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Empathy and Burnout in medicine – acknowledging risks and opportunities

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Title Page

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18 Patient-centeredness has been identified by the Institute of Medicine as one of the six main
19 aims for a 21st Century health system, and encompasses qualities of compassion, empathy,
20 as well as being responsive to the patients' values, needs and preferences¹. These tenets of
21 modern medical professionalism require greater expectations over physicians' emotional
22 availability than in the past, but this trend is risky in a context in which physicians show
23 increasing rates of emotional vulnerability²⁻³. A systematic review of 54 studies found
24 between 20.9 to 43.2 per cent of resident physicians report depression or depressive
25 symptoms³. Longitudinal studies indicate that the prevalence of depressive symptoms
26 increases with increasing years in training³, rather than diminishing with greater expertise
27 and experience. A national survey found that 46 per cent of practicing physicians show
28 some signs of burnout⁴, a phenomenon involving difficulties in dealing with stressful work
29 and demands. Burnout can lead to feelings of depersonalisation and hopelessness², and is
30 associated with increased physician errors and reduced empathy for patients⁴. It is
31 therefore a concern that the demands and expectations on physicians' emotional resources
32 are carefully balanced with the psychological costs and risks to their mental wellbeing in the
33 provision of patient-centered empathic care.

34

35 Demonstrating empathy in clinical practice requires physicians to be able to listen to and
36 understand the patient's perspective, communicate that understanding, and act in a way
37 that is helpful¹ such as expressing sympathy, respect and support. The benefits to patients
38 when physicians demonstrate clinical empathy are well reported, including greater patient
39 satisfaction, openness about symptoms, reduced patient distress and improved outcomes¹.
40 In contrast, low physician empathy is associated with burnout and emotional exhaustion,

41 but the direction of the relationship is unclear². Demonstrating clinical empathy may
42 contribute to a compassion fatigue and emotional exhaustion which, in turn, leads to
43 physician burnout². The decline of empathy may be a coping mechanism for extreme
44 emotional arousal; neuroscientific studies indicate that the brains of physicians show a
45 downregulated empathic arousal response (e.g. negative affect or feelings) to witnessing
46 distress compared to controls². Declining student empathy during medical school has been
47 argued to represent the downregulation of empathy as a means of survival in the face of
48 burnout or extreme distress¹. Competing time and resource demands and stressors in the
49 environment have been identified as hindering emotional regulation², which may explain
50 why offering empathic care can be emotionally exhausting for physicians – their ability to
51 engage in emotional self-regulation is hindered or disrupted by the challenges of the
52 modern medical workplace. Medical training should seek to better educate about, and
53 mitigate against, the risks which may lead to reductions in empathy, or greater emotional
54 vulnerability, to ensure that this does not become an enduring and worsening problem as
55 the demands on medical students and physicians steadily increase.

56

57 There has been a general lack of acknowledgement in medicine of the social and biological
58 variables that link empathy with gender role expectations and sex differences despite
59 research evidence. Females are more likely to demonstrate empathy and it may be more
60 socially acceptable for them to do so⁵. Sex differences relating to empathy are consistent
61 with neuroimaging studies which demonstrate greater neural activation in females during
62 empathy tasks, findings from adolescent studies, and arguments for the possible
63 evolutionary roots for greater empathic concern in females². A 2013 study of 7,584 board-

64 certified practicing physicians found significant differences between males and females on a
65 measure of emotional empathy². After controlling for age and experience, they found a
66 highly specific effect of gender on 'empathic concern' (the tendency to experience feelings
67 such as compassion and concern for others), but not on the component measuring cognitive
68 empathy ('perspective taking': the capacity to understand another's experience or
69 perspective). Female physicians reported higher levels of empathic concern, reported
70 feeling less valued by patients and colleagues, and were more likely to report that their
71 professional work had negatively affected their personal lives than males. The authors²
72 report that the higher rates of empathic concern in females corroborates research that
73 suggests that women – in and outside of medicine - are more likely to report emotional
74 exhaustion (depletion of emotional resources)⁵ than men. Emotional exhaustion is one of
75 the three burnout dimensions along with reduced personal accomplishment (feelings of
76 insufficiency and reduced professional self-esteem) and depersonalization (developing a
77 callous cynical attitude)⁵.

78

79 Burnout is a gradual process that develops over time; the order of presentation of the
80 dimensions in the onset of burnout differs for men and women and, thus, the early warning
81 signals are likely to differ⁵. Houkes et al.⁵ collated findings from 18 studies from across the
82 world incorporating samples from different occupational groups (including medicine) that
83 reported significant gender differences in the prevalence and experience of burnout
84 between males and females. They then conducted a three-wave longitudinal study of
85 physicians using statistical modelling to explore the aetiology of burnout⁵. They found
86 evidence that the causal order of burnout dimensions differs between male and female

87 physicians. The onset of male physicians' burnout presented with depersonalization,
88 whereas female physicians' burnout was triggered by emotional exhaustion⁵. Additionally,
89 for males only, their sense of personal accomplishment showed independence from the
90 other two dimensions; male reported increasing personal accomplishment even as their
91 emotional exhaustion and depersonalisation increased. This was not the case for females,
92 whose burnout shows signs of reduction in their sense of personal accomplishment.
93 Therefore, it is possible that reduced personal accomplishment is not a symptom of burnout
94 for male physicians, but is for females⁵. The authors⁵ recommend consideration of the
95 differences in the dimensions and early presentation of burnout between male and female
96 physicians should be incorporated in workplace training and policy development given the
97 rapid feminization of the workforce.

98

99 Despite the evidence for differences in the experiences of empathy, as well as the burnout
100 trajectory for male and female physicians, there appears to be limited consideration of
101 these findings in the interventions to reduce burnout. Conceptually, two approaches of
102 addressing the problem of declining empathy and increasing burnout in medicine have been
103 identified: within the individual, and within the environment. In terms of the individual,
104 Gleichgerricht and Decety² recommend the optimal approach for fostering healthy clinical
105 empathy in medical training is to focus on the cognitive components which concern
106 understanding of another's experience and perspective, rather than the emotional
107 component which concerns sharing in the emotions or feelings of another and may lead to
108 emotional exhaustion. Issues related to differential experiences of empathy and different
109 burnout trajectories, for males and females, are largely missing from the general

110 recommendations for developing cognitive empathy or focusing on the cognitive
111 components to empathy. Therefore, practical questions of when, where and how to
112 intervene in medical education and training to address gender (societal expectations) and
113 sex (biological) differences remain.

114 The American Medical Association (AMA) additionally recommends a systems-based
115 approach to preventing physician burnout⁴ which marks a major leap forward in addressing
116 the organisation and environmental factors that contribute to distress and burnout. The
117 AMA Steps Forward: Preventing Physician Burnout is an online training module⁴ which
118 encourages the development of a team-based model of care, with a focus on team-based
119 communication, scheduling, and infrastructure, such that patient visits may be team-based
120 but physician-led. Typically, these systems-based approaches⁴ also fail to consider sex
121 differences in experiencing empathy, gender differences relating to differential expectations
122 towards physicians demonstrating empathic care, and ignores that the experience and
123 trajectory of burnout differs may often differ for male and female physicians.

124

125 Addressing physician burnout is likely to require interventions that address how individual,
126 dispositional factors (including sex differences) interact with physician's environment to
127 produce conditions for burnout which may develop differently between male and female
128 physicians. There is an opportunity to begin training in emotional regulation (empathy and
129 avoiding burnout) during medical school and continue through residency training, on how
130 situational/environmental stressors (workplace demands, time demands) deplete our
131 psychological resources for emotional regulation². Medical education and training should
132 prepare students and future physicians for possible differential experiences with regard to

133 the emotional availability that might be expected of them, as women and men, from
134 patients based on societal expectations. There is an opportunity to empower medical
135 students and physicians in strategies for dealing with these possibly difficult patient
136 encounters in order to mitigate against them should they occur. There exists a duty to
137 further explore gender differences in how physicians might experience empathy and
138 burnout, so that strategies for coping with the demands of emotional availability and
139 vulnerability in the medical workplace may be more nuanced. Finally, there is an
140 opportunity to train team members in the new team-based models of care that the
141 *experience* of burnout, the burnout *trajectory* and the *identification* of burnout may have
142 different characteristics and early warning signs for male and female physicians.

143

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148

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151

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