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Exploring the Perspectives of Healthcare Professionals Concerning the Use and Utility of the Hospital Gown to Develop Theoretically Informed Behaviour Change Interventions

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Abstract

The tenets of dignity, safety and privacy are potentially challenged when patients are required to remove their own clothes and wear the hospital gown for medical procedures. This study adopted a mixed method analysis informed by the theoretical domains framework (TDF) of healthcare professionals' (HCPs') perspectives (n = 2264) and experiences in relation to the use and utility of the gown. HCPs' perspectives in relation to the impact of wearing the hospital gown on patient wellbeing and suggested alternatives and/or improvements to the gown were explored. Findings revealed that the gown was often used when it was not medically necessary. The categories of meaning and associated TDF domains were: (1) Adverse impact on patient wellbeing (emotion); (2) Lack of dignity (beliefs about consequences); (3) Increased sense of dependency and vulnerability (social role and identity); (4) Hinders patient autonomy and recovery (beliefs about consequences & reinforcement); (5) Reduced patient mobility (beliefs about consequences); (6) Feeling institutionalised (environmental context and resources), and (7) Positive impact (optimism). The need for alternatives and/or modifications to the gown with a focus on a person-centred approach to its design was emphasised. Obstacles to staff promoting alternatives to the gown and challenges to making institutional changes were identified. Behavioural change interventions aimed at HCPs' practices associated with the use of the gown are recommended to challenge cultural norms and practices associated with the gown and to improve the patient experience.

Keywords: Hospital Gown; Dignity; Safety; Quality; Wellbeing; Person-Centred; Behaviour Change

Abbreviations: HCPs: Healthcare Professionals; TDF: Theoretical Domains Framework.

Introduction

Increasing focus on patient centred care represents a shift from disease-centred approaches to the development and practice of healthcare towards those that integrate patient's needs, experiences and perspectives [1]. Patient centred care has been a key component of the world-wide healthcare agenda [2-5] with recent health policy drivers advocating a patient centred hospital culture [6]. The World Health Organisation identified ensuring patient centred care within health systems as one of the aims of Health [7]. In

light of human rights legislation that promotes privacy of the body, safety and dignity of the person Human Rights Act and the need to recognise the 'patient-as-person' Grover S, et al. [8,9], the tenets of dignity, safety and privacy are potentially challenged when patients are required to remove their own clothes and wear the hospital gown for medical procedures [10,11].

Yet, for healthcare professionals (HCPs) there can be tensions between supporting these modern reforms to deliver patient-centred, compassionate and dignified care and meeting the clinical needs of the patient [12]. Such tensions include prioritising infection control and having access to the patient's body for medical interventions, whilst maintaining patient dignity and privacy during such procedures [11,13]. Being unwell in hospital is associated with feeling vulnerable and dependent on HCPs to provide medical care and treatment [14,15]. Within this relationship dynamic there is often inequity between a patient and healthcare professional in terms of medical knowledge, decision making and social status [16-18]. Being asked to wear a backless hospital gown, widely perceived to be "the most vulnerable garment" [19] can exacerbate this power imbalance, increase feelings of vulnerability, loss of agency and negatively impact feelings of psychological safety [20]. Feeling powerless is a risk factor for developing post-traumatic stress in response to traumatic experiences; as such the gown may increase risk of medical trauma [21-23].

Despite reports that the hospital gown is uncomfortable, embarrassing to wear and compromises both patient dignity and mobility, it has remained relatively unchanged since its origins [24-26]. General hospital gowns are often offered to patients as a one-size-fits-all standard for both males and females in an A-line dress silhouette [27]. Traditional gowns are used to allow access to the body during medical procedures, protect clothing from bodily fluids and for sanitation. They are designed to withstand being washed and reused many times. They often have a uniform design and are tied with two sets of laces at the back; one at the top of the neck and a second in the middle of the lower back [21]. They are usually white and covered in a distinctive, repetitive pattern of dots [26].

Origins of the Gown

It has been proposed that the backless gown finds its roots in early public health measures to control the spread of disease. In the 1860s, Joseph Lister 'the father of modern surgery' applied Louis Pasteur's 'germ theory' to surgery by introducing aseptic precautions such as handwashing, masks, sterilising surgical instruments with carbolic acid and the use of clean surgical gowns. Prior to this, surgeons wore their own clothes, sometimes covered by a 'butcher's apron' that was often covered in blood and puss. Due to this practice, around half of patients undergoing surgery died post operatively from sepsis. The introduction of aseptic methods significantly reduced such deaths from 'surgical fever' [28]. Florence Nightingale widely promoted these new measures whilst nursing soldiers during the Crimean war, helping to influence the healthcare culture and improve patient safety [29]. Further, early modern hospitals often served the disadvantaged (with wealthier people opting to be treated at home) at a time when removal of personal clothing was promoted to prevent the spread of infection and parasites. The uniform design of the gown may have been adapted from those worn by surgeons as aseptic precautions to prevent the spread of post-operative infections [28,30,31]. Initially, a 'theatre gown' with a backless design would assist with their application and removal from the unconscious patient and offer infection control [32-34]. Given this historical context, it seems likely that the current hospital gown is a 'medical relic' unchanged in design for the best part of a century.

Contemporary Uses and Experiences of Wearing the Gown

Currently, the gown is commonly used for many hospital procedures; both inpatient and outpatient. Yet, little research has explored the utility of the gown or the patient experience of wearing it. One of the first studies to be conducted to address this consisted of a small grounded-theory study involving staff and patient interviews in a healthcare setting in Sweden; the aim was to illuminate patients' personal meanings and experiences of wearing patient clothing. Analysis of the interviews consisted of four themes: (1) being comfortable and cared for; (2) being depersonalised; (3) being stigmatised; and (4) being devitalised [35]. However, this study included a range of hospital clothing, including pyjamas and dressing gowns, therefore the findings from this study are not specific to the gown. A further qualitative study, which focused on patient dignity in an acute hospital in England (Baille, 2008), reported that despite nursing staff and healthcare associates identifying bodily exposure as a threat to patient dignity, when observed in practice they seemed unaware of the risks associated with patient exposure posed by the routine use of the gown for medical procedures. Similarly, researchers [36] conducted a qualitative study in Finland which considered hospital clothing from both a patient and carer's perspective. They developed three themes that highlighted how hospital clothing was associated with (1) being in the 'patient role', (2) lack of control and (3) lack of privacy. Carers noticed that patients took more responsibility for their own care when they reverted to wearing their own clothing in both hospital and residential settings. Further, in a survey study conducted across 5 teaching hospitals in Canada, the presence of lower-body garments was recorded during routine patient admissions. The eligibility of patients

to wear lower-body attire was determined by physicians. The study found that of 127 patients included in the study, only 14 were given the option of wearing lower-body garments, even though 57 patients were deemed eligible to do so. The findings suggested that in order to improve the patient experience, eligible patients should be encouraged to wear lower-body garments when full home attire is not feasible [37].

Recently, we explored patients' views and experiences of wearing the hospital gown within the UK context using a sequential, multi-method approach [11]. The first study consisted of in-depth interviews (n = 10) with adults living with a lifelong chronic health condition. The study found three major themes: (1) embodying the sick role, (2) relinquishing control to medical professionals and (3) enhancing physical and emotional vulnerability. In the second study we conducted a cross-sectional online survey exploring patients' views (n = 928) and experiences of wearing the gown. The majority of participants reported that they felt exposed, self-conscious and vulnerable when wearing the gown, and that they had been asked to wear the gown despite feeling unsure that it was medically necessary. Over half of the participants reported that they felt uncomfortable when wearing the gown, and less than 10% reported that it made them feel 'cared for'. Comparable findings were reported in a recent qualitative study [38] conducted in the US which explored patients' and staff derived meanings related to the hospital gown. Patients (n = 10), nurses (n = 10) and physicians (n = 10) were interviewed and the following themes were developed: (1) gowns reduced self-esteem, (2) gown were designed to meet the needs of the care providers rather than the patients, and (3) gown colour options would be empowering. Patients also reported wanting to wear their own clothes but believed they were not allowed to do so. Nurses and physicians viewed the gown as useful for ease of access to patients, although they reported that the ties were often time consuming to secure which made their job more difficult. They also expressed feelings of distress associated with seeing patients in gowns.

Together, these studies have highlighted that while there are perceived limitations and associated negative impact on patients in wearing the backless hospital gown, earlier work incorporating the perspectives of HCPs has largely been small scale and limited. There is also a lack of theoretically driven frameworks to help understand the impact of wearing the gown from HCPs' perspectives. Such research has the potential to inform future interventions to foster change in practices concerning the use and design of the gown.

The Current Study

The current study aimed to build on earlier work [11,26,35,36,38] by exploring HCPs' views on the hospital gown across a wide range of healthcare settings within the UK context. Specifically, we were interested in exploring the utility of the gown and how HCPs considered wearing the gown impacted on patients' mental wellbeing. In order to explore HCPs' perspectives in relation to the impact of wearing the gown on patient wellbeing, the Theoretical Domains Framework (TDF) was used [39,40]. It was envisaged that using the TDF in this manner would help inform future intervention development aimed at changing HCPs' behaviours associated with the use of the gown across diverse practice settings. For example, using the TDF can help create suggestions on required environmental resources to support patients' adaptive emotional responses and improve behavioural regulation during hospital procedures [41]. As well as gaining insight into practices associated with the gown, we sought to explore HCPs' views in regard to any proposed modifications and/or alternatives to the gown that could inform future healthcare policy and practice guidelines focused on patient centred care.

Method

Participants

Participants (n = 2264) were HCPs who were recruited through convenience sampling. Inclusion criteria stated that participants had to be 18 years of age or over and employed within a health and/or social care setting (for at least 6 months) in the UK.

Design

A cross-sectional online survey using Qualtrics was conducted. The questions used in the survey relating to HCP's views on the hospital gown were informed by earlier work [11] and sought to understand the perceived utility of the gown as well as the impact of wearing the gown on patient wellbeing. The survey also included open-ended questions that allowed participants to add their own views in relation to the utility of the hospital gown. The TDF was then used to identify individual, social and environmental factors [39] that may have influenced HCPs' perspectives in relation to the impact of wearing the gown on patient wellbeing. Finally, HCPs' views on proposed modifications and/or alternatives to the gown were explored.

Procedure

Following ethical approval from the University Ethics Committee (ID: 1660), an advertisement poster was circulated through social media (LinkedIn, Twitter and Facebook) and NHS-specific platforms and partner organisations within the UK to aid participant recruitment via an online link using the Qualtrics platform. Participants

were presented with the inclusion/exclusion criteria, the objectives of the study, the participant information sheet and a consent form. Participants were provided with the chief investigator's contact details for further information on the study and the opportunity to ask questions about the research. They were made aware that their responses were completely anonymous. After informed consent was obtained and upon completion of the survey, a debrief form was presented. Data was collected between December 2019 and March 2020.

Analysis

The data was cleaned and analysed using SPSS v26 software. We first examined descriptive statistics relating to participant socio-demographic characteristics (Table 1). Kurtosis and skewness scores and their cut-off values were used to examine the assumption of normality [42]. Significance level of $p < 0.05$ was used for analyses of closed question data. Participants' responses to closed questions were analysed in a binomial manner (yes = 1; no = 0), and effects were calculated through cross-tabulations and Pearson chi-square.

Participants' responses to open ended questions in the survey were analysed using content analysis [43]. This process followed three main phases of preparation, organisation and reporting of the textual data [44]. The preparation stage began by reading the open-ended responses to survey questions as a whole and in detail. This allowed for the context of concepts to be fully understood before being extracted and organised into initial codes [45]. Constant comparison of the text [46] was used during the preparation phase whereby the first coders within the research team initially analysed the data, with the review being undertaken by the chief investigator, enabling both category refinement and research rigour [47,48]. The researchers returned to the data several times during the analytical process to ensure that the results showed a strong connection to the analysed data [49]. Codes were then grouped by commonality, reduced into subcategories, then combined into categories of meaning (key categories) which represented the highest level of abstraction for the reporting of the results [50]. Coded data were then mapped onto the most relevant TDF domains. Once organised, inter-reliability in the categorisation of concepts was conducted between the coders within the research team. Cohen's Kappa [51] was used to assess inter-rater reliability among coders revealing substantial agreement (kappa=.81). The final coded data were treated as variables for analysis conducted using Microsoft Excel, using descriptive statistics (frequency counts and percentages) based on the total number of coded comments.

Results

Participant Characteristics

Participants (total sample n = 2264) consisted of HCPs who had experience of utilising the hospital gown in their practice settings (Table 1). Participants were mainly female (n= 2114; 93.3%), nurses (n = 1228; 54.2%), of white ethnic origin (n = 1981; 87.5%), aged between 18-71 (mean = 32.6; SD = 10.8) and with approximately 10 years of working experience in healthcare (mean = 10.1; SD = 3.2).

Sample characteristic of HCPs	Frequency (N) Total sample (n =2264)	Sample (%)
Gender:		
Female	2114	93.3
Male	133	5.9
Transgender	2	0.1
Non-binary	10	0.4
Prefer not to say	5	0.2
Ethnicity:		
White origin (general)	1980	87.4
Black African	36	1.6
Asian	162	7.2
Mixed Race	83	3
Prefer not to say	3	0.1
Professional category		
Nurses	1228	54.2
Allied health professionals	356	15.7
Midwives	203	8.9
Nursing assistants	173	7.6
Doctors	21	0.9
Surgeons	10	0.4
Other (not mentioned)	273	12.1

Table 1: Participant characteristics.

Healthcare Professional's Experiences with the Hospital Gown

All participants (n = 2264) had direct experience of working with patients' wearing the hospital gown and the majority also had experience of being a patient and having to wear the gown themselves (n = 1732; 76.5%). Further, the majority of participants had seen a close family member and/or friend in the gown (n = 1868; 82.5%). The majority

of participants (n = 1900; 83.9%) had experience of a patient being asked to wear two gowns (double gowning); one fastening at the back and the other over the top fastening at the front (e.g. as a means to try and prevent a patient feeling exposed and/or cold). Less than half of the participants (n = 1104; 48.7%) thought that when patients wore the gown it was medically necessary.

Impact of Wearing the Gown

Participants (n = 2264) were asked whether they felt that wearing the gown impacted on a patients' mobility; with over 2 in 5 of participants reporting that it adversely impacted on patient mobility (n = 926; 40.9%). The majority of participants believed that wearing the hospital gown negatively impacted on how patients' felt about themselves (n = 1352; 59.7%), while participants were less inclined to think that it adversely impacted how hospital staff (n = 633; 27.9%) or others viewed the patient (n = 757; 33.4%). The majority of participants reported that they thought that wearing the gown resulted in patients' feeling exposed (n = 2081; 91.9%), uncomfortable (n = 1949; 86.1%), vulnerable (n = 1817; 80.3%), self-conscious (n = 1740; 76.9%) and cold (n = 1596; 70.5%). Nearly two thirds (n = 1479; 65.3%) of participants had offered a patient the option of remaining in their own clothing as an alternative to the gown, 43.5% (n = 984) had wanted to do this but felt unable to. The majority of the participants (n = 1515; 69.9%) were unaware of any alternatives to the hospital gown in their places of work.

Patient Wellbeing

Participants were asked about their views in relation to the hospital gown, with a focus on the impact on patient wellbeing, in an opened ended survey question. In total, 43.1% of participants (n = 974) responded to the question which generated 408 coded comments. A total of 39 associated codes were then developed, resulting in 7 categories. Six of 7 of the categories highlighted negative or adverse factors associated with wearing the gown and its impact on patient wellbeing. These categories were coded according to the most relevant domains in the TDF (Table 2). The categories of meaning and associated TDF domains were: (1) Adverse impact on patient wellbeing (emotion); (2) Lack of dignity (beliefs about consequences); (3) Increased sense of dependency and vulnerability (social role and identity); (4) Hinders patient autonomy and recovery (beliefs about consequences & reinforcement); (5) Reduced patient mobility (beliefs about consequences); (6) Feeling institutionalised (environmental context and resources), *and* (7) Positive impact on wellbeing (optimism).

Relevant domains of the TDF	Categories of meaning (N = 7 key categories)	Number (%) of comments associated with category (N = 408 coded comments)	Associated codes (N = 39 sub-codes)
Emotion	Adverse impact on patient wellbeing *(e.g. patient feels self-conscious")*	103 (25.2%)	Stressed Anxious Embarrassed Trauma Worried Self-conscious Panic Fear Apathy
Beliefs about consequences	Lack of dignity *(e.g. "patient feels exposed and it's undignified")*	99 (24.3%)	Feeling exposed Loss of self-respect Undignified Lack of privacy Stigma
Social role and identity	Increased sense of dependency and vulnerability *(e.g. "It's dehumanising")*	79 (19.4%)	Dependent Lack of safety Vulnerable Loss of control
Beliefs about consequences & Reinforcement	Hinders patient autonomy and recovery (e.g. "hospital gown is associated with the sick role")	44 (10.7%)	Lack of power Stuck in patient role No choice Cold Uncomfortable Unquestioning Negative impact on recovery
Beliefs about consequences	Reduced patient mobility *(e.g. "not practical for mobility")*	36 (8.8%)	Immobile Trapped Lack of movement Sedentary Fear of exposure
Environment context and resources & Social influences	Feeing institutionalised and disempowered *(e.g. "hospital gown evokes institutionalised feeling")*	27 (6.6%)	Dehumanising Unable to question Disempowered Hospital property Stamped clothing Like a prisoner
Optimism	Positive impact *(e.g. "helps the patient feel cared for")*	22 (5.4%)	Feeling cared for All equal Convenient

Table 2: Impact of the hospital gown on patients' mental wellbeing (total participants n = 974).

Participants were asked whether they felt that there was any need to makes changes or find alternatives to the hospital gown in an open-ended question. In total, 44.3% (n = 996) of the participants responded to this question which generated 549 coded comments. A total of 36 associated codes were then developed, resulting in 5 categories of meaning (Table 3). The majority of these categories of meaning related to alternatives or modifications to the hospital gown, however, 1 category identified that no changes were needed for the gown. The categories were: (1) The need for an alternative to the backless hospital gown; (2) Modifications to the gown; (3) The gown should be person-centred; (4) Keep the gown, *and* (5) Obstacles to staff promoting alternatives to the gown.

Categories of meaning (N = 5 key categories)	Number (%) of comments associated with category (N = 549 coded comments)	Associated codes (N = 36 sub-codes)
Alternatives to the gown *(e.g. "the gown needs a complete redesign")*	141 (25.6%)	Patient wearing own clothes Redesign of patient clothing
Modifications to the gown and its procedural use *(e.g. "it needs changes to the material and fasteners")*	133 (24.2%)	Closed at the back Changes to fasteners to reduce exposure Different colours Choice of hospital clothing Adapted to accommodate medical equipment Change fabric so less transparent and comfort Only used when medically necessary
Gown needs to be person-centred *(e.g. "it needs to be designed with the patient in mind")*	95 (17.3%)	Patient-centred Dignified Comfortable Sense of agency Safety Empowering Trauma informed Choice Empowering Only used for medical necessity
Keep the gown – no change *(e.g. "patients need to wear gowns")*	92 (16.8%)	Staff acceptance of gown Necessary Hospital policy Suitable for hygiene and cleanliness Patient acceptance of the gown Institutional acceptance of the gown Gown allows staff to perform their role effectively Accessibility for staff Protects patients' own clothes from soiling/damage Personal own clothing not suitable
Obstacles to staff promoting alternatives to the gown *(e.g. "resistance to changing the gown")*	89(16.2%)	Cultural barriers Institutionalisation Inability to challenge the status-quo Lack of resources Habitual practices Resistance to change Policies of hospital institutions

Table 3: Suggested alternatives or improvements to the hospital gown (total participants n = 996).

Discussion

This study aimed to understand HCPs' views and experiences of using the hospital gown within their practice settings to better understand current use and perceived utility of the gown, its medical necessity and its impact on patients' wellbeing. The findings support and further build upon earlier work conducted with patient populations [35]; the majority of HCPs viewed the gown as being impractical, not fit for purpose, adversely impacting on patient wellbeing and that there is a need to provide alternatives to the gown or at least recommended modifications to its existing design. These findings suggest that the standard, backless hospital gown is inconsistent with a patient-centred approach to medical care that aims to promote compassion, dignified care and safety [52-55]. Further, the majority of HCPs reported that they felt that the gown was often used when it was not medically necessary, reduced patient mobility and that practices such as 'double gowning' were an unsatisfactory means by which to reduce patients' feelings exposed, cold and/or vulnerable. While a minority of the participants were of the view that the gown was necessary and/or required no modifications, the majority reported the need for alternatives such as patients having the option to bring their own patient wear, reducing the use of the gown to occasions when it is medically necessary or modifying its existing design to reduce patients' feeling exposed. These findings are in support of recent work which aims to increase patient dignity through adopting a patient-centred approach to the gown's design and use [26,56,57]. Efforts to create new patient attire that begins to address these needs is underway [21,58]. Despite such developments, some of the HCPs in the current study pointed to resource implications, institutional acceptance of the gown and barriers to challenging hospital policies and practices; this is likely due to wider issues relating to resistance to change within healthcare systems

[59]. Understanding HCPs' perspectives and experiences in implementing behaviour change and challenging cultural norms is critical to ensuring advances in health psychology are applied to maximise patient health and wellbeing outcomes [60,61]. Implementing new practices and/or changing existing practices, such as presenting alternatives or modifications to the hospital gown, requires changes in individual and collective behaviours among HCPs [39]. The TDF provided a theoretical lens through which to view the cognitive, affective, social and environmental influences on HPCs' views in relation to the impact of wearing the hospital gown on patient wellbeing. The domains that were identified as most relevant were social/professional role and identity, beliefs about capabilities, optimism, beliefs about consequences, reinforcement, environmental context and resources, social influences and emotion. Such domains provide theoretically driven insights into factors that influence HCPs' perspectives in terms of the perceived impact on patients' wellbeing associated with wearing the gown and provide a theoretically informed evidence base from which to embed future interventions that aim to change existing practices associated with the use of the hospital gown across a range of practice settings.

Limitations and Recommendations

A clear limitation of our study was the fact that participants were mainly females, of white ethnic origin, working in the nursing profession within the UK context. Unfortunately, it was not possible to control such factors due to the study design using an online invitation to participants to complete a cross-sectional survey using convenience sampling. Future studies could aim to target the inclusion of the perspectives of HCPs from more diverse socio-demographics (e.g. ethnic minorities, LGBTQ+, economically disadvantaged and protected characteristics) and ethnic origins [62,63]. Healthcare disparities may be reduced through a patient-centred approach to patient clothing [64] as well as an improved understanding of the cultural context of diverse patient and staff populations across a range of health and/or medical setting [65].

It is important to note that the data collection took place in the months prior to the onset of the COVID-19 pandemic. The pandemic heightened requirement for infection control with protective clothing, including hospital gowns. Some studies suggest that current gowns do not meet performance specifications for infection control [66]. It is essential that any modifications to the gown's design and use optimise patient safety and infection control; further work is needed to explore this post-COVID-19 pandemic. Incorporating a patient-centred approach into the design of the gown as well as consideration of patient clothing more generally is fundamental to quality care [67] and to potentially mitigating the risks of medical trauma [23]. Our ongoing work aims to consider the consequent impact of COVID-19 on patient centred care and practices associated with patient clothing more generally. A further limitation of the study concerns its cross-sectional design, therefore, the timing of the snapshot data is not guaranteed to be representative. It is also important to note that for the content analysis of participants' responses to the open-ended questions, the percentages reported relate to total coded responses and are not generalisable or indicative of the total sample responses. Future work could adopt the categories of meaning identified in the current study to inform the development of future surveys that seek to further illuminate HCPs' perspectives on the gown.

It would be beneficial for future work to develop a psychometrically sound measure of patients' views and preferences for patient clothing (e.g. the gown, wearing pyjamas, personal clothing) across different healthcare contexts, to further build upon the current research and improve the generalisability of future work in this field; this is aligned with the increasing impetus on the need for more patient reported outcomes in health care delivery and service provision [68,69]. Longitudinal research will help better understand the long-term impacts of wearing the gown on patient well-being. It would be interesting to explore this further by considering the impact of hospital clothing on loved ones and caregivers of patients undergoing medical procedures; such work would help us understand the broader impact on wider familial dynamics and support networks. Given that theoretically driven-behaviour change interventions are more effective than those without a theoretical base [70] it is further recommended that future behavioural change interventions aimed at changing HCPs' behaviours associated with the use of the gown be informed by the relevant domains of the TDF [71]. Such interventions could then be linked to behaviour change techniques, which are observable, replicable, and irreducible active ingredients of an intervention [72-76]. Further in-depth research focused on intervention development adopting TDF analysis using both qualitative and quantitative elements is recommended.

Conclusions

The quality of healthcare has steadily improved and moved to a more patient-centred model; inpatient attire is an opportunity to continue to improve the patient experience in hospitals and outpatient settings [37]. Although there are shifting ideals about personalised care in the medical industry, conventional hospital gowns are still associated with feelings of vulnerability and exposure for patients, a lack of dignity, and a sense of disempowerment [11]. The findings from the current research, albeit limited in terms of making causal inferences given the cross-sectional design,

suggest that that HCPs' view that wearing the gown has a negative on patient wellbeing and that alternatives and/or improvements to the gown are needed. Further, the use of the hospital gown should be limited to medical necessity. Obstacles to HCPs promoting alternatives to the gown and challenges to making institutional changes were identified. Future behaviour change interventions aimed at changing HCPs practices associated with the gown would benefit from drawing upon the TDF in order to incorporate the cognitive, affective, social and environmental influences on HPCs' behaviours. Such interventions may help challenge cultural norms and practices associated with the gown and assist in embedding a more patient-centred approach to patient clothing. Inclusion of these recommendations in relevant health care policies and practices would help improve the patient experience given that it prioritises patient choice, dignity, safety and privacy.

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Declaration of Interest Statement

No potential conflict of interest was reported by the author(s).

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