found that Millennials respect authority and follow rules.[5] These results display that students are looking to faculty as leaders and role models in the classroom and faculty should embrace these roles.

Students prefer that faculty incorporate the use of technology in the classroom and be available through efficient electronic means, such as email and/or instant messaging. Having a course website include the syllabus and assignments can give students 24 hour access to course information. Students also did not feel strongly that they should be required to do community service. This is contradictory to the fact that Sandfort and Haworth found that community service is important to Millennial students.[6] However, if community service is a part of Millennials lives, then they may feel it does not need to be required by an academic program.

Faculty expectations revealed a more diverse group of issues, the first area being interaction in the classroom. Faculty strongly agreed that faculty and students should interact and that students should volunteer to participate in class. Faculty also felt strongly that students should follow rules and accept responsibility for learning, including attending all class sessions. Most of the literature focuses on the students' expectations, therefore making the results of faculty expectations difficult to compare to current research. Faculty should make their expectations clear to their students verbally or in writing at the beginning of the course.

While Millennial and non–Millennial students generally had similar expectations, there were areas of marked differences. Non–Millennial students had higher levels of agreement on encouraging peers to follow rules, accepting responsibility for learning and attending all class sessions. Previous research has found that Millennial students prefer more group activities, interactive activities, quicker response time, more integration of technology and entertainment in the classroom.[17–19] The results of this study are more consistent with the findings of Walker et al, who found no differences in the preference of teaching methods between Millennial and Generation X nursing students.[14] Reasons for this may include that students in health professions are a selective group and therefore are more likely to be homogenous. Another surprising result was that Millennial students disagreed that community service should be required, while non–Millennials were in agreement. This is not consistent with the findings of Sandfort and Haworth who found that community service is important to Millennials.[6] While disagreement with this statement does not mean Millennials do not value community service, it does show that they have different ideas concerning the requirement of community service than their non–Millennial classmates. One reason may be that Millennials participate in community service outside of school and do not feel it is necessary to require this as part of the curriculum. Another interesting difference was that Millennials more strongly agreed to faculty socializing with students outside of class than non–Millennials. This creates a challenge for faculty to uphold the authority and role model figure that Millennials expect, while also balancing the social aspects of relationships with students. Dental hygiene programs that include more diverse age differences in their students will also have challenges in meeting the needs of these groups.

Table II–a: Differences in Expectations between Millennial Students and Faculty
Mean based on scale from 2 to –2 (SA=2 A=1 N=0 D=−1 SD=−2)

Question					
Students Should:	**Group**	**Mean**	**SD**	**t**	**Sig.(2–tailed)**
Accept the authority of teachers	Millennial	1.56	.639	.735	.464
	Faculty	1.42	.669		
Call faculty by their first name	Millennial	−.99	.893	1.598	.113
	Faculty	−1.42	.669		
Disagree with the faculty	Millennial	−.29	.824	−2.036	.037
	Faculty	.25	.866		
Laugh in class	Millennial	.92	.851	.345	.731
	Faculty	.83	.718		
Volunteer to participate in class activities	Millennial	1.26	.663	−2.022	.046
	Faculty	1.67	.651		
Interact with the teacher and other students during class	Millennial	1.40	.614	−1.403	.164
	Faculty	1.67	.651		
Present their own opinions in class	Millennial	1.27	.723	.487	.627
	Faculty	1.17	.577		
Follow class rules	Millennial	1.72	.475	.364	.717
	Faculty	1.67	.651		
Encourage peers to follow class rules	Millennial	1.48	.604	−1.009	.316
	Faculty	1.67	.651		
Accept responsibility for learning	Millennial	1.57	.498	−1.162	.248
	Faculty	1.75	.622		
Learn something because it might be on a test	Millennial	1.27	.684	2.328	.038
	Faculty	.42	1.240		
Ask the teacher how to get a better grade	Millennial	.97	.867	.502	.616
	Faculty	.83	.835		
Accept mistakes as a natural part of learning	Millennial	1.20	.622	−1.555	.123
	Faculty	1.50	.674		
Use a computer and the Internet to complete assignments	Millennial	.81	.923	−2.494	.014
	Faculty	1.50	.674		
Be required to do community service	Millennial	.09	1.196	−4.444	.000
	Faculty	1.17	.718		
Receive academic credit for community service	Millennial	.53	1.134	.342	.733
	Faculty	.42	.900		
Be required to work in groups	Millennial	.26	.943	−1.461	.147
	Faculty	.67	.651		
Receive one grade for everyone in a group project	Millennial	.08	1.189	−.926	.356
	Faculty	.42	1.165		
Be a member of SADHA	Millennial	.94	.987	−.462	.645
	Faculty	1.08	.900		
Attend all classes, labs, and clinics	Millennial	1.56	.656	−.938	.351
	Faculty	1.75	.622		

Table II–b: Differences in Expectations between Millennial Students and Faculty
Mean based on scale from 2 to –2 (SA=2 A=1 N=0 D=−1 SD=−2)

Question					
Faculty Should	Group	Mean	SD	t	Sig.(2–tailed)
Use Power Point Slides for lectures	Millennial	1.43	.601	2.692	.008
	Faculty	.92	.793		
Distribute copies of class lecture notes	Millennial	1.71	.525	4.767	.000
	Faculty	.92	.669		
Make class notes available online	Millennial	1.54	.621	4.993	.000
	Faculty	.58	.669		
Provide a written list of class policies within the syllabus	Millennial	1.48	.657	−.958	.340
	Faculty	1.67	.492		
Follow the course syllabus exactly	Millennial	.68	.910	.903	.369
	Faculty	.42	1.165		
Respond to student emails within 24 hours	Millennial	1.59	.559	1.779	.101
	Faculty	1.00	1.128		
Be available to students whenever needed, including telephone calls at home	Millennial	−.04	.947	1.555	.123
	Faculty	−.050	1.00		
Require the use of a computer and the Internet to complete assignments	Millennial	.26	.989	−1.367	.175
	Faculty	.67	.888		
Be proficient in the use of technology for classroom instruction	Millennial	1.20	.584	−1.689	.094
	Faculty	1.50	.522		
Admit not knowing an answer to a question	Millennial	1.36	.659	−1.150	.253
	Faculty	1.58	.515		
Socialize with students outside of class	Millennial	.62	.869	3.928	.000
	Faculty	−.42	.793		
Use several different teaching methods throughout the quarter	Millennial	1.00	.924	−.600	.550
	Faculty	1.17	.718		
Require more than two hours of homework a week, per class.	Millennial	−.56	.888	−5.223	.000
	Faculty	.33	.492		
Require students to work in groups	Millennial	−.13	1.057	−1.195	.235
	Faculty	.25	.965		
Assign students to a work group	Millennial	−.20	1.062	−1.431	.155
	Faculty	.25	.622		
Allow students to pick their own work groups	Millennial	1.02	.807	2.708	.019
	Faculty	.08	1.165		
Call on students who don't participate in class	Millennial	−.37	.999	−4.358	.000
	Faculty	.92	.515		
Be a member of ADHA	Millennial	1.08	.951	−.881	.381
	Faculty	1.33	.888		
Provide periodic assignments, quizzes, and or evaluations throughout the course	Millennial	1.18	.728	−1.865	.065
	Faculty	1.58	.515		
Give a midterm and a final only	Millennial	−.53	.927	1.065	.290
	Faculty	−.83	.835		

Millennial and non–Millennial dental hygiene students did not have drastically different expectations, but that is not the case between Millennial students and faculty. Millennial students felt they should not disagree with faculty, most likely because they hold faculty in a position of authority.[5] Faculty may need to encourage Millennial students to explore opposite points of view on issues presented in the classroom. Even though Millennials hold faculty as authority figures, they still felt as though it was acceptable to socialize with faculty outside of class. Faculty disagreed with this statement. This role makes it challenging for faculty to establish authority and respect in the classroom and also maintain a more friendly relationship with students.

Another disagreement between faculty and students was requiring community service. Faculty agreed that it should be required stronger than students did. This finding is not consistent with finding of Sandfort and Haworth that found that students value community service.[6] The reason for this disagreement is unknown and warrants further investigation.

On issues of technology there were also several differences. Millennials have been known as tech–savvy and have been using technology all of their lives.[2-5] Faculty felt more strongly that the computer and Internet should be used to complete assignments. This may be because students are using more interactive technologies to complete assignments. This generation of students does not view computers and the Internet as technology – they view it as a way of life and are probably looking for more advanced technologies in the classroom. Millennials felt more strongly than faculty that Power Point slides should be used for lectures, and that class notes should be available online. This is consistent with the findings that Millennials want instant access and avaliablilty.[1-5] Faculty should use course web sites and electronic communications to allow for efficient accessibility and communication with students.

The next area of significant difference was about group work. Previous research finds that Millennial students like to work in groups.[5] Results from the survey revealed that students felt that faculty should not assign them to work groups, while agreeing that they should be allowed to pick their own groups. While neither faculty nor students felt strongly either way about group work, how group work is assigned highlighted different expectations. Through the students' reports it was suggested that they want to be allowed to pick their own groups.

On the other hand, faculty felt more strongly that these groups should be assigned. While group work seems to be favorable to students and faculty, faculty will have to weigh out the benefits and drawbacks of assigning students to groups or letting them choose their own groups.

Limitations of this study include the limited population. Only 12 faculty and 90 students were surveyed, with only 11 students classified as non–Millennials. All students were in a baccalaureate dental hygiene program, and the student population lacked diversity. Entrance into the program is highly selective, and therefore the population included only a select homogenous group. National data on dental hygiene students reports that 97% are female and 88.6% are white, non–Hispanic, similar to the student population of this study (99% female, 88% white).[20] Further research should include students and faculty in other types of dental hygiene programs. Generalizing the results of this study outside of the surveyed institution is difficult considering that, even though the demographics of the population may be similar, the background and experiences of students are different and were not assessed by this survey. Differences in expectations between associate and baccalaureate students should also be examined.

Another challenge with the methods of this study was that the students surveyed were already enrolled in the program and had already been exposed to current expectations held by the faculty and program administration. The program in which students were enrolled is a traditional program with limited use of Millennial accepted educational technology. The students' prior experience with educational technology or non–traditional learning formats was not assessed. Faculty use and experience with educational technology was also not assessed as part of this survey. A survey of pre–dental hygiene students would decrease the amount of influence that previous experiences had on students. Subsequent studies should include this population and account for previous educational experiences of students and faculty.

As with any Likert–type survey, the only responses received are strongly agree, agree, neutral, disagree and strongly disagree. This survey does not reveal the reasons why students and faculty agree and disagree with certain statements. Further research should include focus groups and/or open ended questions, allowing students and faculty to give reasons for their responses. Without these reasons, it is challenging to make changes to accommodate different generations of students.

Conclusion

This study finds that Millennial dental hygiene students tend to mirror Millennial student characteristics, such as use of digital media, interactive learning and mentoring. Non–Millennial students had different views accepting responsibility for learning, community service and attendance. The data also shows differences in the relationship expectations between faculty and students.

After the Millennial generation there will continue to be future generations with unique characteristics and learning needs. Examining student and faculty expectations can help faculty learn more about their students and what they expect, and students can learn what the faculty's expectations are of them. Dental hygiene faculty can use expectations to help shape and structure their assignments and learning activities for a more effective and rewarding educational experience for both faculty and students.

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