

Perspectives of Dermatology Faculty Toward Millennial Trainees and Colleagues: A National Survey

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Abstract

Objective: To assess the attitudes and beliefs of faculty dermatologists regarding perceived characteristics of millennial trainees and colleagues.

Participants and Methods: We conducted a cross-sectional survey of dermatology physician-educators listed in the Fellowship and Residency Electronic Interactive Database from August 1, 2019, to October 31, 2019. This survey consisted of 26 items (5-point Likert scales) representing positive, negative, and neutral millennial stereotypes relevant to graduate medical education. Participants' responses were analyzed using the chi-squared goodness of fit test with dichotomized data.

Results: Seventy-six dermatology physician-educators participated in the national survey. A statistically significant response pattern was seen in 18 of 26 (69%) tested stereotypes. Positive judgments included denial of hesitations about working with millennials ($P = .038$) and agreement with the notions that millennials are technologically savvy ($P < .001$), socially just ($P < .001$), equally capable dermatologists as other generations ($P < .001$), enjoyable to work with ($P < .001$), easy to connect with interpersonally ($P < .001$), and promising future leaders of medicine ($P = .039$). Negative judgments included perceptions of the word *millennial* as a pejorative ($P < .001$) and of millennials being relatively entitled ($P < .001$), overly sensitive to feedback ($P < .001$), less polite ($P < .001$), and less hard-working ($P < .001$) compared with prior generations.

Conclusion: This study represents the first national survey of the attitudes and perspectives of dermatology physician-educators regarding perceived characteristics of millennial trainees and colleagues. Our results suggest that dermatology faculty endorse various positive, negative, and neutral stereotypes regarding Generation Y. Early recognition of implicit biases can inform curricular design and prepare educators to address generational gaps in medical education.

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Millennials, also known as Generation Y, encompass the demographic cohort reaching adolescence or young adulthood in the early 21st century. Defined by the US Census Bureau as individuals born between 1982 and 2000, millennials represent the single largest generation in US history and are already disrupting virtually every industry, including medicine.^{1,2} Although the individual experiences of millennials vary widely, a growing body of research has characterized millennials as a technologically adept, progressive, and socially conscious generation with strong preferences and opinions, especially regarding education and workplace culture.³⁻⁵ However, millennials

have been also been described as “experience-seeking” and dubbed the “me, me, me” and “Peter Pan” generation because of the well-documented prevalence of egocentric traits among millennials and their tendency toward delayed transition into adulthood as it has been traditionally defined.^{6,7} These perceptions are sufficiently common that *millennial* is used as a pejorative by some to describe any young person who is perceived as lazy, entitled, or naively idealistic.⁸

One of the challenges that future residents and medical trainees might encounter is the preconceptions of physician-educators regarding millennials. This topic has been explored in other medical specialties,^{9,10} but



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the data are lacking for dermatology. We conducted a systematic review of the literature mentioning millennials in the context of dermatology and found only 13 articles,¹¹⁻²³ summarized in the [Supplementary Table](#) (available online at <http://mcpiqojournal.org>). Most of these articles were not empirically driven. The most common topics addressed in the literature included millennial preferences and inclinations toward self-directed learning,^{11,15,17,19,21} frequent feedback,^{15,23} technology,^{13-16,20} lifestyle-oriented career choices,^{13,18,20,22} and experience-seeking behavior.^{12,20} All studies focused on medical school and graduate-level dermatology trainees. Only one study surveyed dermatology program directors' personal preferences regarding professional feedback, but it did not evaluate their attitudes toward the perceived characteristics of millennials.²³ To our knowledge, the present study is the first national survey and quantitative analysis of the attitudes and beliefs of faculty dermatologists regarding trainees and colleagues of Generation Y.

PARTICIPANTS AND METHODS

Study Design and Participants

We conducted a cross-sectional survey of program directors or designated program representatives of 140 dermatology residency training programs listed in the Fellowship and Residency Electronic Interactive Database from August 1, 2019, to October 31, 2019. Participants received an e-mail invitation to complete an anonymous online survey. The recruitment correspondence included instructions to share the survey link among each program's dermatology faculty members. This study was deemed exempt by the institutional review board of Dartmouth College.

Survey Instrument Development

The survey instrument was designed to evaluate participants' attitudes regarding common millennial stereotypes, and it was developed with input from generationally diverse faculty members, residents, and medical students in the Department of Dermatology of Dartmouth—Hitchcock Medical Center. The survey was constructed using REDCap, and it consisted of 26 items structured on a

5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree). The survey items represented a balanced number of positive, negative, and neutral stereotypes and were randomly ordered to minimize response bias.

Statistical Analysis

Descriptive statistics were used to analyze demographic variables, and Likert scale ratings were analyzed using the chi-squared goodness of fit test. Data were dichotomized by combining the responses "strongly agree" and "agree" into one category and "strongly disagree" and "disagree" into another category, with "neutral" responses divided equally between them. The null hypothesis assumed an expected proportion of 0.5 for each group.

In assessing the pattern of results, a "positive" judgment was defined as either agreement with a positive stereotype or disagreement with a negative stereotype. Conversely, a "negative" judgment was defined as agreement with a negative stereotype or disagreement with a positive stereotype. To internally validate the consistency of participant responses, two stereotypes were presented in redundant items—namely, using the descriptors *disrespectful* versus *polite* and *lazy* versus *hard-working*. By expressing these items as antonyms, we also sought to assess whether participants were more likely to endorse a negative stereotype in the form of direct agreement with a negative descriptor (eg, "millennials are lazy") versus the more indirect manner of disagreeing with a positive descriptor (eg, "millennials are not as hard working as prior generations").

RESULTS

Seventy-six respondents participated in the survey, and they are demographically described in [Table 1](#). Most participants were 31-50 years old (54 of 76 [71.1%]), female (42 of 76 [55.3%]), and white (57 of 76 [75.0%]). Most participants identified the start (55 of 73 [75.3%]) and end (52 of 70, 74.3%) of the millennial generation to within 5 years of the US Census Bureau definition. Nearly all participants reported direct involvement in educating dermatology trainees (74 of 75 [98.7%]).

TABLE 1. Demographics of National Survey Participants

Survey item	Results	
	Category	Respondents, n (%) ^a
Age, years	<26	0 (0.0)
	26-30	2 (2.6)
	31-35	16 (21.1)
	36-40	15 (19.7)
	41-50	23 (30.3)
	51-60	7 (9.2)
	60-65	11 (14.5)
	>66	2 (2.6)
Sex	Male	34 (44.7)
	Female	42 (55.3)
Race/ethnicity	American Indian or Alaskan Native	0 (0.0)
	Asian or Pacific Islander	5 (6.6)
	Black or African American	5 (6.6)
	Hispanic or Latino	3 (3.9)
	White or Caucasian	57 (75.0)
	Multiple ethnicity or Other	1 (1.3)
	Decline to answer	5 (6.6)
Millennial contacts	Attending dermatologists	50 (67.6)
	Residents	66 (89.2)
	Medical students	63 (85.1)
	Premedical students	22 (29.7)
	Other health care professional students	24 (32.4)
	Clinical support staff	46 (62.2)
	I do not work with any millennials	0 (0.0)
	Unsure	1 (1.4)
Definition of the start of the millennial generation ^b	>1987	18 (24.7)
	Within 5 years of US Census Bureau definition (1977-1987)	55 (75.3)
	<1977	0 (0)
Definition of the end of the millennial generation ^b	>2005	12 (17.1)
	Within 5 years of US Census Bureau definition (1995-2005)	52 (74.3)
	<1995:	6 (8.6)

^aPercentages do not total 100% for survey items where "not applicable" was selected by participants.

^bResponse options included all years from 1970 to 2019.

Survey data and chi-squared analysis results are shown in Table 2. A statistically significant response pattern was observed in 18 of 26 study items at the 0.05 significance level (Table 2). Of the 18 items that reached statistical significance, 7 items represented positive judgments (items 2, 3, 7, 11, 13, 14, 17), 5 items represented negative judgments (items 4, 9, 15, 25, 26), and 6 items were neutral (items 1, 8, 18, 20, 21, 24).

DISCUSSION

To our knowledge, we present the first national survey of dermatology physician-educators' attitudes toward trainees and colleagues of Generation Y. Our results support that perspectives among dermatology faculty are statistically nonneutral regarding several common millennial stereotypes. Negative judgments that reached statistical significance included perceptions of millennial entitlement, impoliteness

TABLE 2. Chi-squared Goodness of fit Analysis of Dermatology Faculty Perspectives Regarding Millennial Stereotypes zzz

Survey item	Results, n (%)					χ^2	P
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree		
1. Millennials are more outspoken than prior generations.	1 (1.3)	7 (9.2)	23 (30.3)	22 (28.9)	23 (30.3)	18.0	<.001
2. It is more difficult to “connect” interpersonally with millennials than other age groups.	10 (13.2)	31 (40.8)	22 (28.9)	11 (14.5)	2 (2.6)	10.3	0.001
3. I feel optimistic about the future of medicine with millennials as future leaders.	3 (3.9)	16 (21.1)	20 (26.3)	30 (39.5)	7 (9.2)	4.3	0.039
4. Millennials feel more entitled than prior generations.	1 (1.3)	6 (7.9)	8 (10.5)	28 (36.8)	32 (42.1)	37.5	<.001
5. Millennials are more “lazy” than prior generations.	4 (5.3)	20 (26.3)	21 (27.6)	23 (30.3)	8 (10.5)	0.6	0.4
6. Millennials are more disrespectful than prior generations.	5 (6.7)	17 (22.7)	19 (25.3)	25 (33.3)	8 (10.7)	1.6	0.2
7. Millennials are more technologically savvy than prior generations.	1 (1.3)	1 (1.3)	3 (3.9)	22 (28.9)	47 (61.8)	60.7	<.001
8. Millennials are as loyal to organizations and equally likely to remain with a single employer/institution as prior generations.	18 (23.7)	40 (52.6)	14 (18.4)	2 (2.6)	2 (2.6)	38.4	<.001
9. Millennials are more hard-working than prior generations.	13 (17.1)	37 (48.7)	23 (30.3)	3 (3.9)	0 (0.0)	29.1	<.001
10. Millennial beliefs are overly idealistic or naive compared with prior generations.	0 (0.0)	16 (21.3)	27 (36.0)	26 (34.7)	6 (8.0)	3.4	0.065
11. I have concerns, doubts, or hesitations about working with millennials.	7 (9.3)	30 (40.0)	19 (25.3)	17 (22.7)	2 (2.7)	4.3	0.038
12. Millennials are seen as disruptors and often want to “go against the grain” and change paradigms.	3 (3.9)	20 (26.3)	24 (31.6)	24 (31.6)	5 (6.6)	0.5	0.5
13. Millennials value social justice and equality more than prior generations.	1 (1.3)	11 (14.5)	16 (21.1)	36 (47.4)	12 (15.8)	17.1	<.001
14. I enjoy working with millennials.	1 (1.3)	7 (9.2)	21 (27.6)	38 (50.0)	9 (11.8)	20.0	<.001
15. Millennials are overly sensitive when receiving feedback.	2 (2.7)	10 (13.3)	20 (26.7)	28 (37.3)	15 (20.0)	12.8	<.001
16. It is more difficult having a colleague who is a millennial than other age groups.	4 (5.3)	31 (41.3)	18 (24.0)	16 (21.3)	5 (6.7)	2.6	0.1
17. Millennials are just as capable and competent as dermatologists as other generations.	0 (0.0)	5 (6.6)	12 (15.8)	43 (56.6)	16 (21.1)	38.4	<.001
18. Millennial students prefer “self-directed” learning.	3 (3.9)	8 (10.5)	30 (39.5)	28 (36.8)	6 (7.9)	7.1	0.008
19. Millennials feel proud to be identified within that generation.	2 (2.6)	19 (25.0)	40 (52.6)	12 (15.8)	2 (2.6)	0.7	0.4
20. Faculty and leaders in medicine should have training on how to approach and work with millennials.	3 (3.9)	13 (17.1)	19 (25.0)	32 (42.1)	9 (11.8)	8.2	0.004
21. Millennial trainees seek feedback more than prior generations.	1 (1.3)	11 (14.5)	32 (42.1)	25 (32.9)	7 (9.2)	5.3	0.02
22. Millennial students are as studious as prior generations.	3 (3.9)	14 (18.4)	31 (40.8)	22 (28.9)	6 (7.9)	1.6	0.2
23. As an educator, teaching millennials is more difficult or a greater time commitment compared with other age groups.	3 (3.9)	20 (26.3)	21 (27.6)	24 (31.6)	7 (9.2)	0.8	0.3
24. Most millennials are “liberal.”	0 (0.0)	9 (11.8)	36 (47.4)	24 (31.6)	5 (6.6)	5.4	0.02
25. I have used or heard a colleague use the term “millennial” sarcastically or with a negative connotation.	2 (2.6)	9 (11.8)	8 (10.5)	36 (47.4)	21 (27.6)	27.8	<.001
26. Millennials are more polite than prior generations.	9 (11.8)	30 (39.5)	37 (48.7)	0 (0.0)	0 (0.0)	20.0	<.001

Survey items 2, 4, 5, 6, 10, 11, 15, 16, and 25 were considered negative stereotypes; items 3, 7, 9, 13, 14, 17, 19, 22, and 26 were considered positive stereotypes; and items 1, 8, 12, 18, 20, 21, 23, and 24 were considered neutral stereotypes. Percentages do not add to 100% for survey items where “not applicable” was selected by participant(s).

relative to prior generations, oversensitivity to feedback, inferior work ethic relative to prior generations, and the use of *millennial* as a pejorative. Overall, however, the number of positive judgments reaching statistical significance was greater. Crucially, our results affirm that dermatology physician-educators enjoy working with millennial trainees and colleagues, see them as equally competent, and feel optimistic about the future of medicine with millennials as rising leaders.

Other positive judgments reaching statistical significance included participant disagreement with the notion that millennials are difficult to connect with interpersonally, denial of concerns or doubts about working with millennials, and agreement with the statements that millennials value social justice and are technologically savvy. Neutral judgments reaching statistical significance included agreement with the idea that faculty and leaders in medicine should receive training on interacting with millennials and the beliefs that millennials are relatively more outspoken, prefer self-directed learning, seek relatively more feedback, are more liberal, and are less likely to remain with a single employer.

Our results also suggest that dermatology faculty are more likely to express a negative judgment of millennials by denying the notion of a favorable characteristic, as in disagreeing with the statements that millennials are more “hard-working” (item 9, $P < .001$) or “polite” (item 26, $P < .001$) compared with prior generations. In contrast, statistical significance was not reached when participants were presented with the option to express the equivalent negative judgments by directly agreeing that millennials are relatively “lazy” (item 5, $P = .4$) or “disrespectful” (item 6, $P = .2$). Other survey items that failed to reach statistical significance included statements of millennials being naive, disruptors, proud of being identified within their generation, equally studious as prior generations, and relatively difficult to work with as colleagues or students.

Overall, these results suggest that dermatology physician-educators perceive issues of professionalism and communication as the greatest challenges of working with millennials. The notion that millennial trainees are comparatively impolite or entitled

compared with preceding generations may stem in part from perceived deficiencies in millennial work ethic. This perception, in turn, likely relates to the shifting values of Generation Y—namely, the importance millennials place on work–life balance. Although debates regarding generational gaps in professionalism are not unique to Generation Y, this issue can be more pronounced in millennials given new economic pressures placed on them, such as record high education debts that far outpace inflation, declining reimbursement rates, and increasingly unfavorable loan repayment terms.²⁴ As a result, millennials may be more preoccupied with and motivated by earning potential, which can be difficult to accept for faculty members of older generations, who tend to place higher value on titles and organizational integrity.³

Faculty members can bridge generational gaps in workplace attitudes by explicitly reviewing expectations and consequences when working with millennial trainees. Although the millennial generation has been characterized as desiring specific rules and frequent feedback, they may be paradoxically ill-equipped to handle criticism. Indeed, millennials have been called the “most praised” generation owing to coming of age in an era wherein the prevailing theories of child development emphasized the importance of enhancing self-esteem via positive feedback and the recognition of efforts rather than outcomes.²⁵ In addition to delivering negative feedback in a way that is specific and immediate, physician-educators can increase the odds that their millennial trainees will respond favorably to criticism by framing the desired behavioral change in a way that appeals to the millennial learner’s sense of value in their workplace contributions. One example of this would be to emphasize that the millennial trainee’s role is critical to the success of a project. In addition, the relatively high importance that millennials place on work–life balance can be leveraged in this context by framing behavioral change in terms of improved workplace efficiency.

The primary limitation of this study is the relatively low response rate, which increases risk of sampling bias and type 2 error. Moreover, 43.4% of the survey respondents were 40 years old or younger, meaning that a

considerable proportion of the participants were millennials. This represents a potential source of bias as this subset of participants were asked to evaluate characteristics of a group to which they themselves belong. Future studies should build on this research with expanded samples, which might also allow for multivariable analyses that could shed light on faculty member characteristics associated with holding certain beliefs regarding millennials. Another future direction of this form of generational research could also explore educators' perspectives regarding Generation Z, which follows the millennial generation and has been associated with unique characteristics.²⁶

CONCLUSION

To our knowledge, this study represents the first national survey on the perspectives of dermatology physician-educators regarding perceived characteristics of millennial trainees and colleagues. Although our results affirmed the prevalence of various negative stereotypes regarding millennial work ethic and professionalism among dermatology faculty members, the results also affirm that dermatology physician-educators enjoy working with millennials and see them as equally competent. Medicine will continue to evolve dramatically with each new generation of trainees and colleagues. By recognizing these changes early, physician-educators will be better prepared to check their own potential biases and to rise to the unique challenges and opportunities presented by current and future generational gaps in medicine.

SUPPLEMENTAL ONLINE MATERIAL

Supplemental material can be found online at <http://mcpiqojournal.org>. Supplemental material attached to journal articles has not been edited, and the authors take responsibility for the accuracy of all data.

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