Reading list: Imposter phenomena - strategies and techniques to manage

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Prepared by
Laura Russell
(Evidence Support Information Specialist, BMA Library and Archives)
evidence.support@bma.org.uk

BMA

Contents

1 Description

- This tailored reading list includes signposted web links and journal articles on the topic of Imposter phenomena as a supplement to the Learning and Development webinar you attended on 08 June 2023.

- The selected content is representative of the current literature on this topic, inclusion on this list does not imply endorsement from the BMA.

- If you would like to request a literature search on any aspect of this topic please fill out a request form (this service is available to BMA Members only).

- This reading list prioritises online content to ensure all attendees can benefit from this supporting resource. However most full text links will be accessible to BMA Members only. Find out more about the benefits of BMA Membership and join here.

- The BMA Library prioritises an e-first approach, however if you are near BMA House in London, we have a modern, purpose-built library space where members are welcome to come and study. Find out more and see how we can help you here.

2   Obtaining full text articles

2.1.1.1   Full text links

If available, the full text link has been included.

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2.1.1.5   Further help

For any further help with getting full text articles, please contact the BMA Library Team (bma-library@bma.org.uk)

3 Results

3.1 Web links

1. Medicguild.
How to Tackle Imposter Syndrome as a Junior Doctor.
2022.
A guide to what Imposter Syndrome is and some techniques on controlling and managing it.
Available online here

2. Imposter Syndrome Institute.
Imposter syndrome resources. 2022.
A resource which helps identify Imposter Syndrome and links to resources that can help manage it.
Available online here

3. British Medical Association.
Imposter syndrome. 2022.
An article about Imposter Syndrome and links to wellbeing support.
Available online here

4. Wolters Kluwer.
Overcoming imposter syndrome in medicine. 2020.
A personal account of managing Imposter Syndrome, with tips for self management.
Available online here

5. Bupa.
How to overcome imposter syndrome as a leader. 2021.
A resource for managers and leaders with Imposter Syndrome.
Available online here

6. MDU notes.
Imposter syndrome. 2022.
A personal account of managing Imposter Syndrome by an international student.
Available online here

7. The Joyful Doctor.
Can developing a growth mindset help to tackle imposter syndrome? 2020.
An article discussing mindset changes as a way to tackle Imposter syndrome.
Available online here

8. MJA InsightPlus
Understanding and dealing with imposter syndrome. 2019.
An explanation and discussion of management techniques.
Available online here

3.2 Google Scholar

allintext:("imposter syndrome" OR "imposter phenomena" OR imposterism) around(2) (manage OR cope OR coping OR "deal with" OR overcome) -children

Last two years

Click link to see Google Scholar results

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Please note that as Google Scholar results are ordered by relevance, the first few pages of results will be the most useful.

3.3   Journal articles

1. Vaa Stelling, B. E., et al. (2023).

"Fitting In While Standing Out: Professional Identity Formation, Imposter Syndrome, and Burnout in Early-Career Faculty Physicians."

Academic Medicine 98(4): 514-520.

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Professional identity formation (PIF) is a dynamic process by which an individual internalizes the core values and beliefs of a specific profession. Within medical education, PIF begins in medical school and continues throughout training and practice. Transitions affect PIF, with a critical transition occurring between medical training and unsupervised practice. This study aims to characterize PIF during the transition from resident to early-career faculty physician and explores the relationship between PIF and burnout during this transition. The authors conducted a qualitative study using constructivist grounded theory. They conducted semistructured interviews with early-career faculty physicians. Early-career faculty physicians face identity challenges when transitioning from training to unsupervised practice, including striving to fit in and stand out. They link this tension to imposter syndrome, which they associated with burnout. Institutional awareness and support, including addressing structural and cultural contributors to imposter syndrome, are paramount as new faculty explore their identities and navigate new challenges.

2. Chodoff, A., Conyers, L., Wright, S. et al. 2023).

"I never should have been a doctor": a qualitative study of imposter phenomenon among internal medicine residents.

BMC Med Educ 23, 57.

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Imposter phenomenon is common among medical trainees and may influence learning and professional development. In 2020, using emailed invites we recruited a convenience sample of 28 internal medicine residents from a teaching hospital in Baltimore, Maryland to participate in an exploratory qualitative study. In one-on-one interviews, informants described experiences of imposter phenomenon during residency training. Using thematic analysis to identify meaningful segments of text, the authors developed a coding framework and iteratively identified and refined themes. Informants completed the Clance Imposter Phenomenon Scale. Informants described feelings and thoughts related to imposter phenomenon, the contexts in which they developed and the impact on learning. Imposter phenomenon has profound effects on residents including: powerful and persistent feelings of inadequacy and habitual comparisons with others. Distinct contexts shaping imposter phenomenon included: changing roles with increasing responsibilities; constant scrutiny; and rigid medical hierarchy. Learning was impacted by inappropriate expectations, difficulty processing feedback, and mental energy diverted to impression

management. Internal medicine residents routinely experience imposter phenomenon; these feelings distort residents' sense of self confidence and competence and may impact learning. Modifiable aspects of the clinical learning environment exacerbate imposter phenomenon and thus can be acted upon to mitigate imposter phenomenon and promote learning among medical trainees.

3. Choron, R. L., et al. (2023).

"The Impact of Surgical Boot Camp on Medical Student Confidence and Imposter Syndrome."

Journal of Surgical Research 283: 872-878.

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Transitioning from medical student to surgical intern is accompanied by increased responsibility, stress, and clinical burden. This environment lends itself to imposter syndrome (IS), a psychological condition grounded in self-doubt causing fear of being discovered as fraud despite adequate abilities. We hypothesized a 2-week surgical boot camp for fourth year medical students would improve confidence in technical skills/knowledge and IS. We advocate for surgical boot-camp training courses to improve trainee skill and confidence. As IS is not improved by boot camp, additional research is needed to identify opportunities to improve IS among surgical trainees.

4. Sarosi, G. A., Jr. and Klingensmith M. (2022).

"Entrustable Professional Activities, A Tool for Addressing Sex Bias and the Imposter Syndrome?"

Annals of Surgery 275(2): 230-231.

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To determine differences in entrustable professional activity (EPA) assessments between male and female general surgery residents. In this cohort study, EPA assessments were collected from July 2018 to May 2020. The effect of resident sex on EPA entrustment levels was analyzed using multiple linear and ordered logistic regressions. Narrative comments were analyzed using latent dirichlet allocation to identify topics correlated with resident sex. Of the 2480 EPAs, 1230 EPAs were submitted by faculty and 1250 were submitted by residents. After controlling for confounding factors, faculty evaluations of residents were not impacted by resident sex. However, female residents rated themselves lower compared to their male counterparts. Within narrative assessments, topics associated with resident sex demonstrated that female residents focus on the "guidance" and "supervision" they received while performing an EPA, while male residents were more likely to report "independent" action. Faculty assessments showed no difference in EPA levels between male and female residents. Female residents rate themselves lower by nearly an entire post graduate year (PGY) level compared to male residents. Latent dirichlet allocation - identified topics suggest this difference in self-assessment is related to differences in perception of autonomy.

5. Jeanmonod, R. (2022).

"Imposter syndrome? Check your biases."

Academic Emergency Medicine 29(6): 816-817.

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"Yeah, but everyone feels unqualified sometimes." These words, spoken by a faculty member during a panel on imposter syndrome, gaslit me; the dismissal of an experience that is my own, the blindness to a topic that's worth seeing for what it is. Reduced to "feeling unqualified." Is this what we are talking about when we talk about imposter syndrome?

6. Beckman, T. J. (2022).

"The Imposter Syndrome in Physicians."

Mayo Clinic Proceedings 97(11): 1964-1965.

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Objective: To determine the prevalence of imposter phenomenon (IP) experiences among physicians and evaluate their relationship to personal and professional characteristics, professional fulfillment, burnout, and suicidal ideation. **Participants and methods:** Between November 20, 2020, and February 16, 2021, we surveyed US physicians and a probability-based sample of the US working population. Imposter phenomenon was measured using a 4-item version of the Clance Imposter Phenomenon Scale. Burnout and professional fulfillment were measured using standardized instruments. A similar association between IP and suicidal ideation was observed. On multivariable analysis, physicians endorsed greater intensity of IP than workers in other fields in response to the item, "I am disappointed at times in my present accomplishments and think I should have accomplished more." **Conclusion:** Imposter phenomenon experiences are common among US physicians, and physicians have more frequent experiences of disappointment in accomplishments than workers in other fields. Imposter phenomenon experiences are associated with increased burnout and suicidal ideation and lower professional fulfillment. Systematic efforts to address the professional norms and perfectionistic attitudes that contribute to this phenomenon are necessary.

7. Medline, A., et al. (2022).
"From Self-efficacy to Imposter Syndrome: The Intrapersonal Traits of Surgeons."
Journal of the American Academy of Orthopaedic Surgeons. Global research & reviews 6(4).

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Demographic differences among surgical trainees regarding intrapersonal traits, such as imposter syndrome and assertiveness, have become widely acknowledged. However, many of these characteristics have not been examined in tandem, nor among both trainees and surgeons in practice. This study aimed to address these knowledge gaps. This was an anonymous, voluntary survey study comprised of validated measures of (1) self-efficacy, (2) imposter syndrome, (3) assertiveness, (4) perfectionism, and (5) self-rated likeability. A multimodal recruitment strategy was used and surgeons across all subspecialties were eligible for inclusion. A total of 296

participants were included, with 54% identifying as female (n = 161) and 72% between the ages of 25 and 40 years of age (n = 212). Imposter syndrome, assertiveness, and perfectionism scales were normally distributed; self-efficacy and self-rated likeability scales demonstrated slight negative skew. Self-identified male sex was associated with less imposter syndrome (P < 0.001) and perfectionism (P = 0.035) and higher assertiveness (P < 0.001). Imposter syndrome was less common among older age groups (P = 0.001). Surgeons are a self-efficacious group of perfectionists with widespread variability in imposter syndrome and assertiveness. Female sex and younger age were associated with more imposter syndrome and less assertiveness, highlighting an opportunity for early career coaching.

8. Calvert, K. (2022).
"How to Manage Imposter Syndrome."
Australian and New Zealand Journal of Obstetrics and Gynaecology 62(Supplement 1): 89.

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Expertise in imposter syndrome is the ultimate oxymoron. Anyone who has experienced the feeling of being an imposter will anticipate the unlikelihood that this session will convey how to 'manage' that common affliction. Apologies for the session title. Perhaps, rather than aiming to manage imposter syndrome, it will be better if we simply acknowledge it. Walk with it. Accept it. Perhaps even consider forgiving ourselves for having it. Join us for this contemplative session as we try to imagine whether there could in fact be a positive side to feeling like an imposter.

9. Rivera, N., et al. (2021).

"Do I Belong Here? Confronting Imposter Syndrome at an Individual, Peer, and Institutional Level in Health Professionals."

Mededportal Publications 17: 11166.

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Imposter syndrome (IS) is a feeling of being an intellectual fraud and is common among health professionals, particularly those underrepresented in medicine. IS is accompanied by burnout, self-doubt, and beliefs of decreased success. This workshop aims to discuss the impact of IS and develop strategies to confront IS at the individual, peer, and institutional levels. During the 75-minute interactive workshop, participants listened to didactics and engaged in individual reflection, small-group case discussion, and large-group instruction. Workshop participants and facilitators included medical students, residents, fellows, faculty, staff, and program leadership. Anonymous postworkshop evaluations exploring participants' satisfaction and intentions to change their behavior were collected. Descriptive statistics were used to analyze the quantitative data, and content analysis was used to analyze participants' intentions to change their behavior. The workshop was presented at three local academic conferences and accepted at one national conference. Data were collected from 92 participants. Ninety-two percent of participants felt the workshop met its objectives, and 90% felt the workshop was a valuable use of their time. Furthermore, 90% of participants stated they would apply information learned at the workshop in the future. This workshop proved to be an effective means to discuss strategies on how to address IS at the individual, peer, and institutional levels. The materials can be adapted for relevance to various audiences.

10. Ng, I. K. S. and Tay D. S. H. (2021).

"Imposter syndrome-Perspectives of final year medical students."

Medical Education 55(9): 1110.

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Impostor syndrome (IS) is increasingly recognised as a condition among physicians and physicians in training. Impostor syndrome is especially problematic because of its association with increased rates of burnout and suicide. In order to address this issue, we need to fully understand its prevalence, scope, and factors associated with IS. The purpose of this scoping review is to analyse the existing literature on IS among practising physicians and physicians in training in order to identify current trends and directions for future research. The authors conducted a literature search of nine databases for any articles on IS among practising physicians or physicians in training published prior to January 2019. Two reviewers independently screened articles and identified 18 papers meeting the study inclusion criteria. Two authors independently extracted data and performed quantitative and qualitative syntheses consistent with best practice recommendations for scoping reviews. Most studies utilised the Clance Impostor Phenomenon Scale and cited rates of IS ranging from 22% to 60%. Studies found that gender, low self-esteem and institutional culture were associated with higher rates of IS, whereas social support, validation of success, positive affirmation, and both personal and shared reflections were protective. Overall, IS was also associated with higher rates of burnout.