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ORIGINAL ARTICLE

The role of patient involvement in the promotion of hand hygiene amongst nurses in hospital settings: a qualitative study of nurses' and patients' experiences

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Abstract

***Background*:** To date, there is a wealth of evidence that patients have been invited to take an active role in prompting hand hygiene of hospital staff, but there is insufficient evidence on what happens in practice and whether this is acceptable to both staff and patients.
***Objective*:** To understand the role of patient involvement in the promotion of hand hygiene amongst nurses in the hospital setting.
***Methods*:** This qualitative interpretive study comprised of focus group discussions conducted with nurses (n = 36) and interviews with patients (n = 21). Data from nurses were analysed using inductive thematic analysis. Data from patients were analysed by critical incident analysis.
***Results*:** Experiences from nurses and patients can be summarised into four themes: 1) both nurses and patients acknowledged the patients' right to ask, 2) both groups reported concerns that asking about hand hygiene could have an adverse impact on the nurse–patient relationship, 3) patients reported negative reactions from nurses when promoting hand hygiene and 4) patients reported that the promotion of hand hygiene was not only offensive and upsetting for nurses but also embarrassing for patients.
***Conclusions*:** Findings from this study suggest that patients are expected to adopt a passive role in infection control and remain silent when observing non-compliance to hand hygiene within the hospital setting, to avoid being embarrassed, offensive and upsetting nurses.

Keywords: *hand hygiene*; *nurses*; *patients*; *patient safety*; *patient involvement*; *patient–nurse relationship*; United Kingdom; Jordan

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The term 'patient involvement' refers to the active engagement of patients to enhance service delivery and translate their experiences into improved quality of care (1). Whilst much attention has been given to patient involvement in recent years (2), the investigation of healthcare studies shows that the concept of patient involvement is complex. Furthermore, the word 'involvement' seems to be used interchangeably with other terminologies such as 'participation', 'engagement', 'collaboration', 'empowerment' and 'partnership' to describe the role of patients in different aspects of healthcare and in interactions with healthcare providers (HCPs) (3). Due to the application of different terminologies, there is no clarity or certainty if everyone construes the concept of patient involvement in the same way.

Central to the concept of patient involvement is the active role patients play in ensuring their care and treatment are appropriately delivered and monitored, with the reporting of unsafe incidents, near misses or safety concerns (4). Patients are encouraged to be vigilant and alert to their own safety; therefore, patients are encouraged to remind HCPs about possible errors that have occurred or could occur during their treatment (5). Patients can potentially contribute to providing feedback and taking a more proactive role in the delivery of safe care to reduce diagnostic errors and minimise the risks associated with being in hospital settings (6).

Several studies have reported initiatives to promote safety in the hospital setting involving patients. For instance, findings from a United Kingdom (UK) multi-centre study of

2,471 inpatients reported that patients could provide insights into their own safety and identify any unintended or unexpected safety incidents (7). A research programme by Wright (8) incorporated a tool for patients to report incidents in order to protect themselves against unintended harm, including safety concerns or experiences related to problems with infection prevention and control (such as staff not washing their hands). Both studies identified that patients were willing to participate in initiatives to prevent adverse safety incidents and unintended harm in the hospital setting.

Poor handwashing is associated with preventable harm to patients and has been an area of concern internationally (9), with numerous interventions designed to raise awareness about the importance of HCPs washing their hands within the healthcare environment. The 'Cleanyourhands campaign' is an example of a national campaign, which was launched in the UK with the aim of reducing the risk associated with hospital–acquired infections via enhanced hand hygiene compliance amongst HCPs (10). The campaign included a message 'It's OK to ask' to encourage patients to ask HCPs to wash their hands (10).

To date, there is a wealth of evidence that patients have been invited to be involved in the promotion of hand hygiene amongst hospital staff, but far less evidence about what actually happens in practice and whether this is acceptable to both staff and patients. Our literature review identified staff and patients expressed agreement in principle with the idea of patient involvement in hand hygiene, but no studies were identified that had explored the experience of patients or staff prompting or being prompted to complete hand hygiene (3). Therefore, our current study aims to explore the experiences of patients and nurses of prompting or being prompted with regards the promotion of hand hygiene compliance amongst nurses in the hospital setting. The specific objectives were to explore 1) perceptions of nurses when patients prompt them to wash their hands and 2) experiences of patients when they prompted nurses to wash their hands.

Methods

Research design

This study followed an interpretive descriptive approach informed by Thorne et al. (1997) to interpret and structure the meanings derived from data (11). The qualitative approach within an interpretivist paradigm focused on the *experience* of participants when patients prompted nurses to wash their hands.

Study subjects

By using a purposeful sampling method, we recruited nurses (n = 36) and patients (n = 21) who were willing to discuss their experiences with patient involvement in the promotion of hand-hygiene from two countries, Jordan and the UK. There was no incentive for participation. Purposeful sampling method was suitable for addressing the research aim and question to interview participants who were knowledgeable about and experienced with the phenomenon of interest. Recruitment of nurses in the UK involved the recruitment of nurses attending a university course; this was both purposeful and convenience sampling. Nurses and patients from Jordan were recruited from two hospitals; the lead researcher and author has worked with both hospitals, which supported both purposeful and convenience sampling. Ethics approval permitted access to hospital wards where a study invitation pack was left, which contained the contact details of the researcher. The inclusion criteria included 1) registered nurses with current patient facing employment in a hospital setting, 2) patients with hospital experience asking nurses to perform hand hygiene and 3) willingness to commit to a 30 to 60-min interview. We determined the number of required participants by interviewing nurses and patients who met the inclusion criteria until the data saturation was achieved, and no new topics were generated.

Interview outline

We developed an interview guide by consulting relevant literature and seeking experts' opinions. We used a standard interview guide to ensure consistency in our data collection. The main interview questions posed to the participants were the following: 1) Can you describe an experience when a patient reminded you to wash your hands? 2) How did you manage the situation? And 3) Can you describe a situation where you asked a nurse to wash hands, or an experience when you wanted to ask a nurse to wash hands, but did not? In addition, we asked the following sub-questions: 1) How did you feel when you were asked by a patient to wash your hands, 2) How did you feel when you asked a nurse to wash her hands? 3) What prompted you to ask a nurse to wash her hands and 4) What was the nurse's response when you asked them to wash their hands?

Data collection

The study comprised two approaches to data collection: focus group discussions with nurses and critical incidents collected through telephone interviews with patients.

Focus group discussions with nurses

Seven focus-group discussions were undertaken with nurses (n = 36) in Jordan and the UK between January 2017 and March 2018. Methods for facilitating focus group discussions (12) were followed. Each focus-group session lasted for approximately between 45 and 60 min (mean, 40.3 min). Focus groups allowed the researchers to

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observe similarities and differences in the participants' opinions and experiences (13). Focus group discussions offered nurses the space to share, describe and discuss their experiences and perceptions, thereby uncovering convergent and divergent views on patient involvement in hand hygiene. Focus group discussions were useful to observe discussions between nurses and gain their aggregated views as well as observe how they influence each other in clinical practice. Table 1 provides further details about the number of participants.

Interviews with patients

Semi-structured telephone interviews were completed with 21 patients in Jordan between June 2018 and January 2020. Each telephone interview lasted between 20 and 40 min (mean, 26.6 min). A total of 119 critical incidents/happenings were collected. The critical incident technique guided the process of data collection during the semi-structured telephone interviews. Furthermore, interviews are regarded as the most effective approach to collect data to support the critical incident technique (14). Critical incidents/happenings were defined as any self-reported patient activity that was obtained from the participant who, during a hospital stay, had requested, or intended to request nurses to wash their hands. For this study, the use of interviews helped us to collect detailed first-hand accounts of experiences from patients concerning prompting nurses to wash their hands.

Data from different countries

We communicated the purpose and significance of the study with each patient participant in advance through a participant information sheet in Arabic and English and scheduled the interview time at their convenience. The first author [bilingual researcher] completed the focus group discussions in Arabic with nurses from Jordan, and in English with nurses from the UK (15). The first author and interviewer (MA) completed the semi-structured telephone interviews in Arabic since all patients were native speakers of Arabic. With informants' permission, data from focus group discussions with nurses and interviews with patients were recorded, transcribed verbatim into written Arabic and then translated into English by a professional bilingual translator to ensure accuracy and reliability. Data from the two countries were amalgamated and treated as one dataset to analyse in English (15). Importantly, this study did not aim to compare data across the two countries and healthcare systems, but rather to produce a thorough and wider understanding of experiences and perceptions of nurses and patients. The first author practiced nursing within healthcare settings in both Jordan and the UK. Hence, it was convenient to collect data from these two countries. It was not decided to collect data from patients in the UK considering the limited timeframe given to our study. Experiences from patients in the UK are a limitation of this study, and an area warrants further research. The approach of consolidating qualitative data from different countries is an accepted robust approach to understanding a global perspective (16).

Table 1. Breakdown of the nursing focus group (FG) sample

Focus group number	Code	Country	Number of nurses per group
1	FG1	Jordan (JO)	6
2	FG2	JO	6
3	FG3	JO	6
4	FG4	United Kingdom (UK)	4
5	FG5	UK	6
6	FG6	UK	4
7	FG7	UK	4
Total	7 focus groups	2 countries	36 nurses

Data analysis

Focus group discussions data were analysed using inductive thematic analysis. Manual data handling helped the researchers to remain close to the data whilst focusing on the research aim. Data were uploaded into the NVivo11© software [computerised-assisted data management] (QSR International, Doncaster, Australia) to facilitate data management and the coding process for later analyses. NVivo11© was used as a tool to organise data and create themes (nodes). The creation of codes, themes and sub-themes occurred through using the six steps of thematic analysis, including 1) data familiarisation, 2) generating codes, 3) searching for themes, 4) reviewing themes, 5) defining and naming themes and 6) producing the report (17).

Critical-incident technique analysis adhered to Flanagan's (18) five stages, including 1) the formulation of the general aim of the activity, 2) setting plans and specifications, 3) collecting information, 4) analysis of the data and 5) interpreting and reporting the findings (18). This process allowed the inductive classification of the data and the construction of a hierarchy of categories (19). The guide developed by Schluter, Seaton and Chaboyer (20) was followed to complete critical incident technique analysis. This includes a process of inductive analysis by applying two levels of interpretation: first, reading and re-reading transcripts to identify codes or shared patterns, and second, a comparison of individual texts between transcripts to develop themes (21). Categories were continuously reinterpreted in light of information that emerged as further transcripts were added.

Three researchers (MA, JB and HA) independently reviewed data from participants, summarised and extracted meaningful statements, and formulated the final themes. To enhance understanding of qualitative data and facilitate analysis, the researchers (MA and HA) invited members of a patient and public involvement (PPI) group in Oxford, UK, to assist in the process of analysis of qualitative critical incident data. Service users from the PPI group were identified (n = 6) and volunteered to discuss the data gathered from patients in Jordan. The PPI group read a random sample of transcripts (n = 10) of patients' narratives on their experiences of asking nurses to wash their hands. The discussion lasted for an hour, and notes were taken by two of the researchers to ensure all the comments were included within the final data analysis. The inclusion of PPI groups in data analysis has been demonstrated to be effective, and a similar approach was adopted when PPI groups were involved as co-researchers in collaborative analysis of qualitative data (22). The PPI group can help to inform researchers regarding the best way to develop '*user–friendly information*' and a '*consumer–focused interpretation of data*', which could enhance implementation and dissemination of study results (23). In our study, the involvement of the PPI group was to enhance the analysis of data and ensure the findings are relevant and understandable by the general public. The members of PPI or service users were contributors to the research team and, therefore, were not participants, and an informed consent was not appropriate. Hence, the views of service users from the UK helped the researcher to better understand the experiences of patients from Jordan as they provided insightful views about asking nurses to wash their hands.

Ethical review

This study was reviewed and approved by the Ethics Committee of the Oxford Brookes University [161050], Oxford University Hospitals [12765] and Scientific Research Ethics Committee at the Jordanian Minister of Health [180085]. An informed and voluntary consent was collected from all nurses and patients who agreed to participate, which explicitly stated the interviews would be audio-recorded. Participants were informed that their anonymity would be protected, and all information would remain confidential by ensuring all findings were de-identified. UK nurses were reassured of no impact on their studies or records as result of taking part in our study because the lead researcher and author was not involved in their teaching or assessment. Contact details of independent counselling and patient liaison services were provided for all participants for additional emotional support if required, thus acknowledging the participant's vulnerability.

Results

Findings from nurses have been clustered into four main themes: 1) nurses acknowledged both the right of patients to ask and their reasons for asking, 2) nurses reported that a patient asking was challenging in practice, 3) nurses stated that a patient asking had a negative impact on the nurse–patient relationship and 4) nurses implied an overall agreement that hospitals should promote a culture that supports patient involvement in hand hygiene. Findings from patients have been clustered into two main categories: 1) patients who asked nurses to wash their hands and 2) patients who wanted to ask nurses to wash their hands, but they were unable to ask. Further evidence supporting themes and subthemes, and categories and subcategories with representative verbatim comments presented by respondents are presented in Tables 2 and 3, respectively.

Data from both nurses and patients reported similar codes and patterns and, hence, were summarised into shared themes. Continuous comparison of codes, themes, categories and re-categorisation was carried out on data from nurses and patients during the study in meetings with research team members [MA, DJ, JB and HA]. The following section presents data from shared themes across interviews with nurses and patients when patients prompted nurses to wash their hands.

Four major themes related to the experience of nurses and patients emerged: 1) acknowledging asking about hand hygiene is a patient right but not duty, 2) asking about hand hygiene might break the nurse–patient trust relationship, 3) asking about hand hygiene perceived as offensive, upsetting for nurses and embarrassing for patients and 4) asking about hand hygiene resulted in stressful and confrontational encounters. Below we describe our combined results from nurses and patients in greater detail.

Theme 1: Acknowledging asking about hand hygiene is a patient right but not duty

Both nurses and patients acknowledged that patients had the right to ensure their own safety and, therefore, ask nurses to wash their hands. Nurses and patients acknowledged patients were concerned about their personal safety and did not aim to provoke nurses or criticise their professionalism. This sentiment was echoed by patients who discussed their strong belief in their right to prompt nurses to perform hand hygiene. Similarly, some patients stressed the belief that they were 'experts' in their healthcare, and, therefore, they should prompt nurses to wash their hands and should not feel guilty when prompting nurses to wash their hands. However, several other patients felt strongly that it was not a patient's responsibility to remind nurses to wash their hands and were confident nurses and other HCPs knew their responsibilities, and therefore, there was no need to

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Table 2. Themes, sub-themes and related quotations: experiences from nurses

Theme	Sub-theme	Quotations
Nurses acknowledged both the right of patients to ask and their reasons for asking	Asking should be regarded as a precaution, not a provocation	*I didn't take it as an offence. Patients are entitled to do that [ask about hand hygiene] before I perform a procedure or attend to them in any way, as they are concerned about any type of cross-contamination or infection.*
	Forgetting and the need for reminding	*If that one person said to me 'just want to say, I haven't seen you washing your hands, would you mind?' I think this is absolutely valid, it's their right and we have to do something about hand hygiene which we are not doing right.*
Acknowledgement that patient asking is challenging in practice but the manner of asking is important	The way of asking may affect the nurses' response	*In my experience, I was a bit offended by the question. It felt like a punch. Because I do it [hand hygiene] all the time and patients don't have to remind me.*
	The way of asking is facilitated by good nurse–patient communication	*I think it depends on the way or the manner of asking. Some patients ask in a nice way, then we [nurses] would respond accordingly.*
The possible effects of patient asking on the nurse–patient relationship	Concern that patient prompting might affect trust in nurse–patient relationship	*It [patient involvement in hand hygiene] will arrive in the wrong way. It will be like because I reminded you about hand hygiene, now you do it.*
		They might ask me next time when giving medication, 'are you sure this is my medicine?' This has happened to me before. It is about a shared trust between us. Will patients trust us again after we tell them, no we did not wash hands.
	Concern that nurses will not accept hand hygiene prompting from patients	*I would be quite offended if the patient asks me to wash my hands, and this would add stress even you already have stress on the ward. Yeah, I would be offended, and this would make me a lot more stressed about my job.*
		You have to take into account that you're busy, you're stressed, and then you get asked by patients to wash your hands, then you ask yourself what I've done wrong!
Promoting a culture that supports patient involvement	New culture of patient involvement in which patient prompting is acceptable	*Nurses do not have the culture of patients asking about hand hygiene. No, it is not activated at all, never. This is something new to our culture as nurses and patients.*
		It is not a culturally accepted norm. So, you perhaps are a bit more used to saying, 'No don't do that' or 'I have seen you, don't do it that way'. I think unfortunately that is a universal culture. It is a cultural thing.
	Raising patients' awareness of the importance of hand hygiene and involvement	*We need to raise patients' awareness of hand hygiene. I don't think that most patients know enough about the importance of hand hygiene for staff.*
		Patients don't have hand hygiene knowledge, the only patients I see questioning anything healthcare professionals do are patients who have some basic knowledge of healthcare, but I don't think that most patients, they know enough about hand hygiene.

Table 3. Categories and sub-categories and related quotations: experiences from patients

Categories	Sub-categories	Quotations
Incidents when patients asked nurses to wash their hands	Incidents when patients felt they had the right to prompt nurses to perform hand hygiene in order to receive safe care	*The nurse said: I did wash my hands and I know what I'm doing, it is my job. I said: I swear I asked to make sure your hands are clean, not to criticise you personally.*
		It is absolutely the patient's right to ask about hand hygiene…I think patients should be aware it is their right to ask nurses to wash their hands; it is very important to understand it is their right to ask.
		We have to tell patients that hospitals are safe places where you receive treatment as they [patients] are losing trust in hospitals, and hand hygiene is one point. I should be aware that it is my right to ask nurses about hand hygiene.
	Incidents when patients asked nurses to wash their hands when the nurses were not wearing gloves as they prepared to touch the patients	*The nurse entered the room and wanted to take a blood sample without wearing gloves…I did ask him [the nurse] directly: 'could you please wash your hands?*
		The experience was not pleasant as I felt terrible after telling the nurse to wash his hands; especially when the nurse approached me [again], smiled and said: 'Now I washed my hands, are you happy?'…I felt like he [the nurse] wasn't happy about what I did, so I just felt bad about everything.
		I noticed that the nurse was working with no gloves and mixing medication or something next to my bed. I asked the nurse at that time. I was worried about how careless that nurse was. The nurse tried to insert a needle in my hand, to give me some fluids without cleaning their hands.

Table 3. (Continued)

Categories	Sub-categories	Quotations
	Incidents when patients asked nurses to perform hand hygiene when they observed an imminent risk to themselves from exposure to blood or body fluids	*The nurse had some stains like blood or something. I was not sure if these were new or old spots, but I saw the blood…I asked the nurse: 'Are you sure your hands are clean?'*
		I asked the nurse to feel safe. There was no blood on the nurse's hands or lab coat, [instead] it was like little dark yellow spots all over the lab coat, the chest area, probably vomit or something from another patient. This is why I asked. The nurse was not happy; it was clear on the nurse's face.
		The nurse coughed and used both hands to cover the mouth. Then the nurse approached me to check my blood pressure. I said: 'Sorry, could you please wash your hands?' The nurse was surprised and opened her eyes and mouth [referring to a state of shock]. The nurse said, 'I am really sorry, I totally forgot'. Actually, she was kind to me.
Incidents when patients wanted to ask nurses to wash their hands but they were unable to ask	Incidents when patients felt it was not their responsibility to prompt hand washing	*Nurses are educated, I automatically supposed that they washed their hands. This is what makes me hesitate to ask, as nurses know their job better than I do. Even if I asked, nurses might tell me that they washed their hands already. The nurse's reaction would be defensive; I am sure about this. Then patients cannot do anything about it. So, it's not my concern to remind them to wash their hands.*
		I don't think I would say a word to nurses or doctors. I am confident that they know better than me. They are masters at their job. I am a good cook, and I won't accept anyone telling me what to do in the kitchen, let's put it this way. We say: 'Whoever interferes in someone else's affairs will be told something unpleasant'.
		Patients should not talk about hand hygiene. Because I see there is no need to ask any of the medical staff to wash their hands or have a shower. It's not patients' responsibility. Patients have lots of stuff going on in their minds while in the hospital. Patients don't have time to monitor this and see that. I think they are there to receive care, feel better and then go home.
	Incidents when patients did not ask nurses to wash their hands to avoid harming the nurse–patient trust relationship	*Patients need to act in a way that they [patients] trust nurses and doctors. Asking them to wash their hands could threaten this lovely relationship. This could even worsen the way in which nurses and doctors treat patients. They will consider us as unwelcome in the hospital and could fight us back.*
		Asking about handwashing is awkward or could lead to loss of your friendship, [and] because of that it is not a good idea. I really care about my healthy relationship with others, and anything that would break this relationship I will not do.
		It is about being kind, and always being positive, to enhance our relationship with the medical staff, and not to search for their errors that would generate a gap between them and us, and create an unhealthy environment for patients.
	Incidents when patients did not ask nurses to wash their hands in case it was offensive and upsetting to nurses	*Nurses would be angry and upset about it [prompting hand washing], as if I was confrontational by asking. They wouldn't be happy about me asking.*
		I did not talk to the nurse, but I talked to other mothers in the room. Nurses were really helpful and doing great jobs over days and nights to help us to get better. There was no need to ask them [nurses] about handwashing because it would upset them.
		Requesting nurses to wash their hands is not what we are supposed to do. We are here to receive care and feel better, not to make demands or requests. We would be [like] seen like 'a guest with a sword in his hand'.
	Incidents when patients would feel embarrassed or shy to ask nurses to perform hand hygiene	*I did not talk to the nurse as I felt shy, to be honest. I think the nurse would take it as 'you are a dirty nurse'. It's hard for patients to talk about these things [hand hygiene]. I am sure the medical staff or anyone in the street would not appreciate it or be happy if you asked them to wash their hands.*
		I did not ask because I am sure it would have been understood in a wrong way, like 'you are a dirty, careless person, go and wash your hands'. If you were a tough person, I would not even ask you for a glass of water. This is how things work for me as a shy person. Maybe I am a complicated person, but this is me, sorry.
		I just pretended like nothing happened to avoid being embarrassed or humiliated by asking. You know it is different while I am talking to you now, and when I am receiving care from their [nurses'] hands. The situation is different, and even my feeling is different between now and when I was lying down in my bed…Saying it here in the interview is far from the actual experience when you are in the bed receiving care. I think this is one of the things that we describe as 'easier said than done'.

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intervene in their job to ask them to wash their hands. Some patients also suggested it was not ideal for them to interfere in nurses' duties, as they might receive unpleasant feedback. In summary, although some patients did not feel that prompting of hand hygiene should be necessary, both nurses and patients who participated in this study expressed the view that patients have a right to prompt hand hygiene, and many nurses admitted that hand hygiene was not always optimal.

Theme 2: Asking about hand hygiene might break the nurse–patient trust relationship

Both nurses and patients discussed the possible negative impact of patients prompting handwashing. There was a sense of agreement amongst nurses that patient involvement in hand hygiene might not receive a positive or friendly reception from nurses. Some nurses feared that patient involvement in hand hygiene could adversely affect mutual trust relationships between patients and nurses. Nurses who participated in this study stated if they acknowledged failure to perform hand hygiene to patients, then patients might not trust nurses in other procedures such as the administration of medicines. Therefore, nurses may feel forced to lie about hand hygiene compliance to maintain the trust of patients. These views were echoed by nurses from different discussion groups that patients will mistrust nurses in receiving care including administering medication if they confess not washing their hands. Patients shared similar concerns that asking nurses about handwashing would break the trust and therapeutic relationship. Patients described the potential involvement in the promotion of hand washing when placing them in the 'front line', which could 'make trouble' between themselves and nurses. Patients reported similar feelings that prompting nurses to wash their hands could result in a loss of an established and flourishing relationship, which was they believed to be a privilege, and put before their own personal well-being and safety. Therefore, several patients decided not to ask the nurse to wash his/her hands.

In summary, both nurses and patients identified prompting or being prompted to complete hand hygiene was threat to the nurse–patient relationship. Further exploration to experiences from different groups of nurses and patients may help in providing better understanding of what constitutes a healthy patient involvement in handwashing without posing a risk to nurse–patient relationship.

Theme 3: Asking about hand hygiene perceived as offensive, upsetting for nurses and embarrassing for patients

Patients stated when they observed a threat to their safety and wanted to ask nurses to wash their hands, they did not do so because they were fearful of upsetting and offending the nurses. Other patients did not ask nurses to wash their hands during their hospital stays as they perceived reminding nurses to wash their hands as embarrassing. Patients felt shy to ask the nurse to wash her hands as nurses might perceive such a reminder as offensive and insulting to nurses' professional image. In summary, it is patients who perceived the reminder as offensive and upsetting to nurses. Although patients have acknowledged nurses were offended if they asked them to wash their hands, the data from nurses suggest the nurses within our study did not experience being upset or believed they would become upset if asked by a patient to wash their hands. Patients may have feared retaliation from the nurses or the threat to a good and trusting relationship, which impacted on their perceptions the reminder would be both upsetting and embracing. Further discussion of actual experiences from nurses and patients are revealed in the following theme.

Theme 4: Asking about hand hygiene resulted in stressful and confrontational encounters

Some patients described their experiences of prompting nurses to wash their hands as 'stressful', 'awkward' and 'confrontational'. The 'awkward' exchange between patients and nurses was reflected in patients' experiences following a prompt to a nurse to wash their hands, which included an element of shock due to how the nurses behaved. Patients reported a notable confrontation when promoted nurses to perform handwashing. One patient described the nurse's response as 'not pleasant'. The nurse 'yelled' at the patient after receiving the hand-hygiene prompt and then continued to speak angrily through the provision of care. Patients from Jordan felt 'shocked' and 'speechless' after they heard the nurse's response to a hand-hygiene prompt. However, other patients also stated they were pleased and felt supported when nurses did wash their hands, and this did not cause any negative reactions or change the encounter.

Overall, patients occasionally received a negative response to their requests, which was unpleasant and stressful for them as patients. Patients from Jordan and service users from the UK both shared mutual agreement with experiences and perceptions of patients when promoted nurses to wash their hands including a sense of confrontation and challenging behaviours. Service users from the UK argued that patients internationally should be empowered to speak up about their own safety and receive care with clean hands, therefore, to prompt nurses to wash their hands.

Discussion

The aim of this qualitative study was to understand experiences and reflections of nurses and patients when patients prompted nurses to wash their hands in hospital settings. Both nurses and patients acknowledge that

patients have a right but not a responsibility to prompt handwashing. Both nurses and patients acknowledge that it is difficult for patients to raise concerns about hand hygiene. Yet, patients should be able to voice concerns without engendering confrontation and be both empowered and encouraged to speak up and voice their concerns regarding nurses' hand hygiene practices and ensure cultural readiness to accept patient prompting.

Patients and nurses in this study did not consider that patients should have a responsibility or duty in patient safety. There was a clear understanding by both nurses and patients that patients had a right to prompt handwashing, but not a duty, which creates an element of confusion in clinical practice. These results are in line with previous studies, which questioned whether patients should have a role in prompting hand hygiene as all HCPs are washing their hands without prompts from patients (24, 25). Other researchers advocated that involving patients in infection prevention does not necessarily mean shifting the responsibility from HCPs to patients, but rather adopting a shared goal as a first step towards patients and HCPs working together in the co-production of patient safety initiatives (26). Findings from our study support the need for further work at research and clinical level to promote patient's role in prompting hand hygiene.

Despite acknowledging patients' rights, although not a duty, to prompt hand hygiene, our findings indicate that both nurses and patients have concerns that patient involvement in hand hygiene is perceived as challenging and confrontational in practice. Experiences of nurses and patients in hospital settings demonstrate when patients prompted handwashing, this triggered confrontation and stressful encounters. Our results corroborate the findings of previous studies that explored how nurses and other HCPs felt when asked to wash their hands, and that found being asked was described as both an embarrassment and/or awkward (27, 28). Experiences of patients who wanted to prompt hand hygiene have also been identified to provoke the following feelings: shy and intimidated (29), discomfort (30–32), awkward and/or being disrespectful (24). Therefore, it can be concluded from our study and other studies that patients do not feel prompting handwashing of HCPs is their role, as it involved crossing boundaries with the people who were providing their care and treatment.

Patients who participated in our study reported concerns that prompting nurses to wash their hands was a serious threat to the nurse–patient relationship. Patients from our study reported the importance and value of their relationship with nurses, and the fear that prompting hand hygiene was a threat to the 'flourishing', 'good', 'trusty' and 'therapeutic' relationship. Hence, the majority of patients in our study who wanted to ask nurses to wash their hands, did not. Findings from other studies support our findings that the threat to nurse–patient therapeutic relationship was the main reason most patients could not ask nurses to wash their hands (28, 33). Patient involvement in hand hygiene is potentially disruptive to the nurse–patient relationship because it reveals imperceptible risks of infection to patients who may be unaware of those risks or not cognisant to deal with them, and this revelation is perceived as having the potential to undermine trust and threaten relationships between staff and patients (26). Another factor that has a negative impact on the staff–patient relationship is the negative reaction by HCPs to the patient prompt (34). Therefore, patient involvement in hand hygiene does pose a threat to the HCP–patient therapeutic relationship.

The findings from our study show that it is difficult for the patient voice to be heard concerning prompting hand hygiene of nurses. Similarly, previous studies have demonstrated that patients are not willing to prompt nurses and other HCPs to wash their hands as they fear upsetting, offending or annoying the staff member (29, 35, 36). Patients may lack empowerment and encouragement from nurses to enable them to prompt handwashing. Another important element is that patients do not have the courage or feel that it is possible to question or confront nurses with hand hygiene prompts. Results from our study are in line with those of previous studies, which report not all patients felt able to speak up due to the lack of empowerment (37–39). It is possible, therefore, to conclude that patients need careful encouragement and to be empowered to speak up and raise concerns about their safety, including prompting nurses to wash their hands.

Strengths and limitations

In our study, the *experiences* from both patients and nurses shed light on how nurses and patients have reacted to situations in which patients prompt nurses to wash their hands. Previous studies have focussed on the *views* and *perceptions* of nurses rather than the actual experiences of nurses and patients. The qualitative interpretive approach helped us to dig deep into personal experiences from nurses, patients and service users. This has led to a deep understanding of their experience within hospital settings, resulting in comprehensive and authentic data.

Whilst it was the aim of our study to interview nurses and patients from Jordan and the UK using purposive sampling, it could be argued that this would have limited the transferability of the findings to other countries. Despite this acknowledged limitation, we believe that there is, nevertheless, sufficient evidence that supports the transferability of the findings to similar regional governmental hospitals in Jordan and the UK. Another possible limitation for our study was a lack of discussion of

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how cultural backgrounds may have a role to play in patients' and nurses' intention to ask nurses to wash their hands. A further limitation of our study that needs to be acknowledged involves the recruitment of patients, and to understand their experiences of asking a nurse to wash their hands, as all patients were recruited from Jordan. However, a PPI group of English service users both supported the analysis of patient data from Jordan and expressed comparative experiences. Findings from our study are limited, as we did not gain the experiences of patients in the UK who asked nurses to wash their hands, which warrants further research. Our study did not aim to explore the differences of nurses within the UK and Jordan, but to explore a common concept across two countries; therefore, we purposively did not explore or assess cultural factors that might impact different understanding or attitudes to hand hygiene and prompting.

Conclusion

Patient involvement in hand hygiene can result in needless negative encounters between staff and patients, which may result in an adverse impact on the provider–patient relationship. Both nurses and patients have perceived and experienced embarrassment and shyness, and patients believe that asking nurses to wash their hands is offensive and upsetting to nurses. However, to ensure patient involvement in hand hygiene is reflected in patient safety and health-related outcomes, and further recommendations for nursing practice are needed. Our findings suggest it is imperative that hospitals should not invite patients to prompt hand washing until the concept of patient involvement in hand hygiene is culturally and socially accepted. There is also a need to continue efforts that aim to circulate a culture of patient safety based on the fact that 'patient safety is everyone's responsibility'; therefore, more attention should be devoted to teaching professionals, particularly nurses, in the growing science of patient involvement in their safety. Finally, it is recommended that the role of patient involvement in hand hygiene should be raised in the classrooms to help nurses become more comfortable with patients raising concerns and speaking up.

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