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Editorial

Generation of fragmented attention: simulation as a strategy to address digital distraction in nursing education

Geração da atenção fragmentada: a simulação no enfrentamento da distração digital no ensino de enfermagem

Generación de atención fragmentada: la simulación frente a la distracción digital en la enseñanza de enfermería

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We live in an era where teaching demands more than content mastery. It requires the ability to compete for attention within a fast-paced digital environment. Nursing students, belonging to a hyperconnected generation, are constantly exposed to a range of stimuli, from short videos and memes to instant messages, app notifications, and generative AI tools. Such elements create a cognitive pattern marked by fragmented attention, making it challenging for students to sustain focus and actively participate in lessons that convey critical knowledge relevant to professional healthcare education(1).

In this context, the central question arises: How can educators teach while fostering engagement among a fast-paced generation constantly exposed to stimuli and accustomed to immediate rewards? Traditional education, grounded in verbal explanations and static presentations, has become increasingly ineffective. Even certain active learning strategies, such as case studies and flipped classrooms, have become exhausting for hyperconnected students. In the classroom, devices such as cell phones and laptops increasingly divert attention from instructional strategies; originally intended to replace pen and paper, they now function as gateways to social media and numerous technological distractions.

The pressing need for action is evident. Teaching methodologies that can seize student attention, encourage genuine engagement, and offer experiences competitive with the digital environment are

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urgently required. While classes incorporating professional practice may support this objective, their effectiveness diminishes when instruction focuses solely on technical skills, leading to limited engagement and participation.

It is precisely in this context that realistic simulation has gained prominence as a highly effective contemporary strategy, fostering student engagement and reflection on behaviors as well as technical and non-technical skills. By integrating action, emotion, decision-making, and reflection, simulation restores to education, particularly in the nursing field, an experience largely absent in a generation shaped by fragmented attention: the capacity for sustained focus. Unlike the passive information consumption common to other teaching approaches, simulation demands participation, accountability, and engagement. It creates a safe and dynamic environment that supports clinical reasoning, teamwork, and practice-based decision-making[2-4].

A new question then emerges: If simulation is so essential, why does widespread implementation remain so difficult? The answer often emerges quickly among faculty members: high equipment costs, inadequate laboratory infrastructure, limited physical space, and shortages in essential resources. A clear paradox therefore becomes evident. Simulation has never been more necessary, yet large-scale implementation has never been more challenging.

In this sense, it is essential to challenge the assumption that high-quality simulation necessarily depends on advanced technology and, consequently, high cost. Accessible strategies, including structured role-playing with trained faculty members or students acting as patients, use of simple materials, handmade mannequins, escape rooms aligned with local contexts, and hybrid simulation approaches, can produce meaningful outcomes. What truly distinguishes effective simulation is not the cost of mannequins or material resources, but pedagogical intent, carefully designed scenarios, and rigorous guidance during briefing, particularly in the *debriefing* stage.

Research indicates that simulation-based learning gains rely more on instructional design and pedagogical mediation than on the technological complexity inherent in the equipment[5-6]. Accordingly, investment in training focused on realistic simulation methodology and creative approaches is as essential as investment in technology. Another important consideration is recognizing that social media and artificial intelligence are deeply integrated into everyday life, particularly among younger individuals who represent a substantial portion of university students. Treating these technologies as adversaries ultimately results in frustration in contemporary settings.

When integrated consciously and ethically, in alignment with pedagogical goals, these tools may foster engagement while reducing indiscriminate and distracted use during class. When integrated into realistic simulation, digital environments can generate a highly effective synergy, leading to greater student participation and engagement. Rather than opposing digital technologies, we can learn from them

and harness their potential.

In this context, realistic simulation, across its diverse modalities, should be recognized as a priority educational strategy in nursing education. It directly addresses contemporary cognitive demands and reinforces competencies critical to patient safety, especially within complex care settings, including surgical nursing, urgent and emergency care, and intensive care.

The generation shaped by fragmented attention requires new educational strategies. More than just an active learning strategy, simulation effectively tackles contemporary challenges related to engagement, depth, and meaningful learning. If the goal is to prepare professionals equipped to provide care with excellence in a progressively digital world, learning experiences should embody the complexity, engagement, and stimulation intrinsic to their surrounding environment.

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