

Integrating Human Factors within a large NHS Trust

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ABSTRACT

Achieving integration of Human Factors and Ergonomics (HFE) within a large NHS Trust is a challenging, daunting and lengthy task. Despite recognition from a number of organisations within the NHS that HFE can bring benefits to both staff and patients, integration is in its infancy. The NHS Trust considered in this paper has a long established Ergonomics service focusing on the reduction of musculoskeletal problems in staff. In addition, the recognition of non-technical skills had developed through high fidelity simulation training. The Trust aimed to bring both elements together to develop broader HFE knowledge and application. A multidisciplinary Human Factors Faculty (HFF) approach was therefore pursued to create a platform to drive the integration of HFE. Two of the main challenges faced by the HFF were improving the understanding of HFE and limited funding. The platform approach adopted by the HFF pulls in interested people from within the Trust to initiate and support a variety of HFE projects. This has enabled awareness of HFE to grow quickly within the Trust through a variety of means with minimal funding and resources. There are challenges involved with developing and sustaining a Faculty of this nature including maintaining skills, credibility, quality of work and the reliance of a large amount of good will! However, the diversity and quantity of HFE projects and conversations carried out since the inception of the HFF is testament to the impact that such a multidisciplinary platform approach can have within a large NHS Trust.

KEYWORDS

Human Factors, Integration, Healthcare

Introduction

The 'Human Factors in Healthcare A Concordat' from the National Quality Board and the recently published 'Human Factors for Health and Social Care White Paper' by the Chartered Institute of Ergonomics and Human Factors both recognise the importance of Human Factors and Ergonomics (HFE) within the NHS and the benefits it can bring to optimise wellbeing and safety for staff and patients and strive for clinical excellence.

This case study considers how a large NHS Trust in England is developing an existing Ergonomics Service to broaden its scope to deliver HFE across all areas of the organisation for the benefit of staff and patients.

The problem

The NHS Trust being considered in this case study began its relationship with Ergonomics in the late 1990's, when, following an improvement notice from the Health and Safety Executive relating to display screen equipment, it employed its first Ergonomics Adviser.

The post sat within an Occupational Health setting and was largely focused on staff musculoskeletal disorders. This valuable role spanned all staff groups and aimed to reduce the instances of and severity of musculoskeletal problems in staff by considering the design of tasks, equipment, environment, work processes, systems and the impact this had on people and posture. The post holder was involved in the selection and procurement of equipment (both clinical and non-clinical) and the design of work spaces including a new hospital for the Trust. It was recognised that the role was only able to consider a small element of Human Factors and Ergonomics (HFE). Whilst the consideration of musculoskeletal problems in staff is an integral part of staff health and wellbeing, focusing on this area alone limits the positive impact that HFE can have to both staff and patients.

Concurrently, interest in Human Factors (HF) was growing in the Trust as a result of high fidelity simulation training and the recognition by many royal colleges of the importance of non-technical skills training for medical staff. This has led to a misconception of HFE with HF seen as human performance and Ergonomics as anthropometrics. This resulted in both unrecognised areas of HF application and a lack of consistent approach as a result of this misunderstanding.

Investigation & analysis

How can the transition be made from a musculoskeletal focused Ergonomics service and a human performance focused set of HF trainers to a combined and collaborative HFE integration in the same organisation? The organisation employs over 15000 staff and as a large healthcare provider is a collection of different specialities. How can a single group integrate HFE across such scope? It was felt that the most effective approach was to empower those in positions of leadership with HFE approaches and skills and to harness the enthusiasm that many staff had for a new approach to patient safety, staff moral and system performance.

An initial challenge was the current understanding of HFE in order to enable staff to recognise the full scope and potential of HFE in relation to incident investigation, equipment and system design. Education was fundamental for them to recognise its value and understand its impact when implemented early and used in a proactive manner. Another challenge was funding. With healthcare budgets under unprecedented scrutiny post-austerity, no funding was available for additional C.ErgHF posts. A core group of staff began to discuss these challenges and establish a channel through the organisation, eventually facilitating a short presentation to the Chief Operating Officer's group. This led to an executive interest in HFE and some initial funding for basic HFE training forming a Human Factors Faculty (HFF). The HFF provides an organisational platform to drive the integration of HFE; this is an unusual strategy within healthcare whereby historically groups would set themselves up as a service provider for example, by offering specific training or delivery. The HFF acts as a platform pulling in interested people, initiating and supporting their projects and aiming for cultural change.

The HFF is multidisciplinary which was felt key to spanning a large Trust. There is representation from the existing Ergonomics service, Clinical Risk, Nurse Education, Critical Care, Theatres, Microbiology and ED. The HFF is led by an Executive Director within the Trust. The vision of the

Faculty is to integrate the relevant aspects of HFE practice into every area of the Trust's patient care, staff wellbeing and organisational performance as expected by the Care Quality Commission, NHS Improvement, NHS England, NHS Employers, Monitor, The NHSLA, The GMC and The NMC.

Resolution of the problem

The HFF produced a strategy setting out four key strategic domains for HFE integration: organisation culture, work environment and medical devices, system design and reconfiguration and incident investigation. In addition, the strategy set out the methods available and a timeline for implementation. The strategy supported the application of existing research, knowledge and tools to optimise system performance.

At its inception, initial projects were identified and considered such as development of media and training courses to support awareness. As awareness of HFE grew, the HFF were approached to undertake a number of other projects including incorporation of HFE into: procurement (identification of new sonography machine, design of phlebotomy trolleys and theatre trolleys); risk and incident investigation (incorporation of an HFE approach into the Serious incident and investigation process and development of a new HFE coding structure for incidents to facilitate analysis of recurrent themes); clinical pathways (improving processes in ED, HFE integration into the reconfiguration of the Crash Team); medicines safety (switch from Enoxaparin to Tinzaparin, identifying the hazards of similar drug packaging).

Full HFE integration will take years for an NHS Trust to achieve. Whilst the NHS Trust considered is only part way through this process, a comparison between the levels of HFE awareness in 2018 as opposed to 2015 can be made by considering the breadth of projects undertaken by the HFF since its inception in 2016. Whereas prior to 2016, the HFE projects undertaken in the Trust largely focused on the reduction of musculoskeletal disorders, the broader work now has a greater systems focus.

Impact & implications

A multidisciplinary HFF can facilitate 'champions' in a broad range of areas within an NHS Trust. This enables awareness of HFE to grow quickly through conversations, teaching and incorporation of HFE into a variety of projects. By facilitating 'champions', the placement of HFE knowledge throughout an NHS Trust can be achieved with minimal funding and resources. Caution must however be taken to uphold credibility and quality of work when the majority of the HFF members have limited HFE training.

Since the HFF inception, over 600 Trust staff have received HFE education, with many more informal discussions taking place. In order to achieve better integration of HFE within the Trust, there must be a greater understanding of HFE and a common language spoken. It is only through this understanding that HFE integration can be seen in procurement, risk and incident investigations, clinical pathways and medicines safety.

References or further information

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