The impact of shift work on police officer health and the barriers and facilitators to healthful behaviours

This research aims to understand the impacts of shift work, characterise health behaviours of serving officers, and develop evidence-based health interventions for piloting.

Key details

Lead institution	King's College London
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Collaboration and partnership	Ministry of Defence Police (MDP)
Level of research	PhD
Project start date	June 2023
Date due for completion	June 2029

Research context

This research is set within the critical context of understanding and mitigating the health impacts of shift work, particularly among emergency service personnel. Existing literature highlights that shift work significantly affects health and nutrition, yet there's a notable gap in studies focusing on first responders, often with limitations like small sample sizes or narrow behavioural focus.

This study specifically addresses Ministry of Defence Police (MDP) armed firearms officers (AFO), an occupational group facing unique challenges because of their operational environment and shift patterns. Shift work disrupts circadian rhythms, leading to sleep disorders, fatigue, and reduced cognitive function, which can hinder officers' ability to maintain their demanding occupational

requirements.

While previous in-force research identified the physical demands for AFOs (Powell et al., 2024), the barriers and facilitators to healthy behaviours remained unexamined. This research aims to characterise the health behaviours and status of MDP officers and to develop a bespoke intervention to enhance their health and wellbeing. It seeks to fill the knowledge gap regarding the specific health behaviours of this population, aiming to create more sustainable work conditions and contribute original research to the fields of shift work and population health science.

The project employs a mixed-methods approach with a qualitative emphasis, considering diet, physical activity, and sleep behaviours, with funding from the Ministry of Defence Police.

Research methodology

The research employs a cross-sectional cohort study design with a mixed-methods approach, prioritising qualitative data. Its primary goal is to assess the health status, behaviours, and knowledge of shift-working Ministry of Defence Police officers to inform a bespoke health intervention.

Participants will include approximately 200 MDP shift-working officers, representing 10% of the population, ensuring diversity in age, gender, and geographical region. Data collection will also take place in collaboration with other forces to increase the generalisability of findings and explore long-term solutions to supporting health and wellbeing across UK Policing.

Data collection integrates both quantitative and qualitative methods. Quantitative data will be gathered through:

- questionnaires (demographics, health behaviours, nutrition knowledge)
- wrist-worn actigraphy (physical activity, sleep quality)
- food diaries (paper and app-based)

Qualitative insights will be obtained through one-on-one interviews with officers and focus groups, supplemented by free-text responses in questionnaires.

Data analysis will involve a mixed design analysis of variance (ANOVA) for quantitative data to identify within- and between-subject effects, followed by post-hoc analysis. Qualitative data will

undergo thematic analysis to explore experiences and inform intervention development.

The study adheres to ethical standards, with approval from the Ministry of Defence Research Ethics Committee (MODREC), and all participants provide informed consent.

References

Powell. et al. (2022) INM Report No. 2022.029, The Development of a Physical Employment Standard for the Authorised Firearms Officer – Counter Terrorism (AFO-CT) National Role Profile: Phase-3: Test Development and Validation. Published date: October 2022

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