LETTER TO THE EDITOR

Revitalizing human talent: causes, challenges, and strategies for mid-career crisis in radiology and experience at a pediatric reference hospital in Lima, Peru

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To the Editor,

Human talent is the most valuable asset of the educational system. The growth and complexity of teaching and healthcare centers make the recruitment, retention, and development of a qualified and committed workforce essential (1). It has recently been recognized that a portion of this workforce, specifically those in mid-career, faces unique challenges that need to be addressed (2). This life stage is marked by the transition from a role of dependency to one of leadership and greater responsibility (3). The crisis associated with this midlife transition is also reflected in medical careers, including the specialty of radiology. A mid-career radiologist is defined as a professional with a minimum of 5 to 10 years of experience and at least 5 to 10 years remaining before retirement (4). The "mid-career disease" is characterized by a sense of professional stagnation and lack of clarity about future direction. This crisis may lead professionals to change jobs or even leave their careers altogether (2). The increased availability of radiological equipment and the rising number of specialists using these technologies for more accurate diagnoses and less invasive treatments have contributed to a global shortage of radiologists (5–7).

This article describes the causes, challenges, and strategies for addressing the recently termed mid-career crisis in radiology, as well as the strategies implemented by the Department of Diagnostic Imaging at the Instituto Nacional de Salud del Niño San Borja (INSN-SB) to manage it. A literature review was conducted in the PubMed database using the keywords "radiology," "radiologist," "mid-career," and "midcareer." The search string used was: ("radiology" [MeSH Terms] OR "radiology"[All Fields]) AND ("radiologists"[MeSH Terms] OR "radiologists"[All Fields]) AND ("midcareer"[All Fields] OR "mid-career"[All Fields]). The search included articles published from 2000 onwards in both English and Spanish.

Five articles were found, but only three specifically addressed the mid-career crisis or syndrome in radiology (2, 4, 8). According to the results, the reasons this crisis occurs mid-career include a lack of support (9), difficulty balancing family and professional life (9), and age-related physiological changes (10).

Internationally, radiologists are generally categorized into two main professional profiles: academic and primarily private practice (Figure 1). Radiologists usually carry the heaviest workload, focusing their efforts on the effective resolution of day-to-day health problems (11). Burnout rates reported by Parikh et al. (12) are similar across both groups, with a slightly higher percentage in the private practice group.

Burnout in private practice radiologists has been linked to night shifts and on-call duties, whereas in academic radiology, the syndrome is more prevalent among female professionals (13). This stage of professional life presents numerous challenges (Figure 2), and acknowledging them is the first step toward finding solutions. According to the World Health Organization, burnout syndrome is characterized by chronic workplace stress that has not been successfully managed and includes three core elements: feelings of exhaustion, mental distance or negativity toward one's job, and reduced professional efficacy (14). Burnout rates of up to 50% have been reported among mid-career radiologists (12,13).

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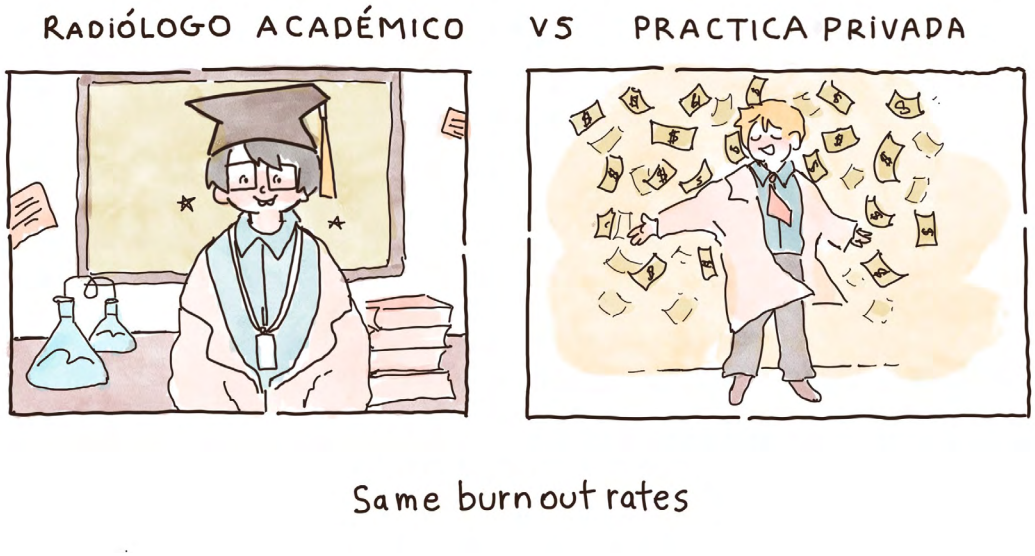

Figure 1. Radiologists' perspectives on achievements in academic careers versus private practice
(Image created by Ana Julia Liñán Ugas)

Figura 2. Mid-career challenges in radiology
(Image created by Ana Julia Liñán Ugas)

Two meta-analyses found that both organizational and personal strategies can effectively reduce burnout. These include reduced workload, improved salaries, and the implementation of institutional intervention programs (15,16). In the United States, it is reported that up to 70% of early-career physicians have access to professional development programs; this percentage drops to below 50% mid-career (17). In the same country, only 9% of department heads in radiology are women, despite women accounting for over 35% of academic radiologists (18). In Peru, studies exploring gender inequity are limited and insufficient. Various factors contribute to this inequity, such as the lack of mechanisms that facilitate women's access to leadership positions and the greater

burden of family responsibilities often shouldered by women, which may limit their professional growth (4). Evidence suggests that institutional, cultural change has a more substantial impact than isolated initiatives aimed solely at radiology departments or healthcare personnel. These strategies include increasing salaries and reducing workload (Figure 3) (19).

In Peru, healthcare professionals' salaries, particularly in radiology, are significantly lower than international standards (20), a situation worsened by economic crises. A study of a national radiology service found that only 9.8% of professionals believed their compensation was fair (21). Institutions must also adapt to a shift in workforce mentality, transitioning from a "live to work" to a "work to live" mindset (22). This challenge calls for improved working conditions, fair salaries, attractive continuing education programs, flexible hours, and contractual security, as well as merit-based systems and inclusive policies (4). A key strategy to retain human talent is reducing workload by limiting the number of assigned studies and setting aside dedicated time for administrative

Figure 3. Institutional strategies to successfully address the mid-career crisis in radiology
(Image created by Ana Julia Liñán Ugas)

and academic activities. In the meta-analysis by Panagioti et al. (16), a correlation was found between stress reduction and various strategies focused on reducing workload, particularly those that minimize night and on-call shifts and provide rest following duty shifts. A recent U.S. survey revealed that up to 60% of radiologists would prefer a pay cut in exchange for a better work-life balance. Preferences included spending time with family and friends (80%), pursuing hobbies (74%), exercising (66%), and sleeping better (58%) (23). Moreover, Ali et al. (24) reported lower burnout and stress rates using interventions that support balance between hospital time and home life, such as reduced working hours and more days off.

The mid-career crisis in radiology was successfully addressed by the Diagnostic Imaging Department of INSN-SB through the following strategies:

1. Mentorship: A process for knowledge transfer, development of soft skills, collaboration networks, and strengthening of expertise. Mentorship also fosters strong, productive bonds and promotes gender equity (4, 25, 26). It has been identified as a key element in sustaining educational activities, scientific productivity, and leadership based on empathy and academic excellence.
2. Second career: This new pursuit (Figure 3) has the potential to revitalize professionals through new social interactions, foster satisfaction and personal growth, and generate additional income (27).
3. Lifestyle improvement: Regular physical activity, a balanced diet, and achieving a work-life balance are essential for maintaining physical health. Practices such as mindfulness and creating a work environment rooted in gratitude and assertive communication help protect mental and emotional well-being (28).

The mid-career crisis presents four significant challenges: overcoming burnout syndrome, professional stagnation, gender inequity, and lack of support programs. Strategies to address these challenges must engage both institutions and their personnel. Only through this synergy can we revitalize, cultivate, and retain human talent; the most vital resource in the noble mission of saving lives.

Author contributions

The author confirms responsibility for the conceptualization, design, data collection, analysis, interpretation, and preparation of the final manuscript.

Conflicts of interest

The author declares no conflicts of interest related to the material presented in the manuscript.

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Ethical considerations

Not applicable.

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