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Perspectives on the Professional Communication Profile and Needs of Emerging Occupational Therapists of the Millennial Generation: A Comparison Study

Abstract

Background: Millennials, born between 1982 and 2000, became the largest share of the American workforce in 2015. As of 2014, 23.9% of American occupational therapists were under the age of 30. Positive traits ascribed to millennials include: highly educated, ambitious, confident, and optimistic. However, indicators of challenges for managing millennials emerge from media and anecdotal evidence, including stereotypes of disloyalty, entitlement, dependency, and casualness. Relevant for supporting professional development is a call to understand and enhance professional communication.

Method: This study analyzed how emerging millennial occupational therapists self-describe their professional communication profile and needs, compared to the perspective of managers, while aiming to describe the accuracy of communication stereotypes. Occupational therapy managers and emerging occupational therapists of the millennial generation completed an online researcher-created survey.

Results: Comparison of means revealed statistically significant differences, with the most significance noted on items reflecting professional communication skills of millennial occupational therapists.

Conclusion: Analysis of results suggested support for some stereotypes and inaccuracy of others, painting a unique picture of the professional communication profile of millennial occupational therapists. Results from this small-population survey study may inform professional development opportunities for academic and fieldwork educators and occupational therapy managers related to the communication profile and needs of emerging occupational therapists through the lens of generational theory.

Comments

The authors report no potential conflicts of interest.

Keywords

millennial, professional, communication, generations, education

Cover Page Footnote

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Credentials Display

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In 2015, millennials, born between the years 1982 and 2000, became the largest share of the American workforce, surpassing members of Generation X, who were born between the years 1965 and 1981 (Fry, 2015). Demographics from the American Occupational Therapy Association's (AOTA; 2015a) *Salary & Workforce Survey* align with these generational boundaries and demonstrate in 2014 23.9% of American occupational therapists were under 30 years of age. This statistic accounts for the birth years of most millennials but does not capture the oldest millennials. Thus, greater than 23.9% of American occupational therapists are members of the millennial generation. In occupational therapy, the number of millennials has not yet surpassed Generation X, which represents slightly fewer than 47% of all occupational therapists (AOTA, 2015a).

Baby boomers, those born between 1946 and 1964, are retiring in greater numbers, while the Silent Generation, born between 1928 and 1945, and the Greatest Generation, born before 1928, represent a small but measurable portion of the American workforce (Fry, 2015). Consistent with the general statistics of the American workforce, baby boomers are retiring from occupational therapy and represent approximately 27.9% of occupational therapists. Fewer than 1% of occupational therapists represent the Silent Generation (AOTA, 2015a).

Generational theory explains that cohorts, born over a range roughly equivalent to 20 years, are defined by the sociocultural environment establishing a set of shared experiences during formative years, including social and historical factors and economic conditions (Howe & Strauss, 2000; Twenge, 2009). Generational theorists differ when defining the start date of the millennial generation, ranging from 1977 to 1983. Similarly, theorists note the end of the millennial generation ranges from 1994 to 2003. Theorists center on 1982 to 2000 as the range of birth years for millennials (Hills et al., 2012; Hills et al., 2013; Hills et al., 2015; Ogbeide et al., 2013; Sternberg, 2012; Twenge, 2009), and this range was used for this study.

The millennial generation, also known as Generation Y, was born into a technologically advanced world, and as such this generation has been coined "digital natives," as compared to the "digital immigrants" of prior generations (Bennett et al., 2008; Prensky, 2001; Sanders & Morrison, 2007). This generation also is considered to be the most wanted generation in history, as many were born to parents who opted to have children after establishing themselves financially and during a time when fertility assistance was common, birth control safe, and abortion legal (Hills et al., 2012; Hills et al., 2015; Howe & Strauss, 2000).

With millennials representing an increasing proportion of the workforce, managers, including occupational therapists, lament that guidance for the professional development of millennials is lacking. Research is needed to determine what it takes to lead millennials successfully in a multigenerational workplace (Carpenter & de Charon, 2014; Hills et al., 2013).

Literature Review

Evidence, Stereotypes, and Popular Culture

The millennial generation is a cohort of people currently receiving substantial attention in educational and employment settings as well as in the media. Positive traits identified in relation to millennials include: highly educated, ambitious, confident, structured, engaged in strong peer relationships and teamwork, and optimistic (Elam et al., 2007; Howe & Strauss, 2000; Sternberg, 2012; Werth & Werth, 2011). Less positive traits frequently ascribed to members of the millennial generation are: narcissistic, technology dependent, poor communicators, unable to receive constructive feedback, a need for frequent positive feedback and reassurance, and feeling entitled (Deal et al., 2010; Thompson &

Gregory, 2012). It has been suggested that the lived experiences of millennials have produced a generational cohort that is high on self-efficacy and comparatively self-assured (Twenge, 2009).

Media influences popular culture and perpetuates accounts of this perceived sense of casualness, neediness, and entitlement regarding millennials' approach to work. Myers and Sadaghiani (2010) state, "For the most part, the popular perception of millennials is that they have grown up in 'good' times: They were valued as children, and they expect their careers to meet their basic financial needs and indeed to provide comfortable lifestyles" (p. 232).

Twenge and Campbell (2008) found that the millennial generation demonstrates high self-esteem, narcissism, anxiety, and depression, as well as a comparatively lower need for social approval, with an external locus of control. Complementing these results, a cross-temporal meta-analysis demonstrated that narcissism levels have risen over the generations as demonstrated by scores on the Narcissistic Personality Inventory (NPI) (Twenge et al., 2008). Twenge et al. (2008) state, "The most recent college students score about the same on the NPI as a sample of celebrities" (p. 890). Twenge (2013) presents a *State of the Field* article summarizing evidence in support of her findings of increased narcissism, concluding that "parents and teachers should focus on teaching children and adolescents the values of hard work and consideration for others instead of an inflated sense of self" (p. 11).

In direct contrast with Twenge and colleagues (2008), other researchers find members of the millennial generation to present as ambitious, optimistic, confident, and high achieving. Howe and Strauss (2000) use overwhelmingly positive descriptors of millennials, suggesting that while stereotypes generally emerge from kernels of truth, this generation should be respected for its strengths and encouraged to grow to its maximal potential. Arnett (2008) suggests that the observations and findings of Twenge and colleagues are representative of a normative period of "emerging adulthood," between adolescence and young adulthood, which is inherently a highly individualistic time of life (p. 680). Arnett further proposes that Twenge and colleagues have used "evidence from the social sciences and 'evidence' from popular media interchangeably" (p. 678) in a manner resulting in a skewed and stereotypic portrayal of young people. In a related *State of the Field* article, Arnett directly contradicts Twenge's position, stating, "As a society, we can and should do more to support emerging adults, beginning with a halt to the negative stereotypes" (Arnett, 2013, p. 5).

Indicators of challenges for managing millennial employees emerge from media and anecdotal evidence, including stereotypes of disloyalty, neediness, entitlement, and casualness that lead to the perception that millennials are "unmanageable" (Sternberg, 2012; Thompson & Gregory, 2012, p. 243). Further evidence of the role of media and anecdotal experience is demonstrated in surveys of occupational therapy managers and fieldwork educators, as results indicate participants brought prior knowledge and perceptions of millennials to their completion of the research surveys. Participants were asked to indicate their familiarity with the term Generation Y and responded with 100% consistency that they were very familiar or familiar with the term. In addition, over 70% of respondents indicated that they considered there to be a prototypical Generation Y therapist (Hills et al., 2012; Hills et al., 2013; Hills et al., 2015).

Professional Communication

In a broad review of the literature focused on general characteristics of the millennial generation, factors related to professional development consistently emerge. Of particular relevance for professional development is the need to understand and enhance professional communication. Professional communication is defined as written, oral, visual, and/or digital communication in a workplace context.

This construct focuses on information and the ways in which it is created, distributed, consumed, and managed (Schnurr, 2013; Schriver, 2012). Research focusing on professional development and/or professional communication emerges from a variety of fields, including business, public relations, social psychology, higher education (including medical education), hospitality, nursing, and occupational therapy. This literature is presented primarily from the perspective of either the millennial generation employee or the manager, while few studies compare the two perspectives.

Technology

Technology-dependent and techno-savvy are adjectives arising from the literature that describe managers' perspectives of occupational therapists of the millennial generation. Studies of occupational therapy managers and fieldwork educators report that the millennials they supervise expect to be in constant communication, through technology, with people in their personal lives while at work (Hills et al., 2012; Hills et al., 2013; Hills, et al., 2015). This finding is supported outside of health care fields as millennial undergraduate students were found to have an expectation that when employed they will remain connected with their personal lives through technology throughout their working day, regardless of who is in their presence or the type of work setting (Ogbeide et al., 2013; Robinson & Stubberud, 2012).

A potential conflict exists between use of digital technology by millennials and the existing culture of the environment where professional practice takes place, as use of mobile phones and digital cameras is often restricted by policy and looked on with suspicion by management (Gray, 2008). However, immediate access to information about current research on evaluation methods or intervention approaches is afforded through use of mobile technology, and this may prove to be beneficial for millennial occupational therapists as they navigate evidence-based practice (Hills et al., 2015).

Feedback

Occupational therapy managers and fieldwork educators identify several components of receiving feedback to be challenging for members of the millennial generation they supervise. Millennial generation occupational therapists crave constant and immediate feedback. Research suggests this need may originate from having information rapidly and reliably available via the internet for the entirety of the lives of this digital native cohort (Hills et al, 2012; Hills et al., 2013; Hills et al., 2015).

The need for positive feedback, coupled with difficulty accepting and processing constructive or negative feedback, emerged from occupational therapy manager perspectives. The editorial by Kowalski (2010) indicates that millennials frequently seek praise and reassurance, requiring this to ensure they are meeting job demands. Research supports this, as managers indicate that members of the millennial generation present as overly confident and have significant difficulty accepting constructive or negative feedback, even perceiving constructive feedback as evidence of failure (Hills et al., 2012; Hills et al., 2013; Hills et al., 2015). An additional observation made by occupational therapy managers was poor self-reflection abilities of millennial occupational therapists, complicating the issue of difficulty receiving feedback (Hills et al., 2015). Self-reflection and self-awareness are further explored in the evidence focusing on manager and millennial comparison of perceptions of job skills.

Providing positive feedback when increasing work challenges, as well as bolstering the employee prior to negative feedback, has been identified as a strategy some managers have implemented (Hills et al., 2012; Hills et al., 2013; Kowalski, 2010). In addition, managers suggest listening to employees' ideas and planning their work pathway collaboratively (Hills et al., 2013). This finding is supported by evidence from fields outside of health care, as millennials expect to participate in the

feedback process and be provided with opportunities to express their perspective on their performance. Millennials expect communications with their manager to be consistently friendly and comfortable (Hall, 2016; Seheult, 2016; Walden et al., 2017).

Evidence from non-health care fields indicates millennials expect validation of their value to the organization (Hall, 2016; Seheult, 2016; Walden et al., 2017). Walden et al. (2017) state, “companies should account for millennials’ communication expectations by providing ample feedback on job performance, giving support for employees in multiple areas, and conveying a sense that employees’ work is appreciated” (p. 85). Hall’s (2016) qualitative survey resulted in responses related to the type of feedback expected by employees, such as: “mostly positive with some constructive criticism” and “I like to be told that they can see how hard I work . . . also, that I am a great employee and worker” (p. 41). A few responses demonstrated the inverse; however, Hall’s (2016) data overwhelmingly supported the existing perspective in the literature that millennials need consistent positive feedback.

Millennials do not identify technology as their preferred mode of communication for emotionally driven dialogue with elements of uncertainty, such as receiving formal performance appraisal. For these feedback communications millennials expressed a need for face-to-face dialogue, citing the benefits of reading body language and emotions (Ogbeide et al., 2013; Walden et al., 2017; Wen et al., 2010; Woodward & Vongswasdi, 2017).

Casual Communicator

Occupational therapists of the millennial generation are noted by occupational therapy managers to use casual communication, both verbal and written, at times when more formal or professional language is warranted. Examples include use of text language (i.e., BTW to indicate “by the way” or BRB to indicate “be right back”) and poor grammar and spelling in professional writing (Hills et al., 2012; Hills et al., 2015; Kowalski, 2010).

Expectations and Boundaries

With information at their fingertips, millennial occupational therapists are accustomed to having immediate access to information, resulting in a need for clearly defined expectations and explanations. If they do not understand a concept immediately, they expect to locate the information another way. Thus, this requirement for clear explanations and expectations trickles into the workplace. It is noted that millennials, in general, expect detailed instructions but resent micromanagement, creating a challenge for managers (Hills et al., 2012; Hills et al., 2013).

Evidence is conflicting related to the value placed on openness of communication by millennials. Some research indicates that millennials present with an expectation that all workplace information should be shared with them, regardless of their position in an organization (Myers & Sadaghiani, 2010; Walden et al., 2017). In contrast, Hall (2016) found that 58% of millennial respondents strongly agreed or agreed that information should be shared on a need-to-know basis. However, in this same study, 69% of millennials indicated that they expect explanations of why managers are having them complete a task, and the majority of respondents indicated they expect their opinion to be heard and valued.

Henry and Gibson-Howell (2011) compared millennial dental hygiene students and faculty classroom expectations. Some key components of professional communication related to boundaries were targeted for comparison in a larger construct of professional behavior and classroom expectations. The authors suggest a statistically significant difference between faculty and students, such that millennial students indicated a belief that it was acceptable for faculty to socialize with students outside of class, while faculty disagreed with this statement.

Millennial and Manager Comparison of Perceptions of Job Skills

Todd (2014) conducted a comparison study of manager and millennial employee entry-level job skills and professional characteristics in the public relations field. Millennials were noted to rate their overall job skills and professional characteristics as above average, except for two professional communication related skill areas: acceptance of criticism and oral communication, which they self-described in the average range. In contrast, supervisors did not find millennials' overall job skills to be as proficient, including writing skills, following instructions, and accepting responsibility, which were rated in the below average or average range. While the author reports a statistically significant difference in 16 professional characteristics, including the professional communication skills previously described, less divergence was noted between the two groups regarding difficulty accepting criticism, compared to other skill areas, suggesting an element of self-awareness among millennials in this particular area (Todd, 2014). Comparable direct comparisons were not located in health care literature.

Practical Support for Empirical Findings

Empirical research related to professional communication in health care fields is notably lacking, compared to non-health care fields. Some anecdotal support for findings of research conducted outside of health care emerge from editorials and opinion pieces found in health care literature. Gleeson (2007) suggests in a physical therapy position paper that millennials “want immediate and positive feedback every step of the way” (p. 25). She indicates that millennials have received high rates of positive feedback throughout their formative years and negative feedback is more of an unfamiliar concept (Gleeson, 2007). In a nursing editorial, Hart (2006) supports the need for immediacy of feedback, indicating that millennials are used to instant communication and are also accustomed to the opportunity not only to receive but also to give feedback.

Adapting to Millennial Occupational Therapy Employees

Occupational therapy managers note that they believe they are expected to adapt their own role to accommodate for millennial therapists (Gray, 2008; Hills et al., 2012; Hills et al., 2013; Kowalski, 2010). Managers are reviewing and adjusting policies to meet the needs of millennials, such as lifting cell phone bans in the workplace (Gray, 2008; Hills et al., 2012; Hills et al., 2015; Kowalski, 2010).

Despite the identification of numerous intergenerational communication challenges between millennials and their supervisors, occupational therapy managers indicate the importance of helping millennials to succeed in the workplace. They acknowledge some enthusiasm for the role of millennial therapists in the future, including recognition of millennials as upcoming managers and their potential to become the entrepreneurial drivers for the future of the profession (Gray, 2008; Hills et al., 2013).

Purpose

The purpose of this study was to analyze how emerging occupational therapists of the millennial generation self-describe their professional communication profile and needs as compared to the perspective of managers in the field. Given the volume of anecdotal and popular culture stereotypes surrounding members of the millennial generation, this study aimed to describe the accuracy of communication stereotypes ascribed to millennials practicing in the field of occupational therapy from the perspective of the millennial workers and non-millennial managers. An additional aim of this study is to contribute to the evidence base from which occupational therapy managers and educators can draw to better understand and effectively support the professional communication needs of emerging occupational therapists of the millennial generation.

Method

Participants and Recruitment

Emerging occupational therapists of the millennial generation eligible for inclusion were born between 1982 and 2000 and were in their first 3 years of practice. Occupational therapy managers eligible for inclusion were born before 1982 and had supervised at least one occupational therapist born between 1982 and 2000.

Following approval from the university institutional review board, an invitation with the link to the anonymous survey was distributed to the membership of the Massachusetts Association for Occupational Therapy, to university occupational therapy alumni lists from classes of 2013–2017, and posted on the university occupational therapy department alumni Facebook page to recruit emerging occupational therapists of the millennial generation. Recruitment of occupational therapy managers occurred through an email distribution to an existing list of participants in the American Occupational Therapy Association Academic Leadership Institute, the membership of the Massachusetts Association for Occupational Therapy, and posted on the university occupational therapy department alumni Facebook page. An invitation with the survey link for managers was posted to AOTA's leadership forum in the *OT Connections* members-only area of the AOTA website.

Incentive for participation was offered in the form of entry into a raffle to win a \$10 gift card. The participants had the option to complete an additional survey to enter their email address into the raffle. Completion of this separate survey was voluntary, and as a separate survey was used, anonymity of the participants was maintained. Twenty winners were drawn from each participant pool, with 40 gift cards distributed.

Procedures

Qualtrics[®] online survey software was used to distribute and collect Likert scale survey data. The participants indicated their consent for participation by clicking to acknowledge and accept the details outlined in the informed consent. Informed consent assured the participants of the voluntary nature of participation, with no personal or professional negative impact related to opting out of participation. Following informed consent, initial demographic questions determined if the participants met inclusion criteria for occupational therapy manager or emerging occupational therapist of the millennial generation.

Conceptual categories in professional communication emerged from the review of previous research on communication expectations and preferences of millennials (Hall, 2016; Henry & Gibson-Howell, 2011; Hills et al., 2012; Hills et al., 2013; Hills et al., 2015; Todd, 2016). Conceptual categories included for further exploration through this survey were: preferred modes of communication, expectations around use of technology, feedback, openness of communication, personal expression at work, and socialization at work. The participants rated their level of agreement with statements related to these conceptual categories on a 5-point Likert scale, with one end of the continuum indicating *strongly disagree* (1) and the other end indicating *strongly agree* (5). The second section of the survey addressed professional communication skills, where the participants indicated their rating of professional communication skills of millennial occupational therapists on a 5-point Likert scale, with one end of the continuum indicating *requires significant growth* (1) and the other end indicating *excels* (5). The millennial occupational therapists and occupational therapy managers completed separate surveys with identical items, but with phrasing specific to the manager or millennial occupational

therapist groups. Phrasing and language were carefully selected to reduce social desirability response bias.

To compare quantitative data per survey item between groups and related to specific answers to demographic questions, independent *t*-tests were performed using IBM SPSS® (version 25). Statistical results were evaluated, with consideration given to effect size using Cohen's *d*, looking for the presence or absence of statistically significant differences in means between the participant groups.

Results

Respondents

For the manager survey, 46 occupational therapists indicated their informed consent; 21 did not meet inclusion criteria. Four people did not progress beyond demographics, despite meeting inclusion criteria. This resulted in 21 surveys producing analyzable data for the manager survey. Of the participating managers, 13 out of 21 indicated they provide fieldwork education for occupational therapy students.

For the millennial survey, 55 occupational therapists indicated their informed consent; 21 did not meet inclusion criteria. Seven people did not progress beyond demographics, despite meeting inclusion criteria. This resulted in 27 surveys producing analyzable data for the millennial survey.

Communication Profile and Needs

Survey subsections (professional communication expectations and preferences and professional communication skills) were designed to reveal the communication profile and needs of emerging occupational therapists of the millennial generation. To enhance readability of the results, the 21 survey items in the communication expectations and preferences section of the survey are subdivided and presented in tabular form. Four tables based on conceptual categories of all survey content are included.

Table 1 demonstrates the differences between manager and millennial response means for survey items addressing professional communication preferences and expectations of occupational therapists of the millennial generation related to modes of communication and technology in the workplace. All significant findings in Table 1 are supported by large effect sizes.

The managers indicated stronger agreement than the millennials that occupational therapists of the millennial generation prefer electronic forms of professional communication for professional dialogue with elements of uncertainty, such as performance evaluation. Supporting that finding, the millennials indicated stronger agreement than the managers that they prefer face-to-face communication for professional communication with elements of uncertainty.

The managers indicated stronger agreement than the millennials that occupational therapists of the millennial generation expect to use social technology (such as social media) for work. However, the two groups did not differ related to the millennials' expectation to use professional technology (such as digital meeting platforms) for work. The lack of noted difference between the managers and millennials related to professional technology for work revealed means close to the neutral point on the Likert scale, with an insignificant *p*-value and negligible effect size.

Table 1*Results of t-test and Descriptive Statistics of Professional Communication Expectations and Preferences*

	Manager		Millennial		<i>t</i>	<i>d</i>
	<i>n</i>	<i>M(SD)</i>	<i>n</i>	<i>M(SD)</i>		
Modes of Communication						
1. Prefer electronic communication for concrete explanations and requests	21	4.43(0.68)	27	3.74(0.9)	2.91**	0.87
2. Prefer electronic communication for dialogue with potential for uncertainty and emotion	21	3.24(1.13)	27	1.85(1.17)	4.13***	1.21
3. Prefer electronic communication for most professional dialogue regardless of content	21	3.38(1.16)	27	2.74(1.20)	1.86	0.54
4. Prefer face-to-face communication for concrete explanations and requests	21	3.24(1.09)	27	3.19(1.08)	0.17	0.05
5. Prefer face-to-face communication for dialogue with potential for uncertainty and emotion	21	3.52(0.81)	27	4.3(0.82)	-3.24**	-0.95
6. Prefer electronic communication for most professional dialogue regardless of content	21	3.14(0.79)	26	3.54(0.95)	-1.53	-0.46
Technology in the workplace						
7. Expect to use social technology for work (e.g., social media)	21	3.52(1.33)	27	2.37(1.18)	3.18**	0.92
8. Expect to use professional technology for work (e.g., digital meeting platforms)	21	3.71(1.10)	27	3.89(0.93)	-0.59	-0.18

*** $p < .001$ ** $p < .01$ * $p < .05$.

Table 2 shows the differences between the manager and millennial response means for survey items addressing professional communication preferences and expectations of occupational therapists of the millennial generation, related to feedback and openness of communication. The managers and millennials did not differ significantly, as both groups indicated agreement that the millennials expect to receive positive feedback and validation for work well-done, that they expect immediacy of feedback and expect constructive feedback, and that they expect the opportunity to contribute to their own performance evaluation.

The millennials agreed more strongly (and with large effect) that they expect open communication (direct, honest, and without hidden agenda) than the managers indicated they perceived of the millennials. However, both groups indicated agreement with statements related to the perception that millennials expect that all information be shared with them regardless of position in the organization and the expectation of clear explanations and evidence for how their work directly contributes to the organizational outcome.

Table 2*Results of t-test and Descriptive Statistics of Professional Communication Expectations and Preferences*

	Manager		Millennial		<i>t</i>	<i>d</i>
	<i>n</i>	<i>M(SD)</i>	<i>n</i>	<i>M(SD)</i>		
Feedback						
9. Expect positive feedback and validation for work well-done	21	4.48(0.75)	27	4.19(0.62)	1.47	0.42
10. Expect constructive feedback	21	4.29(0.90)	26	4.58(0.50)	-1.40	-0.40
11. Expect immediacy of all feedback	21	3.90(1.09)	27	3.41(0.93)	1.70	0.48
12. Expect the opportunity to contribute to their own performance evaluation	21	3.81(1.08)	27	4.07(0.78)	-0.99	-0.28

Openness of Communication

13. Expect open communication (direct, honest, without hidden agenda)	19	4.21(0.79)	26	4.88(0.33)	-3.94***	-1.11
14. Expect all information to be shared with them, regardless of their position in the organization	19	3.79(1.13)	26	3.38(0.98)	1.28	0.39
15. Expect clear explanations and evidence for how their work directly contributes to the organizational outcome	19	3.74(1.10)	26	4.12(0.71)	-1.40	-0.41

*** $p < .001$ ** $p < .01$ * $p < .05$

Table 3 demonstrates the comparison of means between the manager and millennial responses to survey items addressing professional communication preferences and expectations of occupational therapists of the millennial generation related to personal expression at work and socialization at work. Both participant groups indicated agreement that millennials expect the freedom to add their own perspectives to their work. However, the millennials agreed more strongly than the managers (with medium effect) that millennials expect the opportunity to have their perspectives heard by management and to be involved in decisions. The millennials also agreed more strongly than the managers that millennials prefer to work in teams (large effect).

The managers agreed more strongly than the millennials that millennials expect to maintain ongoing communication with friends and family while at work (medium effect). The managers and millennials indicated agreement that millennials expect socialization opportunities at work. Both groups indicated disagreement with the statement that the millennials expect to socialize with their manager outside of work, the results of which suggest the possibility of a floor effect, as both groups indicated they somewhat disagree, but neither group mean resulted in strong disagreement. This was the only survey item on which both participant groups indicated disagreement.

Table 3

Results of t-test and Descriptive Statistics of Professional Communication Expectations and Preferences

	Manager		Millennial		<i>t</i>	<i>d</i>
	<i>n</i>	<i>M</i> (<i>SD</i>)	<i>n</i>	<i>M</i> (<i>SD</i>)		
Personal expression at work						
16. Expect freedom to add their own perspective to their work	19	3.89(0.81)	26	4.12(0.52)	-1.12	-0.34
17. Expect the opportunity to have their perspective heard by management and be involved in decisions	19	3.53(1.26)	26	4.19(0.80)	-2.16*	-0.62
18. Prefer to work in teams	19	3.26(0.93)	26	4.15(0.68)	-3.72**	-1.09
Socialization at work						
19. Expect socialization opportunities with colleagues at work	19	3.79(1.13)	26	3.96(0.66)	-0.64	-0.18
20. Expect to socialize with their manager outside of work	19	2.05(0.91)	26	2.04(0.82)	0.06	0.01
21. Expect to maintain ongoing communication with friends and family while at work	19	3.32(1.25)	26	2.62(0.85)	2.24*	0.65

*** $p < .001$ ** $p < .01$ * $p < .05$.

Based on demographics of the manager sample, the managers were divided into fieldwork educators and non-fieldwork educators for further analysis. The only significant difference between the fieldwork educators' ($n = 8$, $M = 2.82$, $SD = 1.33$) and non-fieldwork educators' ($n = 11$, $M = 4.0$, $SD = .76$) perception of the communication preferences and needs of occupational therapists of the millennial

generation was noted on the item indicating that millennials expect to maintain ongoing communication with friends and family while at work. The non-fieldwork educators agreed more strongly with this statement than the fieldwork educators ($t = -2.25^*$, $d = 1.09$; large effect).

Table 4 demonstrates the differences in means between the managers and millennials' responses to survey items addressing professional communication skills of occupational therapists of the millennial generation, from *requires significant growth* (1) to *excels* (5). The millennials overwhelmingly rated their professional communication skills more positively than the managers did, with statistically significant differences and large effect sizes, on eight out of 11 items. The exceptions to this response pattern occurred on the two items related to ability to incorporate professional and social technology into job demands and one item assessing the ability to use supervision for growth opportunities. On these three items, no significant difference was noted between the responses of the two participant groups.

Table 4

Results of t-test and Descriptive Statistics of Professional Communication Skills

	Manager		Millennial		<i>t</i>	<i>d</i>
	<i>n</i>	<i>M</i> (<i>SD</i>)	<i>n</i>	<i>M</i> (<i>SD</i>)		
1. Are able to receive constructive feedback	18	2.56(0.86)	26	3.62(0.85)	-4.05***	-1.24
2. Are able to use professional language in written communication	18	2.78(0.88)	26	4.00(0.89)	-4.49***	-1.38
3. Are able to use professional language in verbal communication	18	2.83(0.79)	26	3.58(0.81)	-3.03**	-0.94
4. Are able to use professional non-verbal communication (body language, active listening)	18	2.50(0.79)	26	3.88(0.77)	-5.84***	-1.78
5. Are able to incorporate professional technology (e.g., digital meeting platforms) into job demands	18	3.50(0.92)	26	3.54(0.86)	-0.14	-0.05
6. Are able to incorporate social technology (e.g., social media) into job demands	18	3.17(0.99)	26	3.31(0.88)	-0.50	-0.15
7. Are able to accept mistakes as part of professional development	18	2.44(0.62)	26	3.38(0.90)	-3.85***	-1.22
8. Are able to accept when additional learning or knowledge is needed	18	2.78(0.81)	26	3.92(0.89)	-4.35***	-1.34
9. Are able to manage their confidence level (not over- or under-confident)	18	2.22(0.65)	26	3.08(1.02)	-3.15**	-1.01
10. Are able to engage in effective self-reflection	18	2.39(0.61)	26	3.5(0.81)	-4.92***	-1.55
11. Are able to use supervision for growth opportunities	18	2.83(1.10)	26	3.35(1.02)	-1.60	-0.50

*** $p < .001$ ** $p < .01$ * $p < .05$.

Considerations for Statistical Analysis

When interpreting statistical significance of the results, consideration was given to the likelihood of Type I error because of the numerous statistical tests performed on a single data set. For the first survey section, communication expectations and preferences, there were 21 items and a Bonferroni correction resulted in a p -value of $< .0024$ needed for significance. With the Bonferroni correction applied, in Tables 1–3 only t -statistics marked with three asterisks would be confidently considered significant for these survey items. The second survey section, related to professional communication skills, used a different Likert scale and had 11 items. The Bonferroni correction resulted in a p -value of $< .0046$ required for significance. All items noted to be significant in the original analysis remain significant under the application of this more stringent assessment.

While a Bonferroni correction would effectively reduce the Type I errors, the Type II errors would inevitably increase. Given that a possible outcome of this study is to identify areas for professional development related to professional communication, an increase in false negatives (Type II errors) could result in discounting potential opportunities for education and professional development. The lower p -values required for significance raised some caution in interpreting the items that presented as significant using a p -value of $< .05$ in the original data analysis related to professional communication expectations and preferences. Attentiveness to effect size was required in interpretation of results and is reflected in how items are integrated in the discussion; however, overall interpretation of results was based on the originally calculated significance values.

Small sample size was a consideration in the analysis of these results. Of the items found to have statistically significant differences in these small sample t -tests, most had accompanying large effect sizes. Large effect sizes support the use of these results for interpretation in the discussion section and informs decisions for sample sizes for future related inquiry (de Winter, 2013; Sullivan & Feinn, 2012). It is generally understood that small sample sizes may be problematic; however, an estimate of the probability that an effect is true can be supported by a thorough literature review in the field of research (de Winter, 2013).

Discussion

Communication Profile Outline

Modes of Communication

The results from items related to modes of communication in the professional communication expectations and preferences section of the survey contrast with generational stereotypes that expect millennials to prefer electronic communication over other modes of communication. The results support previous research indicating millennials prefer face-to-face professional communication over electronic communication for dialogue involving elements of uncertainty, such as for performance evaluation (Ogbeide et al., 2013; Walden et al., 2017; Wen et al., 2010; Woodward & Vongswasdi, 2017). However, the existence of a stereotype maintained by managers is also supported, as the managers indicated a perception that millennials prefer electronic communication for dialogue with elements of uncertainty, an item that produced statistically significant differences, as the millennials indicated disagreement with the item. The inverse survey item produced similar results, indicating a significant difference, in that the millennials indicated a preference for face-to-face communication for professional dialogue with elements of uncertainty, while the managers agreed less strongly with this preference for millennials. In occupational therapy practice, this discrepancy in understanding preferred mode of communication may lead to a breakdown in communication, even before the message is spoken or written.

Influence of Stereotypes

A thread of the influence of stereotypes maintained by the managers is woven through the results. The managers agreed more strongly that millennials expect to use social technology (such as social media) for work and that millennials expect to maintain ongoing communication with friends and family while at work. Both of these results indicated by the managers are supportive of stereotypes ascribed to millennials (Ogbeide et al., 2013; Robinson & Stubberud, 2012). However, the responses of occupational therapists of the millennial generation provide some evidence supporting the inaccuracy of these stereotypes. The lower level of agreement with these items by the millennials, resulting in the significant differences between the managers and millennials, suggests efforts to reduce these

generational stereotypes may be beneficial for bolstering the professional development of teams of managers and occupational therapists of the millennial generation.

Further support for efforts to reduce stereotypes may be cautiously inferred through the analysis of fieldwork educator responses. The managers who identified as non-fieldwork educators agreed more strongly than fieldwork educators that millennials expect to maintain ongoing communication with friends and family while at work; therefore, the inference could be drawn that fieldwork educators have increased understanding of the millennial population, possibly because of more frequent exposure and interaction. Reduction in stereotype activation is known to occur when people draw from personal experience with individuals, rather than from characteristics ascribed to a group. However, it is also possible that the managers who are also fieldwork educators may have been unintentionally including students in their assessment of occupational therapists of the millennial generation, and students may more carefully monitor their professional behavior, since they are being graded on their performance.

Communication Profile Fill

Exploration of the statistically significant differences in responses draws the outline of the professional communication profile and needs of occupational therapists of the millennial generation. Items without statistically significant differences help provide the details comprising the profile fill.

Technology

Previous research suggests that a dichotomy may exist where millennials expect to use social technology but do not have an expectation to consistently use professional technology (Henry & Gibson-Howell, 2011). The results of this study show that the managers and millennials indicated a neutral response (with negligible effect size) related to millennials' expectation of use of professional technology (such as digital meeting platforms) for work, suggesting that this response may reveal a lack of difference between the groups, but it could also be explained by the possibility that the participants were indicating a contextualized stance of "it depends." However, both groups indicated that millennials present with the skills to incorporate both social and professional technology into their job demands.

Feedback

While the managers and millennials indicated agreement with feedback expectations maintained by millennials (expectation of positive feedback and validation for work well-done, constructive feedback, and immediacy of all feedback), the lack of significant differences provides some support for the accuracy of stereotypes related to feedback expectations. In addition to support for accuracy of the stereotype, this result also details important aspects of the professional communication profile of occupational therapists of the millennial generation.

Professional Communication Skills

The statistically significant differences noted in most of the items in the professional communication skills section of the survey may serve either to support some truth in the stereotypes that millennials are over-confident (Twenge, 2009), casual communicators (Hills et al., 2012; Hills et al., 2015; Kowalski, 2010), and have difficulty receiving constructive feedback with poor self-reflection abilities (Hills et al. 2012; Hills et al., 2013; Hills et al., 2015), or this may reflect the implicit activation of the stereotype in the mind of the responding managers, resulting in the lower ratings of skills. The discrepancies between the manager and millennial rating of the professional communication skills of occupational therapists of the millennial generation can result in significant workplace challenges, regardless of the origin of the discrepancy, such as breakdown in communication and understanding between millennial and manager.

Manager and Employee Dyads

This survey's results indicate that professional communication is necessary between manager and millennial occupational therapist to increase understanding regarding identified areas for professional development (such as the professional communication skills discussed previously). The direction from which to target these skills can be extrapolated from the survey data. The millennials agreed more strongly than the managers that millennials expect open communication (direct, honest, without hidden agenda), expect to have their perspective heard by management and to be involved in decisions, and prefer to work in teams. As such, these expectations and preferences of the millennials could be considered as a foundation to encourage managers to begin an open, honest dialogue with millennials, join them in a team process of skill building, and listen to their perspectives and ideas related to their own performance. The managers and millennials did not differ significantly with respect to the millennials' ability to use supervision for growth opportunities.

The difficulties the managers perceive millennials have with receiving constructive feedback and their ability to engage in effective self-reflection may be an artifact of how feedback and the expectation for self-reflection is delivered. Is the feedback provided face-to-face, supportive of millennials' indication of this preferred mode of communication for dialogue with elements of uncertainty? Is the communication open, honest, and without hidden agenda? Does the feedback also include positive feedback and validation, as this research indicates is expected by millennials? Is the feedback timely? Did the employee have the opportunity to discuss their perspective and contribute to their performance evaluation? In answering these questions, the managers may be able to more effectively pinpoint sources of communication breakdowns and move toward maximizing millennial employees' receipt of constructive feedback and ability to engage in effective self-reflection.

Implementing some of the highlights extracted from the professional communication profile and needs of millennials established from the results of this research may help educators and managers bolster effective professional development to help close some of the gaps in perceptions of the professional communication skills and needs of emerging occupational therapists of the millennial generation.

Limitations

A convenience sampling method was used for both participant groups, as the participants were recruited from the professional association memberships of the researcher and from university alumni resources, which may impact the generalizability of results. As not all managers know the precise age of employees, some of the managers may have incorrectly estimated whether they have supervised an occupational therapist who was born in or after 1982. The potential for social desirability response bias exists for both participant groups and should be considered when interpreting the results, though careful wording of the surveys to reduce bias activating terminology was implemented to reduce this possibility.

In addition, as this was a one-time survey study, psychometric testing of the survey tool has not been conducted. Caution should be considered as *p*-values and corresponding effect sizes are interpreted, due to Likert scales producing ordinal data and the inability to presume that the difference between adjacent levels is the same, both between levels and between respondents. Sample sizes were small for both participant groups and some participants began a survey but did not finish the survey, resulting in different *n* values for some items. This may have impacted the results as not all of the participants' perspectives are reflected in all items.

Implications for Occupational Therapy Education

This study contributes to the existing literature by adding a unique research perspective related to generational theory. There is an abundance of agreement in the literature related to the need for increasing understanding between generations and finding professional common ground (Deal et al., 2010; Hart, 2006; Hendricks & Cope, 2012; Martin, 2005; Riggs, 2013; Sternberg, 2012). Generational theory has been explored in the research with numerous non-health care fields, primarily from the perspective of the manager or the perspective of the millennial student or employee, but few studies compare the perspectives of millennial workers and non-millennial managers. Health care is minimally represented in the body of research on generational theory, with occupational therapy specifically accounting for only a handful of studies. Occupational therapy studies based in generational theory occurred in Australia and are from the perspectives of managers or fieldwork educators and focused on general professional development. This study includes the perspectives of emerging occupational therapists of the millennial generation and of occupational therapy managers in the United States, with a specific focus on professional communication.

The results from this study will inform professional development opportunities for academic educators, fieldwork educators, and managers related to intergenerational communication. The overarching goal of the communication strategies suggested by these findings would be to influence the professional development of emerging occupational therapists of the millennial generation. The preference identified by the millennials for communication that is direct and without hidden agenda, coupled with an expectation that explanations are clearly delineated with a connection to the identified outcome, may make some of the more nuanced aspects of occupational therapy inherently less tangible for millennials. Thus, skills required for clinical reasoning, synthesis of evidence, and even some open-ended projects may require more support from a manager or educator to foster development. It may be beneficial to explore strategies to link these more challenging components with the preference identified by the millennials for the opportunity to contribute their own perspective to their work and to have their perspective heard.

Other professional development foci for managers and educators may include recommendations for frequency and method of delivering professional feedback, content of feedback, and selecting a communication method based on type and content of information to be relayed. While companies and some authors purport to provide management strategies related to the intergenerational workforce, training for occupational therapy educators and managers, developed from a research foundation inclusive of the pertinent perspectives, contributes to advancing occupational therapy as an evidence-based profession.

At the university level, occupational therapy curriculum includes material related to the *Occupational Therapy Code of Ethics* and standards of conduct (AOTA, 2015b). Connections can be made in classrooms between these foundations of occupational therapy and the development of professional communication skills, including reflection on individual student strengths and areas for growth related to professional communication. With increased faculty understanding of the professional communication profile of millennial students and armed with strategies to support professional development, the stage is set for universities to educate from an enhanced level of understanding between faculty and students. An opportunity for further research arises as exploration will be necessary to assess whether students will embark on fieldwork and enter early practice more prepared to engage in

collaborative actions and communication in interdisciplinary teams to facilitate quality care and to respect practices, competencies, roles, and responsibilities in a collaborative environment.

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