

Bridging the Generational Gap in the Medical Domain Through Playful Interaction

Simulation & Gaming
2025, Vol. 0(0) 1–4
© The Author(s) 2025
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/10468781241311410
journals.sagepub.com/home/sag



Marlies P. Schijven^{1,2,3} and Toshiko Kikkawa⁴

Keywords

gaming, simulation, generations, generation gap, gen-Z, playful interaction

Our medical landscape of today is characterized by a diverse workforce. Individuals from different generations are all working together to provide the best patient care. But where generations mix and mingle, they also bump into challenges. The contemporary medical workforce spans four generations: Baby Boomers, Generation X, Millennials, and Generation Z. These cohorts all differ in values, communication preferences, and approaches to learning, collaboration, and attitudes toward work. It is indeed known that generational differences can create friction. And perhaps inevitable, this is highly unwanted in high-stakes medical environments -where teamwork is paramount. Diversity in the workforce is important to safeguard knowledge and different perspectives, but we must acknowledge that diversity can also give rise to challenges. Generational differences in work ethic, knowledge, skills, attitudes, and communication styles can also

¹Department of Surgery, Amsterdam UMC, University of Amsterdam, Department of Surgery, Amsterdam, the Netherlands

²Amsterdam Gastroenterology and Metabolism, Amsterdam UMC, Amsterdam, the Netherlands

³Amsterdam Public Health, Digital Health, Amsterdam UMC, Amsterdam, the Netherlands

⁴Faculty of Business and Commerce, Keio University, Tokyo, Japan

Corresponding Authors:

Marlies P. Schijven, Department of Surgery, Amsterdam University Medical Centers. De Boelelaan 117, 1081 HV Amsterdam, the Netherlands.

Email: m.p.schijven@amsterdamumc.nl

Toshiko Kikkawa, Faculty of Business and Commerce, Keio University, 2-15-45, Mita, Minato-ku, Tokyo 103-8345, Japan.

Email: toshiko.sg@gmail.com

create barriers to effective learning, collaboration, and, ultimately, joint performance. (Madhavanprabhakaran et al., 2022).

Now, what do we have to deal with, and more importantly, how can we learn from and work with each other the best way? Perhaps it is time for medical organizations to invest in playful interaction, including the use of simulation and gamified technology, to overcome barriers associated with the gender gap. This may indeed help foster cohesion across age groups.

What do Different Generations then Need to Learn?

Generational distinctions in the medical domain are rooted in formative societal and technological experiences. Baby Boomers often prefer structured, hierarchical approaches and value face-to-face communication. In contrast, Generation X workers, known for their independence, often embrace more pragmatic and flexible learning styles. Millennials, shaped by the digital revolution, prioritize teamwork and continuous feedback, while Generation Z employees are native to digital tools and seek immersive, technology-driven experiences (Rosen et al., 2018; Weston, 2006).

These variations manifest in divergent attitudes toward technology and collaboration. For example, older workers may resist adopting new technologies, including AI-supported frameworks, which are perceived as disruptive, whereas younger colleagues may struggle with traditional communication methods like pagers or paper documentation (Gibbs & Taylor, 2021). Such differences can hinder effective teamwork, a cornerstone of patient safety.

What are our Shared Values?

Despite these differences, medical professionals across generations share important foundational values. Values such as patient-centered care, commitment to lifelong learning, and the pursuit of clinical excellence. Additionally, all generations value environments that promote psychological safety and mutual respect, particularly in high-pressure settings (Edmondson, 2019). Recognizing these shared priorities provides a basis for fostering intergenerational collaboration. Research suggests that playful, experiential learning can serve as a unifying force. For instance, team-based simulation exercises are often not only fun to engage in but also emphasize shared goals, such as improving patient outcomes, while reducing power imbalances and generational divides (Zarifsanaiey et al., 2016). And playful interactions,—incorporating game mechanics into work or training, often called ‘gamification’—offer another avenue to promote inter-generational interaction. Using this technique, diverse age groups may be actively engaged in problem-solving and skill-building activities, and make use of each other’s perspective efficiently (Koivisto & Hamari, 2019).

Overcoming Differences Through Playful Technologies in Current Practice

Simulation-based training, augmented by gamified elements, has indeed demonstrated significant potential to bridge generational gaps. High-fidelity medical simulations allow interdisciplinary teams to practice scenarios in a controlled environment, enhancing communication and trust (Shapiro et al., 2014). Incorporating playful elements, such as competitive scoring or virtual reality (VR), can increase engagement for younger workers while fostering adaptability in older employees.

For example, one study highlighted how integrating VR into trauma team training improved team dynamics across age groups, encouraging mutual reliance on shared virtual experiences (Lavoie et al., 2020). Similarly, escape-room-style simulations designed for medical teams have been shown to enhance teamwork, highlight diverse perspectives, and promote collaborative problem-solving across generational lines (Adams et al., 2018).

Playful technologies may also leverage workers' intrinsic motivation to learn and collaborate. By fostering curiosity and reducing the fear of failure, gamified simulations create a more inclusive environment where generational differences become assets rather than barriers.

So how to Bridge the Generational Gap?

We must conclude that bridging generational differences in the medical workforce is crucial, as it is critical for effective collaboration and optimal patient care. We may exploit a promising pathway to foster better mutual understanding and teamwork by using playful interactions- using gamified technologies and simulations. To achieve that, we must keep in mind that it is essential to ensure that game environments are not only fitted to the workplace but also tailored to diverse learning styles and cognitive preferences. And that implementation research is the way forward in tailoring experiences and building evidence. We look forward to your research on games and gamification approaches helping transform our generational diversity in healthcare into a strength, creating cohesive teams that are ready to tackle the challenges of modern medicine!

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

References

- Adams, J., Margolis, A., & Iverson, K. (2018). Use of escape rooms to enhance teamwork and communication skills in healthcare teams. *Journal of Interprofessional Care, 32*(5), 569-572.
- Edmondson, A. (2019). *The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth*. Wiley.
- Gibbs, M., & Taylor, P. (2021). Generational attitudes toward technology in healthcare. *Healthcare Management Review, 46*(3), 177-185.
- Koivisto, J., & Hamari, J. (2019). The rise of gamification: A literature review of gamification research and its applications in healthcare. *International Journal of Human-Computer Studies, 127*, 196-210.
- Lavoie, P., Cossette, S., & Pepin, J. (2020). Virtual reality in trauma care team training: A mixed-methods study. *Nurse Education Today, 92*, 104517.
- Madhavanprabhakaran, G., Francis, F., & Labrague, L. J. (2022). Reverse Mentoring and Intergenerational Learning in Nursing: Bridging generational diversity. *Sultan Qaboos University Medical Journal, 22*(4), 472-478. <https://doi.org/10.18295/squmj.4.2022.027>
- Rosen, L. D., Cheever, N. A., & Carrier, L. M. (2018). The impact of technology on the generational divide in healthcare. *Computers in Human Behavior, 79*, 123-131.
- Shapiro, M. J., Morey, J. C., & Small, S. D. (2014). Simulation-based teamwork training for healthcare professionals. *Journal of the Society for Simulation in Healthcare, 9*(1), 1-10.
- Weston, M. J. (2006). Integrating generational perspectives in nursing. *The Online Journal of Issues in Nursing, 11*(2), 1-8.
- Zarifanaiey, N., Amini, M., & Saadat, F. (2016). Simulation-based medical education: A review of the current status and opportunities. *Medical Journal of the Islamic Republic of Iran, 30*, 293.

Author Biographies

Marlies P. Schijven, MD PhD MHSc, is a professor of surgery with vast expertise in the simulation and gaming field for medical education. She is the former president of the Dutch Society for Simulation in Healthcare (DSSH), longtime member of SSH (Society for Simulation in Healthcare) and SESAM (European Society for Simulation) and president of the WATCH society (wearable technology in healthcare). She is the former Chief Medical Information Officer of the Dutch Government, and national lead on eHealth. Contact: m.p.schijven@amsterdamumc.nl

Toshiko Kikkawa, PhD is a professor at Keio University, a social psychologist who specializes in S&G and risk communication. She has been in the position of a vice-chair of the Japanese Association of Simulation and Gaming (JASAG) since 2015 and was the Executive Board member of the International Simulation and Gaming Association (ISAGA) from 2012 to 2016. Contact: toshiko.sg@gmail.com