Navigating Impostorism: The Role of Clinical Learning Environments and Trainees' General Causality Orientation

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Dear Editor,

We read with great interest the recent publication by Kruskie et al.[1] on the aetiology and experiences of impostor phenomenon (IP) in medical students. The concerning prevalence of IP and its links to burnout, amongst other negative outcomes, makes their work timely and important.[2] Using social identity theory, the authors compellingly identified sources of IP, including ideal notions of medical students and physicians, comparisons to others, and concerns about image. Their conclusion, emphasizing the interplay between individual and contextual factors, aligns with existing literature and invites a deeper exploration.

Building on these findings, we highlight the critical role of the clinical learning environment in shaping trainees' experiences of IP. A complementary perspective emerges from applying Self-Determination Theory's (SDT) motivation framework, where IP has been linked to burnout, with a focus on the moderating role of general causality orientations—individual differences in how people perceive their environment and regulate their behaviour in response.[3] An *autonomous* orientation (seeing opportunities for choices and engagement, based on interest and enjoyment) mitigated the negative impact of IP on burnout. Conversely, a *controlled* orientation (feeling pressured to act because of rewards/punishments or desires to avoid negative emotions like guilt/shame) and *impersonal* orientation (seeing outcomes as uncontrollable and thus feeling anxious and incompetent) exacerbated this relationship.

These findings complement those of Kruskie et al.[1] and help explain why some trainees with IP develop burnout while others remain more protected. They also provide practical strategies for fostering supportive learning environments, based on SDT, that buffer against the

negative effects of IP. To cultivate an autonomous orientation, and not the other two orientations, training programmes should aim to provide meaningful rationales, offer structured yet flexible guidance, and acknowledge trainees' perspectives and emotions, while minimising the use of contingencies of reinforcement to motivate trainees. These actions are critical because each orientation can be socialised and readily "brought forward",[4] thereby enhancing or hindering trainees' autonomous motivation and ability to navigate challenges with self-efficacy and resilience.[5,6]

This theory-informed approach, based on frameworks such as social identity theory and SDT, extends beyond interventions targeting individuals, emphasising the role of systemic and contextual factors in shaping trainees' IP experiences. By creating autonomy-supportive learning environments, programmes can prime trainees' autonomous orientation, ultimately reducing the burden of IP and its associated risks of burnout and disengagement. We advocate for further exploration of these strategies to promote well-being and sustainability in medical education.

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