Title page: 'When patients wear backless gowns, they take on the "sick role" and become dependent': Exploring the perspectives of healthcare professionals

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. The current study aimed to explore healthcare workers' views (n = 3371) on the utility of the hospital gown and its perceived impact on patient wellbeing using a cross-sectional online survey with closed and open-ended questions. Findings suggested that the gown was often used when it was not medically necessary and that it was perceived to negatively impact on patient wellbeing (leaving patients feeling uncomfortable, vulnerable, cold, exposed and self-conscious). The majority of healthcare workers suggested alternatives and/or modifications to the hospital gown in order for it to be more patient centred. Barriers and practical challenges in promoting patients wearing their own clothing were identified with recommendations for improving choice, quality, safety and dignity in patent clothing across diverse healthcare settings.

Keywords: Hospital gown, dignity, safety, quality, wellbeing

Introduction

Recent policy drivers advocate a patient centred hospital culture in the light of human rights legislation that includes privacy of the body and dignity of the person (Bokhour et al, 2018; Human Rights Act, 1998; Scane et al, 2022; Woogara, 2005). Yet, for healthcare professionals there can be tensions between supporting these modern reforms to deliver person-centred, compassionate and dignified care and meeting the clinical needs of the patient, including infection control and having access to the patient's body for medical treatments, especially during acute care. A tension that is perhaps most apparent in use of the backless hospital gown (Cogan et al, 2020; Morton et al, 2020; Wellbery & Chan, 2014). Being unwell in hospital is associated with feeling vulnerable and dependent on medical healthcare professionals to provide medical care and treatment (Detsky & Krumholz, 2014; Sutton et al, 2023). Within this relationship dynamic there is often inequity between a patient and healthcare professional in terms of medical knowledge, decision making, access to healthcare, social status and finances (Guggenbuhl-Craig, Adolf, 1998; Timmermans, 2020). Being asked to wear a backless hospital gown can exacerbate this power imbalance, increase feelings of vulnerability, loss of agency and negatively impact feelings of psychological safety. In turn, this may contribute to an increased risk of developing post-traumatic stress in response to medically traumatic experiences (Frankel et al, 2021, Morton, 2020; Morton et al, 2022). However, despite reports that it is uncomfortable, embarrassing to wear and compromises patients' dignity and mobility the hospital gown has remained relatively unchanged since its origins (Fitzgerald, 2017; Syed et al, 2022).

It has been proposed that the backless gown found its roots in early public health measures to control the spread of disease (Schlich & Strasser, 2022). Florence Nightingale revolutionised modern nursing influenced by 'hygiene theory' whilst nursing soldiers during the Crimean war (Nightingale, 1860). 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 design of the gown may have been adapted from those worn by surgeons as aseptic precautions to prevent the spread of post-operative infections (Issac, 2017; Issac, 2018; Schlich and Strasser, 2022). Initially, a 'theatre gown' with a backless design would assist with application and removal from the unconscious patient and offer infection control (Black & Torlei; 2013, Cho, 2006; Dinsdale, 2004; Kamming, 2015). 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.

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 the meanings of wearing patient clothing. Analysis of the interviews consisted of four themes: being comfortable and cared for; being depersonalised; being stigmatised; and being devitalised (Edvardsson, 2009). However, this study included a range of hospital clothing, including pyjamas and dressing gowns, therefore 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 of exposure posed by the routine use of the gown for medical procedures. Similarly, Topo and Iltanen-Tähkävuori's (2010) conducted a qualitative study which considered hospital clothing from both a patient and carer's perspective. They found that hospital clothing was associated with being in the 'patient role', lack of control and 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. Another study conducted across 5 teaching hospitals in Canada asked physicians to consider whether they would agree to their patient wearing lower-body garments if requested. They found that of 127 patients included in the study, only 14 were wearing lower-body garments despite the fact that 57 patients were deemed eligible to do so (McDonald et al., 2014).

Recently, we explored patients' views and experiences of wearing the hospital gown using a sequential, multi-method approach (Morton et al, 2020). The first study consisted of interviews (n = 10) with adults living with a lifelong chronic health condition. The study reports three emergent themes; embodying the sick role, relinquishing control to medical professionals and enhancing physical and emotional vulnerability. The second study was 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 (Lucas & Dellasega, 2020) which explored patients' and staff derived meanings from the hospital gown. Patients (n = 10), nurses (n = 10) and physicians (n = 10) were interviewed with themes were developed; patients believed the gowns reduced self-esteem, were designed to meet the needs of the care providers rather than the patients, and that colour options would be empowering. Patients also reported wanting to wear their own clothes but believed they were not allowed. Nurses and physicians viewed the gown as useful for ease of access to patients,

although they also 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.

The current study

The current study aimed to build on earlier work (Morton et al, 2020; Lucas & Dellasega, 2020; Syed et al, 2022; Topo and Iltanen-Tähkävuori, 2010; Edvardsson, 2009) by exploring healthcare workers' views on the hospital gown across a wide range of healthcare professions and with a larger sample of participants. Specifically, we were interested in exploring the utility of the gown and how healthcare workers considered wearing the gown impacted on patients' mental wellbeing.

Method

Participants

Participants were healthcare workers 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. Socio-demographic characteristics and occupational role were explored. The questions relating to healthcare worker's views on the hospital gown questions were informed by earlier work (Baille, 2008; Morton et al, 2020) 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.

Procedure

Following ethical approval from the University Ethics Committee, an advertisement poster was circulated through social media (LinkedIn, Twitter and Facebook), NHS-specific platforms and partner organisations to aid participant recruitment via an online link or advert QR code using the Qualtrics platform. Participants were presented with the inclusion/exclusion

criteria, the objectives of the survey, 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 further questions about the research. They were made aware that their responses were completely anonymous. After completion of the survey, a debrief form was presented which included information on accessing support if needed.

Analysis

The data was cleaned and analysed using SPSS v26 software. We first examined descriptive statistics to present participant socio-demographic characteristics (see Table 1). Kurtosis and skewness scores and their cut-off values were used to examine the assumption of normality (Blanca et al., 2013). Significance level of $p < 0.05$ was used for all analyses. Participants' responses to closed questions were analysed on a binomial manner (yes = 1; no = 0), and effects were calculated through cross-tabulations and Pearson chi-square based on significance rates.

Participants' responses to open ended questions were analysed using content analysis (Krippendorff, 2018). This process followed three main phases of preparation, organisation and reporting of the textual data (Elo & Kyngäs, 2008). Constant comparison of the text (Onwuegbuzie & Leech, 2019) was used during the preparation phase whereby the first coders initially analysed the data, with the review being undertaken by two members of the research team, enabling both category refinement and research rigour (Elo et al, 2014). 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 (Kyngäs, 2020). 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 (Erlingsson & Brysiewicz, 2017). In the final phase, coded data were treated as variables for analysis conducted using and Microsoft Excel using descriptive statistics (frequency counts and percentages).

Results

Participant characteristics: Participants (n = 3371) consisted of healthcare workers who had experience of utilising the hospital gown in their practice settings. Due to the nature of responses, participants chose to respond to items of their interest, creating missing values in certain characteristics (Table 1). Participants were mainly female (n= 2114; 93.4%), nurses (n = 1228; 54.2%), of white ethnic origin (n = 1981; 87.5%), aged between 18-71 (mean = 32.68;

SD = 0.89) and with approximately 10 years' of working experience (mean = 10.12; SD = 3.21).

TABLE 1 HERE

Healthcare workers' experiences with the hospital gown: The vast majority of participants (n = 2195; 97%) had direct experience of working with a patient wearing the hospital gown. Most participants also had experience of being a patient and having to wear the gown themselves (n = 1732; 76.7%;) and/or had seen a close family member and/or friend in the gown (n = 1868; 82.6%).

The majority of participants (n = 1900; 87.8%) 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 = 1104.8; 48.8%) thought that when patients wore the gown it was medically necessary (see table 2).

TABLE 2 HERE

Alternatives to the gown: Nearly two thirds (n = 1479; 65.4%) of participants had offered a patient the option of remaining in their own clothing as an alternative to the gown, 43.5% 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.

Impact of wearing the gown: Participants 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; 41%). The majority of participants believed that wearing the hospital gown negatively impacted on how patients felt about themselves (n = 1352; 59.8%) while participants were less inclined to think that it adversely impacted how hospital staff (n = 633; 28%) or others viewed the patient (n = 757; 33.6%). Participants reported that they thought that wearing the gown resulted in patients' feeling 'lack of comfort' (n = 3326; 98.7%), 'not reassured' (n = 3312; 98,2%), 'not safe' (n = 3310; 98.2%), 'not important' (n = 3303; 98%), and 'lack of relief' (n = 3298; 97.8%). They also reported, 'not cared for' (n = 3197; 94.8%), exposed (n = 2081; 61.7%), uncomfortable (n = 1949; 57.8%), vulnerable (n = 1817; 53.9%), self-conscious (n = 1740; 51.6%) and cold (n = 1596; 47.3%), while wearing the gown (see Graph 1).

GRAPH 1 HERE

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 question. In total, 43% of participants responded to the question which generated 408 coded comments. A total of 39 associated codes were then developed, resulting in 7 categories of meaning: (1) Adverse impact on patient wellbeing; (2) Lack of dignity; (3) Increased sense of dependency and vulnerability*;* (4) Hinders patient autonomy and recovery*;* (5) Reduced patient mobility*;* (6) Feeling institutionalised, *and* (7) Positive impact on wellbeing (Table 3).

TABLE 3 HERE

Changes or alternative to the gown: 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% of participants responded to the question which generated 549 coded comments. A total of 36 associated codes were then developed, resulting in 5 categories of meaning (see Table 4). The majority of these categories of meaning related to alternatives or modifications to the hospital gown, however, one category identified that for some participants there were no changes needed to 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.

TABLE 4 HERE

Discussion

This study aimed to understand healthcare workers' views and experiences of using the hospital gown within their practice settings to better understand current use and utility of the gown, its medical necessity, its impact on patients' wellbeing and whether having personal experience of wearing the gown influenced their views in relation to the gown. The findings complement our earlier work conducted with patient populations (Morton et al, 2020); the majority of healthcare workers 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 psychologically informed

approach to medical care that promotes compassion, dignified care and ensures that patients feel as safe as possible (Morton, 2020; Morton et al, 2022; Pavithra, 2022; Singh et al, 2018; Tehranineshat, et al, 2019). Further, the majority of healthcare workers 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 of being exposed, cold and 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' exposure and to increase dignity through adopting a patient-centred approach to its design and use (Oliver, 2017). Efforts to create new hospital attire that begins to address these needs is underway (Frankel et al, 2021). Despite such developments, many of the healthcare workers 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 (Robinson, 2022).

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 and living in the United Kingdom. Unfortunately, it was not possible to control those factors due to an online invitation using purposive sampling. Future studies could consider the perspectives of healthcare workers from more diverse socio-demographics (e.g. ethnic minorities, LGBT+, economically disadvantaged and protected characteristics) and ethnic origins (Chauhan et al., 2020) in supporting person centred care (Smith et al, 2022). It would also be beneficial 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 further 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 (Aiyegbusi, 2022; Oliver, 2020). Longitudinal research will help better understand the long-term impacts of wearing the hospital 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 will help us understand the broader impact on wider familial dynamics and support networks.

Conclusions

The findings from the current research suggest that the backless hospital gown is not fit for purpose and should be redesigned to promote patient choice, dignity, safety, mobility, and well-being. Further, the use of the hospital gown should be limited to medical necessity with better consideration of the psychological impact of wearing the gown on patient well-being. Inclusion of these recommendations in relevant health care policy and practice would benefit patients consistent with a person-centred approach, which prioritizes patient choice, dignity, and privacy. This work is part of a wider effort to promote psychologically informed medicine (Morton, 2020) that emphasises the importance of challenging cultural norms in health care since dehumanising aspects of care, as symbolically represented by the hospital gown, may have a negative impact on patient well-being, increase distress, powerlessness and hinder patient recovery.

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Declaration of interest statement

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

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Table 1.

Participant characteristics.

Sample characteristic	*Frequency (N)*	*Sample (%)*
Overall sample responded	3371	100
Missing responses	1108	33
* *Gender*	2264	67.2 (of the whole sample)
Female	2114	93.4
Male	133	5.9
Transgender	2	.1
Non-binary	10	.4
Prefer not to say	5	.2
* *Ethnicity*:	2264	67.2 (of the whole sample)
White origin (general)	1980	87.5
Black African	36	1.6
Asian	162	7.2
Mixed Race	83	3.7
* *Age*:	2255	66.8 (of the whole sample)
30 >	1216	69
< 30 & > 40	575	17
> 40 & > 50	261	7
> 50	203	6
** Professional category*	2263	67.1 (of the whole sample)
Nurses	1228	55.6
Allied health professionals	356	15.7
Midwives	203	9

Nursing assistants	173	7.7
Doctors	21	0.9
Surgeons	10	0.4
Other (not mentioned)	272	12
* *Years of experience*	2263	67.1 (of the whole sample)
< 5 years	1165	51,5
> 5 & < 10 years	527	23.3
> 10 & < 25 years	388	17.1
> 25 years	183	8.1

Table 1. Participants' characteristics

(*) characteristics with missing values

Table 2. Healthcare workers' experiences with the hospital gown

Question about experiences of the hospital gown	Total (n) (responded)	Yes	No	Maybe or Unsure
*Have you ever worked with a patient who has been asked to **wear the hospital gown**?*	2263	2195 (97%)	62 (2.7%)	6 (0.3%)
*If you worked with a patient who has been asked to wear the gown, did you think it was medically **necessary**?*	2262	1104 (48.8%)	498 (22%)	600 (26.5%)
*Have you ever had to **wear the gown yourself**?*	2258	1732 (76.7%)	524 (23.2%)	
*Have you ever seen someone who you feel close to, such as a family member or friend, **wearing the gown**?*	2262	1868 (82.6%)	392 (17.3%)	
*Are you aware of patients being offered to remain in their **own clothing** instead of wearing the gown?*	2262	1273 (56.3%)	845 (37.4%)	119 (5.3%)
*Have you ever offered a patient the **option of remaining in their own clothing** instead of wearing the gown?*	2260	1479 (65.4%)	609 (26.9%)	
*Have you ever wanted to offer a patient the option of remaining in their **own clothing** instead of wearing the gown but felt unable to?*	2241	975 (43.5%)	936 (41.8%)	
*If a patient did ask to wear their **own clothing** instead of wearing a gown was this allowed?*	2256	1186 (52.6%)	690 (30.6%)	
*Do you think wearing the gown impacts on a patient's **mobility**?*	2260	926 (41%)	728 (35.3%)	521 (15.5%)
*Do you think wearing the gown influences the way patients **feel about themselves**?*	2259	1352 (59.8%)	172 (7.6%)	728 (32.2%)
Do you think wearing the gown influences the way healthcare workers view the patient?	2260	633 (28%)	1157 (51.2%)	464 (20.5%)
Do you think wearing the gown influences the way others see the patient?	2254	757 (33.6%)	705 (26.5%)	784 (34.8%)
*Have you experienced patients being offered a **second gown** (double-gowning) to wear the other round?*	2164	1900 (87.8%)	246 (11.4%)	
*Are you aware of **alternative**s to the gown being made available within your workplace?*	2166	565 (26.1%)	1515 (69.9%)	86 (4%)

Graph 1. Perceptions of how patients feel when wearing the gown

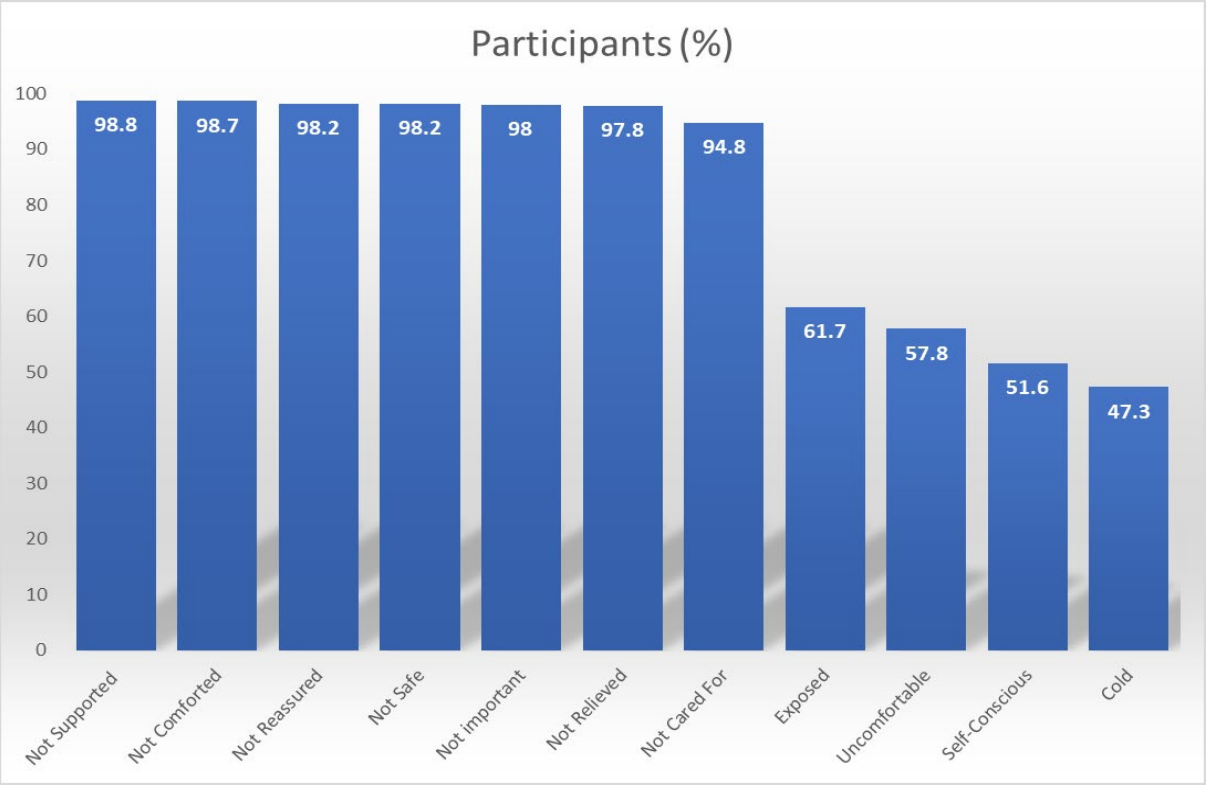

Table 3.

Impact of the hospital gown on patients' mental wellbeing:

Categories of meaning (N = 7 key categories)		Number (%) of comments associated with category (N = 408 coded comments)	Associated codes (N = 39 sub-codes)
1	Adverse impact on patient wellbeing (e.g. *patient feels self-conscious*")	102 (25.5%)	Stressed Anxious Embarrassed Trauma Worried Self-conscious Panic Fear Apathy
2	Lack of dignity (e.g. "*patient feels exposed and its undignified*")	99 (24.3%)	Feeling exposed Loss of self-respect Undignified Lack of privacy Stigma
3	Increased sense of dependency and vulnerability (e.g. *"It's dehumanising")*	79 (19.4%)	Dependent Lack of safety Vulnerable Loss of control
4	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
5	Reduced patient mobility (e.g. "*not practical for mobility")*	36 (8.7%)	Immobile Trapped Lack of movement Sedentary Fear of exposure
6	Feeing institutionalised (e.g. "*hospital gown evokes institutionalised feeling")*	27 (6.5%)	Dehumanising Unable to question Disempowered Hospital property Stamped clothing Like a prisoner
7	Positive impact (e.g. "helps the patient feel cared for")	22 (5.4%)	Feeling cared for All equal Convenient

Table 4.

Suggested alternatives or improvements to the hospital gown

Categories of meaning (N = 5 key categories)		Number (%) of comments associated with category (N = 549 coded comments)	Associated codes (N = 36 sub-codes)
1	Alternatives to the gown *(e.g. "the gown needs a complete redesign")*	141 (25.6%)	Patient wearing own clothes Redesign of patient clothing
2	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
3	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
4	Keep the gown – no change *(e.g. "patients need to wear gowns")*	92 (16.7%)	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
5	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