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7-9 Bream’s Buildings, London EC4A 1DT

Email: [Theo.Chiles@rcem.ac.uk](mailto:Theo.Chiles@rcem.ac.uk)

**APPLICATION FOR RESEARCH GRANT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. **Applicant(s)**   (no limit - photocopy/add further pages if necessary) | **Applicant 1**  **(Lead applicant)** | **Applicant 2** | **Applicant 3** | **Applicant 4** |
| Title and full name | Marie Broyde |  |  |  |
| Position | ST3 |  |  |  |
| Institution | HEE North West |  |  |  |
| Date of CCT  (if post CCT) |  |  |  |  |
| ORCID ID  (Must supply for at least Lead applicant)  <https://orcid.org> | 0000-0002-7588-714X |  |  |  |
| Role on grant  (i.e. Supervisor, Statistician, Data collection etc) | Chief Investigator |  |  |  |
| Hours per week on project |  |  |  |  |

|  |  |  |  |  |
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|  | **Applicant 5** | **Applicant 6** | **Applicant 7** | **Applicant 8** |
| Title and full name |  |  |  |  |
| Position |  |  |  |  |
| Institution |  |  |  |  |
| Date of CCT  (if post CCT) |  |  |  |  |
| ORCID ID  (Must supply for at least Lead applicant)  <https://orcid.org> |  |  |  |  |
| Role on grant  (i.e. Supervisor, Statistician, Data collection etc) |  |  |  |  |
| Hours per week on project |  |  |  |  |

**2. Institution/Authority (administering grant if approved)**

Addresses at which the work will be done

Manchester University NHS Foundation Trust

Research Office

1st Floor, Nowgen Centre

29 Grafton Street

Manchester

M13 9WU

**3. Project title** (*not* exceeding 116 characters including spaces)

Measuring changes in Need for Recovery of frontline clinical staff deployed to work at NHS Nightingale Hospital (North West) during the COVID-19 pandemic

**4. Abstract of research** (*not* exceeding 250 words)

NHS clinical staff are on the frontline of the UK response to the COVID-19 pandemic. Exploring staff Need for Recovery from work-related fatigue during this time will help inform how to best manage working patterns in future crises responses.

Aim: The study aims to measure Need for Recovery of clinical staff working at NHS Nightingale Hospital (NNH)NW, using a survey-based score.

Methods : Doctors and nurses who work at NNH North West will be eligible to participate in the study, Staff will be invited to participate during their NNH work induction. Participants will be able to access the survey online in their own time, and will be invited to complete it three times: at the start, during and after their work at NNH. The survey is short, and includes the 11 true/false ‘Need for Recovery’ score. The study will be open for data collection from the 21st April until a month after closure of the NNH, or for a duration of 6 months (whichever comes first).

Intended Outcomes

- To measure NfR of frontline clinical staff before, during and after work at NNH.

- To evaluate if personal and professional factors and/ or working patterns relate to changes in NfR of frontline clinical staff during their deployment.

**5.** **Proposed starting date......20th April 2020.................**

Proposed duration (in months)........6..

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **6. SUMMARY OF SUPPORT REQUESTED** | **Year 1**  **£** | **Year 2**  **£** | **Year 3**  **£** | **Total**  **£** |
| STAFF |  |  |  |  |
| CONSUMABLES |  |  |  |  |
| SUB-TOTAL |  |  |  |  |
| INDIRECT COSTS (40% of Staff costs) |  |  |  |  |
| **GRAND TOTAL** |  |  |  |  |

**7. Does the project have Ethical Committee approval?**

Yes ☐

Requested/To be requested ☐

Not required (state why) ☐

Using the Health Regulation Authority (HRA UK) decision tool, this study does not require a REC review. This study has been submitted to HRA for fast track approval.

**8. This application should be submitted by/through (i) the Head of Department and**

**(ii) the officer who will be responsible for administering any grant that may be awarded.**

**(i) Head of Department**

Signature Date

……………………………………………………… ………………………………………………………

Title and full name *(block capitals*) Department

PROFESSOR NEIL HANLEY Director of Research & Innovation

Manchester University NHS Foundation Trust

**(ii) Finance Office of Grant-holder**

Signature Date

……………………………………………………… ………………………………………………………

Title and full name *(block capitals*) Position held

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Address ………………………………………………………………………………………………………… …………………………………………………………………………………………………………………….

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Post Code ………………………………………………………

Telephone number/extension Fax number

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**PROPOSED INVESTIGATION**

1. Project title (*not* exceeding 116 characters including spaces)

Measuring changes in Need for Recovery of frontline clinical staff working at NHS Nightingale Hospital (North West)

1. Project lay summary *(not more than 100 words)*

NHS clinical staff are on the frontline of the UK response to the COVID-19 pandemic. Exploring staff’s Need for Recovery from work-related fatigue during this time will help inform how to best manage working patterns in future crisis responses.

The study will measure the Need for Recovery of clinical staff working at NHS Nightingale Hospital (NNH)NW using a survey-based score at the start, during and after their work at NNH. The survey is short, and includes 11 true/false questions that are combined to give a final ‘Need for Recovery’ score. Participants can access the survey online in their own time.

1. Purpose and aims

Research Question

How does working in a pandemic affect Need for Recovery (NfR) in frontline clinical staff?

Primary aim: To measure changes in NfR of frontline clinical staff before, during and after the COVID-19 pandemic in NHS Nightingale Hospital (NW).

Secondary aims: To assess if professional characteristics and/or working patterns affect changes in NfR

1. Background and results of any pilot studies if available

Previous feasibility work and PPI process was completed during a single UK centre study in 2018 and a large UK and Ireland multi-centre study in 2019 assessing NfR in 4,631 Emergency Medicine doctors. (PPI link https://www.rcemlearning.co.uk/foamed/ppi-in-research-nothing-to-do-with-proton-pump-inhibitors-or-payment-protection-insurance/#1551956164831-a55b7b31-e1eb)

1. Plan, methods, brief proposed analysis, power - including sample size calculation, how the statistical analysis of results will be performed and a timeline for the project. Include REC approval if possible. Provide evidence that the planned recruitment rate is achievable, including the process for identifying potentially eligible participants, the proportion of potentially eligible participants who will fulfil the inclusion/exclusion criteria, estimated consent rates.

This is a prospective observational longitudinal study, measuring Need for Recovery (NfR) via an online survey at 3 timepoints during the COVID-19 pandemic at NHS Nightingale Hospital (NNH):

1) in the first week of work at NNH (baseline NfR),

2) >2weeks into working at NNH (pandemic NfR),

3) >2 weeks after returning to their « normal » activity (post-pandemic NfR).

All eligible staff will be invited to participate during their “new starter induction” at NNH. An invitation to particpate will be emailed to inducted staff and a presentation slide promoting participation in the study will be included during the face-to-face induction.

The survey will be accessed online and take less than 5 minutes to complete. The survey includes the Need for Recovery score, composed of 11 true/false questions summated to give a final score between ‘0’ (lowest need) and ‘100’ (highest need).

Descriptive statistics will outline the participants’ professional characteristics at baseline.

Individual NfR scale items and the aggregated score will be summarised for all survey phases.

Statistical relationships between NfR change over time and each of the recorded participant characteristics will be reported.

The analyses above will be repeated for doctors only and nurses only. We will obtain a convenience sample of frontline clinical staff at NHS nightingale, with no upper limit on recruitment numbers. Using a 50% proportion of “true” responses for each NfR item (which maximises the sample size and therefore is most conservative), 5% type I error rate, and +/- 10% precision of this proportion, a sample size of N=97 is obtained. We expect to recruit at least this many participants at NNH (~30% of total frontline workforce), where 100 doctors and over 200 nurses are expected to be working by mid-May.

1. Expertise available and existing facilities

Co-investigators include: chief-investigator of the TIRED study (using NfR score in EDs in the UK) and TERN fellow; a medical statistician to assist with data management, survey design, and analysis;…

1. Timetable a detailed project time line. Describe how recruitment will be organised and the time period over which it will take place.

Start as soon as HRA approval is received (provisionally expected start date: 21/04/2020). Survey one will be advertised and responses collected immediately following approval.

The study will be open for data collection from the opening of the NNH until its closure or for the duration of 6 months (whichever comes first).

Analysis will start after the study period has ended.

1. Detailed justification for support requested - include importance of the question to Emergency Medicine, and future potential of the work for attracting further research funding.

[[statistician providing administrative, management, and statistical support]]

1. Value of research to Emergency Medicine

Staff wellbeing was rated the fourth highest priority of the James Lind Alliance Emergency Medicine Priority Setting Partnership.

[[staff working patterns in high-stress environments; well-planned, effective and sustainable crisis management; developing a template for administering a staff survey that can be rapidly rolled-out for future crises; ]]

1. Potential academic development of lead applicant

[[EM trainee experience of leading a research project; statistical programming and analysis; Developing a programme of research that builds on Master’s project for EM trainee; ]]

1. How will results be disseminated?

- Submission to peer-reviewed journal, and published with open access.

- Dissemination of results by the study team within the host organisation where research is taking place, specifically to reach staff groups who took part.

- [[Blog?]]

1. Key references

1. Sippitt A. Do we have fewer hospital beds than most of Europe? [Internet]. Available from: https://fullfact.org/health/do-we-have-fewer-hospital-beds-most-europe/

2. Burkle FM. Conversations in disaster medicine and public health: The profession. Disaster Med Public Health Prep. 2014;8(1):5–11.

3. World Health Organization. Classification and Minimum Standards for Foreign Medical Teams in Sudden Onset. World Heal Organ [Internet]. 2013;103. Available from: http://www.who.int/hac/global\_health\_cluster/fmt\_guidelines\_september2013.pdf?ua=1

4. Walker P. Professionalising the Humanitarian Sector A scoping study Joint Authors [Internet]. 2010 [cited 2019 Apr 28]. Available from: www.elrha.org.

5. The Maastricht Cohort Study, the Netherlands Organisation of Scientific Research. The Netherlands;

6. Kant I, Bültmann U, Schröer KAP, Beurskens AJHM, Amelsvoort LGPM van, Swaen GMH. An epidemiological approach to study fatigue in the working population: the Maastricht Cohort Study. Occup Environ Med [Internet]. 2003 Jun 1 [cited 2019 Apr 28];60(suppl 1):i32–9. Available from: https://oem.bmj.com/content/60/suppl\_1/i32

7. H M Beurskens AJ, Bültmann U, Kant Ij, M M Vercoulen JH, Bleijenberg G, H Swaen GM. Fatigue among working people: validity of a questionnaire measure. Occup Env Med [Internet]. 2000 [cited 2019 Apr 28];57:353–7. Available from: http://oem.bmj.com/

8. De Vries J, Michielsen HJ, Heck V. Assessment of fatigue among working people: a comparison of six questionnaires. Occup Env Med [Internet]. 2003 [cited 2019 Apr 28];60((Suppl I)):i10–5. Available from: http://oem.bmj.com/

9. De Croon EM, Sluiter JK, Frings-Dresen MHW. Psychometric properties of the Need for Recovery after work scale: Test-retest reliability and sensitivity to detect change. Occup Environ Med. 2006 Mar;63(3):202–6.

10. Sluiter JK. Need for recovery from work related fatigue and its role in the development and prediction of subjective health complaints. Occup Environ Med [Internet]. 2003 Jun 1 [cited 2019 Apr 28];60(>90001):62i – 70. Available from: http://oem.bmj.com/cgi/doi/10.1136/oem.60.suppl\_1.i62

11. Van Veldhoven, M; Broersen S. Measurement quality and validity of the “need for recovery scale.” Occup Env Med [Internet]. 2003 [cited 2019 Apr 28];60((Suppl I)):i3–9. Available from: http://oem.bmj.com/

12. Sluiter JK, De Croon EM, Meijman TF. Need for recovery from work related fatigue and its role in the development and prediction of subjective health complaints. [cited 2019 Jun 3]; Available from: http://oem.bmj.com/

13. Smith J, Keating L, Flowerdew L, O’Brien R, McIntyre S, Morley R, et al. An Emergency Medicine Research Priority Setting Partnership to establish the top 10 research priorities in emergency medicine. Emerg Med J. 2017;

14. Eysenbach G. Improving the quality of web surveys: The Checklist for Reporting Results of Internet E-Surveys (CHERRIES). Journal of Medical Internet Research. 2004.

15. ICMJE Recommendations: defining the role of authors and contributors [Internet]. [cited 2020 Apr 10]. Available from: http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html

16. Veldhoven MJPM van. Need for recovery after work: An overview of construct, measurement and research. Occup Heal Psychol Eur Perspect Res Educ Pract. 2008;

***CONTINUE ON NO MORE THAN 3 ADDITIONAL A4 SHEETS***

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For advice on writing a grant application see www.mrc.ac.uk

**DETAILS OF SUPPORT REQUESTED (summarised in Section 6 of the application form)**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| DETAILS OF POSTS  NAME (if known) | Grade | Start point on scale | Starting Salary  £ | London Weighting  £ | Other Allowances  £ | Combined Superannuation and National Insurance  £ | Total Costs in  Yr 1 Yr2 | |
| 1. |  |  |  |  |  |  |  |  |
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| CONSUMABLES ETC  Please specify (include animals, equipment, etc) | Year 1  £ | Year 2  £ | Year 3  £ | TOTAL  £ |
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| SUB TOTAL ANNUAL COSTS £ |  |  |  |  |

**CURRICULUM VITAE OF LEAD APPLICANT**

1. Surname Forename(s) Age DOB

BROYDE Marie 32 15/04/1988

2. Degree, etc (subject, class, university, and date)

MBChB, 2.1? University of Edinburgh June 2012

BMedSci, 2.1, University of Edinburgh June 2009

DTMH 2.1, Liverpool School of Tropical Medicine November 2014

3. Posts held (with dates);please identify tenure and source of funding of present post.

4. Recent publications; also papers in press

(photocopy/add further pages if required)

**BRIEF CURRICULUM VITAE OF APPLICANT 2**

1. Surname Forename(s) Age DOB

Hulme William 31 24/06/1988

2. Degree, etc (subject, class, university, and date)

BSc Mathematics and Statistics, University of Edinburgh, 2:1

Msc Operational Research, University of Edinburgh, Distinction

PhD Medical Statistics, University of Manchester.

3. Current posts held (with dates); please identify tenure and source of funding of post(s).

Researcher, Nuffield Department of Primary Care Health Sciences, University of Oxford.

4. Most important publications

Operator volume is not associated with mortality following percutaneous coronary intervention: insights from the British Cardiovascular Intervention Society registry

**BRIEF CURRICULUM VITAE OF APPLICANT 3**

1. Surname Forename(s) Age DOB

2. Degree, etc (subject, class, university, and date)

3. Current posts held (with dates); please identify tenure and source of funding of post(s).

4. Most important publications

**BRIEF CURRICULUM VITAE OF APPLICANT 4**

1. Surname Forename(s) Age DOB

2. Degree, etc (subject, class, university, and date)

3. Current posts held (with dates); please identify tenure and source of funding of post(s).

4. Most important publications

**BRIEF CURRICULUM VITAE OF APPLICANT 5**

1. Surname Forename(s) Age DOB

2. Degree, etc (subject, class, university, and date)

3. Current posts held (with dates); please identify tenure and source of funding of post(s).

4. Most important publications

**BRIEF CURRICULUM VITAE OF APPLICANT 6**

1. Surname Forename(s) Age DOB

2. Degree, etc (subject, class, university, and date)

3. Current posts held (with dates); please identify tenure and source of funding of post(s).

4. Most important publications

**BRIEF CURRICULUM VITAE OF APPLICANT 7**

1. Surname Forename(s) Age DOB

2. Degree, etc (subject, class, university, and date)

3. Current posts held (with dates); please identify tenure and source of funding of post(s).

4. Most important publications

**BRIEF CURRICULUM VITAE OF APPLICANT 8**

1. Surname Forename(s) Age DOB

2. Degree, etc (subject, class, university, and date)

3. Current posts held (with dates); please identify tenure and source of funding of post(s).

4. Most important publications

(photocopy/add further pages if required)