

## Commentary

# Greenshoots to Chief Investigator: Physiotherapy led research in critical care

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### BACKGROUND

The delivery of evidence-based practice (EBP) underpins improvement in patient care, an essential component of which is the individual clinician's research capability.<sup>1</sup> Numerous schemes have been developed by organisations such as the National Institute of Health and Social Care Research (NIHR)<sup>2</sup> to enable clinicians to engage in research. Many of these schemes provide clinical staff with the opportunity to gain practical research experience while continuing their day-to-day clinical roles.

More recently, there has been a focus on actively engaging allied health professionals and nurses in clinical research. Within this evolution, physiotherapists have tended to support medically lead research through tasks such as data collection, however physiotherapy led research remains relatively novel.

The MSK-ICU Study<sup>3</sup> is an NIHR funded, multi-centre observational study aiming to determine and characterise the musculoskeletal (MSK) health state of intensive care unit (ICU) survivors. The study ran over four sites with one Chief Investigator (CI), five Principal Investigators (PI), three Associate PIs and one Greenshoots Scheme member. Those involved are all physiotherapists who undertook their respective roles for the first time. The CI is responsible for the whole study conduct. There is one PI at each study site responsible for their local conduct. In this commentary, we describe our experiences as the physiotherapists undertaking these roles as part of a physiotherapy led critical care study.

### NEW OPPORTUNITIES

The schemes described in this commentary include the NIHR Associate PI (API) and Greenshoot opportunities. The [Greenshoots Scheme](#) runs over three to six months with a protected half day per week to develop skills required to contribute to research delivery and needs to be sponsored by an NIHR portfolio study. The [API Scheme](#) runs over six months aligned to a registered NIHR study and does not require any protected time. Both schemes offer opportunities to gain exposure and experience to develop research governance knowledge, leadership skills and relevant applica-

tion. APIs are mentored by the local PI while continuing their clinical roles, to better understand the challenges and structure required to actively undertake research activity. The five PIs were responsible for the conduct of the study at their individual sites. The PIs were closely supported by the CI who provided direction and guidance for their development to enable this research leadership role.

### LEARNING FROM NEW OPPORTUNITIES

From very early in this study, it was evident there was a strong interest for physiotherapists to contribute to research and there was enthusiasm for physiotherapy led research. This was likely driven by the real-world exposure we gained by recruiting to the specific patient populations we treat daily.

Additional benefits arose through enhanced multidisciplinary working with the research nurses. This allowed for direct learning of skills such as participant screening, recruitment and documentation from expert practitioners.

The schemes advise on possible learning opportunities to seek experience across the breadth of study duration. In addition to local MDT working, the schemes were excellent vehicles to gain experience in a variety of research delivery roles.

Many of us who undertook the formal schemes wished we could repeat them as the study progressed into different stages to allow for broader experiences of the research process.

Inherently, as we soaked up the learning opportunities, reflected on the discussions and became more familiar with the study processes, confidence in research activity began to blossom. This included the CI who embraced the challenges of juggling the oversight of a multicentre study.

### STAFF DEVELOPMENT AND NETWORKING

This physiotherapy-led study has facilitated staff development of research during the clinical week. Only the CI and one PI are in dedicated clinical academic roles. Beyond awareness and experience of study delivery, some of us have had opportunities to deliver research related presentations to local clinical teams and attend related courses.

By making research less daunting, it has ignited an interest for many and created awareness for future development opportunities. These opportunities have been enabled by peer and senior discussion and support.

Outside of the immediate investigators, such as PIs and APIs, research opportunities have also been extended to clinical colleagues. Some of the local physiotherapy teams who completed their Good Clinical Practice training and once on the delegation log, supported the study on an ad-hoc basis. We also benefited from networking opportunities across the four study sites beyond the increased research activity at individual sites. These encouraging collaborations may have the potential to feed into future physiotherapy focused or led studies being developed and undertaken.

## RESEARCH GOVERNANCE AND LEADERSHIP

Relative to the respective scope of our study roles, we all increased our understanding of research governance and associated processes. For example, these may have included discussions on relevant eligibility checks for APIs supported by PIs. The PIs and CI developed leadership skills such as foresight, planning and troubleshooting to enable efficient study operations. This ensured comprehensive research standards and conduct. By actively engaging, we all gained an insight and more so an appreciation of the reality of research and its rigour. We would advocate that effective communication was pivotal to this, and we were encouraged to have open, regular, and timely contacts with the CI.

## CONCLUSION

This commentary has described a physiotherapy led research study facilitating increased exposure and experience across a range of study roles. It highlights the rich oppor-

tunities enjoyed across education, through local networking and contributing to high level research. We have gained an insight into how research can be clinically based and directly involve our patient populations within local hospitals to improve EBP delivery. We would advise anyone interested in gaining exposure to research to investigate the various schemes discussed or contact research active teams within their local Trust for opportunities to be involved.

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## DECLARATION OF INTEREST

Nil conflicts to declare.

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## REFERENCES

1. Janssen J, Hale L, Mirfin-Veitch B, Harland T. Perceptions of physiotherapists towards research: a mixed methods study. *Physiotherapy*. 2016;102(2):210-216. doi:10.1016/j.physio.2015.04.007
2. National Institute of Health Research. HEE-NIHR Integrated Clinical Academic Programme. Published 2023. <https://www.nihr.ac.uk/explore-nihr/funding-programmes/>
3. Gustafson O, King E, Schlüssel M, Rowland M, Dawes H, Williams MA. Musculoskeletal health state and physical function of intensive care unit survivors: protocol for a UK multicentre prospective cohort study (the MSK-ICU study). *BMJ Open*. 2023;13(2):e071385. doi:10.1136/bmjopen-2022-071385