
Downloaded from: http://insight.cumbria.ac.uk/id/eprint/3578/

Usage of any items from the University of Cumbria’s institutional repository ‘Insight’ must conform to the following fair usage guidelines.

Any item and its associated metadata held in the University of Cumbria’s institutional repository Insight (unless stated otherwise on the metadata record) may be copied, displayed or performed, and stored in line with the JISC fair dealing guidelines (available here) for educational and not-for-profit activities provided that

- the authors, title and full bibliographic details of the item are cited clearly when any part of the work is referred to verbally or in the written form
- a hyperlink/URL to the original Insight record of that item is included in any citations of the work
- the content is not changed in any way
- all files required for usage of the item are kept together with the main item file.

You may not

- sell any part of an item
- refer to any part of an item without citation
- amend any item or contextualise it in a way that will impugn the creator’s reputation
- remove or alter the copyright statement on an item.

The full policy can be found here. Alternatively contact the University of Cumbria Repository Editor by emailing insight@cumbria.ac.uk.
Sonographers’ experiences of work-related musculoskeletal disorder: The everyday consequences of physiological stress and injury in contemporary ultrasound

Gareth C. Bolton* Dr Lisa A. Booth Dr Paul K. Miller

**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=9 experienced sonographers were analysed. This study aimed to seek participants’ individual experiences and understanding of WRMSD and ways to reduce the incidence. The researcher aimed to recruit a reasonably diverse group of participants with a range of different or contradictory views, rather than a ‘representative’ sample of sonographers as such. The study aimed to gather sufficient information in order to make sense of WRMSD by ‘synthesising, abstracting, contextualising, analysing or illuminating meaning’ of the assertions taken from the participant interviews (Loaring et al., 2015).

**FINDINGS**

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. There is a clear body of evidence to suggest that sonographers are in crisis point both in terms of staffing levels and in terms of inter-related issues of WRMSD. The issue of WRMSD remains complex and under-researched and no studies are able to establish a definitive cause of the condition, because the causes are multifactorial. However, the majority of the literature seems to agree that poor posture, repetitive movements and insufficient strength seem to be the main physical causes, but little has been explored in terms of the philosophical underpinning of sonographer behaviour and culture, which is why this study contributes to a new body of knowledge. It is acknowledged that extensive deep interpretation need to take place around the data collected for this study in order to draw more comprehensive conclusions.

**REFERENCES**


**UK RADIOLOGICAL AND RADIATION ONCOLOGY CONGRESS**

https://www.cumbria.ac.uk/research/groups/social-issues-in-medical-imaging/

*Corresponding author, email: Gareth.Bolton@cumbria.ac.uk*