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Communication Strategies and Our Learners

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A B S T R A C T

Communication is vital in healthcare to facilitate the best patient care at all times. During the COVID-19 pandemic, communication has become increasingly crucial, including devising innovative, novel, and effective ways to exchange information in graduate medical education, multidisciplinary teams, and patient care, all which affect our learners. This article will provide a comprehensive review of generational characteristics, including communication preferences. Effective communication strategies and communication challenges with learners (millennial generation) will be discussed in detail.

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Introduction

Communication. Trust. Messaging. All are vital in healthcare to facilitate optimal patient care in the best of times. It is arguably currently closer to the most difficult of times, and communication methods have never been more vital, or tested, than in this time of the COVID-19 crisis. Devising innovative and effective ways to exchange information with our learners in graduate medical education, multidisciplinary teams, and patient care is key. Fortunately, the field of radiology has risen to the call in these challenging times, implementing effective strategies, taking into account multigenerational differences, and forever changing ways we disseminate information.

Effective Communication and Strategy

There is more to communication than simply delivering a message. Effective communication is essential. \textsuperscript{1} Effective communication must take into consideration the following elements: (1) clear, consistent message, (2) communication delivery strategy, (3) testing to assure understanding, and (4) allowing feedback or raising concerns.

The first element is to provide a clear, consistent message to the stakeholders. Individuals should understand why they are sending a message, what the message means and the intent behind the message.\textsuperscript{2} There must be a mechanism to communicate the message to stakeholders such that the intent and meaning behind the message are not lost or distorted. (One may liken this to a game of telephone, where the message at the start of the communication trail is often not that received at the end).

The second element to consider is the mechanism of message delivery to communicate a clear message. Leaders should have a clear vision of their message and embrace simple language using few words for effective communication.\textsuperscript{3} For example, during COVID-19, Governor Andrew Cuomo demonstrated effective communication skills with his short, text-like messaging “Stay home. Stop the Spread. Save lives.”\textsuperscript{3}

Methods and preferences for communication have evolved over generations, as have the content, timing, and desire for bi-directionality of communication.\textsuperscript{4,5} Different communication vehicles (in person discussion, email, text, and messaging apps) vary depending on generational preferences\textsuperscript{6} and departmental or program culture influences communication.\textsuperscript{7} The advent of multigenerational workforces has led many departments and programs to change from traditional communication models to a more varied approach to employ several different avenues of communication for the widest reach.

Communication as a Function of Generation

The broad characterizations of generational predilections have been shaped by historical forces beyond personal control. However, in assessing how individuals of different ages in a department or
institution are interacting with each other and with other groups, it can be illuminating to consider the underlying context of these sweeping trends (Table 1).

The baby boomer generation is defined by the U.S. Census Bureau as those born between the years of 1946–1964 (https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/). Classically, “Boomers” are described as favoring either face-to-face or telephone conversations, direct instructions, written communications, formal meetings, and a focus on strong work ethic and responsibility. Currently, many departmental leadership positions in healthcare are filled by Boomers. At the senior level, they have the power to determine modes of feedback across the department; in keeping with this, the Boomer preference for annual reviews and quarterly meetings has an impact on department members across generations. This can potentially lead to conflict, as the high stakes nature of these relatively rare feedback sessions may be perceived by younger staff as suboptimal communication. As a result, Millennials favor respect for authority and chain of command more than subsequent generations. Additionally, as organizational leaders, Boomers are accustomed to serving as mentors and have a strong sense of traditional loyalty toward organizations. While in some instances Boomers may excel in passing down their knowledge in traditional top-down fashion, in other situations they may be more successful by adopting a more flexible approach to mentorship.

Generation X is defined by the Pew Research Center as those individuals born between 1965 and 1980 (https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/). It comprises a large percentage of early and mid career faculty. While Generation Xers also prize a robust work ethic, they have a stronger focus on technology to include use of email, and also on work-life balance, especially family time and flexible scheduling. This can engender communication difficulties, as Generation Xers may have expectations about mode and frequency of communications that differ substantially from Boomers. Generation Xers prefer ongoing, real time feedback over infrequent scheduled formal reviews, and also have a predilection for mutual mentoring and a less hierarchical structure. They have less loyalty to organizations and authority than Boomers.

Those in the millennial generation, or Generation Y, were born between 1981 and 1996 (https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/). They constitute the trainee population, as well as early career radiologists. Overall, heavy parental involvement in millennial upbringing is thought to be a formative part of how Gen Yers currently relate to others, with a generational preference that emphasizes a range of choices, quick feedback, ongoing mentoring, collaboration, and personal preference. Gen Yers are said to tend toward open dialogue even with those who may be traditionally seen as superior, to demonstrate strong interest in work-life integration, to prefer multitasking, and to expect continual feedback, ideally via technology. They strive to create value for the team or group, rather than for a single supervisor, and do not have the same sense of traditional loyalty that many Boomers nurture. This generation is well versed in communicating fluidly through technology, particularly through texting and messaging apps on cell phones. Quick, immediate communications such as texts or instant messaging are desired over telephone calls, with the latter viewed by millennials as intrusive, inefficient, and inconvenient. Moreover, the absence of feedback is viewed as negative, which may set Boomers and Gen Yers on an attitudinal collision course. For millennials, no news does not equate to good news. They expect not only frequent feedback but also praise and recognition, and are less independent learners. Typically they also prefer demand access to many items, including lecture materials, interactive sessions and a plethora of online resources to select at the time of their choosing. These expectations establish the framework within which Boomers and Generation Xers attempt to accomplish teaching, mentoring, and administrative responsibilities.

While Generation Z, the post-millennials born after 1996, have yet to reach radiology workstations, they are matriculating in medical school and beginning to enter our departments (https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/). Though it remains to be seen how they will interact in the medical education setting and beyond, early indications are that technology, rapid communication, and connectivity are valued by Gen Z. Interestingly, in part as a reaction to the sometimes alienating nature of technology, this generation does prize face-to-face communication (https://online.ndm.edu/news/communication/evolution-of-communication/). Given this, Gen Zers may serve as a bridge between generations as they arrive in the workforce.

The program director (PD), associate program director, and program coordinator should maintain awareness of the need to be a go-between or interpreter of messages in a multi-generational department. Furthermore, program leaders must understand that their expectations of how communication is received is colored by their own generational experience and may not be interpreted by their trainees in the same manner. Therefore, leaders should also seek feedback from the resident group to determine the most effective methods specific to that resident group.

### Communication as a Function of Program Size

Like all organizations, the size of a residency program affects the communication methods used. Smaller programs or those with only 1 or 2 sites of service tend to have more frequent in-person communication than larger programs or those in multiple locations.

In larger programs, it is more difficult for the program director to have enough interaction to know each resident’s preferred communication method(s). Of necessity, communications may be brief and more generic. Therefore, it is more important to retain an element of personal connection to maintain relationships. One helpful strategy is to survey the resident group on preferred communication method and frequency, readily accomplished via a simple survey tool (eg, Google Forms, www.google.com Google Mountain View, CA). Given the ever-changing nature of residency training, annual preference surveys should be administered. Another communication strategy is individual resident level meetings (eg, R1 class) at routinely scheduled intervals; this allows for focused communication with each class, decreases the “noise” of irrelevant topics, and fosters direct, tailored discussion. (Blinded) residency program used this approach during the COVID-19 pandemic to communicate the education and work plan to each resident group. The program culture

| TABLE 1 | Communication preferences of each generation |
|---|---|
| Generation | Birth Years | Preferences regarding communication methods |
| Baby Boomers | 1946–1964 | Face to face or telephone conversations, Direct written instructions, Formal scheduled meetings, Top down structure |
| Generation X | 1965–1980 | Technology: email, Flexible communication mode & frequency, Real time feedback, Mutual mentoring |
| Generation Y: Millennials | 1981–1996 | Technology: texts, messaging apps, Range of choices on demand, Personal preference, Rapid continual feedback, Ongoing mentoring & collaboration, Open dialogue |
| Generation Z: Post-millennials | 1997–2012 | Technology: essential, Rapid connectivity, Face to face communication |
fostering focused communication with opportunity for discussion and voicing of concerns was quite successful.

**Communication with the Office of Graduate Medical Education**

Communication between programs, trainees, and Graduate Medical Education (GME) offices is clearly vital, particularly during times of crisis. The complexity of these communications and the sheer size of the institutional resident cohort mandate that a clear, transparent line of communication be established. This includes identification of who will communicate information, the frequency and expected content of the information, and the communication method.

The GME offices should determine, in concert with the training programs, who is the most appropriate and trusted source of information. As an example, during the pandemic, 1 institution determined that a GME taskforce, including the designated institutional officer (DIO), would communicate directly with the residency and fellowship program directors through a combination of group email, personal check-in phone calls, and weekly virtual meetings. The expectation was that the program directors would then communicate appropriate information on to their trainees. This allowed for discussion and feedback in “safe” spaces where residents and program leadership could clarify information and raise concerns. It was determined that if the need arose for resident deployments to COVID-19 positive patient care areas, the DIO would be responsible for communicating this information as the final authority.

**Communications between the Program Coordinator and Residents and Faculty**

Program coordinators (PCs) represent apillar of the residency program and serve as an important bridge between the residents, program directors, faculty and administrators. PCs’ organizational and communication skills play key roles in maintaining program and resident credentialing, conducting trainee on-boarding, and updating resident medical licensure, among other tasks. They must employ clear and concise communication to preserve the trust of all stakeholders in the department while keeping residents and faculty on track. PCs may be the first to know when a resident is struggling and being able to provide support and comfort are important PC roles.

The pivotal role PCs play may be accentuated during crises, when communication is all the more important. During the pandemic, PCs function as “command central,” scheduling the web-based meetings, serving as technological support for the less tech-savvy faculty in the department, troubleshooting, coordinating resident and faculty coverage schedules, and collating ever-changing online educational resources (eg, national organization lecture series, subspecialty on-line lectures) to facilitate an optimal curriculum. Ideally, PCs should be a calm and constant presence amid the daily stress and chaos of a crisis.

PCs may be uniquely positioned between Millennials and Gen X and Boomer radiologists. PCs must themselves be well-versed in various communication technologies to effectively communicate and disseminate information across all platforms. Most PCs have been reassigned during the pandemic to remote work at home to enable social distancing. Balancing texting and instant messaging residents, e-mailing GME offices, and maintaining a presence while socially distanced underscores the need for PCs to embrace the motto Semper Gumby—Always Flexible, and Always Available!

**Communication From the Trainees’ Perspective**

Many programs experienced no significant change in the method of communication between trainees, PDs and PCs during the pandemic other than an increase in the frequency of email correspondence, the go-to communication. Some programs typically more likely to use in-person communication quickly pivoted to alternate communication methods. These included web-conferencing platforms for bidirectional discussion, increased use of text messaging, and the new use of messaging applications such as Viber (Rakuten Viber, Luxembourg) and WhatsApp (WhatsApp Messenger Facebook Inc, Menlo Park, CA).

Communication content included updates on infection rates, PPE, and resource allocation. Resident redeployment was 1 area where communication strategies were of particular importance. Residents often preferred that the information be communicated directly by their own program leadership. Given the nature and weight of news of redeployment, texting was considered impersonal and inappropriate during these times, and personal email or phone call was the desired communication vehicle.

**Communication Challenges**

Communication within multigenerational teams is fraught with challenges, often around issues of miscommunication, message penetration, or failed communication. This can lead to conflict between parties, particularly if an individual believes that they have clearly communicated their message and the recipient does not. Sources of failed team communication include use of a single method (eg, e-mail only), rather than varied methods such as text or messaging application. This was commonly experienced during the COVID-19 pandemic where frequent communication from leadership occurred via email and as a result some individuals remained unaware of critical information, in the authors experience. Frequently encountered communication failures include one-time only message distribution, inability to recognize that a message was not clear to recipients and communication fatigue, leading to loss of message impact.

**Lessons From the Pandemic**

What lessons have been learned from our communication experiences during the COVID-19 pandemic? It became readily apparent that communication with our learners is different than communication with our faculty, largely based on the generational differences previously discussed. Our learners prefer continuous bidirectional communication, whereas faculty have been satisfied with frequent unidirectional information-only communication. The need for social distancing forced PDs and departments to alter their typical communication pathways, particularly in small programs whose communication had previously been in-person.

For some programs, messaging apps became the preferred method of communication. Text messaging, favored by millennials, was also used frequently between faculty and trainees for case readouts and check-in sessions. Still others leveraged web-conferencing platforms for more interpersonal interaction, information sharing, and to meet educational needs. For both the foreseeable future as social distancing continues, and likely beyond, it is likely that a combination of these approaches will continue.

Moreover, the communication and interaction of our trainees with clinical services is likely forevermore changed. Participation in interdisciplinary conferences and interactive case reviews with clinicians via online conferencing platforms has become the norm. Moreover, such processes have increased recognition of radiologists by our clinical colleagues; previously seemingly anonymous attendance by “radiologist” faculty in large multidisciplinary conferences a thing of the past. Names have been matched with faces in these large conferences and relationships have been built. Clinicians are now requesting virtual, interactive case reviews and residents have become integral to these interactions. This lowers barrier to entry has the potential to improve accessibility of radiology consultation.
services, thus highlighting the important roles radiologists play in the healthcare of our patient populations.

Web-conferencing has also opened new communication venues and patient-facing opportunities for radiology as a specialty including radiology learners. Examples include new opportunities for resident-driven “virtual” clinics to review images with patients, to discuss radiation concerns, to prepare patients or caregivers for upcoming examinations and to access patient encounters in interventional radiology for peri- and post-procedural care.

Effective communication remains the cornerstone of patient care, education, and information dissemination in any crisis. The importance of timely and clear communication has never been tested in radiology departments to the extent seen in the current COVID-19 pandemic. Effective communication and the need for multiple methods of communication when working in multigenerational teams in the radiology training environment are crucial. Lessons learned during this crisis will inform future communication, not only with learners, but also with clinical colleagues and patients.

The authors would like to acknowledge Dr. Sheryl Jordan for assistance with manuscript preparation.

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