

Developing a systems-based professional wellbeing tool: What should we consider?

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SUMMARY

A key consideration to work systems are the people within it and the resource and resilience they bring to the system. As a result, professional wellbeing should be considered as a key element for systems monitoring. To work towards developing a professional wellbeing tool associated with work system elements to guide and inform improvement strategies and system redesign, an exploratory study was conducted to capture the relevant concepts. The aim of this phase of the project was to explore what staff thought were key elements of professional wellbeing that should be assessed, how work is organised and managed by staff, how this may be related to professional wellbeing and capture practical considerations for data capturing and tool outputs. A total of eight focus groups and seven interviews were conducted with staff within the Hospital 24 service between January and September 2023 with a total of 28 participants. The results from the focus groups and interviews assisted in addressing three key questions, namely: what should one measure for professional wellbeing, what is currently measured and how should one measure professional wellbeing? In addition to addressing these questions, key work system considerations emerged that are essential for understanding the context of the concepts identified and the potential implications for measurement and data interpretation. These qualitative results provided the building blocks for a conceptual framework that will guide the development of a systems-based professional wellbeing tool.

KEYWORDS

Healthcare, professional wellbeing, systems approach

Introduction

The call to strengthen healthcare systems is not new and even before the COVID-19 pandemic, it had been identified as an item of strategic importance (WHO, 2007). To meet national care requirements, healthcare systems need to be developed and improved (Onyango-Ouma et al., 2001) and although investment is needed, more needs to be achieved with existing resources (WHO, 2007). However, to strengthen healthcare systems, it is essential to identify the problems and where and why investment is needed (WHO, 2007). This highlights the need for system monitoring tools.

A key element in healthcare systems is the essential role staff play and this is eloquently described by Catchpole and colleagues: “it is people that hold complex systems together” (2021, p.16). Furthermore, a variety of evidence is available that highlights that an organisation’s performance is dependent on the health and wellbeing of its staff (Sizmur & Raleigh, 2018). Due to the complex nature of healthcare systems; there will always be unexpected demands, variance and interactions that require workers to adjust in-situ (Anderson et al., 2016). This innovation and adaptability

people bring to the system help balance the work system so that it remains functioning. As a result of this, the wellbeing of staff should be an important consideration for a system monitoring tool.

Context and Project Aim

This project (OOH2 Project) was conducted in collaboration with the Hospital 24 (H24) service in a large acute NHS trust, which provides healthcare during the out of hours (OOH) period. The aim of this project was to develop a conceptual framework for the development of a professional wellbeing tool that would support a larger systems monitoring tool for the H24 service. For the purposes of this project, professional wellbeing was defined as the job-related experience of perceptions and conditions that affect health and impact a worker's ability to achieve their potential (The National Academies of Sciences Engineering and Medicine et al., 2019). This project chose to focus on this specific element of wellbeing as the goal of the tool was to identify work system components that could be redesigned so that professional wellbeing could be enhanced and the work system improved.

To work towards this larger project aim, this phase of the project explored how work is organised and managed by staff currently working in the H24 service and how this may be related to professional wellbeing. In addition to this, this phase explored what staff thought were key elements of professional wellbeing that should be assessed as well as capturing practical considerations for data capturing and tool outputs.

Method

This stage of the project adopted an explorative qualitative approach to explore elements for a systems monitoring and professional wellbeing tool as well as the practical considerations associated with data entry and analysis from staff working within the H24 service. Convenience sampling was used to recruit participants which included junior doctors, registrars, nurse practitioners, H24 coordinators and medical human resources staff who are currently employed by the hospital and have worked with the H24 service. All sessions were held online and recorded through Microsoft Teams. A discussion guide was used to standardise the questions and approach across the team conducting the sessions. All sessions were transcribed using the built-in software of Microsoft Teams and checked by the team prior to analysis. A thematic analysis (Braun & Clarke, 2012) was conducted on the data for each staff group before merging the themes. The Systems Engineering Initiative for Patient Safety (SEIPS) 2.0 model (Holden et al., 2013) was used to categorise the work system considerations described in these results. This model provides a structure for the study of work done by healthcare professionals (Holden et al., 2013) and describes the work system as consisting of the person (including staff, patients and their families), tasks, tools and technologies, the internal environment, the organisational conditions and the external environment (Carayon et al., 2014; Holden et al., 2013). This project was defined as a service improvement project and as no personal data was captured, only organisational approval was required. The necessary organisational approval was obtained prior to data capturing.

Results

A total of eight focus groups and seven interviews were conducted with staff between January and September 2023 with a total of 28 participants. Six focus groups were held with junior doctors and two with specialist registrars, with focus group sizes ranging from two to four participants. Additionally, seven semi-structured interviews were conducted (one with a medical human resources staff member, one with a registrar, three with nurse practitioners, and two with H24

coordinators). The number of participants and participant characteristics for the different staff groups that took part in the interviews and focus groups has been presented in the table below.

Table 1: The number of participants and participant characteristics for the different staff groups that took part in the interviews and focus groups of the OOH2 project.

Staff Group	Number of participants	Experience: mean (standard deviation)		
		Involved in patient care	H24 Service	Current Role
Nurse practitioners ¹	3 (interviews)	14.5 years (±7.8)	3.0 years (±0)	0.38 years (±0.29)
H24 Coordinators	2 (interviews)	18.0 years (±14.1)	4.4 years (±5.1)	4.4 years (±5.1)
Junior doctors ²	17 (6 focus groups)	3.2 years (±2.6)	0.61 years (±0.26)	0.72 years (±0.27)
Registrars ²	5 (2 focus groups, 1 interview)	8.8 years (±2.0)	1.39 years (±1.45)	1.72 years (±2.01)

¹One individual from the nurse practitioner group did not submit demographic information.

²One individual from the junior doctor group and two from the registrar group did not submit demographic information.

*No demographic information was collected for the interview with the member of staff from medical human resources.

The discussion in the focus groups and interviews explored systems monitoring, how work is organised and monitored, staff wellbeing as well as practical considerations for the development of the professional wellbeing tool. The results from the focus groups and interviews assisted in addressing three key questions, namely:

- What should one measure for professional wellbeing?
- What is currently measured?
- How should one measure professional wellbeing?

In addition to addressing the above questions, key work system considerations emerged that are essential for understanding the context of the concepts identified and the potential implications for measurement, data interpretation and ultimately system redesign.

What should one measure for professional wellbeing?

Staff highlighted that wellbeing is crucial and likely influenced by a variety of factors, including staff levels, workload, prevailing work culture, types of tasks, appropriateness of tasks (i.e. jobs left over from the day shift), access to training opportunities, breaks and the overall work environment. Specifically due to the nature of the H24 work system, some unique and specific wellbeing challenges arise. Namely staff mentioned working on OOH shifts can often feel lonely and isolating and as a result of workload, it can be challenging to attend clinics and training sessions, which then impact wellbeing, as they are important for professional growth. Despite its importance, staff felt that wellbeing was difficult to assess and that currently no wellbeing elements are being captured regularly in the work environment. Staff thought mandatory wellness elements also can be seen as patronising and therefore staff described it as a fine balance between “looking like you are trying to help and looking like you are demanding someone to fill in a form”. Nevertheless, staff, particularly the junior doctor group, highlighted that they would value being asked about their wellbeing.

The key elements that emerged that staff thought were important to assess as part of a professional wellbeing tool were workload, shift evaluation, staffing levels and the role of breaks. These components are interlinked, which was frequently highlighted in the focus group and interview

discussions. Staff highlighted that although workload will be influenced by task complexity, task number as well as the overall schedule of tasks during the shift, it is also different for each individual. This highlights that perception of workload is an important consideration. Additionally, staff highlighted that colleagues working as part of the H24 service may have different workloads as the nature of shifts in the H24 service is not uniform, requiring flexible staffing levels to address fluctuating demands. Staffing levels and role allocation are critical factors in maintaining an effective and manageable workload for the team, and through communication and check-ins between the team, H24 coordinators are able to distribute the workload across colleagues to allow fair task allocation and reduce task burden to ensure equitable rest entitlement. Staff felt that there is a need for support and assistance in managing workload during busy shifts and as a result the evaluation of shift should be key component of wellbeing assessment. Furthermore, if workload is high this may compromise the ability to have a break which may further affect wellbeing.

What is currently measured?

Several mechanisms are in place within the H24 service and the wider Hospital Trust that provide some element of system's monitoring already, with some connected to elements of staff wellbeing. These include H24 initiatives such as the H24 shift QR check-in code, H24 check-out, the new H24 service monitoring system as well as the Hospital Trust's exception reporting procedure. As of 2023, a QR code system was implemented to support shift check-ins within the H24 service to assist in establishing staffing levels in advance of the shift so that gap replacements can be organised in time. Despite some positive feedback about this system, staff had mixed feelings regarding this process, a potential reason for compliance challenges. As the current use of the QR code check-in system is inconsistent, this results in unreliable data. However, this system could provide valuable information regarding current staff levels, and potentially doctors working beyond their scheduled hours, which can indicate workload issues. As part of the check-out feature, the H24 service asks doctors if they have had their break and if they have handed over. The junior doctor group felt the question on breaks was a positive feature.

The H24 service is also developing a tool that aims to assist with shift management as it considers staffing numbers and workload. The current data input includes number of tasks (in categories to create scores), gaps in staff, and subjective assessment of risk ("how the shift feels" - quantified) to calculate an overall score. Data input is required at start and end of the shift and is currently in the trial phase. These types of tools and their outputs are used at strategic and weekend meetings to organise the service and support and standardize decision-making and justify trade-offs.

Exception reporting occurs when doctors miss breaks and work past the end of their shift. Although in general, staff were aware of the procedure, many, especially the junior doctors, were unsure of how to actually undertake this task. Barriers to reporting included difficulty in filling in form, the associated negative implications, time constraints and workload as well as inadequate support and encouragement from seniors.

How should one measure professional wellbeing?

Staff highlighted that there is no current tool available to assess staff wellbeing, however felt that this requires the attention of the service due to current staff morale which impacts performance and wellbeing. The discussions in the focus group and interviews explored considerations for staff that are to complete the tool (data capturing perspective) as well as for staff that are to access the data and results from the tool (post-analysis perspective).

From a data capturing perspective, staff discussed their willingness to participate in completing a wellbeing survey and at what times it would be suitable to administer the survey. Staff also described the data capturing mechanisms and format which included the interface features that should be considered. These are important considerations as staff felt the delivery format will influence whether staff are willing to give feedback on wellbeing.

Key considerations relevant for staff that are to access the data and results included how the results should be feedback to H24 staff, what the response of the team to the results should be as well as important data sharing considerations. For the outputs and response to the tool results, all staff highlighted that tangible changes in the system, improvements and evidence of meaningful actions was one of the most important outputs of this tool. This was as staff wanted to ensure perceived efforts to improve their wellbeing was not a mere tick-box exercise that did not materialise into actions, that they were being listened to and that their feedback was considered and appreciated. Staff also mentioned several important considerations regarding data sharing, namely sharing the results with all the necessary stakeholders to ensure change and support for staff, ensuring appropriate plans are in place so the team can support changes based on the results, and special consideration for governance with regards to storage and use. Additional considerations suggested by staff included ensuring that the different online systems “talk to each other” so it does not create a barrier, and to ensure the wellbeing survey or tool does not become redundant like previous tools or questionnaires.

Additional Work System Considerations

From the discussions, several work system considerations emerged as being relevant for the development of a professional wellbeing tool and that connected some of the previously described themes and elements. These included how work is organised and monitored, roles and tools that support this and the role of information availability and communication in work organisation. These considerations and how they are associated with the wellbeing topics described by participants and how they may be connected have been depicted in Figure 1.

Describing how work is organised and monitored is essential for developing a conceptual framework for a professional wellbeing tool that supports system monitoring and work system change as one needs to understand how work is currently being organised and monitored. In this specific work system (the H24 service), both task and workload management occur at several levels. The first level is at the service level, namely the task prioritisation for task assignment to clinicians on duty and management of workload across the team and shift (*SEIPS: Task, Organisation of Work*). The second level is the task and workload management that occurs at an individual level (*SEIPS: Task, Person*). This too requires task prioritisation and both levels use the same software for workload management (*SEIPS: Task, Tools and technology*). The software provides an automatic task prioritisation system, although this requires checking and therefore the H24 coordinators will also prioritise the tasks submitted. This software also plays an essential role in workload management as it contains the majority of the information available for the tasks. The quality of the information available is dependent on the information uploaded. Sufficient information needs to be included in the task request for the H24 team to check the automatic prioritisation of the task prior to it being assigned to a member of the team (*SEIPS: Task*). Task and workload management at a service level was described as a multifaceted process which extends beyond patient numbers, and is influenced by both objective data such as patient influx within the hospital and the experience of H24 coordinators. However, participants highlighted that effective

workload management at this level relies on robust doctor engagement, communication and compliance with check-ins and breaks (*SEIPS: Organisation of Work*).

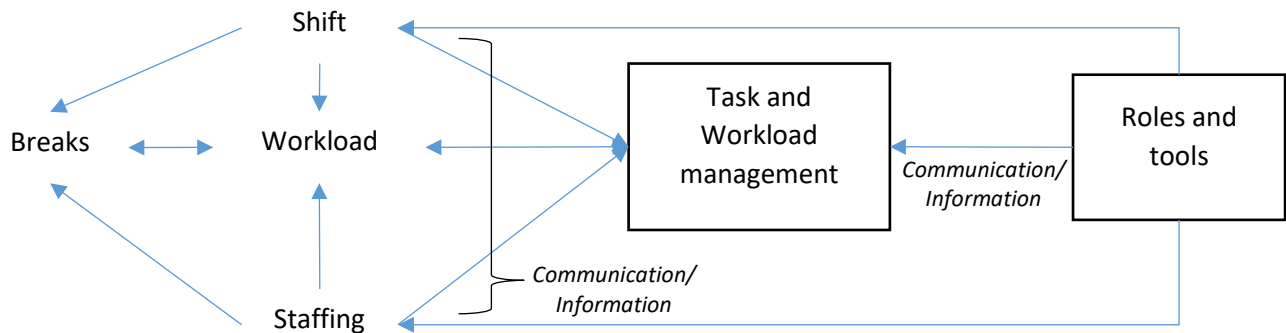


Figure 1: Key wellbeing and work system considerations for the development of a professional wellbeing tool

The results identified several roles of specific H24 team members and tools that support work organisation and monitoring and potential limitations of these. Participants highlighted that with the current tools and systems, the representation of the workload by the tools used may often not be accurate as there is a large amount of variation within the same type of task. Due to the function and structure of the work system, this service has dedicated roles associated with workload management. The coordinators and nurse practitioners of the H24 service play essential roles both in managing the shift and workload of the team. As part of their roles, this includes task prioritisation, task allocation, information retrieval, information transmission, management of individuals as well as the distribution of workload across the team. These roles are involved in optimising workflow and resource allocation within the H24 service, however the effectiveness of task prioritisation and allocation is influenced by information availability, staffing levels and workload.

Already briefly mentioned in the previous results, in order to prioritise tasks and manage workload, access to information and communication is essential. Staff highlighted that the availability and location of information not only plays an essential role in task prioritisation and hence workload management but will also affect task duration and therefore workload itself. Missing information makes it challenging to prioritise tasks, and therefore it is important the task request specify what is expected and why. The software used by the service plays an essential role in information transfer as it is a large source of information, and the H24 service is reliant on the quantity and quality of the information in the task request escalated using the software. As task descriptions often lack clarity and detail, H24 staff will frequently need to locate additional information, which can be time consuming and inefficient. This need to search for additional information contributes to the hidden time requirements of tasks that are not captured in workload assessments. Communication is essential for updating tasks for team coordination and fostering collaboration among team members to address issues, or delays and to be able to share patient information and updates with relevant team members. Generally, nurse practitioners and H24 coordinators felt as if communication is easy among the H24 team during the shift. However, communication with ward staff was described as challenging and time consuming. This occurs predominantly through telephone calls, requires task clarification, and affects the efficiency of task management, potentially leading to delays in task completion and patient care.

Discussion

The outcomes of this phase of the project were to determine key concepts for the basis of a professional wellbeing tool, additional work system considerations, consideration of elements captured already within this work system, and practical considerations for the design and implementation of a professional wellbeing tool. Key concepts identified by staff to include in a professional wellbeing tool included workload, shift evaluation (including breaks) and staffing levels. As highlighted by the previous section, all of these concepts can be connected and affect each other. Furthermore, within the literature, these concepts are known to impact staff wellbeing. The right level of workload is known to contribute to work engagement, and therefore enhancing wellbeing, while excessive workload is associated with increased stress, emotional exhaustion and decreased performance (The National Academies of Sciences Engineering and Medicine et al., 2019). Workload was explored in depth in the focus groups and interviews, as a more thorough understanding of this concept in this work system was required so that the professional wellbeing tool could support system change. To do this, an understanding of how workload is currently assessed and managed, both at an individual and service level was required. Shift work characteristics have also been associated with a variety of professional wellbeing elements such as job performance, job satisfaction and psychological wellbeing (Dall'Ora et al., 2016). Longer shifts have also been associated with greater burnout (The National Academies of Sciences Engineering and Medicine et al., 2019). Breaks within shifts has also been identified as affecting alertness, fatigue and performance (Dall'Ora et al., 2016). Staffing levels, which are known to affect patient quality, has also been shown to affect staff experience, with a negative impact on staff wellbeing due to the workforce being overstretched and supplemented by temporary staff (Sizmur & Raleigh, 2018).

Due to the unique configuration of the work system of the H24 service, with the team distributed across the hospital and connected by one key piece of software used for task and team workload management (Carman et al., 2022), this results in specific requirements for communication and information access which will not only impact the performance of the service but also the experience of work by its staff members. Furthermore, the link between communication and information access to the other wellbeing concepts has been highlighted in the results and consequently this should be considered as a key concept for a professional wellbeing tool. Digital communication, while providing flexibility and thereby enhancing wellbeing, can also be seen as demanding and having a negative impact on wellbeing (Bordi et al., 2018).

Conclusion and Next Steps

In addition to this phase of the project, a “snapshot” of staff wellbeing using a validated tool was conducted and key themes associated with staff wellbeing from an extensive work systems analysis from a previous project were extracted. These three project elements were used to develop a conceptual framework on professional wellbeing associated with work system components. The framework will not only provide guidance on the development of the tool but also for the measurement and analysis of factors that are relevant for professional wellbeing and those associated with work system redesign for the H24 service. This project is currently ongoing and is building on these results by describing potential indicators for the wellbeing tool.

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