

Supporting Ramadan observance in dental education and clinical care: a mixed-methods survey of staff and students

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Additional Declarations: There is no duality of interest

Abstract

Aims

This paper reports a survey of staff and students at a UK dental school exploring confidence, uncertainty and support needs relating to Ramadan in dental education and patient care. It examines how respondents understood inclusion and equitable support.

Methods

A questionnaire measured self-reported confidence in supporting Muslim students and patients and invited free-text responses about information needs, experiences of support and areas of uncertainty. Twenty-five staff and 17 students responded. Free-text data were analysed using reflexive thematic analysis from a contextualist epistemological perspective in NVivo, with attention to both shared patterns and divergent accounts.

Results

Most respondents reported some confidence supporting Muslims during Ramadan. Five themes were developed: (1) from informal knowledge to accessible guidance; (2) clinical uncertainty and person-centred care; (3) relational uncertainty and fear of causing offence; (4) adjustments and institutional responsibility; and (5) uneven experiences of inclusion. Qualitative findings showed confidence can coexist with substantial uncertainty.

Conclusions

Needs extended beyond Ramadan guidance. Respondents wanted support for respectful conversations, clinically appropriate decision-making, and clarity about what support could be offered. Educational resources should be linked to institutional guidance and opportunities for dialogue. Psychological safety offers a useful interpretive lens for understanding why uncertainty may otherwise remain.

Key points

1. Self-reported confidence in supporting Ramadan observance can coexist with substantial clinical, relational, and organisational uncertainty.
2. Psychological safety may help explain why staff and students hesitate to ask questions about religion, but open dialogue also requires clear institutional guidance, modelling, and authority.
3. Inclusive Ramadan support requires recognition of diverse Muslim experiences and transparent approaches to equity, without expecting Muslim students or patients to educate others.

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Background

Oral-health inequalities are shaped by intersecting socioeconomic, geographical and structural factors, including the availability and accessibility of dental services. Research has found patterns and outcomes varied considerably between ethnic groups and across the life course,¹ and between religious groups.²

Many Muslims observe Ramadan where they abstain from food and drink between dawn and sunset. Exemptions to fasting apply for circumstances including illness, pregnancy, menstruation, however individual choices vary. Changes in eating, drinking, sleeping and oral-hygiene routines during Ramadan may have implications for oral health and dental care. Studies have reported changes in salivary flow during fasting,³ while dry mouth and concerns about halitosis are commonly discussed in clinical guidance.⁴ Changes in timing and composition of meals may also affect oral-hygiene practices and sugar exposure.⁵ However, Ramadan should not be represented solely through a risk or deficit framework. For many individuals, the month provides an opportunity for reflection, growth, and changes in health-related practices.^{6,7}

Dental treatment during Ramadan can involve practical and religious uncertainty. Some patients may be concerned that swallowing water, blood or dental materials, receiving medication, or undergoing particular procedures could invalidate their fast.^{8–10} Interpretations may differ between individuals and Islamic traditions. Consequently, practitioners should avoid assuming a Muslim patient is fasting or that all fasting patients will make the same treatment decisions. Respectful enquiry, shared decision-making, and clinically appropriate appointment flexibility may support patient choice and trust. Any oral health promotion should be aligned with faith and cultural practice to deliver patient-centred care.¹¹

Research with fasting students has found increased changes in sleep patterns and fatigue levels can impact academic performance.¹² Dental schools are distinctive environments in which students are simultaneously learners and developing healthcare professionals, while staff have responsibilities towards both students and patients. This study explored not only knowledge about Ramadan, but how staff and students understood support, inclusion, and their own confidence to discuss and respond to Ramadan-related needs.

The objectives were to:

1. Understand staff and students' self-reported confidence in discussing Ramadan and supporting Muslim students and patients.
2. Explore what information and forms of support respondents considered useful.
3. Identify clinical, educational, and organisational uncertainties, including how respondents understood appropriate support, inclusion and institutional responsibility.
4. Create a suite of resources informed by the survey to increase confidence in supporting Muslim students and patients during Ramadan.

The present paper reports on survey findings which were used to develop and evaluate a Ramadan resource which will be reported in a separate paper.

Methods

Design and setting

A cross-sectional, mixed-methods survey was undertaken in a UK dental school. The project was co-designed by AS, a Year 2 student, and NA, an academic in the School. AS conceived the initial idea of a Ramadan resource and NA developed the research structure for the survey and undertook data analysis. The survey reported here constituted the formative phase of the wider project; resource development and evaluation form a subsequent phase.

Recruitment and data collection

An online, School-wide survey was conducted in the last 3 weeks of July 2026. All eligible staff and students were invited to participate through student and staff bulletins. The survey received 42 responses: 25 from staff and 17 from students.

The survey collected demographic and professional information and included closed-response questions concerning respondents' confidence in discussing Ramadan and supporting Muslim students and patients. Open-text questions explored perceived usefulness of a Ramadan resource, areas respondents wanted further information, experiences of support, and suggestions for supporting Muslim students and patients.

Quantitative analysis

Closed-response data were analysed descriptively. Counts and percentages were calculated using the number of respondents answering each item as the denominator. Staff who did not work with patients were excluded from calculations concerning confidence in supporting Muslim patients. Given the small sample, no inferential statistical comparisons were undertaken. Comparisons between respondent groups were treated as descriptive and exploratory.

Qualitative analysis

Free-text responses were imported into NVivo and initially organised according to the relevant survey questions. NA undertook familiarisation and initial coding and developed themes, which were discussed with AS. Analysis was conducted from a contextualist position, attending both to respondents stated information needs and to patterns of meaning concerning uncertainty, inclusion, fairness and institutional responsibility.

The qualitative analysis sought to interpret patterns across accounts. Theme development was grounded in the free-text data. Illustrative quotations were selected for their specificity and analytic relevance. Quotations were anonymised using broad participant descriptors to reduce the risk of deductive identification.

Ethics and governance

Ethics approval

was granted by the Health Sciences Student Research Ethics Committee (ID: 31121). Participation was voluntary, and respondents were informed about the purpose of the survey, management of their data and use of anonymised quotations.

Results

Forty-two participants completed the survey: 25 staff and 17 students. Staff respondents included clinical, academic and professional-services colleagues. Students from all five years of the Bachelor of Dental Surgery programme and two out of three years of the Bachelor of Dental Therapy programme participated. Participant characteristics are presented in Table 1.

Table 1
Respondent characteristics

Characteristic	Staff (n = 25)	Students (n = 17)
Role/programme	Clinical 15; academic 4; professional services 6	BDS 15; BDT 2
Gender	Female 22; male 3	Female 14; male 3
Religion	Christian 10; none 14; Muslim 1	Muslim 8; none 4; Christian 3; Sikh 1; prefer not to say 1
Ethnicity	White 22; Asian 2; mixed/multiple 1	Asian 7; White 4; Mixed/ multiple ethnic groups 2; Black 2; Arab 2

Eighteen of 25 staff respondents (72%) reported at least some confidence supporting Muslim students during Ramadan. Among the 18 patient-facing staff respondents, 14 (77.8%) reported at least some confidence supporting Muslim patients with “a bit confident” the most frequently selected category for both questions.

Among the 17 student respondents, eight identified as Muslim. All eight Muslim students reported at least some confidence discussing Ramadan with peers and six of eight reported at least some confidence working with Muslim patients. Among nine non-Muslim students, the corresponding figures were seven of nine and six of nine.

Analysis of the free-text responses generated five themes: (1) from informal knowledge to authoritative guidance; (2) clinical uncertainty and person-centred care; (3) relational uncertainty and fear of causing offence; (4) adjustments and institutional responsibility; and (5) uneven experiences of inclusion and contested understandings of support. Quotations are attributed using job role for staff and faith identity for students, using broad descriptors to protect anonymity.

Theme 1. From informal knowledge to accessible and authoritative guidance

Apart from one respondent, there was strong support for concise, accessible information. Many respondents had acquired their knowledge informally through networks and experience.

"I feel like a lot of what I know has been picked up informally over the years." Clinical Supervisor

There was uncertainty about what was allowed,

"Can changes/allowances be made to their curriculum to facilitate early mornings and sleep deprivation/change? Thinking about patients' treatment and whether they can rinse with water after treatment? Thinking about allowing time for students to have breaks between patient sessions and the fact that they might not be drinking water and possible dehydration. Knowing how to ask what support they need without sounding patronising and condescending" Clinical Supervisor

Staff felt it would be valuable to,

"Standardise support across the University and be able to support colleagues in supporting students and staff." Clinical Lecturer

Respondents repeatedly specified that the resource should be concise, with one suggesting "a ten-minute video type" format.

Theme 2. Clinical uncertainty and person-centred care

Both staff and students shared uncertainty over acceptable treatments for fasting patients, those with medical conditions, and children.

"I would like to know if things like the water spray could constitute breaking fast. As I guess even with excellent suction some could be swallowed—is this a very silly question?" Clinical Senior Lecturer

"Whether Ramadan practices also apply to paediatric patients undergoing dental treatment and if any special adjustments may be needed" Clinical Lecturer

Highlighting the variation in patient choice across fasting patients, a student noted the benefit of having tips for handling conversations,

"Some reject water from ultrasonic instruments and other toothpaste, varnish or anything flavoured. It would be nice to know how to go about this. What kind of questions should we ask to gauge consent?" - Muslim Student

The heterogeneity of Muslim patients was noted,

"Muslim patients observe varying degrees of strictness e.g. no water in the mouth/rubber dam needed for any procedures using water, which materials contain alcohol/ other haram ingredients" Non-Muslim Student

Clinical uncertainty was not restricted to non-Muslim respondents. One Muslim student explained:

"I've been observing Ramadan my whole life...but I still struggle and don't know what to do, as there's no tailored advice for us." - Muslim Student

And another said,

"Should we assume someone is practising from their name, appearance or clothing, and how do we go about asking?" – Muslim Student

Theme 3. Relational uncertainty and fear of causing offence

Staff and students were worried about saying the wrong thing, or inadvertently appearing "tone deaf", "overbearing", and wanted support on "how not to offend".

Respondents wanted to have spaces to be able to have conversations

"Just having an open conversation, as maybe some people avoid the conversation due to not wanting to say the wrong thing." – Non-Muslim Student

"Knowing how to ask what support they need without sounding patronising and condescending." – Clinical Supervisor

"Respectful ways to ask about their fast, how to support them, things to avoid saying" Non-Muslim student

Theme 4. Adjustments, authority and institutional responsibility

Respondents wanted greater clarity and support at School and institutional level about flexibility around prayer, timetabling, placements and other Ramadan-related needs. Their questions concerned not only what support might be helpful, but who had authority to offer it, how individual circumstances should be considered, and how support could be implemented consistently alongside clinical responsibilities.

"It would be helpful to know how to advise students who are worried about Ramadan affecting their studies. The University does not always make concessions or factor Ramadan into academic-year planning, which can mean students undertake important assessments whilst fasting." – Professional Services Administrator

This lack of planning was evident in the hospital placements being scheduled during Ramadan which some students felt impacted their learning

"During hospital rotations it feels difficult to take advantage of the learning opportunity", Muslim Student

"What reasonable adjustments can we provide students, balanced against the needs of patients - for example, start times, breaks and prayer times- and should this be on an individual basis or a blanket rule?" Clinical Lecturer

"To what extent is there flexibility in fasting? Who can I advise students to speak to if they would like faith-based guidance around Ramadan and their studies?" Professional services Administrator

"[having guidance] could improve confidence...without putting the burden on individual students or patients to educate others." Senior Clinical Lecturer

More generally, and applying beyond simply Ramadan it was felt the School needed to,

"Address microaggressions against hijabi students and other students of colour" Non-Muslim Student

Theme 5. Uneven inclusion and contested perceptions of support

Muslim students described both supportive and exclusionary experiences. Positive accounts included approval of Eid leave, time and dedicated space to pray and acknowledgement of Ramadan by nursing staff.

"Nurses are lovely...they congratulate us upon the arrival of the month and draw some lanterns and Ramadan decorations on the whiteboard to raise awareness and make us feel included and seen." Muslim Student

However, some felt unseen,

"Supervisors are unaware we are fasting and expect the same level of efficiency as normal days." Muslim Student

This contrasted with the view of a clinical staff member who said,

"Ramadan is always mentioned during briefings" Clinical Lecturer

Although support for additional guidance was widespread, one staff respondent reported they had nothing more to learn about supporting Muslim students or patients and considered existing support sufficient,

"The Muslim students are already very well supported at the Dental School...Any more support will be discriminatory to other religions." Clinical Staff (role not provided)

Whilst this was the only directly divergent response, other staff noted the prevalence of such attitudes,

"There is sometimes an assumption (among staff) that Muslim students are receiving favourable treatment" Academic Lecturer

and

"I suspect that the School assumes it adequately supports Muslim students." Senior Academic Lecturer

Discussion

This study found most respondents reported at least some confidence supporting Muslim students and patients during Ramadan. However, confidence coexisted alongside substantial uncertainty about clinical procedures, how to begin conversations, what support could appropriately be offered, and who had authority to make decisions. Confidence is therefore not equivalent to preparedness or competence.

The findings also disrupt the notion of Muslims as knowledgeable insiders and non-Muslims as external learners. Muslim students described variation in their own confidence and uncertainty about clinical practice. Lived experience may provide important insight, but it should not be treated as a substitute for clinical, religious, or institutional authority. The request for guidance *"without putting the burden on individual students or patients to educate others"* is a reminder that inclusion should not depend on Muslim individuals undertaking informal labour to protect against institutional unpreparedness.

Participants worried about offending others, sounding patronising or "tone-deaf", and asking a "silly question". These responses suggest a relational uncertainty with Ramadan-related conversations experienced as involving some level of interpersonal risk. Psychological safety provides a useful interpretive lens for this aspect of the findings.^{13,14} In health-professions education, psychologically safe environments support question-asking, acknowledgement of uncertainty and speaking up,^{15,16} while hierarchy, assessment pressures and fear of negative judgement may inhibit participation.^{17,18} Dental education is characterised by asymmetrical relationships between students, supervisors, staff, and institutional decision-makers. And discussions of religion, culture and accommodation may carry additional perceived risk.¹⁴

The present data do not demonstrate the School lacked psychological safety, or that hierarchy caused conversational avoidance. Rather, psychological safety helps explain why uncertainty may remain unspoken even where there is considerable goodwill.

Psychological safety cannot by itself account for the organisational uncertainty evident in the data. Respondents repeatedly asked what flexibility was permissible, whether support should be individual or standardised, and who could authorise changes. These questions point beyond individual cultural competence (a GDC Learning Outcome) towards School responsibility to model and deliver cultural competence in e.g. decisions around access to prayer spaces for Muslim patients. Staff and students may be willing to support Ramadan observance but lack the authority or policy clarity required to act. Conditions for open dialogue therefore need to be accompanied by clear decision pathways, accountability, and transparent guidance.

The findings also reveal inclusion was experienced unevenly. Muslim respondents described positive recognition, including Eid leave, prayer facilities and acknowledgement of Ramadan, alongside experiences of supervisors being unaware of fasting, timing of placements, alcohol-centred social activities, and microaggressions. The comment on microaggressions highlights the need to explore intersectional accounts of exclusion. The findings caution against treating institutional inclusion as either wholly present or absent. Support may be experienced differently within the same institution across different settings, staff, relationships, and encounters. Within the context of established awarding gaps¹⁹ accommodating placements outside of Ramadan can support institutions be more inclusive, support educational learning, and demonstrate cultural competence.

While some respondents understood differential support as necessary to enable equitable participation, one respondent regarded Ramadan-related support as potentially discriminatory towards other religions. Rather than treating this as simply an oppositional view, it highlights a tension between equality understood as identical treatment and equity as a response to differing circumstances. This view of equality demanding identical treatment remains strongly held in healthcare but is in contradiction to the Equality Act. Such views which cast reasonable accommodations as privilege, risk destabilising safety and may further silence Muslim students and patients from sharing needs, which in turn solidifies institutional complacency.²⁰

The position that existing provision is sufficient and additional accommodation potentially discriminatory risks invalidating Muslim students' reported experiences of inconsistent support and shifts scrutiny from institutional responsibilities to framing equitable provision as exaggerated students' demands. This can dismiss the reality that Muslim students are often highly disadvantaged in educational spaces²¹ including dentistry.²²

Thus transparent, needs-based policies may be important not only for those seeking support but also for making the rationale for differential arrangements. As universities welcome greater diversity in their student body, and dental professionals work with wider patient groups, it is paramount staff are educated on outdated and potentially harmful ideas of equality.

The findings suggest the challenge is not simply a deficit of knowledge about Ramadan; respondents described informational uncertainty about Ramadan, clinical uncertainty about treatment, relational

uncertainty about how to ask questions, and organisational uncertainty about what could be done and by whom. Psychological safety is particularly useful for understanding the relational dimension, but psychological safety cannot be rushed, and it is important to measure the parameters, processes, and people that create a sense of safety (and lack of). Psychologically safe dialogue must also sit alongside religious literacy, person-centred clinical practice, and institutional clarity.

Strengths and Limitations

This study captured perspectives from both staff and students across a range of roles and stages of training, and the free-text responses generated accounts of clinical, relational and organisational uncertainty. The inclusion of contrasting and divergent accounts strengthened the analysis by avoiding an assumption of a single Muslim experience or a uniform institutional perspective. However, the study was conducted in one UK dental school using a small, self-selected sample, and the timing at the end of the academic year may have reduced participation.

The Muslim subsample was small and there was only one Muslim staff respondent. Free-text survey responses also provide less depth than interviews or focus groups and did not allow the researchers to probe ambiguity or explore how participants understood particular terms. Confidence was self-reported and should not be interpreted as a measure of clinical competence. Finally, no patients participated; findings concerning patient support reflect staff and student perceptions of patient needs rather than Muslim patients' own experiences or preferences.

Conclusion

Confidence in supporting Ramadan observance did not remove uncertainty about clinical care, communication, or institutional processes. Respondents described balancing wanting to ask respectful questions with worries about causing offence. They expressed uncertainty about what support could be offered and who had authority to authorise it. Muslim students' accounts warned against lived experience substituting formal guidance. Psychological safety provides a useful lens for understanding why uncertainty about religion and inclusion may remain unspoken, but the findings also show that open safe dialogue requires institutional clarity. Supporting inclusion therefore involves not only improving knowledge of Ramadan, but creating conditions in which uncertainty can be voiced, differing needs discussed without assumption, and equitable support understood and implemented transparently.

Declarations

Competing Interests

The authors have no competing interests to declare.

Consent to Publish

Informed consent was obtained from all individual participants included in the study.

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Author contributions:

AS and NA conceived the study and design

Data Availability Statement

The data supporting this study's findings are available from the corresponding author upon reasonable request, subject to privacy and ethical restrictions.

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