

ORIGINAL RESEARCH

Weaving our narrative: perspectives from hijab-wearing learners in the operating room

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Abstract

Background: Hijab-wearing healthcare practitioners and learners endorse that hijab is important to their identity. However, in the operating room (OR), they have reported experiencing negative emotions and lacking personal protective equipment (PPE) for their hijab. Guidelines for PPE for hijabs are institution-specific, and uptake can be inconsistent. As Canadian medical schools diversify, hijab-wearing learners' (HWLs) unique barriers to OR participation and surgical career planning become increasingly pressing for establishing equity and inclusion in surgical specialties. Our study aims to characterize OR experiences of medical students and residents who trained in Canadian ORs, impacts on career planning, and potential solutions for perceived barriers to participation in the OR and surgical career planning.

Methods: We conducted semi-structured interviews with ten hijab-wearing medical students and residents who trained in Kingston Health Sciences Centre (KHSC) ORs. We analyzed the data using an essentialist, experiential, inductive approach where we generated codes and subsequently themes based on the participants' descriptions of OR experiences. We used Reflexive Thematic Analysis (TA) to consider the surface qualities and the hidden or inferred meanings of participants' words based on our team members' subjectivity as minoritized medical learners.

Results: We identified four themes: (1) The lack of OR attire standardization indicated a lack of institutional commitment to inclusivity; (2) There was conflict between identities as medical students and hijab-wearing women, with pressure to fit in by uncomfortably modifying the hijab; (3) Negative experiences related to wearing the hijab in the OR deterred learners from pursuing surgical careers; and (4) Solutions included provision of disposable and reusable hijabs and improved cultural education for OR staff. An infographic on PPE for hijabs should include definitions of hijab and be widely distributed.

Conclusions: Hijab-wearing learners face barriers to participating in the OR. Addressing these challenges requires accessible PPE for hijabs and widespread educational resources to support these learners.

Tisser notre récit : le point de vue des étudiantes portant le hijab en salle d'opération

Résumé

Contexte : Les professionnelles de santé et les étudiantes portant le hijab affirment que celui-ci est un élément important de leur identité. Cependant, en salle d'opération, elles ont rapporté ressentir des émotions négatives et manquer d'équipements de protection individuelle (EPI) adaptés à leur hijab. Les directives relatives aux EPI pour le hijab varient d'un établissement à l'autre. Leur application peut être inégale. À mesure que les facultés de médecine canadiennes se diversifient, les obstacles spécifiques rencontrés par les étudiantes portant le hijab pour participer aux interventions en salle d'opération et planifier leur carrière chirurgicale deviennent de plus en plus pressants afin de garantir l'équité et l'inclusion dans les spécialités chirurgicales. Notre étude vise à décrire les expériences en salle d'opération des étudiantes en médecine ayant suivi une formation dans des salles d'opération canadiennes, les répercussions sur la planification de carrière, ainsi que les solutions potentielles aux obstacles perçus dans ce contexte.

Méthodes : Nous avons mené des entretiens semi-structurés auprès de dix étudiantes en médecine et internes portant le hijab, ayant suivi leur formation dans les blocs opératoires du Kingston Health Sciences Centre. Nous avons analysé les données à l'aide d'une approche essentialiste, expérientielle et inductive, au cours de laquelle nous avons généré des codes puis des thèmes à partir des descriptions des participantes relatives à leurs expériences en salle d'opération. Nous avons utilisé l'analyse thématique réflexive pour examiner les qualités superficielles et les significations cachées ou sous-entendues des propos des participantes, en nous appuyant sur la subjectivité des membres de notre équipe en tant qu'étudiants en médecine issus de minorités.

Résultats : Nous avons identifié quatre thèmes : (1) L'absence de normalisation des tenues en salle d'opération indiquant un manque d'engagement institutionnel en faveur de l'inclusivité ; (2) Il existait un conflit entre les identités d'étudiantes en médecine et celles de femmes portant le hijab, avec une pression pour s'intégrer en modifiant le hijab de manière inconfortable; (3) Les expériences négatives liées au port du hijab en salle d'opération dissuadaient les étudiantes de poursuivre une carrière chirurgicale ; et (4) Les solutions comprenaient la mise à disposition de hijabs jetables et réutilisables ainsi qu'une meilleure formation culturelle du personnel de salle d'opération. Une infographie sur les EPI adaptés au hijab devrait inclure des définitions du hijab et être largement diffusée.

Conclusions : Les étudiantes en médecine, portant le hijab, se heurtent à des obstacles pour participer aux interventions en salle d'opération. Pour relever ces défis, il est nécessaire de disposer d'EPI accessibles adaptés au hijab et de ressources éducatives largement diffusées afin de soutenir ces étudiantes.

Introduction

Muslim women who observe hijab—covering the body, including the head, neck, and limbs—identify the headscarf as important to their religious

beliefs.^{1,2} The extent of covering depends on interpretations of the Qur'an.^{3–6} Hijab-wearing healthcare professionals (HCPs) note that hijab allows them to connect with Muslim patients⁶ and patients of diverse backgrounds.⁷ However, studies

from the United States (USA) and the Netherlands showed that Muslim female physicians, residents, and medical students felt the headscarf drew negative attention⁷ or that they should remove their hijab to avoid discrimination.⁸ American HCPs and medical students reported feeling uncomfortable² or that their religious requirements were unmet¹ when asked to replace their hijab with a scrub cap or bouffant.

Within the operating room (OR) specifically, our review of the literature showed that hijab-wearing HCPs in the United Kingdom (UK) reported positive feelings when allowed to wear their hijab,¹ but we also noted negative emotions associated with wearing the hijab in the OR, including fear,⁶ embarrassment and anxiety¹, and feeling unsupported^{9,10} and disrespected.² Subjects reported receiving reprimands and missing patient encounters due to hijab-related attire concerns.⁸ Hijab-wearing HCPs reported insufficient sterile coverings or alternatives for the hijab in the OR.^{1,2,8,11} Further, hijab-wearing HCPs reported lacking information to satisfy sterility standards^{2,8,12} and that surgeons either did not know about the PPE required to cover hijabs or gave recommendations that conflicted with policies.⁹ Hijab-wearing medical students in several studies stated that these negative experiences led to avoiding the OR and feeling discouraged from pursuing a surgical specialty.^{1,8} We found there was a paucity of experiences documented from Canadian sources in our literature review.

We identified guidelines from Western countries (including the UK, USA, and Canada) on PPE for hijabs, but they were associated with specific hospital systems and not universally applied.^{13–17} Further, our search yielded an audit by the British Islamic Medical Association stating that only 27% of UK hospitals referred to the Department of Health's workwear and uniform policy on spiritual exemptions.¹⁴

We found opinion pieces and OR attire guides from the UK, USA, and Canada identifying ways to accommodate hijabs in procedural environments.^{13,14,18,19} Some solutions we identified in the literature involve providing disposable or reusable

hijabs as well as acceptable PPE alternatives,^{13,16,19} while others propose empowering Muslim HCPs through committees to address gaps in meeting individuals' needs,¹⁸ formalizing documentation of religious attire accommodations,¹⁴ and establishing policies for handling religious attire differences.¹⁹ One commentary suggested better preparing Muslim medical students for scrubbing into the OR and placing them with women preceptors and peers.⁹

Overall, we found that the literature captures perspectives of hijab-wearing HCPs, residents, and medical students in the OR (UK, USA, and the Netherlands). It provides suggestions for improved advocacy and accessibility (UK) and describes institution-specific guides for accommodating the hijab in procedural environments (UK, USA, and Canada). In the Canadian context, it is important to capture HWLs' unique barriers to OR participation and career planning, as there is no research reflecting their experiences of wearing hijab in the OR, nor connecting it to their consideration of a surgical career. In our study, we aimed to elicit the experiences of hijab-wearing medical students and residents who trained in Canadian ORs and identify solutions for perceived barriers to participation in the OR and pursuing surgical careers.

Methods

We conducted a qualitative exploratory study that took place between April 2024 and February 2025. The Queen's University Research Ethics Board approved this study (file number: 6040828).

Study design

We chose an exploratory qualitative approach because research on hijab-wearing medical professionals, let alone hijab-wearing learners, is limited. Exploratory studies are best used in an inductive manner to investigate a topic which is mostly or wholly unexamined in scientific research,²⁰ which therefore informed our semi-structured interview guide (with both open- and closed-ended questions, as well as follow-up questions) and our inductive coding methodology, which allowed us to remain

open in our analysis of participants' descriptions of OR experiences.

Participants

Participants were eligible if they were a hijab-wearing Queen's medical student or resident who had observed or participated in a Kingston Health Sciences Centre (KHSC) OR in Kingston, Ontario, Canada, within the last five years (2019-2024). To recruit hijab-wearing learners (HWLs), we used network and snowball sampling, which included speaking to current KHSC attending staff surgeons, KHSC surgical residents, and to the Queen's University Muslim Medical Association of Queen's (MMAQ). Potential candidates were invited through email and provided with a comprehensive letter of information about the study. Those who responded were recruited and requested to sign a digital consent form and a self-reported demographic survey. As the HWLs community in Kingston is small, three of us from the research team who met the inclusion criteria were also study participants.

Site

KHSC is an academic healthcare centre based in Kingston, Ontario, Canada. It includes three teaching hospitals, two of which have ORs for every surgical service, though the surgical residency programs offered at Queen's University exclude Cardiac Surgery, Neurosurgery, Otolaryngology (ENT), Vascular Surgery, and Plastic Surgery.²¹

Data collection

We collected self-reported demographic information via a Qualtrics online survey. This included: age, gender, and level of training.

Per Kallio et al.'s review of semi-structured interview development, we identified that a semi-structured interview was appropriate for our study as it would facilitate rigorous data collection for the study's aim, and that the knowledge from our literature search and research team's lived experiences could form the conceptual framework for the

interview guide.²¹ Please see our interview guide in Appendix A. In short, we asked all participants prepared open-ended questions and then probed for further detail as participants recounted their OR experiences.

We developed the semi-structured interview guide using a conceptual framework wherein HWLs have a range of experiences, positive to negative, from working in the OR while wearing the hijab, and these experiences are underpinned by Islamophobia, racism, sexism, and hierarchies in medical education. These underpinnings are expressed through individual interactions as well as systemic features of ORs such as administrative and educational support, and PPE provision.

With the semi-structured interview guide, we (ND, HS, and SM) conducted 60- to 90-minute interviews via Zoom (Zoom Videoconferencing, Inc.), that we recorded and transcribed verbatim using Otter AI and then checked for accuracy (HS).

We asked participants about time spent in KHSC ORs and other OR sites in which they participated for electives (Toronto, Montreal, Ottawa, and Vancouver). In the interviews, we focused on: (1) positive and negative experiences related to wearing a hijab, (2) advantages and disadvantages to wearing a hijab and the associated effects on learning, (3) feelings of being respected in relation to wearing a hijab, (4) perspectives on the physical environment in maintaining a hijab, (5) practices for the sterile covering of the headscarf, (6) the role of participants' experiences in considering a surgical career, (7) participants' ideas to improve the learning experiences of HWLs, and (8) participants' opinions on the content and distribution of an infographic detailing the PPE that can be used to cover a hijab.

Data analysis

We approached the analysis from the following underlying theoretical assumptions. Epistemologically, we took an essentialist approach, reporting "experiences, meanings and the reality of participants."²³ Our orientation to the data was experiential.²⁴ Further, we adopted an inductive, data-driven

approach where data was open-coded to generate codes.²³ We used NVivo V14 for semantic and latent coding.²⁴

We used a coding approach informed by reflexive thematic analysis (TA) where researcher subjectivity is a resource for knowledge production,^{25,26} meaning we individually sought the hidden or unspoken meanings of codes after identifying its surface qualities (e.g., “trespassing,” “sticking out,” “feeling that not conforming would decrease learning opportunities”), reflected on why we assumed these hidden meanings based on our preconceived beliefs about the participants’ experiences from our own experiences as minoritized learners. We also incorporated elements of the codebook approach; however, we did not develop themes during coding.²⁴ Specifically: (1) We familiarized ourselves with the dataset. (2) We (JN, JD, and AS) independently coded the first transcript by identifying segments of data meaningful to the research question and capturing single concepts or meanings. (3) We compared codes and resolved conflicts through discussion until consensus was reached and developed a codebook that served as our coding framework. (4) We (JN, HS, JD, and AS) independently coded the remaining transcripts using the codebook, adding new codes as necessary. Then, we collectively reviewed each coded transcript to ensure agreement on coding strategy and establish shared meanings of codes even if intercoder reliability was not formally calculated or emphasized due to the reflexive TA approach.² (5) When all transcripts were coded, we (JN, HS, JD, and AS) reviewed the codes together, identified clusters with similar concepts, and generated a theme for each cluster. (6) We refined, defined, and named the four themes that developed.

Reflexivity

Research team reflexivity

We (JN, HS, JD, AS, and SM) informally discussed reflexivity throughout the data collection and analysis phase. Once data analysis was complete, we held a formal meeting to discuss and record

reflections from each researcher. We are all cisgender women of colour and we were medical students during this study’s inception. Three of us are Muslim and wear hijab. We align on pluralism and believe medical education has an obligation to improve the inclusivity of minority groups. We assumed that hijab was correlated with negative experiences in surgical specialties. To avoid overvaluing negative interview responses, we created both open-ended and specific questions to capture positive and negative experiences, moments of respect and disrespect, and advantages and disadvantages related to hijab in the OR. We were mindful that being peers to our participants in a small community was a privilege in receiving honest answers and required diligence in protecting participants’ privacy in research and personal spheres.

Additionally, three of us were also study participants. This designation meant adhering to the highest research standards. We, as researcher-participants, did not code our own transcripts and took measures to maintain participant anonymity, and the team regularly asked researcher-participants about our comfort with proceeding with publication. Including our researcher-participants allowed us to include three more perspectives in a sample size that was already limited. Research-participants’ knowledge could be shared as participants with unique clinical experiences as well as interpreters of the data collected from other participants, wherein a cultural and religious understanding of hijab was already established. We felt it was important to include our researcher-participants because hijab is not a topic that is inherently neutral in a Canadian society where it is a symbol of intersecting minority identities, both being a woman and Muslim. By maintaining a reflexive approach in which all researchers examined the interaction between data and our identities, we were able to include rather than exclude minority voices in their own cultural research.

Lastly, since we focused on learner rather than educator experiences, we understood we are not privy to the administrative barriers of requesting OR religious accommodations.

Methodological reflexivity

Braun and Clarke expressed that prioritization of reliability between coders (intercoder reliability, and to a lesser extent, codebook creation) is antithetical to reflexive TA.²⁵ However, they also acknowledged that the development of reflexive TA skills can be difficult to cultivate with limited access to “master” qualitative analysts to train novice researchers.²⁵ Knowing this, we (JN, HS, JD, AS) as first-time qualitative researchers employed a codebook approach to our “first pass” of coding the first transcript. Our intention was not to formally establish intercoder reliability or impose themes in a deductive manner, but rather to introduce coders to the practice of coding. Through discussions about codebook creation, we could examine coders’ subjectivity, learn to organize and name codes concisely, and correct when a deductive lens was applied instead of an inductive one. We subsequently re-coded the first transcript independently with a reflexive TA approach, and while we used common codes such as demographics, we did not revisit the codebook to iteratively generate and impose shared codes. We (JN, HS, JD, AS) each coded all remaining transcripts independently.

Results

Demographics

Table 1 shows the participant demographics. The mean age was 25.4 years. All were women. There were seven medical students across multiple years of training and three junior residents (1 first-year and 2 second-year).

We generated four themes from the analysis: (1) Standardization of OR attire reflects institutional inclusivity, (2) Identity as medical professional and hijab-wearing woman are at odds, (3) Surgical career planning depends on past experiences and future outlook, and (4) Actionable solutions require buy-in from all.

Table 1. Interview participant (p) demographics

Age	Average 25.4 (range 21-28)
Gender	Woman (n = 10)
Level of training	First-year medical student (P8; n = 1)
	Second-year medical student (P1, P3, and P7; n = 3)
	Third-year medical student (P2 and P4; n = 2)
	Fourth-year medical student (P6; n = 1)
	First-year resident (P5; n = 1)
	Second-year resident (P9 and P10; n = 2)

Theme 1: Standardization of OR attire reflects institutional inclusivity

This theme revealed that HWLs’ lack of knowledge of OR attire leads to uncomfortable modifications to hijab, that there are different expectations of OR attire for HWLs, and that there is a need for standardization of OR attire.

Hijab-wearing learners’ lack of knowledge of OR attire leads to uncomfortable modifications to hijab.

Six participants stated they did not know how to cover the hijab for the OR, often choosing scrub materials arbitrarily, either independently or based on OR staff suggestions. They reported being unaware of guidelines for maintaining sterility with religious headwear.

Almost every participant shared an experience where they uncomfortably modified their hijab (e.g., exposing their neck) to align with their understanding of acceptable OR attire and avoid interrupting their learning experience, which could have been avoided if they had appropriate materials. One participant shared:

It's not the most comfortable experience because my neck is exposed and I would rather not be the case, especially because I know that hijab-wearing learners in different institutions across the globe have access to sterile stuff that they can wear to cover their neck, as well as their head. And so, I know that it's possible, it's just not possible at this institution that I'm at. So, for that reason, I'm uncomfortable when it comes to my own principles, values, and ability to express myself. (P1)

Different expectations of OR attire for hijab-wearing learners. Learners identified that OR staff had inconsistent expectations of OR attire for hijab. Some recounted feeling they were held to higher standards of sterility compared to non-hijab-wearing peers. For example, while cloth hijabs and cloth scrub caps are equally unsterile, P5 stated she perceived more criticism for wearing the former. P6 drew comparisons to outdoor shoes: “...Outside shoes are also technically not supposed to be worn in the OR, but nobody was going around like checking people's outside shoes as much.”

Three participants noted they could not wear long sleeves in the OR as it was unsterile; however, one participant was permitted to wear long sleeves on all but one rotation. P6 reported that unofficial OR attire practices, such as wearing an isolation gown for warmth, could be co-opted for covering one's arms and meeting religious requirements. While this aligned with the practices of other OR personnel, there were staff who still questioned HWLs about it.

Participants expressed feeling unsupported in meeting attire expectations of OR staff. P10 recounted receiving criticism about her attire but was not given an alternative. P4 described being scrutinized for her attire and questioned whether it stemmed from her medical student status or discrimination:

Who I sort of report to in the OR is the surgeon—the staff, right? So, if the staff is not questioning me, you as the OR nurse, why am I being questioned, you know, consistently and made to feel uncomfortable? So sometimes for me, it's hard to differentiate whether it's a matter of, you know, establishment of hierarchy, or if it's a matter of just, you know, some sort of xenophobia.

Need for standardization of OR attire. While participants developed their individual approaches for covering their hijab, four participants felt they also had to educate other HCPs on this topic, placing a unique burden on HWLs.

Participants emphasized that KHSC does not have guidelines for the sterile covering of hijabs. P9

highlighted: “When you don't have standardized guidelines about procedures, it makes it very easy for people to claim or to use their discretion.” P3 and P9 stated that other institutions had guidelines for religious headwear, suggesting that KHSC could implement similar policies.

All participants stated that standardization of OR attire for HWLs and consistent provision of materials to cover hijab would improve their learning experience. P9 believed that standardization would ease the hospital's administrative burden in providing individual accommodation requests. Several also stated that all OR staff should know hospital policies around sterility requirements and approved scrub materials for religious attire.

Theme 2: Identity as medical professional and hijab-wearing woman are at odds

Participants shared how their experiences as medical learners interacted with their identities as hijab-wearing women. Three participants reported being “self-conscious” or “hyper-aware,” worrying that the hijab would attract undue attention and negatively affect their clinical learning. P1 described feeling as if she was “trespassing” in the OR.

Some participants modified their hijab to better match others' surgical attire and reduce scrutiny from OR staff. However, these modifications made participants feel they were compromising their Muslim identity. P3 stated: “I think ultimately the fear of the hijab interfering with the learning opportunity or compromising my ability to be in the OR is something that poses a barrier to wearing my hijab as I would normally wear it.” P10, who was pursuing a surgical career, expressed that surgery took precedence: “I don't think that you feel like you can actually care about that part of you or that [Muslim] identity as much as you'd like to.”

In contrast, students uninterested in surgery did not alter their hijab despite scrutiny: “I knew my faith mattered more to me than how I would be perceived by OR nurses” (P9).

Participants who were residents felt they could advocate for their needs as HWLs better than medical students as they felt integrated into the OR team. P10 stated: "I'm already prepared. I already have my scrub cap. I already have everything that I need. So, I'm not encountering a situation where I'm having trouble adapting."

Theme 3: Surgical career planning depends on past experiences and future outlook

Theme 3 identified the impacts on surgical learning opportunities, the lack of support for HWLs, and the desire of HWLs to increase representation in surgery.

Impacts on surgical learning opportunities. Five participants associated the lack of guidance on OR attire for hijabs with a negative first experience in the OR and avoidance of surgical observerships unless mandated by school curriculum. P5 described a discriminatory encounter related to wearing her hijab, stating: "Not only was I not able to learn anything, [the experience]...traumatized me from learning that skill in the future."

Regarding self-advocating for religious attire accommodations to participate in OR, P9 recalled it took over a year to return to the OR as she arranged for surgical attire compatible with her hijab. P10 worried about her advocacy: "I think I might have run into decreased learning opportunities...if I really stood my ground."

P3 shared that while she accepted compromising her hijab for short-term opportunities, she felt fearful of future mandatory surgical experiences. Similarly, P1 found that the scrutiny of her hijab and OR attire was "an impediment" and expressed feeling disinclined to pursue a surgical specialty, instead favouring non-surgical specialties where she could freely wear the hijab.

Lack of support for hijab-wearing learners. Several participants expressed that the KHSC OR staff had never previously worked with HWLs and did not

know how to navigate hijab in the OR. They also commented that having to uncomfortably modify their hijab, scrub in public areas, and continually explain their clothing accommodations to surgical staff were deterrents in pursuing a surgical specialty:

I do think often about the idea that if I am to be a hijab-wearing surgeon, that I'm going to have to have this mentally taxing conversation with other people all the time, about why I'm wearing what I'm wearing, what should I be wearing... that is an onus for me to have to continually educate other people ... So that is a consideration that I am always thinking is a con in my career in surgery. (P1)

Several participants noted that a lack of diversity in the surgical community of KHSC played into a feeling of being unsupported. P5 and P9 specified feeling that the people and the hospital policies were discriminatory. P6 shared the experience of her surgical team discussing politics and expressing un supportive views on hijab, making her feel unwelcome.

Several participants also commented on the lack of hijab-wearing role models in surgical specialties. P3 expressed that a hijab-wearing surgeon in the OR makes it "more comfortable" and shows that "Oh, I can do it." Other participants mentioned it was easier to connect with non-surgical specialties as there were more hijab-wearing physicians, making the environment more accessible and welcoming (e.g., P1, P6).

Desire to increase representation of Muslim women in surgery. Two participants expressed that the lack of representation of the hijab in surgical specialties motivated them to pursue a surgical career. P4 said, "There's an excitement of wanting to be not the first but to pave a path." P7 stated she wanted to increase representation by becoming a surgeon; in fact, one of her mentors made an encouraging statement about having more women and minorities in surgery, and "that was the moment that put surgery on the radar [for me]."

Theme 4: Actionable solutions require buy-in from all

Theme 4 addressed limitations of current PPE for hijabs, establishing a welcoming environment through an infographic, enhancing the infographic's content, addressing tensions arising from the infographic's implementation, and solutions beyond the infographic.

Addressing limitations of current hijab sterility resources. Many participants used peer advice, websites, and national organizations, (e.g., Muslim Medical Association of Canada), to aid in observing hijab in the OR. However, learners felt that there could be more PPE available to maintain surgical sterility while observing hijab. Some suggested reusable scrub hijabs, single-use hijab covers, or scrub dresses. P6 brought custom scrub dresses which were laundered by the hospital, and P5 and P9 proposed having scrub dresses/skirts available, demonstrating a possible solution.

Some participants were concerned about the prolonged exposure of their forearms when scrubbing at high-visibility scrub stations and had to scrub in early, before their male colleagues arrived.

Establishing a welcoming environment through an infographic. Our team proposed the creation of an infographic depicting standardized hijab OR attire and available scrub materials that can cover the hijab. Three participants said this infographic would make them feel “seen” and “included.” P1 stated that the infographic: “...welcomes the learner but also makes everyone aware of their presence and the accommodations that they deserve.”

Enhancing the infographic's content. Three participants wanted the infographic to include a definition of hijab and modesty, hoping this information would minimize the burden on HWLs to educate others and clarify misconceptions. P3 said: “A lot of people are under the impression that hijab just means covering your hair... It is covering your ears, your neck, making sure you're dressing modestly...”

Regarding the infographic listing available sterile materials for HWLs, P7 recommended that the materials be clearly labeled and stored to avoid confusion amongst learners and staff. P10 advised showing options for swapping or layering sterile materials depending on the way the HWL decided to cover their hair and/or neck.

Furthermore, three participants wanted the infographic to include instructions on requesting religious accommodations in general, stating that this could benefit all learners.

Addressing potential tensions due to infographic implementation. Several participants had concerns that an infographic would not practically improve inclusivity. Because of pushback, P10 thought the infographic could contribute to HWLs feeling more excluded.

P8 commented that even with the available information:

If the infographic is just something that's shared, and people are just kind of, like, 'Oh, this is yet another kind of training thing that I just have to get out of the way' and they're not really aware of these accommodations...the onus is on us as HWLs to indicate what our needs are in the OR, and what our accommodations should be, when it should be something that should be more standardized within the institution itself. So, just making sure that there's, like, follow up on that, like, everybody's aware of this, not just the learners, but also the teachers.

There were two critiques for the infographic creation. One was about individual attire preferences of HWLs, with P3 noting that observance of hijab falls on a spectrum and that the infographic may restrict to one default attire. She suggested the infographic include a variety of sterile options. The second critique was about sterility in the OR, with P5 worried that even with the correct information, non-Muslim HCPs “may be afraid to call out or say something about disrupting the sterile field” to a HWL, insinuating that the inclusivity initiative would discourage feedback because people do not want to be

perceived as discriminatory for criticizing a minoritized learner, even for valid reasons.

Beyond the infographic: orientation and cultural sensitivity training for surgical teams. Regarding solutions beyond the infographic, many identified improved access to information for learners. Two participants suggested creating an orientation event or package for hijab-wearing healthcare trainees.

Even with accommodations and guidelines for hijab, participants worried about feeling unwelcomed in the OR. P7 advocated for improved education:

...the infographic helps getting into the physical space of the OR, but I don't think it might necessarily change the culture of the OR, especially when it comes to comments...that might be something that is done better through like cultural sensitivity or some sort of awareness training...

Discussion

Through our study, we aimed to characterize the OR experiences of Canadian hijab-wearing medical students and residents, impacts on surgical career planning, and solutions to their perceived OR participation and surgical career barriers. Our findings are a step towards addressing a lack of research on Canadian HWL experiences as the Canadian medical field diversifies, since we explored how the minority identities of being a woman and Muslim intersect in relation to fitting into the OR, and how experiences of wearing the hijab in the OR inform the consideration of surgical careers.

Our findings suggest that several HWLs have been discouraged from participating in the OR and/or pursuing a surgical career. They felt poorly informed about surgical attire requirements for hijabs and deterred by negative interactions with OR staff about their hijab. We recognized, however, that our interviews captured one time point while participants were junior learners, so these negative experiences could change with increasing experience or seniority in the OR. At KHSC, learners identified the lack of standardization for the sterile covering of religious headwear as a barrier to participation.

Learners created their own combinations of PPE for the hijab or uncomfortably modified their hijab to avoid negative attention. Criticism of their attire disrupted learning opportunities. Our study corroborated the literature in identifying a lack of appropriate PPE to cover the hijab,^{1,2,8,11} a paucity of information about which PPE to use,^{2,8,12} and how a lack of standardization leads to learners missing patient encounters due to hijab-related attire issues.⁸ Our participants suggested that standardization could decrease the administrative burden for individual religious accommodation requests. Based on our findings, we identified that OR attire standardization for religious headwear reflects an institution's commitment to inclusivity. We posited this because the HWLs' learning opportunities, which should be equal to their non-hijab-wearing peers, and their ability to attain religious accommodation on a reasonable timeline would in large part be affected by institutional policies, specifically those which outline acceptable PPE or adequate alternatives to cover hijabs and organize the provision of PPE within the institution's teaching sites. While the population of HWLs in KHSC is small, we wondered whether individual religious accommodation requests could have signaled to KHSC the need for an institutional policy to standardize PPE practices for hijabs. The lack of policy development could therefore reflect that this issue was not prioritized despite a need expressed by HWLs.

Our findings also align with reports of negative emotions associated with wearing a hijab in the OR,^{1,2,6,9,10} as we identified humiliation, frustration, and ostracization. Participants expressed that modifying their hijab to fit in compromised their Muslim identity. These findings informed a theme of identities at odds: that of a medical professional and a hijab-wearing woman. The literature about hijab-wearing medical students and HCPs identified positive emotions when able to wear the hijab¹ and discomfort when eschewing their usual religious practice^{1,2} or concealing their Muslim identity.⁸ In broader literature investigating the conflict between personal and professional identities of minoritized American medical students, students reported not fitting in with their peers, though some aspects of identity could be more easily hidden (e.g.,

Christianity).^{27,28} By contrast, our participants could not hide their Muslim identity to fit into the OR unless they uncomfortably modified the hijab, and they questioned if this compromise was worthwhile long-term in pursuing a surgical career. In other studies, minoritized medical students also noted an increasing distance from their personal identity as their professional one formed,²⁷ and difficulty balancing authenticity and professionalism.²⁹ The literature indicates that minoritized medical students—including our hijab-wearing participants—feel pressure to modify their personal identity when assimilating to a medical culture which largely represents the Western ethnic and religious majority.²⁷⁻²⁹ We considered the challenge in reconciling personal and professional identity manifold, though we specifically wondered if the participants as junior learners felt it was more difficult to advocate for themselves due to the hierarchies in medical education. This explanation was informed by P10's report of improved self-advocacy as a resident rather than a medical student, as she felt better integrated into the team. We also considered if being female played into perceived difficulties in fitting into the OR, since P7 noted that surgery was a male-dominated field. This has been corroborated by a Canadian ethnographic study of women surgeons who described experiences where others' biases depicted the women's surgical skills and reputations as lower, and this bias also translated to less time in the OR, fewer complex cases, and lower remuneration, regardless of professional title or level of expertise.³⁰ The relationship between intersecting minority identities of gender and religion could potentially amplify feelings of ostracization and negative perceptions of OR experiences.

Regarding the conflict between religious observance and PPE adherence, we noted a parallel to Sikh men's beards when the City of Toronto issued an apology and response to the World Sikh Organization's complaint that the City's security contractors did not appropriately accommodate Sikh security guard employees, who were not fitted for N95 respirators in shelter settings where N95 respirators were mandated by Public Health for suspected or confirmed CoVID-19 outbreak.³¹ The City of Toronto permitted the "under-mask beard cover"

method or Singh Thattha Method, which involved layering an N95 respirator over a fitted mask covering the beard.³¹ We found evidence that this technique was effective in quantitative respirator fit testing.³² We see this as a Canadian precedent of religious accommodation for PPE that can be applied to hijabs, where adapted techniques for donning PPE can facilitate compliance with institutional policies while maintaining individuals' religious freedom. Lastly, most of our participants associated negative experiences from wearing hijab in the OR with avoiding the OR and feeling discouraged from a surgical career, which aligns with the literature.^{1,7-10} Specifically, some expressed that constantly advocating for religious accommodation and educating others in a surgical environment would be tiring and unsustainable. Studies about personal and professional identities of minoritized American medical students identified a similar feeling of burden to educate others about their culture.^{27,28} Our participants also mentioned a lack of hijab-wearing surgeons as a reason for their disinterest in a surgical career. However, two participants remained interested in surgical careers, despite reporting negative experiences similar to those noted by other participants. These two participants were motivated by their desire to be pioneers in the field and increase representation of hijab-wearing surgeons. One participant showed excitement to "pave a path" despite hardship, and another specifically referenced an affirming OR experience from a mentor, so their interpretations of their experiences were overall constructive. While we did not elicit specific personal attributes relating to surgery, we wondered if these two participants had pre-existing interests in surgery, positive surgeon role models, supportive social circles, or aptitudes for surgical skills that were reinforced by positive feedback. Additionally, we wondered if there was a personality type that framed their struggles related to wearing hijab in the OR as a reaffirmation of their faith or their character. We recognize there are individual variations in the degree to which these examples of personal and professional factors impact the consideration of a surgical career. Thus, in summary, we found that surgical career planning for HWLs depended on one's past experiences and future outlook.

While we similarly identified benefits to providing PPE to cover hijabs and formalizing avenues for feedback,^{9,10,13,14,16,19} our findings differ from the literature in the suggested solutions to improve inclusivity for hijabs. We specifically solicited feedback for the creation of an infographic about PPE for hijabs. Some participants expressed hesitation about its uptake by non-hijab-wearing OR staff, some worried about pushback against its implementation, and others questioned whether it would discourage communication of real dangers to sterility because people may hesitate to criticize minoritized individuals out of fear of being perceived as discriminatory. Positive feedback included the infographic's potential utility for learners orienting to the OR. Other benefits involved feeling included and engendering OR culture change wherein HWLs' needs were expected. From this feedback, we identified that an actionable solution would require widespread buy-in to be successful. We believe this buy-in is necessary given the hierarchy in medical education wherein HWLs are disadvantaged as junior learners. We understand that it is likely more difficult for HWLs to advocate for themselves out of fear of receiving poorer evaluations or being perceived as difficult to work with. An infographic could guide HWLs specifically in donning PPE for hijabs, but we believe it should be part of a broader educational movement for the entire OR staff. This way, its uptake is universal and it achieves its intended effect in creating a welcoming environment with clear communication about sterility expectations.

From our exploratory qualitative study, we identified that HWLs in a multicultural society such as Canada have a unique experience with intersecting minority identities that merits further exploration. Future studies could take multiple different paths: identifying effective PPE combinations through quantitative testing for microbial populations and feasibility studies for provision of hijab-specific PPE at the institution level, understanding the contribution of minority identities to HWLs' career planning based in theoretical frameworks such as Grounded Theory (GT) or phenomenology, as well as mixed methods studies of HWL and OR team perceptions about the implementation of educational initiatives such as an infographic on PPE for hijabs.

The limitations of our study include the small sample size (due to the limited participant pool) and the focus on one centre. Our data therefore reflects a local experience which may be difficult to generalize to larger academic systems or community hospitals. In our research, we did not account for the intersectional identities of participants who also identified as women and people of colour; thus, it is difficult to ascribe their negative experiences solely to hijab. Further, we did not account for career planning, individual interests, lifestyle preferences, or job opportunities. Therefore, we will not claim that the hijab was the sole deterrent to pursuing a surgical career. Finally, many of us as research team members had prior informal relationships with participants; to minimize any effects on data collection and interpretation, we adhered to the interview script and were reflexive throughout the research process.

Conclusion

In summary, our study corroborates the literature in finding similar emotional responses and logistical and interpersonal barriers related to wearing a hijab in the OR. These experiences are underpinned by concepts of Islamophobia, racism, sexism, and hierarchies in medical education. However, our study differs from others in connecting HWLs' experiences with their consideration of surgical careers, and in soliciting solutions, as we asked for their ideas to promote inclusivity of hijabs as well as specifically proposed an infographic about PPE for covering hijabs. We found responses to the infographic ranging from its usefulness in normalizing hijabs in the OR and improving access to proper PPE, to potential pitfalls in its uptake by OR staff and further alienation of HWLs. Evidently, wearing a hijab in the OR poses unique challenges for woman-identifying Muslim medical learners. While the solutions we propose can be improved by feedback from the target population, lasting change can only arise with cultural change, where inclusivity is everyone's responsibility and a professional standard.

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References

1. Malik A, Qureshi H, Abdul-Razakq H, et al. 'I decided not to go into surgery due to dress code': a cross-sectional study within the UK

investigating experiences of female Muslim medical health professionals on bare below the elbows (BBE) policy and wearing headscarves (hijabs) in theatre. *BMJ Open*. 2019 Mar;9(3):e019954.

<https://doi.org/10.1136/bmjopen-2017-019954>

2. Khatun R, Saleh Z, Adnan S, Boukerche F, Cooper A. Covered, but not sterile: reflections on being a hijabi in medicine and surgery. *Ann Surg*. 2021 Mar;273(3):e83–4.
<https://doi.org/10.1097/SLA.0000000000004655>
3. Hussain W, Hussain H, Hussain M, Hussain S, Attar S. Approaching the Muslim orthopaedic patient. *J Bone Joint Surg*. 2010 Jul 7;92(7):e2.
<https://doi.org/10.2106/JBJS.J.00065>
4. Litchmore RVH, Safdar S. Meanings of the hijab: views of Canadian Muslim women. *Asian J Soc Psychol*. 2016 Jul;19(3):198–208.
<https://doi.org/10.1111/ajsp.12141>
5. Masood A. Doing gender, modestly: conceptualizing workplace experiences of Pakistani women doctors. *Gend Work Organ*. 2019 Mar;26(2):214–28.
<https://doi.org/10.1111/gwao.12308>
6. Reeves TC, McKinney AP, Azam L. Muslim women's workplace experiences: implications for strategic diversity initiatives. *Equal Divers Incl Int J*. 2012 Dec 28;32(1):49–67.
<https://doi.org/10.1108/02610151311305614>
7. Leyerzapf H, Rifi H, Abma T, Verdonk P. Veiled ambitions: female Muslim medical students and their 'different' experiences in medical education. In: Crul M, Dick L, Ghorashi H, Valenzuela A Jr, editors. *Scholarly engagement and decolonisation: views from South Africa, the Netherlands and the United States*. 1st ed. African Sun Media; 2020. p. 187–213. Available from: <https://bit.ly/2BiMR1B>
<https://doi.org/10.18820/9781928314578/07>. [Accessed on Jul 30, 2025].
8. Mehrabi S, Rimawi A, El-Ghazali A, et al. The operating room and learning environment for US-based Muslim women in medicine. *J Surg Educ*. 2025 Mar;82(3):103399.
<https://doi.org/10.1016/j.jsurg.2024.103399>
9. Abdelwahab RM, Bostwick JM. Medical practice should not require the stripping away of one's self. *Mayo Clin Proc*. 2022

- Sep;97(9):1605–7.
<https://doi.org/10.1016/j.mayocp.2021.12.019>
10. Abdelwahab R, Bostwick JM. Religious coverings in the OR and ICU: unveiling the need for updates in medical education. *Acad Med*. 2022 Dec;97(12):1785.
<https://doi.org/10.1097/ACM.0000000000004957>
 11. Abdulwadood I, Ishimoto AK. Covered in the operating room: carving out space for my hijab. *Acad Med*. 2024 Jun;99(6):e2.
<https://doi.org/10.1097/ACM.0000000000005495>
 12. Borrero M, Kiel L, Abuali I, Ivy ZK, Florez N. The weaponization of professionalism against physicians of color. *Hum Resour Health*. 2024 Jul 16;22(1):52. <https://doi.org/10.1186/s12960-024-00931-y>
 13. Abdelwahab R, Aden A, Bearden B, Sada A, Bostwick JM. Cheat sheet and summary for a multicultural guide to the operating room and ICU. *J Am Coll Surg*. 2022 May;234(5):971–2.
<https://doi.org/10.1097/XCS.0000000000000081>
 14. British Islamic Medical Association. *Bare below the elbows toolkit*. 2017. Available from: https://britishima.org/wp-content/uploads/2024/02/toolkit_hijab_web_6june17.pdf [Accessed on DATE].
 15. Loyola University Health System. *Operating room attire*; 2018. Available from: <https://www.stitch.luc.edu/lumen/meded/surgery/homepage/operatingroomattire.pdf>. [Accessed on Jul 27, 2026].
 16. Wood A. Clinical issues: personnel wearing hijabs in the OR. *AORN J*. 2015 Oct;102(4):441–8. <https://doi.org/10.1016/j.aorn.2015.07.001>
 17. Islam N, Bohnen J, Richardson L, Najeeb U. *Standards for religious attire for health care workers, learners and volunteers in hospital areas with sterile procedures (ASP)*. Toronto Academic Health Science Network; 2022. Available from: <https://meded.temertymedicine.utoronto.ca/sites/default/files/inline-files/TAHSN%20Sterile%20procedure%20area%20religious%20attire%20standards%20-%202022-06-16.pdf>. [Accessed on DATE].
 18. Ahmed SM, Hawn MT. Steps to a culturally conscious workspace in the modern surgical era. *J Am Coll Surg*. 2021 Aug;233(2):327–8.
<https://doi.org/10.1016/j.jamcollsurg.2021.05.006>
 19. Soegaard Ballester JM, Han JJ, Yong CM. Addressing functional biases in procedural environments. *Ann Surg*. 2022 Mar;275(3):e544–6.
<https://doi.org/10.1097/SLA.0000000000005211>
 20. Rendle KA, Abramson CM, Garrett SB, Halley M, Dohan D. Beyond exploratory: a tailored framework for designing and assessing qualitative health research. *BMJ Open*. 2019 Aug;9:e030123.
<https://doi.org/10.1136/bmjopen-2019-030123>
 21. Kallio H, Pietilä AM, Johnson M, Kangasniemi M. Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *J Adv Nurs*. 2016 May;72(12):2954–65.
<https://doi.org/10.1111/jan.13031>
 22. CaRMS. *Program descriptions - first iteration*. Available from: <https://www.carms.ca/match/r-1-main-residency-match/program-descriptions/>. [Accessed on Mar 5, 2026].
 23. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006 Jan;3(2):77–101.
<https://doi.org/10.1191/1478088706qp0630a>
 24. Byrne D. A worked example of Braun and Clarke’s approach to reflexive thematic analysis. *Qual Quant*. 2022 Jun;56(3):1391–412.
<https://doi.org/10.1007/s11135-021-01182-y>
 25. Braun V, Clarke V. One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qual Res Psychol*. 2021 Jul 3;18(3):328–52.
<https://doi.org/10.1080/14780887.2020.1769238>
 26. Braun V, Clarke V, Hayfield N. ‘A starting point for your journey, not a map’: Nikki Hayfield in conversation with Virginia Braun and Victoria Clarke about thematic analysis. *Qual Res Psychol*. 2022 Apr 3;19(2):424–45.
<https://doi.org/10.1080/14780887.2019.1670765>
 27. Volpe RL, Hopkins M, Geathers J, et al. Negotiating professional identity formation in medicine as an ‘outsider’: the experience of professionalization for minoritized medical students. *SSM Qual Res Health*. 2021

Dec;1:100017.

<https://doi.org/10.1016/j.ssmqr.2021.100017>

28. Volpe RL, Geathers J, Loeffler M, et al. "It creates a divide": minoritized medical students' perceptions of professional identity formation. *Educ Health*. 2024 Jul 30;37(2):2.
<https://doi.org/10.62694/efh.2024.13>
29. Moula Z, Zanting A, Kumar S. 'I sound different, I look different, I am different': protecting and promoting the sense of authenticity of ethnically minoritized medical students. *Clin Teach*. 2024;21(4):e13750.
<https://doi.org/10.1111/tct.13750>
30. Schneidman J, Rice K, Armstrong N. Women in surgery: the social construction of gender in surgical practice. *Am J Surg*. 2025 Apr;116343.
<https://doi.org/10.1016/j.amjsurg.2025.116343>
31. City of Toronto. *Update on the City of Toronto's response to the World Sikh Organization of Canada's complaint against contracted security guard companies*. 2022 Jul 5 Available from:
<https://www.toronto.ca/news/update-on-the-city-of-torontos-response-to-the-world-sikh-organization-of-canadas-complaint-against-contracted-security-guard-companies/>.
[Accessed on Mar 5, 2026].
32. Bhatia DDS, Bhatia KS, Saluja T, et al. Under-mask beard covers achieve an adequate seal with tight-fitting disposable respirators using quantitative fit testing. *J Hosp Infect*. 2022 Oct;128:8–12.
<https://doi.org/10.1016/j.jhin.2022.05.015>

Appendix A. Interview guide

Opening:

Hello everyone. Thank you for your participation. My name is ____ and I am one of your focus group leaders for today.

Reminder of the project:

- o The purpose of this study is to conceptualize the logistical and interpersonal struggles that exist in relation to wearing a hijab in the operating room.
- o This focus group should take about 60-90 minutes to complete.
- o The items discussed in this focus group will be used to inform our study and hopefully published in an academic format. All participants will remain anonymous. Demographic information such as age and training status will be presented numerically and will not be tied to individual quotations. Any illustrative quotations taken from this session will be presented to you, deidentified, for your review before submission, and you may decline to have it included in the final publication.
- o Should you wish to withdraw from the study at any point, you may contact us so we can remove any discussion points attributed to your participation.
- o As a thank you for participating, we will be emailing each participation a \$10 digital gift card to a Muslim-women run business.

Ground Rules for the Discussion:

- o Participation is voluntary; you are not obligated to share your answer for every question.
- o There are no “right” answers - we are here to listen to you as you share your experiences as a Muslim trainee wearing a hijab.
- o We ask everyone to be respectful of each participant as they speak, share their experiences, and share their opinions.
- o If you are speaking, please start off by saying your name. This will aid the transcriber.
- o There may be some questions that may upset you. If you feel upset at any point, you are more than welcome to take a break and log off. We recognize that some folks may need some space or alone time to process but if you would like one of the focus group facilitators to join you, please give us a thumbs down and we will join you
- o Additionally, you are more than welcome to call the Telephone Aid Line Kingston (TALK) at 613-544-1771 or [Naseeha Mental Health](#) available to call or text at 1 (866) 627-3342. A list of more supports will be sent out if requested.
- o Finally, we ask that participants do not share any details or information outside of the focus group as to protect the privacy of the participants

Introductory Questions:

- Introduction for each participant: name, pronouns, educational background (i.e., medical student or resident), interested specialities
- Experience in the operating room: approximate time spent in the OR, which site(s) (e.g., Kingston General Hospital, Hotel Dieu Hospital).

- Have you been in any other centres and their ORs?

Focused Questions:

- What have your experiences been like as a hijab-wearing learner in the OR?
 - Any type of encounters (positive and negative)
 - What was your role? Observer, active participant (clerk, resident)
 - Follow-up/probing questions:
 - Thinking back, were there any instances where you felt respected in the OR due to wearing a hijab?
 - Why do you think you felt this way?
 - What factors (systemic or institutional) do you think contributed to this encounter?
 - What can be done to promote these respectful environments?
 - Thinking back, were there any instances in the OR where you felt disrespected due to wearing a hijab?
 - Why do you think you felt this way?
 - What factors (systemic or institutional) do you think contributed to this encounter?
 - What can be done to prevent these disrespectful environments?
 - Thinking back, were there any situations where you felt the physical environment was unsupportive towards someone who wears a hijab?
 - Thinking back, were there any situations where you felt unsupported in the OR?
- Have you experienced any advantages when wearing your hijab in the OR (that you haven't already mentioned)?
 - To what extent, if any, have any advantages affected your learning?
- Have you experienced any barriers associated with wearing your hijab in the OR?
 - To what extent, if any, have any barriers affected your learning?
- In what ways do your experiences as a hijab-wearing learner weigh in on your career planning, if at all?
 - To what extent did you consider avoiding a career in the OR because of your experiences of being a hijab-wearing trainee in the OR?
 - For those who had a change in a career path, what supports could have been implemented to have changed your mind?

- Take me through the process of how you put on surgical attire while wearing your hijab.
 - Is there anything that you would like to do differently in putting on your surgical attire that you are not currently able to do at either KGH or HDH?
 - In a perfect world, what resources or solutions would you like to see in the hospital ORs to better accommodate your needs as a hijab-wearing learner?

- We will be creating an infographic to standardize surgical attire for hijab-wearing learners and to provide education to the medical community. What content do you think would be important to be included in this infographic?
 - To what extent have you used resources (online/social media, friends/family, hospital staff, etc.) to help you in observing your hijab in the OR?
 - If this infographic was implemented in the ORs in KGH or even across Canada, how would it make you feel?
 - Would it address the concerns that were raised in the discussion?

- Is there anything else you would like to discuss that we haven't already covered?

Wrap Up:

Thank you for sharing your experiences on being a Muslim wearing a hijab in the OR. As stated in the beginning of the session, your input will remain anonymous, and you may retract from the study by contacting any of the co-investigators on the team or sending an email to hijabsintheor@gmail.com. Please let us know if you would like to retract. We understand the nature of these discussions can bring up difficult topics and experiences. If you need to further debrief, interview facilitators can be present after this session and can discuss next steps if you feel there is further action needed, particularly formal action. You may also use the Telephone Aid Line Kingston (TALK) at 613-544-1771 or [Naseeha Mental Health](#), available to call or text at 1 (866) 627-3342