

Title: Sonographers' experiences of work-related musculoskeletal disorder: The everyday consequences of physiological stress and injury in contemporary ultrasound

Keywords

Injury; Interpretative phenomenological analysis; Qualitative research; Sonography; Ultrasound; Workplace psychology

Abstract

Background: By 2013, the UK government's Migration Advisory Committee had listed sonography as an official 'shortage specialty' (Migration Advisory Committee, 2013; Parker & Harrison, 2015). As a consequence of the working stresses allied to this shortage, British sonographers have increasingly been reducing hours or leaving clinical practice entirely (Society and College of Radiographers, 2014). Moreover, among those who remain, incidences of reported chronic pain and active injury are also on the increase within a profession that was already synonymous with high rates of work-related musculoskeletal disorder (WRMSD; Harrison & Harris, 2015). While contemporary research has described the rates of WRMSD among ultrasound practitioners (Bolton & Cox, 2015), none has to date extensively explored its personal and professional impacts.

Methods: Using a model of Interpretative Phenomenological Analysis with proven facility in medical imaging research (Miller *et al.*, 2017), extended semi-structured interviews with N=10 experienced sonographers were analysed.

Results: Participants routinely reported a sensation of guilt and depleted self-efficacy that not only permeated any working absence resultant of their own WRMSD, but also to taking legitimate leave when colleagues were suffering from WRMSD. An upshot of this was to recurrently "take one for the team" and work through excessive pain, even when this would likely result in greater prospective physical damage. While the basic shortage of sonographers was the core attribution for such behaviours, participants also cited (1) increasingly obese patients, (2) increasingly unhelpful (i.e. profiteering) equipment manufacturers, and (3) their own paternalism regarding healthcare.

Conclusions: The present situation in ultrasound mirrors a culture of potentially dangerous pain acceptance that been noted in the psychology of sport for some time (Weinberg *et al.*, 2013) albeit for altruistic, rather than egotistic, reasons.

References

- Bolton, G.C. & Cox, D.L. (2015) 'Survey of UK sonographers on the prevention of work related muscular-skeletal disorder (WRMSD)', *Journal of Clinical Ultrasound*, 43 (3), pp.145-152.
- Harrison, G. & Harris, A. (2015) 'Work-related musculoskeletal disorders in ultrasound: Can you reduce risk?', *Ultrasound*, 23 (4), pp.224-230.
- Migration Advisory Committee. (2013) *Skilled Shortage Sensible: Full review of the recommended shortage occupation lists for the UK and Scotland, a sunset clause and the creative occupations*. London: Migration Advisory Committee,
- Miller, P.K., Woods, A.L., Sloane, C. & Booth, L. (2017) 'Obesity, heuristic reasoning and the organisation of communicative embarrassment in diagnostic radiography', *Radiography*, 23 (2), pp.130-134.
- Parker, P.C. & Harrison, G. (2015) 'Educating the future sonographic workforce: membership survey report from the British Medical Ultrasound Society', *Ultrasound*, 23 (4), pp.231-241.
- Society and College of Radiographers. (2014) *Sonographer workforce survey analysis*. London: Society and College of Radiographers,
- Weinberg, R., Vernau, D. & Horn, T. (2013) 'Playing Through Pain and Injury: Psychosocial Considerations', *Journal of Clinical Sport Psychology*, 7 (1), pp.41-59.