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## Brief history of burnout

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## EDITORIALS

## Brief history of burnout

We have much to learn from established countermeasures in aviation

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The coining of the term “burnout” in a clinical sense is typically attributed to the psychologist Herbert Freudenberger,<sup>1</sup> who in 1974 described it as particularly pertinent to caring professionals.<sup>2</sup> More than 40 years later, burnout is still conceptualised as uniquely affecting those in emotionally demanding professional roles.<sup>3</sup>

However, one of the first documented reports of workplace burnout referred to people without occupational caring responsibilities.<sup>4</sup> In 1971, three years before Freudenberger’s description,<sup>2</sup> US air traffic controllers were commonly reporting “vocational ‘burn out,’ a form of exhaustion, which is manifested in a decline in quantity and quality of work production.”<sup>4</sup> Several important, and overlooked, parallels between burnout in air traffic controllers and in doctors can inform our current approaches to tackling this phenomenon.

During the 1960s and 1970s, air traffic controllers reported poor training environments, inadequate equipment, rapidly changing shift patterns, long shifts without breaks, fatigue, monotony due to automation, and challenges arising from human-machine interfaces.<sup>5</sup> A huge increase in air traffic, with a small rise in the number of controllers, pushed working conditions beyond what controllers considered to be safe.<sup>4,5</sup>

After a series of fatal mid-air collisions linked to human error, the Federal Aviation Administration commissioned a prospective cohort study in 1973 from Boston University School of Medicine.<sup>6</sup> This landmark study is one of the first investigations into workplace burnout, following 416 air traffic controllers over three years and resulting in a report of over 650 pages. It identified burnout, increased incidence of hypertension, and signs that controllers developed other psychiatric problems over the course of the study. However, the report and its findings have been largely forgotten.

One of the most striking and counterintuitive aspects of the findings was that workers who went on to develop burnout had better psychological health earlier in the study,<sup>6</sup> scoring higher on positive mood states, reporting less anxiety and less alcohol consumption than the comparison group. The report concluded that those who feared burnout were actually the more competent individuals, and that burnout concerns, once set in motion, tended to become a self fulfilling prophecy. Burnout was not simply a failure of personal resilience: most air traffic controllers

had experienced military service<sup>6</sup> and had dealt with extremely challenging conditions.

The study’s findings<sup>6</sup> can be used to question the logic underpinning recent trends in medical education and training, which emphasise the development of personal resilience as part of professional excellence.<sup>7</sup> The air traffic control study<sup>6</sup> illustrates the paradox here: workers who strive hardest to meet internal and external professional ideals may increase their risk of burnout, which then contributes to them falling short of these professional ideals. This link might represent a form of “pathological altruism,”<sup>8</sup> whereby people who sincerely engage in altruistic acts end up unintentionally harming themselves or those they are intending to help. Oakley argues that there might be negative consequences (such as burnout) from the unrelenting demand for altruism in healthcare professionals.<sup>8</sup>

### Coping with complexity

The history of burnout shows important links with increased work complexity. This contrasts with modern narratives that burnout among doctors mainly results from the emotional demands.<sup>3</sup> Changes made in aviation settings acknowledge that individual, team, organisational, regulatory, and environmental factors collectively and interactively influence performance and outcomes.<sup>9,10</sup>

Here, crew resource management teaches skills for dealing with complexity, including team based training in situational awareness, decision making, communication, and problem solving.<sup>10,11</sup> This approach is also suitable in healthcare settings, where “team burnout” is associated with lower patient satisfaction with care.<sup>12</sup>

In aviation, stress management programmes for critical incidents include preventive teaching and training on normal reactions to chronic and acute work stress (cognitive, emotional, physical, and behavioural reactions).<sup>9,13</sup> While interventions from aviation settings will need to be adapted to the current professional culture in medicine,<sup>9</sup> once embedded, they could become the mechanisms by which professional culture is changed.<sup>9</sup>

Resource constraints and ever increasing demands and complexity are irreversibly changing professional work in medicine. A large systematic review shows that both organisational and individual interventions are effective at

reducing burnout.<sup>14</sup> As in aviation, human factors approaches to improving systems should include interventions to manage work complexity at the individual,<sup>13</sup> team,<sup>11</sup> and organisational level.<sup>10</sup> Medical workloads need to be reconfigured or redesigned in line with human cognitive, emotional, and physical limitations, with accompanying organisation-wide training and management support. Active participation from the professional workforce<sup>15</sup> will be key to achieving success in the development of healthier and safer medical workplaces.

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