

BMJ Open Quality **Constructing high-quality rest facilities to maximise performance and ensure patient safety**

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ABSTRACT

Introduction Junior doctors are working in an increasingly overstretched National Health Service. In 2018, Kettering General Hospital (KGH) was awarded £60 800 of government funds to create high-quality rest facilities and improve junior doctor well-being.

Methods An audit and survey in KGH identified the structural and functional improvements needed. From November 2019 to June 2020, £47 841.24 was spent on creating new rest facilities. On completion, a postaction review assessed how the changes impacted morale, well-being and quality of patient care.

Results The majority of doctors were happy with the new rest areas (60%), a majority felt that they would use the on-call room area (63%) and the renovation improved morale and well-being. There was an increased ability to take breaks. However, the majority of doctors are not exception-reporting missing breaks: 79% (2019), 74% (2020).

Conclusions and Implications This report recommends the maintenance of increased staffing levels and rest facilities during the recovery phase of COVID-19. The remaining £12 958.76 should be directed at sustaining the quality of KGH rest facilities. Lastly, the rate of exception-reporting must be increased through improving awareness, exploring alternative methods and supporting the action when necessary. The continual investment into rest facilities ensures workforce well-being and translates into patient safety.

INTRODUCTION

Health Education England's recent progress report, "Enhancing junior doctors' working lives" showed that junior doctors are working in an increasingly overstretched National Health Service (NHS), with intense rotas and increasing rota gaps.¹ In recent years, there have been numerous reports of doctors dangerously driving when tired, sleeping in substandard hospital accommodation and being unable to take much-needed breaks. There is also significant evidence that tiredness impairs ethical decision making, ultimately impacting on personal and patient safety.^{2 3} In 2018, the British Medical Association published the Fatigue and Facilities Charter to recommend best practice and improve junior doctor well-being.⁴ As a result,

all NHS Trusts in England received government funding to invest in upgrading facilities and well-being.⁵ Kettering General Hospital NHS Foundation Trust (KGH) was, individually, awarded £60 800. Through a survey of junior doctors working at KGH, alongside consultation with the Junior Doctor Forum (JDF), a strategy was constructed to spend this money.

Aims

A quality improvement project was initiated to:

- Assess the experience of junior doctors in KGH.
- Identify barriers that prevent junior doctors from taking their breaks.
- Apply the funds to suitably support junior doctors in taking their breaks and provide optimal levels of care.

METHODS

An initial audit (online supplemental file 1) was conducted at KGH in July 2019 comparing current working conditions against the Fatigue and Facilities Charter. Alongside the audit, a survey was performed that explored the barriers to achieve adequate rest while at work, and the impact missing breaks had on junior doctors. The survey identified what structural and functional improvements were needed, engaged stakeholders and allowed a project initiation document (PID) to be synthesised. The PID included a gap analysis based on the audit against the Fatigue & Facilities Charter, and options of how best to spend the £60 800 in addressing these gaps. Moreover, a communication plan and risk assessment (online supplemental table 1) were performed to ensure the project met its goals and these were communicated to the workforce. The potential solutions were then presented to senior management, discussed in focus groups and the JDF. Subsequently, the project was approved by the Clinical Audit Team of our institution (online supplemental file 2). After buy-in from all stakeholder

groups, the junior doctor collective decided the best way to spend the money was improving the current rest facilities. As a result, a quality improvement project, alongside a delivery team, was created to facilitate junior doctors in taking their rest breaks.

From November 2019, £60 800, provided by the government was utilised to build substantial rest facilities for the junior doctors at KGH. The designs were created by individuals in the Delivery Team with comfort and sustainability at the forefront. The regular feedback from the junior doctor cohort was essential in ensuring the new facilities met their needs. The Estates Team improved the infrastructure of the facilities and created new sleeping quarters, alongside a study area. The procurement team bought new furniture and equipment to meet the functional needs of junior doctors. The finance department and senior management approved all the spending and processes. However, due to delays created by the COVID-19 pandemic, the renovation was not fully completed until June 2020.

One month after the completion of the project, a postaction review was conducted. Through reconducting the Fatigue and Facilities survey (online supplemental file 3), the extent to which the changes had an impact were identified. In addition, changes in morale, well-being and quality of patient care were evaluated. The prerenovation and postrenovation surveys contained a mixture of dichotomous, multiple choice and rating scale questions to quantify the responses. However, participants could further expand on their answers through the free text sections provided. The medical education department sent both surveys via email to all doctors based in the KGH Trust and promotion was generated through the Mess' social media to increase engagement, alongside weekly reminders over the course of 4 weeks.

Interviewing a range of grades, including senior registrars, core trainees, trust grade doctors and foundation trainees, allowed a multifaceted assessment of how effectively the money was spent. Feedback from JDFs were also useful to gauge how the workforce valued the facilities. A timeline of the project is visualised in [figure 1](#).

RESULTS

Gap analysis

An audit of the Trust's current standards and facilities were performed against the Fatigue and Facilities Charter.⁶ This charter states the minimum standards Trusts should be meeting to promote junior doctor well-being and is split into six sections (online supplemental table 2).

The results of this audit were shared with the Local Negotiating Committee, junior doctors via the JDF, and



Figure 1 Timeline of the project. JDF, junior doctor forum.

with the Director of Medical Education, Guardian of Safeworking Hours, Human Resources and the Estates Department. From this analysis, two key areas were identified that required work: improving the common room/Mess and rest facilities for doctors doing resident on-call shifts. It also highlighted that the Trust was potentially not meeting contractual break requirements for junior doctors, and there was a need for a cultural change encouraging and supporting doctors to take breaks.

Spending overview

Overall, £11 709.96 was spent through the Procurement Department (online supplemental table 3A), and £36 131.28 was spent through the Estates Department (online supplemental table 3B). Thus, a total of £47 841.24 was spent across the financial year, leaving £12 958.76 remaining for the next stage of renovations (online supplemental table 3C). Pictures before and after the renovation are displayed in [figure 2A,B](#).

Fatigue and facilities surveys

Representation

Both the 2019 and 2020 surveys had the same number of responses (n=43), and a similar cohort based on grade and specialty. However, this was only a 26% response rate of all junior doctors at KGH.

Breaks

As displayed by [figure 3](#) there was an increased ability to take breaks on a:

- ▶ Normal working shift (eg, 9:00–17:00 hour, Monday–Friday): 29% (2019) to 49% (2020).
- ▶ Long day shift (9:00–21:00 hour, Monday–Friday): 3% (2019) to 14% (2020).
- ▶ Long day shift (9:00–17:00 hour, Saturday–Sunday and bank holidays): 9% (2019) to 23% (2020).
- ▶ Night shift (21:00–9:00 hour, Monday–Friday): 26% (2019) to 57% (2020).
- ▶ Night shift (Saturday–Sunday and bank holidays): 20% (2019) to 69% (2020).

Despite the improvement seen in breaks, the majority of doctors were still not submitting exception reports (79% in 2019 and 74% in 2020). Out of those that did exception report in 2020, the majority got an unsatisfactory response (64% in 2020).

Reasons for missing such breaks are mainly due to bleeps disturbing rest, sick patients requiring urgent review, and outstanding jobs. Missing breaks had the most significant impact on morale and well-being (consistent from 2019). In 2020, there was still a (nearly) even split on whether allocated breaks during long shifts would be feasible. The main reason, why it would not be feasible, being that there would be no one assigned to hold the bleep during a break. Doctors still feel the rota, and staffing numbers are insufficient to give full cover when leave is required. Furthermore, the lack of staffing numbers harms morale, well-being, patient safety and quality of care.

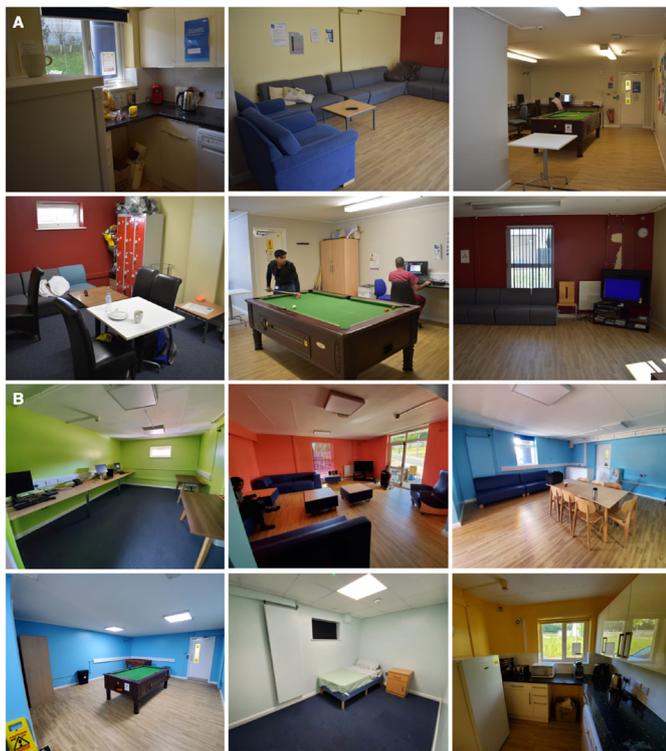


Figure 2 (A) Pictures of KGH Rest Facilities before the renovation investment. (B) Pictures of KGH rest facilities after the renovation investment. KGH, Kettering General Hospital.

Rest facilities upgrade and Support over the year

In general, all upgrades to the Doctors' Mess were welcomed. The most essential change was considered to be the construction of sleeping and study areas. Additionally, a constant supply of food out of hours during the COVID-19 crisis was praised. The majority of doctors are happy with the current rest areas on offer at KGH (60%), and a majority feel that they will use the separate on-call sleeping area (63%). Finally, the junior doctor body expressed their interest on spending the remainder of the allocated funds on separate changing and shower facilities, printing facilities, and an update of computer hardware.

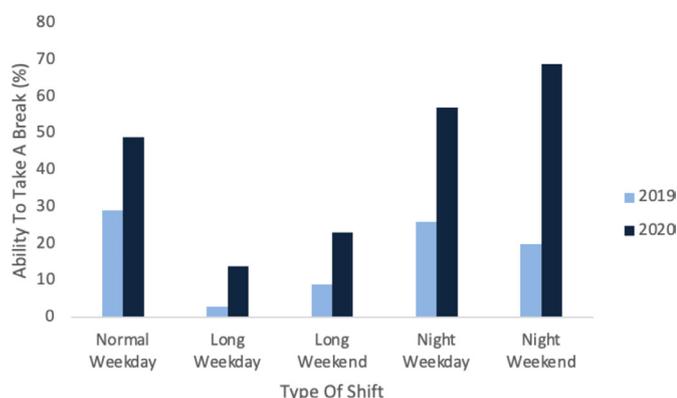


Figure 3 Ability to take breaks in 2019 and 2020.

Interviews and JDF Feedback

As displayed by online supplemental table 4, the rest facilities were given an average score of 5 (scale: 0=very poor, 10=outstanding) prior to the refurbishment. Junior Doctors cited that these were 'dated and dingy', resulting in a lack of motivation to use the provisions. Following the refurbishment, the average had risen to 8 with feedback referring to the area being 'restful' and promoting "relaxation". Further suggested improvements included the addition of shower facilities, a games console and increased food orders. Overall, the feedback from both interviews and the JDF was positive, and considering the challenges presented by COVID-19, doctors were grateful for the improvements made.

DISCUSSION

The Trust has improved its compliance with the Fatigues and Facilities Charter, although there are areas which need more focus. The Mess facilities were renovated with areas to rest, access provided to kitchen facilities and food options available 24/7 for Mess members (who pay a £10/month subscription). The Trust now has sleeping facilities available at no cost to all junior doctors 24/7. This is a significant improvement from before as junior doctors would have to pay for third party accommodation at short notice. Now junior doctors are able to rest before driving home, reducing their risk of being involved in a road traffic accident.

The results of this study indicate that over the last year, there has been an increased ability to take rest breaks during any particular working shift. The situation has improved, however, the survey uncovered bleep holders feel unable to take a rest during an on-call shift, due to the frequently ringing bleep. This situation negatively impacts on well-being, morale and patient care in an already demanding line of work. It is clear that any initiative to improve junior doctor well-being would be limited without considering the cultural issues surrounding rest and taking breaks. KGH Trust should therefore consider a system allowing bleep holders to take uninterrupted breaks. This may involve notifying staff when the bleep holder is on break or giving the bleep to another on-call doctor while that bleep holder is on rest.

The survey found that doctors are not exception reporting these incidents, and when they are, the response is felt to be insufficient. The lack of exception reporting may be due to a lack of awareness that a system for raising clinical concerns is in place. Furthermore, there may be a fear of negative consequences, thus resulting in a lack of motivation to exception report. Promotion for the system should take place during induction and educational supervisors must support junior doctors in raising concerns. In addition, KGH Trust could update juniors on the positive changes that have occurred as a result of exception reporting during JDFs and newsletters.

Another strategy is to use an alternative system, such as the 'Gripes' tool, a 'web-based reporting tool for



junior doctors to proactively report concerns about quality and safety of care'.⁷ The pilot study was held in a large UK teaching hospital trust. The tool was seen as intuitive and easy to use, which encouraged doctors to report their concerns. Through the pilot study, various problems were highlighted, including a number of those that were previously unknown to the trust. However, the extent to its sustainability will depend on staffing assigned to address the concerns raised and how the tool is integrated alongside other escalation systems that are already in place.

Junior doctors regarded the rest facilities renovation to be necessary. It was mostly positively received, and it was shown to improve global morale and well-being. The uplift in morale was propelled by the WeCare team (a welfare-based team created to support health-care workers) and the KGH Doctors' Mess Committee, providing a continuous supply of food for staff working out-of-hours, which was previously limited. These supplies could then be left in storage for staff to reheat in the Mess when desired. The staff particularly cherished the addition of a study and adequate on-site sleeping facilities. Previously, KGH had no in-hospital rest facilities. Doctors, therefore, resorted to contacting 'Optivo' (a third-party company providing hospital accommodation) or the local Premier Inn to book a spare room. The lack of a clear and immediate plan for doctors, who are too tired to drive home, was worrying. Now the new sleeping quarters work towards having a rested, motivated workforce.⁸

Moving forward, the junior doctors felt that the remaining funds should be spent on separate changing and shower facilities, printing facilities and an update of the current computer hardware located in the rest facilities. However, the maintenance of the current improvements will incur costs that need to be considered as well.

Over the course of the COVID-19 crisis, junior doctors also benefitted from the various public support, where numerous donations were offered to the hospital. Besides that, KGH focused on maximising the well-being of junior doctors with the opening of the WeCare Café and Open Office to provide areas of relaxation and to minimise burnout. The results of this survey demonstrate that such support was well received. Therefore, it would be pertinent for these changes to remain during the recovery phase of this pandemic, as the hospital takes the regular cohort of patients alongside the COVID-19 cases.

Limitations

Although COVID-19 placed a significant strain on the project, the estates, procurement and finance teams worked hard to ensure the job was complete. However, there was a significant time lag between steps during the process, which lead to substantial delays in meeting target deadlines. A separate issue highlighted was a small engagement size from the junior doctor cohort,

with only 43 responses being collected in a group of 166. Moreover, due to the annual rotation of doctors, the doctors that completed the prerenovation survey may not have been the same doctors that completed the postrenovation survey. These factors could lead to a potential misrepresentation of the cohort's viewpoints and therefore generate actions that may not necessarily support the majority.

In order to make the survey more accessible, the survey asked the number of days an individual missed a break, instead of a percentage. Although work patterns differ between doctors, using the number of days missed in a certain period of time, provided a general understanding of the ability for doctors to take their breaks.

Furthermore, it is important to acknowledge the impact of the unprecedented COVID-19 pandemic on KGH. During the peak of the crisis, the hospital initially saw a fall in patient admissions, with only the most acute and unwell remaining, while simultaneously the on-call rotas were bolstered with higher levels of staff. These factors resulted in staff being able to take their allocated breaks more often. However, due to the critical nature of patients in the hospital, breaks were still regularly disrupted to review unwell individuals.

CONCLUSIONS AND IMPLICATIONS

Taken holistically, this work can be used to develop targeted interventions aimed at improving junior doctors' well-being. Hence, recommendations for the KGH NHS Foundation Trust are as follows:

- ▶ The remaining £12958.76 should be directed at creating shower facilities, upgrading computer hardware and maintaining the quality of rest facilities.
- ▶ A system to enable bleep-free breaks must be considered.
- ▶ The Freedom to Speak Up Guardian to explore alternative methods to exception reporting (eg, Gripes Tool).
- ▶ Increase awareness of exception reporting, advocating its benefits and supporting junior doctors using the system.
- ▶ Management to create a more coordinated system to streamline estates, procurement and finance services and thus allow a faster turnaround of quality improvement projects.
- ▶ The leadership team must maintain staffing level and rest facilities during the recovery phase of COVID-19.

This project highlights the necessity of high-quality support systems to enable junior doctors to face ever-growing challenges. These not only ensure their well-being but undoubtedly translate into the safety of our patients.

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Author note All individuals, including GS (corresponding author) seen in figure 2A, have given their consent for images, which include their face or body parts displayed, to be published.

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