

Bolton, Gareth ORCID: <https://orcid.org/0000-0002-5453-4257> , Booth, Lisa ORCID: <https://orcid.org/0000-0001-7957-6501> and Miller, Paul K. ORCID: <https://orcid.org/0000-0002-5611-1354> (2024) Work-related musculoskeletal disorders in ultrasound practice, the contextual concerns of sonographers. In: UK Imaging and Oncology Congress 2024 (UKIO 2024): Vision and values: Putting people first, 10-12 June 2024, Liverpool ACC, UK. (Unpublished)

Downloaded from: <https://insight.cumbria.ac.uk/id/eprint/7586/>

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.

Work-related musculoskeletal disorders in ultrasound practice: The contextual concerns of sonographers

Gareth C. Bolton, Lisa Booth and Paul K. Miller, University of Cumbria, UK.

Background

Work-related musculoskeletal disorders (WRMSD) are already widespread among sonographers, at least partly due to the additional physical stresses of working in understaffed environments (Harrison & Harris, 2015). While contemporary research has described the broad picture regarding WRMSD in ultrasound (Bolton & Cox, 2015), none has to date extensively explored its personal and professional impacts from a qualitative perspective.

Methods

Extended semi-structured interviews with N=9 experienced sonographers working in the UK were conducted and analysed using Interpretative Phenomenological Analysis (IPA; Miller, Booth and Spacey, 2019). Core thematic areas that emphasised personal and professional impacts of WRMSD were then further examined to highlight how participants specifically made sense of them.

Results

Analysis revealed six common concerns, as schematised in Figure 1.

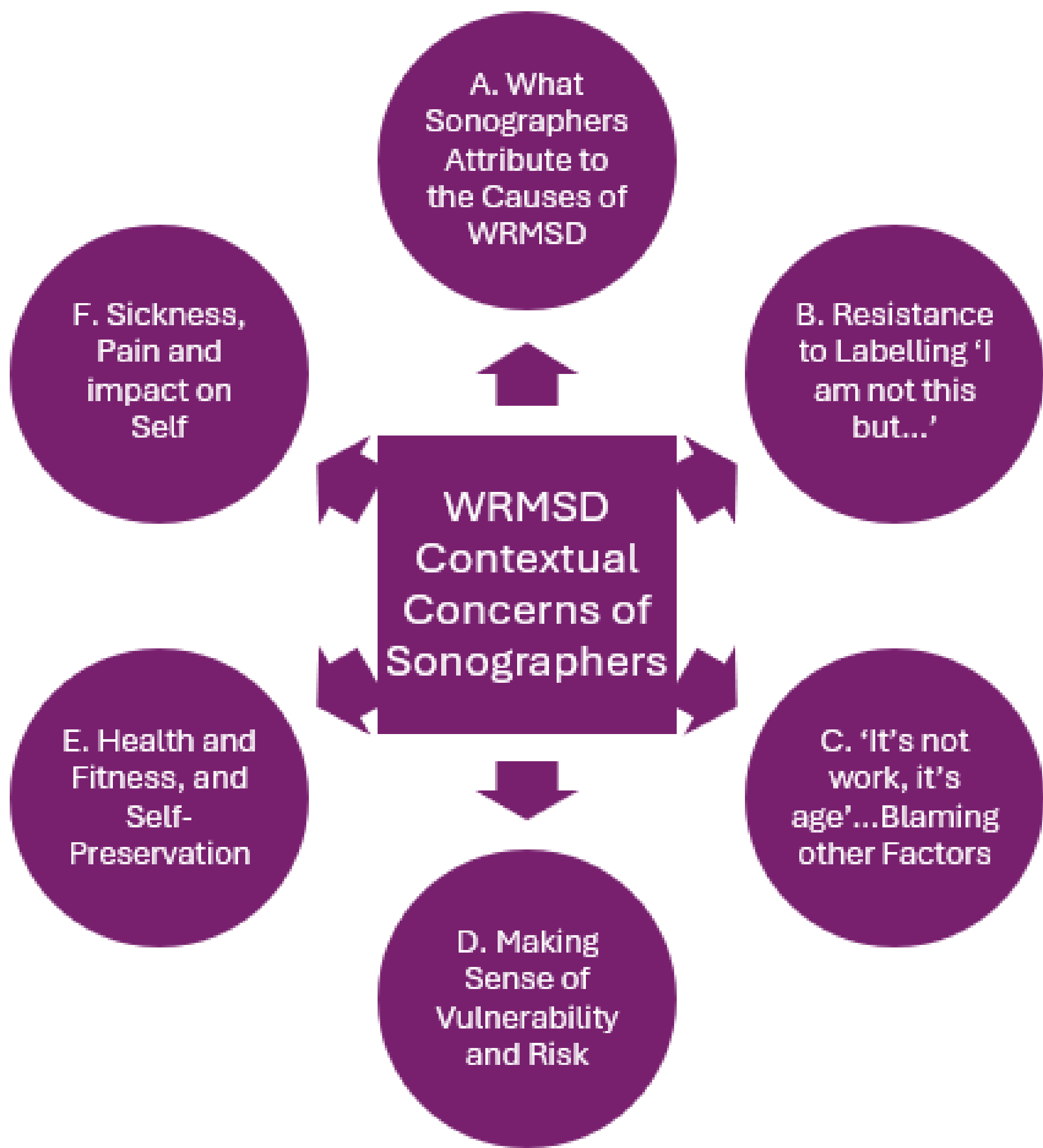


Figure 1: Six contextual concerns of sonographers

Table 1: Key evidence

| | |
|----|---|
| A. | <i>"to me the only other way of reducing it [WRMSD] is to overcome the issues that are causing it which to me are the overstretched lists, the overstretched sonographers, the time that is given for examination plus the time that is given during the actual working day to sort of relieve the stresses that you have on you, and I can't see that in the foreseeable" [1/204-208]</i> <i>"I think the knowledge [regarding WRMSD prevention] out there is getting more prevalent but it's probably not as high up as it should be. It could be increased a bit more. Erm Yeah, I just don't think, it's not that I don't think it's important enough, I think people think there are more important things to worry about". [2/77-81]</i> |
| B. | <i>"I've nothing to prove given the fact that I've never had a work-related injury and the fact that I've never had any problem even though despite my technique is probably not the best technique". [5/15-17]</i> <i>"I don't know. I don't know whether it's something that's proven or not, or whether it's more of a strength, you know whether its strength is more to do with it than stretching". [4/126-127]</i> |
| C. | <i>"It's difficult to answer because every time I do a different sport, I get injured. It's an age thing that apparently [laughing]. I've had to stop various sports and drop various sports in the last few years, I keep getting injured [laughing]. There's nothing that's impacted on my work ever other than when I was off for three days with a bad back at the end of last year, and that was a one-off and it's never happened before or since". [5/230-237]</i> |
| D. | <i>"I do genuinely think having worked in a lot of different places and with a lot of different people, on the whole I think its people who are quite small or quite unfit and not very strong who tend to get more injuries. Not necessarily get the injuries but get more injuries. More chance to get injured. And the people who are quite small tend to struggle to get in the right positions that are necessary with big patients and because of the size and if they follow the rules of the current guidelines they are still going to struggle". [5/177-184]</i> |
| E. | <i>"Up until probably about 6 years ago, I attended regular aerobic sessions and ad hoc swimming. We have a large garden in [anonymised for privacy] which I mow the grass and garden extensively and a small garden in France, so I do a lot of gardening. I've 2 children, they keep me busy, and I like walking – it's occasional and occasional cycling. I'm not a member of a fitness group at the moment but in the past, I've done aerobics most of my life and at the moment I am doing some Pilates because of my neck.</i> |
| F. | <i>[Related to colleague sickness absence] "There was no concessions to the workload or the waiting time. It was expected that we would maintain the same level of input patient-wise which didn't cause animosity amongst the sonographers but there was the question why we should be doing extra because people were off sick and it's not their fault they're off but why do we have to work longer and harder for the same amount of money to make up for them cos there's no extra capacity, so if 1 person goes off there's no back up plan, no management back up plan, they won't get agency in, we still have to do the same volume of work load" [7/113-122]</i> |

Discussion

The study has highlighted the breadth of perspectives of WRMSD in terms of reinforcing the range of terminology used to identify the phenomenon (WRMSD), how it impacts up on the individual and the nuances that surround such perspectives. Secondly, it has explored how some sonographers demonstrated resistance to being labelled as having a WRMSD (despite acknowledging symptoms). Thirdly, participants' vulnerability has been explored in terms of how gender, power, strength, and resilience are perceived. Furthermore, findings encompassed the differences in experience that were derived from the participant responses. Fourthly, sickness, pain, and the impact this appeared to have on sonographer career and lifestyle were explored. Finally, overall sonographer perspectives on their own health, wellbeing and fitness were considered by the participants in the study, including how their contextual concerns impacted not only on their general lifestyle, but also sickness absences from work, and the avoidance of WRMSD in their practice.

Conclusions

The research has explored existing accounts of sonographers which have offered broad insights into WRMSD (Simonsen and Gard, 2017, Bolton and Cox, 2015). By utilising IPA, as a foundation for thematic analysis, the research has provided rich contextualised narratives of the experiences of the participants selected. These accounts have highlighted the key concerns of sonographers to both their practices and how this impacts on their overall health and wellbeing.

References

- Bolton, G., C. and 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. doi: 10.1002/jcu.22216.
- Harrison, G. and Harris, A. (2015) 'Work-related musculoskeletal disorders in ultrasound: Can you reduce risk?', *Ultrasound*, 23(4), pp. 224-230.
- Miller, P.K., Booth, L. and Spacey, A. (2019) "Dementia and Clinical Interaction in Frontline Radiography: Mapping the Practical Experiences of Junior Clinicians in the UK," *Dementia* (London, England), 18(3), pp. 1010–1024. Available at: <https://doi.org/10.1177/1471301217700742>
- Simonsen, J.G. and Gard, G. (2016) 'Swedish Sonographers perceptions of ergonomic problems at work and their suggestions for improvement', *BMC Musculoskeletal Disorders*, 17, pp. n/a. doi: //dx.doi.org/10.1186/s12891-016-