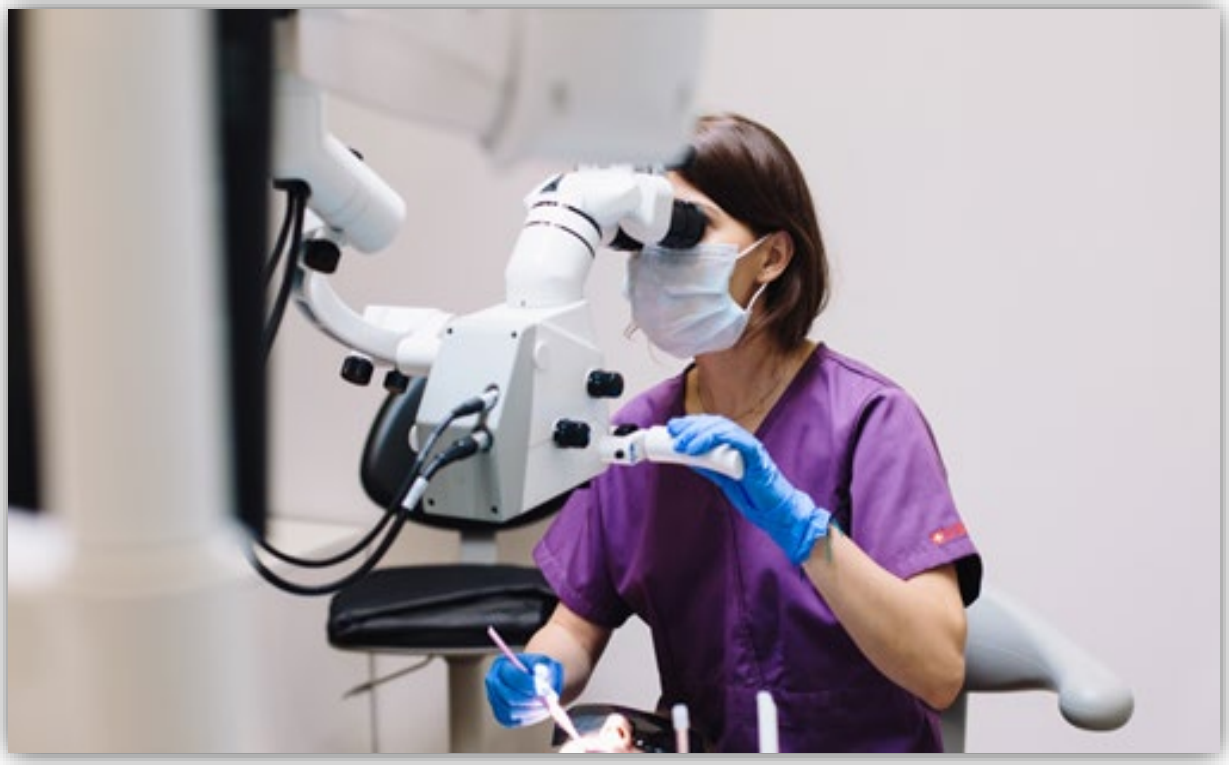

# Rapid Evidence Assessment: Sexual misconduct in dentistry

**Prepared for: General Dental Council**
**University of Manchester**
**May 2025**

The University of Manchester

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**ISBN: 978-1-911654-16-2**

# List of tables and figures

# Table of contents

# Executive summary

Within the workplace, sexual misconduct is an umbrella term encompassing a range of inappropriate behaviours. Within the dental environment this can include inappropriate behaviours from dental professionals, patients or their family members or carers, administrative staff, or other personnel.

These behaviours include staring or leering, comments, gestures, and unwanted sexual advances or physical contact not necessary for dental care. These inappropriate behaviours are often influenced by power dynamics within the environment, and have extensive repercussions for patients and dental staff, affecting professional engagement, public trust in the profession, damaged reputations, legal risks, and the mental health of those who have been victimised.

To explore issues surrounding sexual misconduct in the dental environment, the General Dental Council commissioned a rapid assessment of existing evidence in the literature. The aims were to explore the prevalence, causes, and impacts of sexual misconduct within the dental environment, as well as evaluate existing interventions and identify gaps to inform policy development and future research.

A systematic review of the academic and grey literature was conducted, capturing articles published between January 2010 and October 2024. The search initially identified 2,238 studies, which were passed through inclusion/exclusion criteria, resulting in 23 peer-reviewed articles that were relevant to the aims of this review.

The key findings were:

- There is limited global and cultural representation within published studies, with no data on dental patients as victims of sexual misconduct, as well as a lack of longitudinal research on the effectiveness of interventions.
- Sexual misconduct is under-reported in dentistry, with most of the included studies describing surveys, and between 5%-48% of participants indicating they had been the victim of sexual misconduct.
- Between 25%-40% of participants indicated they had witnessed sexual misconduct.
- Factors contributing to sexual misconduct and under-reporting include hierarchical power dynamics, informal workplace gatherings that involve alcohol, a lack of clear reporting mechanisms, lack of trust in outcomes, and fear of retaliation for reporting.
- Men were disproportionately identified as perpetrators, with male dentists and patients the most frequently implicated.

- Victims suffered from emotional trauma, professional disengagement, and reluctance to report incidents, organisations suffered from reputational damage, loss of patients and legal consequences, and the profession suffered from a decline in public trust and standing of the profession.
- Key recommendations from the literature include:
    - Developing training for dental professionals in setting boundaries, identifying sexual misconduct, and managing instances of sexual misconduct.
    - Creation of safe dental working environments that minimise the risk of sexual misconduct.
    - Implementation of robust policies relating to sexual misconduct
    - Promotion of supportive organisational culture.
    - Implementation of restorative justice measures to rebuild trust between dental professionals and patients, and improve workplace dynamics.
    - Advocating for balanced media reporting to prevent sensationalism and protect the reputation of the profession.

This rapid review highlights the need for comprehensive systemic changes within dentistry to manage the current sexual misconduct issue effectively. This requires combined efforts from regulators, educational institutions, and professional bodies to create safer and more equitable environments within dental workplaces.

Studies within this area need to move beyond the collection of prevalence data, prioritising qualitative insights, innovative interventions, and robust evidence to combat this issue.

# Rapid Evidence Assessment: Sexual misconduct in dentistry

## 1. Introduction

The General Dental Council (GDC) is the UK-wide statutory regulator of over 120,000 members of the dental team, including approximately 44,567 dentists and 76,520 dental care professionals consisting of dental nurses, clinical dental technicians, dental hygienists, dental technicians, dental therapists and orthodontic therapists.

Abusive, harassing, coercive, and controlling behaviours, including sexual misconduct and assault, have been an increasingly recognised and reported experience for many in health-related workplaces. The GDC's remit means that it is important for the regulator to understand as much as possible about this subject and the risks faced by those working in and receiving dental services, and what works to prevent incidents, identify and respond to incidents and/or mitigate the risks of such behaviours. Through understanding these issues and by working together with stakeholders, the GDC can better fulfil its remit to protect the public from harm and ensure that registrants are able to meet the required professional standards.

## 2. Background

Sexual misconduct in the dental workplace encompasses a range of inappropriate behaviours, including unwelcome sexual advances, comments, gestures, and physical contact that are of a sexual nature and not relevant to patient care. This misconduct can manifest between practitioners and their patients, as well as among colleagues, creating a hostile and unsafe environment. Factors influencing such behaviour could include:

- power dynamics, where dental professionals may exploit their position of authority over patients or more junior colleagues
- lack of clear policies and training on professional conduct, and
- insufficient or ineffective reporting mechanisms, which may deter victims from coming forward.

Additionally, cultural and systemic issues within the workplace, such as tolerance of inappropriate behaviour or inadequate enforcement of consequences, can perpetuate a climate where sexual misconduct is more likely to occur.

The impact and consequences of sexual misconduct are far reaching. For dental professionals or patients who are victims, sexual misconduct can lead to significant emotional and psychological trauma. For dental professionals as victims, it can affect

engagement with their profession and willingness to provide care. For patients, it can result in a loss of trust in healthcare professionals and deter individuals from seeking necessary dental care in the future. For dental professionals as perpetrators, allegations and confirmed cases of sexual misconduct can lead to severe professional consequences, including fitness to practise proceedings, sanctions or erasure from the register, legal action, and damage to their personal reputation. There is also the disrepute of the profession as a whole. Providers are impacted too as such incidents can harm the reputation of the dental service, leading to a loss of patients and potential legal liabilities.

## 2.1. Legal context

In the United Kingdom (UK), the Equality Act (2010) as interpreted by the British Medical Association (BMA) states that someone sexually harasses another person in employment if they:

(1) engage in unwanted conduct of a sexual nature, and
(2) the conduct has the purpose or effect of either violating the other person's dignity or creating an intimidating, hostile, degrading, humiliating or offensive environment for them [1, 2].

Such unwanted sexual conduct can happen in person, on the phone, by text or email, or online. Both the harasser and the victim or survivor can be of any gender [3]. Some forms of sexual harassment automatically break criminal law in England and Wales and are therefore punishable offences. These include:

- stalking
- indecent exposure
- 'upskirting', or
- any sexual harassment involving physical contact [4], which amount to sexual assault.

In addition, the Worker Protection (Amendment of Equality Act 2010) Act 2023 is a UK law about preventing sexual harassment [4, 5]. The Act also requires employers to take 'reasonable steps' to prevent sexual harassment and create a safe working environment [3].

Given the increasing focus on sexual misconduct within workplaces, not only limited to healthcare, but it is also timely to review the evidence within dentistry through a literature review and synthesis of relevant recommendations.

# 3. Aim and research questions

## 3.1. Aim

The aim of the review was to examine the current evidence surrounding sexual misconduct in dental settings, to build an evidence bank of research from which to draw relevant learning and to build on as the evidence base around misconduct-related workplace behaviours develops.

## 3.2. Research questions

1. What does existing evidence describe about the prevalence, profile, reasons for and impact of sexual misconduct and associated contextual factors in dentistry (e.g. on service access, the delivery of services, and on individuals, patients, professionals and others working in the sector including any impacts correlated with measures of equality, diversity and inclusion)?
2. What evidence is there about what works to prevent, identify, mitigate the impact of and respond to sexual misconduct in dentistry from the perspective of a) regulation (for instance, in relation to regulation policies, guidance and the operations of education quality assurance, fitness to practise and registration) and b) other settings and agencies (for instance, education and training, workplace culture and support, professional organisations)?
3. What methods have been used to evaluate interventions to mitigate, prevent and/or respond to sexual misconduct and associated contextual factors in dentistry and/or otherwise similar professions?
4. What gaps are there in the evidence to inform effective regulatory responses, in relation to understanding the prevalence and profile of sexual misconduct and associated contextual factors and in relation to preventing, mitigating the impact of and responding to sexual misconduct and associated contextual factors in dentistry?

# 4. Method

This rapid review of the published and grey literature was conducted according to elements of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines [6].

For the purposes of this review, ‘sexual misconduct’ was defined according to the University of Law’s definition, encompassing actions or behaviours that include sexual violence, assault, harassment, bullying or any form of sexual victimisation [7].

## 4.1. Search terms

The search terms listed in **Table 1** were employed in a systematic search to capture relevant published studies. The list of search terms was developed in close liaison with an Information Search Specialist from the University of Manchester. Terms were agreed with the GDC, following a pilot search. Terms were combined and used with Boolean operators, modified for each database as necessary. This ensured comprehensive and relevant retrieval. Database-specific syntax adjustments were applied as necessary.

An example of such a combination is as follows: (Sexual OR Sex*) AND (Misconduct OR Violence OR Attack OR Assault OR Harassment OR Bullying OR Victimi?ation) AND (Dental OR Dentistry)

***Table 1: List of search terms utilised***

| Sexual terms | Misconduct terms | Dental terms |
|---|---|---|
| | **AND** | |
| Sexual | Misconduct | Dent* |
| Sex* | Violence | Dental |
| | Attack | Dentistry |
| | Assault | |
| | Harassment | |
| | Bullying | |
| | Victimi?ation | |

## 4.2. Inclusion and exclusion criteria

Studies were included or excluded based upon criteria outlined in **Table 2** below.

***Table 2: Inclusion and exclusion criteria for search***

| Inclusion | Exclusion |
|---|---|
| **Population**: Studies involving dental professionals (dentists, dental care practitioners, dental technicians, dental nurses), dental students, and patients in dental care settings. | Studies that included dental professionals though whose data was mixed with other health professions and did not explicitly state outcomes specific to dental professionals. |
| **Phenomenon of interest**: Studies capturing and reporting on the prevalence of sexual misconduct within | Studies that did not provide empirical data on sexual misconduct in dental settings or with dental professionals. |

| Inclusion | Exclusion |
|---|---|
| the context of dentistry, including details of perpetrator and victim. Also, studies that reported on policies or interventions targeted at preventing or managing instances of sexual misconduct. | |
| **Types of studies**: All study designs (e.g., quantitative, qualitative, mixed methods), as well as grey literature. | Literature that was solely editorial or opinion-based without empirical data or case analysis. |
| **Language**: Studies in English and other languages, provided an English abstract or translation is available. | N/A |
| **Timeframe**: January 2010 to October 2024. | N/A |

## 4.3. Databases

A comprehensive search was conducted across multiple databases to ensure broad coverage of the topic. The databases searched are listed in **Table 3** below.

***Table 3: List of databases searched***

| Medical and health sciences databases | Regional and discipline-specific databases |
|---|---|
| PsycINFO | Dentistry and Oral Sciences Source |
| PubMed | ASSIA |
| Embase | African Journals Online |
| CINAHL | Scientific Electronic Library Online |
| Web of Science | African Index Medicus |
| Cochrane Library | KoreaMed |
| MEDLINE | Western Pacific Region Index Medicus |
| Scopus | China National Knowledge Infrastructure |
| AMED | ThaiJO |
| Ovid Technologies | e-Marefa |
| ProQuest | Philippine E-Journals |
| Academic Medicine | J-STAGE |
| Google Scholar | SA ePublications |
| MedEdPORTAL | Latin American and Caribbean Health Sciences Literature |
| BioMed Central | |
| Cochrane Collection Plus | |

### 4.4. Grey literature

To capture unpublished or otherwise inaccessible studies, grey literature sources were explored, including a search of the NIH Library Systematic Review Gray Literature sources: NIH Gray Literature Sources.

### 4.5. Data management

Search results were managed using reference management software (EndNote) to organise and de-duplicate the literature. Extraction was documented within a shared excel workbook, with sheets for searches, search results, and data extraction.

### 4.6. Screening and selection

The research team consisted of three members. Searches of each database were independently conducted by two members, as was title and abstract screening of studies found through searches.

Studies considered potentially eligible by each member were added to the relevant excel sheet and full text review by all authors for final eligibility, with disagreements resolved by consensus. Any clarifications on inclusion and scope were consulted upon with the GDC.

### 4.7. Data extraction and analysis

A standardised data extraction form was developed to capture relevant information from each included study (see **Appendix 1**). This extraction included: title, authors, year published, study design, country, setting, funding, population, sample size, participant inclusion and exclusion criteria, definition and description of sexual misconduct, data collection methods, key findings, author conclusions and implications for practice and further research.

Data extraction was conducted by the three researchers, and a random selection of articles (n=5) were quality checked by a second reviewer. Quantitative data were summarised descriptively, and key findings grouped according to common themes identified by the researchers. Due to the small sample size of papers included, thematic analysis was conducted within excel. The funder requirements were for a rapid evidence synthesis. Therefore, a quality appraisal of the included studies was not conducted.

## 5. Results

The search identified 2,238 studies; after removing duplicates 446 studies underwent title and abstract screening, with 378 of these excluded. The remaining 68 studies

underwent full-text assessment for eligibility, with 45 excluded due to study design, lack of relevant outcome data, wrong participant population, or year of publication. **Figure 1** below illustrates the searching and screening process, with 23 peer-reviewed, published studies from 1 January 2010 to 31 October 2024 included in the final qualitative synthesis.

A lack of published studies describing interventions relating to sexual misconduct in dental settings prevented a quantitative synthesis (meta-analysis). **Appendix 2** provides a summary of the key data extracted from each of the included studies. Papers utilised terminology of sexual misconduct and sexual harassment – from herein, referred to as sexual misconduct within our discussion.

## 5.1. Definition of sexual misconduct

Definitions of sexual misconduct were variously described; eight papers did not define terms [8-15]. Definitions from established organisations such as the World Health Organisation or the NASEM 2018 Report were cited. Synthesising the various definitions provided within the included articles: Sexual misconduct encompasses a range of unwelcome behaviours, including gender harassment, unwanted sexual attention, and sexual coercion. It may involve verbal, nonverbal, or physical actions that create a hostile or intimidating environment, interfering with an individual's work performance. Despite the terms used during the search, there was a scarcity of literature relating to sexual misconduct in dentistry.

## 5.2. Study characteristics

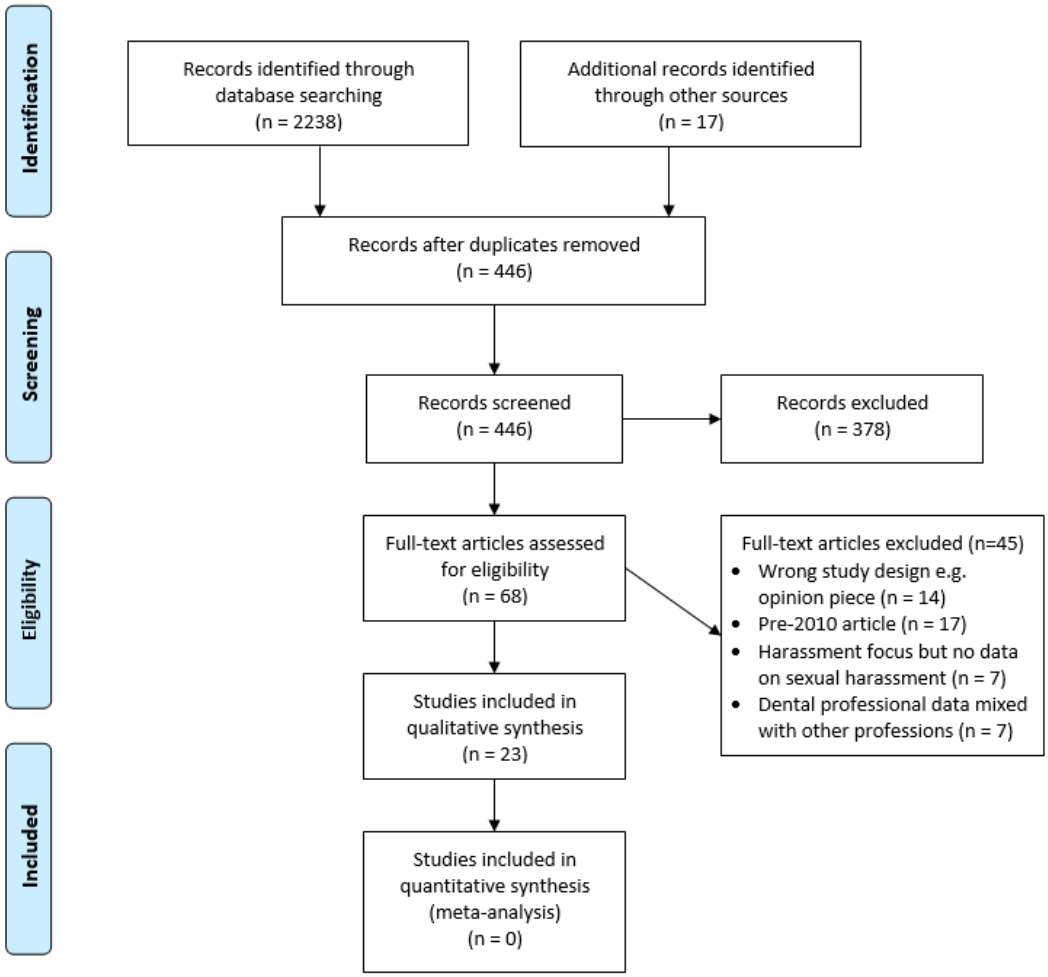
Of the 23 eligible studies, 17 reported on cross-sectional surveys mainly focused on perceptions and experiences of sexual misconduct amongst participants, including witnessing misconduct.

Of these 17 studies, five focused on dental students [13, 16-19], six on dental hygienists [9, 11, 20-23], two on dental surgeons [15, 24], and four on a range of dental professionals (two including students) [12, 25-27].

Regarding methodology, the remaining six studies analysed misconduct case proceedings (n=2) [27, 28], tribunal data (n=1) [29], media releases (n=1) [10], or had a mixed-methods approach (n=2) [14, 19]. Nine studies recruited participants from the USA, three from the UK, three from Canada, two from South Korea, one from Brazil, one from New Zealand, one from Australia, one from Nigeria, one from Pakistan, and one from four countries (USA, Bulgaria, Brazil, India).

From these 23 studies there was a total participant population of 8,988 dental students and professionals, and data analysed from 794 tribunal decisions, 362 cases, and 122 media articles.

***Figure 1: Flow diagram of article inclusion for this rapid review***




## 5.3. Experiencing sexual misconduct

### 5.3.1. Patients

None of the studies reported on patients as victims of sexual misconduct in dental settings.

### 5.3.2. Dental students

Seven survey studies included dental students reporting on their experiences as victims of sexual misconduct [8, 13, 14, 16-18, 30], though two studies combined student data with that of academic staff or dental professionals [8, 30].

These five remaining studies found that between 5% and 22% of participating students had experienced sexual misconduct. Of these, two reported that male students were more likely to be victims of sexual

misconduct compared to female students [13, 17], while two others reported the opposite [14, 18], and one did not specify [16].

Types of misconduct experienced by students included jokes or stories with sexual implications, being asked on a date, uncomfortable touching, staring/leering, sexual remarks/objectification, or sexual advances.

#### 5.3.3. Dental hygienists

Six survey studies included dental hygienists reporting their experiences relating to sexual misconduct, with prevalence ranging from approximately 25% (in three studies [9, 11, 20]) up to 86% in one study [23].

Types of misconduct were similar to dental students, such as jokes or stories with sexual implications, sexual or crude remarks, uncomfortable touching, and asking for dates. Some also were shown pornographic materials, or had patients expose their genitals or masturbate in front of them. Kim (2017) reported that 48.7% of female dental hygienists surveyed had experienced sexual misconduct in their workplace [21]. From the survey items, "I have heard a misogynistic comment or been the target of someone's abusive language" had the highest response rate (23.2%), followed by, "I have felt upset or disturbed because I suspected someone treated me as a sexual object by assessing my look, clothing, body, etc." (17.0%). Verbal sexual misconduct was experienced more commonly (73.2%) than physical misconduct.

#### 5.3.4. Dentists and dental surgeons

Five survey studies included dentists or dental surgeons reporting their experiences relating to sexual misconduct, with prevalence lower than for dental students and hygienists, with two studies reporting 7% of participants had experienced misconduct [15, 26], one reporting 21% [25], and one reporting 29% [24]. One study did not clearly report prevalence [31]. Types of misconduct were the same as those experienced by dental students and hygienists.

### 5.4. Witnessing sexual misconduct

Of the few studies that reported on witnessing sexual misconduct, the prevalence was generally the same or higher than experiencing sexual misconduct.

One study reported that 25% of dental students had witnessed a fellow student being sexually harassed [17], another reported that 40% of participants had witnessed sexual misconduct towards their colleagues [8]. One study reported that three-quarters of those who witnessed a colleague being sexually misconduct did not intervene [17].

## 5.5. Perpetrators of sexual misconduct

Ten studies reported on the characteristics of perpetrators [8, 12, 13, 17, 18, 22, 23, 25, 29], with patients and colleagues (especially those senior to the victim) being the two most frequent perpetrators, and for dental students, professors/academics were also frequently cited, with men being disproportionately involved as perpetrators. For example, Millbank et al., (2020) found that 80.4% of misconduct perpetrators were male, and specifically for inappropriate sexual contact 96.7% of cases involved men [29]. Patel (2021) reported on sexual misconduct by patients, with quotes such as '"Most patients with inappropriate sexual behaviours were men over 60" and "Patient was a male who refused to make an appointment until he was added on my Facebook page and could contact me directly-stalking type behaviour" providing examples for this trend [23].

In addition to gender as a characteristic, dentists were overrepresented in misconduct cases relative to their workforce proportion. Kim (2017) reported that dentists were the most frequently reported offenders (67.3%) [21].

## 5.6. Settings

For dental students, sexual misconduct mostly occurred within dental schools, followed by in dental clinics (assumedly as part of placement), and one study also reporting that students experienced sexual misconduct over the phone [17].

For dental hygienists, dentists and dental surgeons, incidents occurred within dental clinics, most of which were during normal working hours. However, some participants reported that misconduct took place outside of normal working hours or outside of the workplace.

Social gatherings such as Christmas parties were also raised in one of the tribunal cases, with other studies reporting on case data also highlighting digital spaces as being an avenue for misconduct, such as social media platforms. Heaton et al., 2020 found that conferences and networking events in particular were common environments in which sexual misconduct occurred [17].

## 5.7. Contributing factors

Heaton et al (2020) posited that cultural dynamics, informal networking settings, and hierarchical power structures were significant facilitators of misconduct [25]. Further, alcohol consumption at conferences and networking events was noted as a contributing factor to inappropriate behaviour.

One study's dental student participants believed that many instances of misconduct amongst students was partially the fault of the student experiencing

misconduct, for not exhibiting appropriate behaviours themselves, or due to pre-existing relationships to the perpetrator [17].

Ellis and Johnson (2020) concluded that newspapers often focus on, and sensationalise, cases of unprofessional behaviour [10]. This sensationalisation may cause unnecessary concern and additional anxiety among patients. Media articles of dental professional behaviours focus on a small number of extreme cases involving incidents of significant harm to patients or the public, raising public concerns about the profession. Reporting of dental professional behaviours juxtaposes issues of crime, immoral behaviour and dishonesty with dentists' professional standing. Ellis and Johnson (2020) found that cases reported in the news are often sensationalist, unusual and do not appear to reflect fitness to practise cases generally managed by dental regulators [10].

## 5.8. Responses to sexual misconduct and reporting pathways

A common theme across the literature was that of uncertainty of reporting pathways available to registrants, for example Garbin (2010) reported that nearly half of participants would not know what to do if they were harassed [17].

Related to this, there was a strong trend of victims of sexual misconduct not reporting and trying to simply ignore perpetrators, which may (in addition to not being aware of reporting options available) also be due to there being discomfort associated with reporting someone, or a lack of trust that any action would be taken “If I am grabbed I immediately let my doctor know and he handles it with dismissal [of my concerns]” [23].

Several studies reported that participants were successfully able to distract patients after remarks/advances were made, with one study stating that this approach led to satisfactory outcomes in half of instances [23]. Other studies such as Kim (2017) reported that 36.4% of victims took no specific action [21], and Al-Jewair (2024) reported that victims often adopted passive responses such as ignoring or avoiding the situation [30].

For those that did report, several study participants indicated that they were simply ignored or mocked for reporting and told ‘it is the way it is’; “I always told the office manager and doctor and assistant about his behaviour, and it was mostly laughed off as in ‘that’s just how he is’” [17, 23]. Dental hygienists also raised that they were fearful of retaliation and losing their employment.

## 5.9. Consequences of sexual misconduct

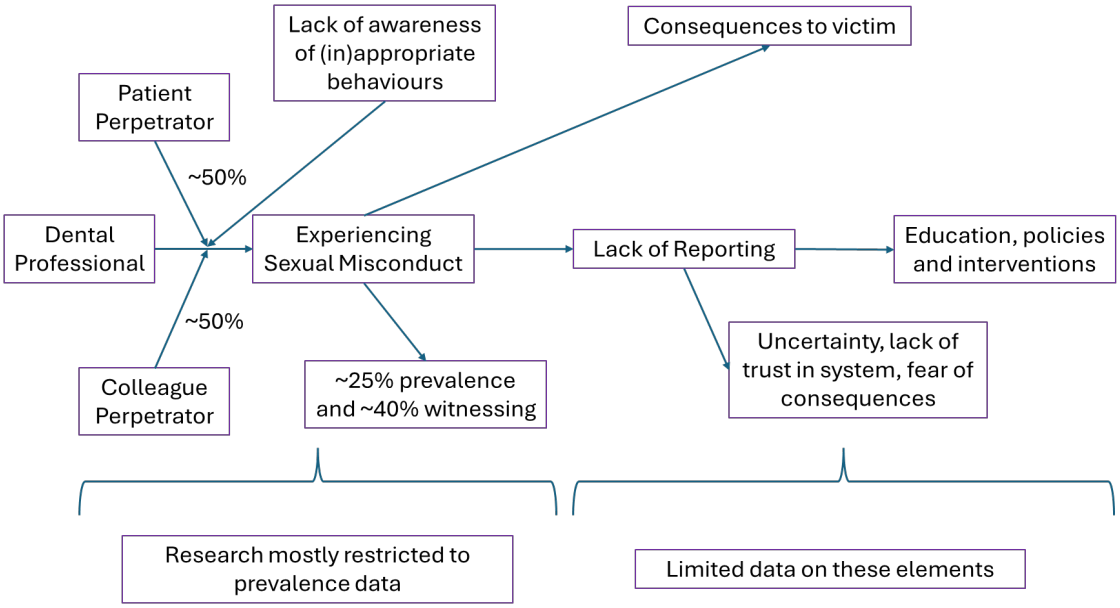
Dental students reported that being a victim of sexual misconduct had a negative impact on their academic performance, reduced their enthusiasm for studying

and working in dental practice, and caused recurrent upsetting memories surrounding the incident [12, 13].

Dental hygienists also found harassment affected their enthusiasm for working, strained relationships with patients, caused a negative impact on clinical performance and created a negative work culture with stress and psychological distress [11, 21, 25, 30]. These individual-level effects are in addition to business and profession consequences, such as loss of patients, legal consequences and decline of public trust in the profession [28].

**Figure 2** below highlights the key elements found from the review, including victim, perpetrator, consequences, reporting and required interventions. Most published data is restricted to prevalence of sexual misconduct, including information on perpetrators and how it affects victims. Comparatively, there is little data on how victims report (if they report) on sexual misconduct, with the evidence suggesting that sexual misconduct is under-reported, with most studies highlighting the need for improved health professional education on acceptable and unacceptable behaviours, creating safe working spaces, and policies and interventions targeted at reducing the occurrence of misconduct as well as clearer pathways for reporting.

***Figure 2. Illustration of the key elements identified in the review***




## 5.10. Interventions

None of the studies implemented and evaluated interventions to address sexual misconduct. Al-jewair et al., (2024) suggested that clear protocols, such as their Intervene, Report, Document, Access support, Resolve (IRDAR) framework, may help address misconduct effectively [30].

## 5.11. Future research suggested within the literature

A thematic analysis of the recommendations for future research highlighted the need to explore a number of areas. Firstly, systemic and cultural factors influencing sexual misconduct experiences and reporting. Literature suggested investigating systemic factors and broader demographic representation influencing misconduct prevalence and perceptions. In addition, there was a call to examine cultural and institutional influences on misconduct in dental education and professional environments; a global lens was recommended.

Secondly, through qualitative methodologies, analysing decision-making processes for misconduct cases, with the aim of understanding factors driving variations in outcomes for different registrants.

Thirdly, expanding research to broader settings beyond limited cohorts, as well as incorporating more qualitative methodologies, such as interviews and focus groups, to understand the psychological and social impact of misconduct on students and professionals. This could also include investigating the effectiveness of reporting mechanisms and their alignment with organisational policies.

Finally, as much of the literature was from the USA, suggestions for future work focussed on the evaluation of restorative justice practices, including to other professional sectors to promote cultural change. Examples include, evaluating the long-term impacts of programmes of restorative justice and investigating trends in workplace violence.

## 5.12. Grey literature findings

Within the grey literature, opinion and legal articles dominated. Again, literature from the USA was over-represented. Examples included descriptions of variation in state laws regarding misconduct (Sifkas, 2004a) [32]. Considerations of note were around consent. For example, in an article by Sikfas (2004b) [33], warnings were noted from the state licensing board that, “Dentists should be aware that the likelihood that a state licensing board will institute disciplinary action against them for engaging in sexual misconduct with a patient is high. And, under the right set of circumstances, the patient’s consent may not be a defense.”

Other articles excluded through the search processes also supported the findings of this review. For example, Zarkowski (2022) described how, often victims of sexual misconduct take no action primarily due to their lack of understanding of their rights or concern about retaliation or adverse outcomes if an incident is reported [34]. It was reported that the #MeToo movement has enhanced awareness of sexual misconduct and its impact on victims [34].

# 6. Discussion

## 6.1. Overarching summary of results

This report evaluated the current literature relating to sexual misconduct within dentistry. There was an absence of UK literature, with the majority of publications pertaining to USA data.

In summary, sexual misconduct is significantly under-reported in dentistry, with prevalence ranging from 5% to 48% depending on population and study context. Verbal misconduct was the most frequently reported, followed by inappropriate physical contact.

Our analysis identified several contributing factors, including but not limited to:

- workplace hierarchical power dynamics
- informal workplace cultures, particularly events involving alcohol, and
- a lack of clear reporting mechanisms and fear of retaliation.

Male professionals were disproportionately represented as perpetrators, with dentists also frequently implicated. Analysis delineated a number of impact considerations. For victims, these were:

- emotional trauma
- professional disengagement, and
- reluctance to report.

For organisations, these were:

- a risk of reputation damage
- patient loss
- decline in staff morale, and
- legal consequences.

There is also an overall risk for the dental sector in terms of a decline in public trust and professional standing.

The main barriers and reasons for not reporting, cited by many victims, were:

- unclear reporting pathways
- fear of reprisal, and
- lack of trust in administrative support.

There were no studies which trialled interventions. However, recommendations identified included:

- educational programs
- structured reporting frameworks, and
- restorative justice practices.

A need to develop robust policies and training to prevent and address misconduct was described, as well as promoting supportive organisational cultures. Research from the USA suggested implementing restorative justice measures to rebuild trust and improve workplace dynamics. The need to advocate for balanced media reporting to mitigate sensationalism and protect the profession's reputation was also identified.

A number of evidence gaps were identified including the limited global and cultural representation in studies, as well as the lack of longitudinal research on the effectiveness of interventions. Further, there was insufficient exploration of patient experiences and the impact on care delivery.

## 6.2. Evidence from other sectors in the UK context

A 2024 BMA report detailed a survey of 2,458 doctors conducted in 2021, finding that 31% of women and 23% of men respondents experienced unwanted physical conduct in their workplace [2]. Further, 56% of women and 28% of men respondents received unwanted verbal comments related to their gender. Similar to the findings of this review of under-reporting in the included papers, 42% of all respondents in the BMA report who witnessed or experienced an issue relating to sexism felt they couldn’t report it.

Similar prevalences were reported in a study conducted by the University of Exeter and the University of Surrey, as part of the Working Party on Sexual Misconduct in Surgery [35]. Published in the *British Journal of Surgery* in 2023, the research analysed anonymous survey responses from 1,434 surgical professionals, of whom 51.5% were women. Notable findings included that nearly two-thirds of women (63.3%) and almost a quarter of men (23.7%) reported being targets of sexual misconduct by colleagues. The vast majority of respondents (89.5% of women and 81% of men) reported witnessing sexual misconduct by colleagues [36]. Despite the prevalence, only 16% of those affected by sexual misconduct formally reported their experiences. The paper from Begeny et al., (2023) concluded that, “Sexual misconduct in the past 5 years has been experienced widely, with women affected disproportionately. Accountable organizations are not regarded as dealing adequately with this issue” [35]. Similar to the findings of this review relating to dentistry, the study by Begeny and colleagues underscores the critical need for systemic interventions to address and prevent sexual misconduct within the surgical field.

Within the field of medicine, key organisations such as the BMA and the Royal College of Surgeons of England have lobbied the government and NHS

organisations regarding the working party recommendations and the need for reforms of reporting and investigation processes of sexual misconduct [36].

There is also significantly more research pertaining to sexual misconduct in medicine. While much will be relevant and transferrable to dentistry, there is a need to evidence the dental specific context, as the environment, working practices and cultures differ.

## 6.3. Patient experiences

While our review did not identify any studies that considered patient experiences of sexual misconduct, the wider healthcare literature delineates important considerations with respect to patient experiences.

Thurston et al., (2019) detailed how sexual misconduct has health consequences for those affected and is associated with poorer physical and mental health [37]. A study in Germany considering the professional sexual misconduct towards patients indicated a high proportion of sexual contact before the age of 18 [38]. Such experience of sexual abuse in childhood and adolescence can have profound influence on the rest of a patient's life. Consequences can include several physical illnesses [39], psychological problems and social impairments [40].

Sexual misconduct may significantly violate trust in healthcare professionals and institutions, with possibly additional harmful consequences for the health of affected subjects due to avoidance and noncompliance [38]. Bloom et al., (1999) state emphatically that it is never acceptable to blame the patient for experiencing sexual misconduct [41]. Sexual misconduct significantly undermines public trust and can cause severe psychological trauma to patients, as well as hesitation in seeking future medical care [42].

It is also posited that patients are reluctant to report due to the prospect of reliving the trauma [42], due to fear of not being believed, uncertainty about what constitutes misconduct, and the power imbalance in the physician-patient relationship [43]. Physicians and colleagues may also fail to report misconduct due to fear of retaliation, assumptions that others will act, or lack of mandatory reporting requirements [43]. Literature from medicine advocates for clinics adopting policies that emphasise consent, respect, and sensitivity to patients' histories, including trauma-informed care [42].

## 6.4. Dental professional standards and fitness to practise

Currently, sexual misconduct is not specifically listed within the standards for GDC registrants [44], though it is tangentially referred to in Standard 9 which

discusses personal behaviour, and Standard 8 which discusses referrals based on ‘indecency’.

Given that this review has detailed a lack of clarity regarding how to report incidents of sexual misconduct, explicit standards should be provided with respect to sexual misconduct in order to protect registrants and the public.

The GDC Fitness to Practise (FtP) process guidelines stipulate erasure from the register is possible when behaviours are fundamentally incompatible with being a dental professional, with convictions or findings of a sexual nature, including involvement in any form of child pornography, contributing to such a conclusion [45] with more recent GDC Guidance for the Interim Orders Committee (IOC) providing more specific guidance relating to sexual misconduct including terminology and impact of repeat offenses [46]; however, there is still a paucity of reference within professional standards documentation.

In a recent research study for the GDC regarding the role of remediation in FtP, consideration was given to sexual misconduct cases [47]. The healthcare regulators interviewed in the study reported being ‘hawkish’ with respect to behavioural and attitudinal complaints, particularly those relating to sexual misconduct. There were notable differences with respect to whether regulators viewed sexual misconduct issues as being in scope for remediation. While it was reported that remediation might be difficult to demonstrate, it was suggested that sincere reflection and insight might provide assurance that a registrant had understood the impact of their actions and undertaken to behave differently in the future.

Finn et al., (2022) reported on the negative impact of FtP processes on the mental health of all involved [48]. There is a cumulative negative impact on mental health, regardless of whether practice is found to be impaired. The complexity of the processes and a perceived lack of clarity on how decisions were reached often resulted in feelings of mistrust and unfairness; this will undoubtedly by exacerbated for cases of sexual misconduct. Significant levels of stress and anxiety were created by the process, at times hindering the progress of investigations, as participants disengaged or, for registrants, left the profession. Given the findings of Finn et al., (2022), and the aforementioned trauma, sensationalisation, and embarrassment reported to be associated with sexual misconduct cases in the included studies in this review, even greater care should be taken to signpost all parties to appropriate support services.

## 6.5. Gender and dental professional role

The studies included in this rapid evidence assessment highlighted a significant gender differential in terms of experiences of sexual misconduct. Women were

more likely to be the victims, and perpetrators were predominantly men. Dental hygienists represented the highest proportion of victims in the studies included.

These findings have significant implications for the UK workforce where data reports that over 90% of dental hygienists registered in the UK are women. Further, women make up 77% of the UK dental workforce: 50% of dentists and 92% of dental care professionals [49].

There is a need to ensure that all patients and healthcare professionals have safe environments in which to access healthcare or work, however these data suggest that there must be a concerted effort to ensure women are aware of how to report issues and access support, especially in light of the concerns surrounding under-reporting. When considering the gender related data, caution must be aired with regard to making heteronormative assumptions about the sex and gender of both the perpetrator and victim. Apart from gender, other protected characteristics such as age, disability, religion and ethnicity were not described in the included studies.

## 6.6. Recommendations

The papers included presented a limited number of recommendations. Ellis and Johnson (2020) advocated for dental professional bodies to campaign for more balanced coverage of dentists and dental professionalism within news media, and continue to promote the good work of the profession [10].

Kim (2017) suggested that sexual misconduct should no longer be recognised solely as a personal problem, but also as a problem for the entire organisation and society [21]. There were recommendations to implement preventive education programs, establish stronger legal protections and enforcement, as well as develop supportive organisational policies to address incidents assertively.

Finally, Al-Jewair (2024) noted the importance of ensuring that all individuals have access to reporting mechanisms that they perceive as safe, effective, and supportive [30].

From the wider evidence, there are articles related to state licensing boards in the USA that offer recommendations related to sexual misconduct by physicians [50, 51]. Key points include recognition that the spectrum of sexual misconduct ranges from grooming behaviours to assault, necessitating vigilance against even minor infractions to prevent escalation. Physician-patient relationships are inherently power-imbalanced and thus require strict ethical standards to protect vulnerable patients. With respect to regulation, while serious misconduct like assault may lead to immediate suspension or revocation, lesser infractions could

involve education, monitoring, or behavioural treatment for re-entry into practice. Medical literature strongly advocates for trauma-Informed investigations.

To address sexual misconduct in dentistry effectively, we propose that several key areas require attention, including:

- training
- the establishment of a safe workplace
- clear reporting pathways
- comprehensive policies, and
- raising patient awareness.

Training is essential for fostering a professional and respectful environment. Mandatory training should be implemented for all dental practitioners, staff, and management, focusing on recognising, preventing, and addressing sexual misconduct within dental practices and other dental settings. This training should emphasise ethical patient interactions, professional boundaries, consent and cultural sensitivity. Scenario-based learning, tailored specifically to dentistry should be included. Supervisors and practice managers should receive specialised training to handle and investigate complaints effectively. Additionally, bystander intervention training should be introduced to empower all staff to recognise warning signs and intervene appropriately when witnessing or suspecting inappropriate behaviour.

Creating a safe workplace, or learning environment, is crucial to ensuring the wellbeing of patients, employees, and students. For example, codes of conduct should emphasise respect, professionalism, and zero-tolerance for sexual misconduct. Furthermore, fostering a supportive workplace culture where employees, students, and patients feel secure in discussing concerns without fear of retaliation is vital.

Clear and accessible reporting pathways are fundamental to managing and addressing instances of sexual misconduct. A multi-channel reporting system should be established, offering different routes to report concerns. This could include anonymous online tools, confidential contact points within the dental setting, and external reporting hotlines for cases requiring escalation. Procedures for reporting misconduct should be publicly communicated, with information displayed in prominent positions in relevant environments. The role of the regulator should be clearly communicated to manage expectations.

Policies play a critical role in addressing and managing issues of sexual misconduct. A comprehensive set of policies tailored to dentistry should be developed, clearly defining sexual misconduct, providing examples, and detailing reporting protocols and disciplinary procedures. Incident management guidelines should standardise the documentation and reporting process, ensuring that every

complaint is formally logged and addressed. A zero-tolerance approach should be enforced, with clear consequences for any substantiated cases of misconduct.

Despite no patient data being reported in this review, patient awareness raising remains an important consideration. Practices should display educational materials in waiting areas that outline patients' rights, acceptable professional conduct, and how to report concerns. These materials should use clear and accessible language to accommodate diverse patient demographics. Statements about sexual misconduct policies could also be included in patient intake forms or consent documents, ensuring patients are informed of their rights. Tailored resources for vulnerable patient groups, such as minors, those of older age, or individuals under sedation, should be provided to empower them to recognise inappropriate behaviour and report concerns.

To ensure these measures are effective, regular audits and evaluations should be conducted to assess training participation, policy compliance, and the effectiveness of reporting pathways. External oversight from regulators, professional bodies or independent organisations could provide valuable input, particularly for sensitive cases requiring impartial investigation.

Transparency is essential, and practices should consider publishing annual summaries of improvements made, cases managed, and lessons learned, anonymised to protect confidentiality, to build trust and demonstrate accountability.

By addressing these areas, a safer environment for all parties can be created while ensuring robust systems are in place to prevent and manage incidents of sexual misconduct effectively.

# 8. Conclusion

This review highlights the urgent need for UK-centred primary research investigating sexual misconduct in dentistry, in order to implement systemic changes to protect both patients and dental professionals. A combined effort from regulators, educational institutions, and professional bodies is critical to foster safer, more equitable environments in dental workplaces. The literature is limited to studies reporting prevalence data and there is a paucity of studies piloting interventions. Future research should prioritise global perspectives, qualitative insights, and evaluation of innovative interventions to combat this pervasive issue.

# 9. Acknowledgments

The authors wish to thank Dr Megan Brown from Newcastle University for her contributions to this project.

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# Appendix 1: Sample completed data extraction form

| Section | Data extracted from study | Details |
|---|---|---|
| 1. Study Identification | Study ID | Ivanoff et al., 2018 |
| | Title | An International Survey of Female Dental Students' Perceptions About Gender Bias and Sexual Misconduct at Four Dental Schools. |
| | Authors | Chris S. Ivanoff, Diana M. Luan, Timothy L. Hottel, Bogomil Andonov, Luiz Evaristo Ricci Volpato, Reena R. Kumar, Mark Scarbecz. |
| | Year of publication | 2018 |
| | Journal | Journal of Dental Education |
| | Online link | [DOI: 10.21815/JDE.018.105] https://onlinelibrary.wiley.com/doi/10.21815/JDE.018.105 |
| 2. Study Characteristics | Study design | Survey study |
| | Country/ location | United States, Bulgaria, Brazil, India |
| | Setting | Four dental schools in the U.S., Bulgaria, Brazil, and India |
| | Aim(s)/ objective(s) of the study | To assess and compare female dental students' perceptions of gender bias and experiences of sexual misconduct in dental schools across four countries. |
| | Funding | Not specified in the document. |
| 3. Population and Sample | Population studied | Female dental students |
| | Sample size | 990 out of 1,293 invited participants (76.6% response rate) |
| | Inclusion criteria | Female students in predoctoral dental education |
| | Exclusion criteria | Not specified beyond inclusion of only female students |

| Section | Data extracted from study | Details |
|---|---|---|
| 4. Definitions and terminology | Definition(s) of sexual misconduct used | Sexual harassment, verbal harassment, and physical assault (definitions not specifically detailed but based on survey items). |
| | Terms used for misconduct | Verbal harassment, physical assault, gender bias, faculty bias, student discrimination. |
| | Terminology specific to dentistry | Dental, dentistry. |
| 5. Data collection and analysis | Data collection methods | Self-administered survey distributed at each school. |
| | Duration of data collection | Conducted during spring semester 2017. |
| | Analysis methods | Descriptive statistics, chi-squared tests to compare responses across countries. |
| 6. Main findings | Prevalence/ incidence of sexual misconduct | 6% U.S., 6.2% Brazil, 2.5% Bulgaria, 0% India reported experiencing some form of sexual assault. |
| | Types of misconduct identified | Verbal harassment, physical assault |
| | Contexts/ settings of misconduct | Primarily within dental school settings, from faculty and male students. |
| | Reported consequences of misconduct | 46.9% perceived their schools as not vigilant about sexual misconduct; only 54% comfortable reporting incidents. |
| | Responses to misconduct | Many were uncomfortable reporting; perceived negative consequences or lack of respect from faculty or male students when complaints were made. |
| 7. Conclusions and Implications | Authors' conclusions | Improvements needed in academic dental institutions to create more equitable environments free of bias and sexual misconduct. |
| | Implications for practice | Schools should foster vigilance about gender bias and harassment; consider policies and trainings to address misconduct. |

| Section | Data extracted from study | Details |
|---|---|---|
| | Suggestions for future research | Further studies on cultural and institutional factors influencing perceptions of harassment in dental education globally. |
| 8. Quality | Limitations reported by authors | Limited to female students at one dental school per country; potential cultural biases in reporting due to social norms in different countries. |
| | Potential conflicts of interest reported | None reported. |
| 9. Additional notes | Relevant quotations or excerpts | “10.1% of U.S. students reported verbal harassment, compared to 20% in Brazil, 15% in Bulgaria, and 2% in India.” |
| | Other relevant observations | The study suggests that gender and cultural differences impact perceptions and experiences of sexual misconduct in educational settings. |

# Appendix 2: Summary of study characteristics

| Study | Study design | Country and setting | Population studied and sample size | Reported aims/ objectives | Data collection methods | Key findings and notable quotes, excerpts or observations |
|---|---|---|---|---|---|---|
| Al-Jewair (2024) | Cross-sectional survey and protocol development | United States of America (USA); single university dental school | 116 dental faculty and 156 dental students | Analyse factors contributing to workplace violence (WPV) and develop a prevention and management protocol. | 27-item survey on perceptions of WPV and institutional attention to WPV. OSHA WPV assessments. | Sexual misconduct was not quantified separately to other forms of misconduct, with verbal aggression most common. Developed a protocol for inappropriate patient behaviour describing in detail steps for practical implementation. |
| Azodo (2011) | Cross-sectional survey study | Nigeria; five teaching hospitals | 138 dental professionals | Prevalence of workplace violence in oral healthcare centres. | Survey on prevalence, types, perpetrators, reasons and impact of violence. | 6.8% of respondents had experienced sexual misconduct; reasons and impact of sexual misconduct were not distinguished from other forms of violence/ harassment. |
| Baniulyte (2023) | Cross-sectional survey study | UK; online | 214 dental professionals of any level (including students) nationally | Prevalence of inappropriate behaviour, reflect on personal experiences, impact of behaviours on recruitment, progression and dynamics, and improve awareness and accountability. | 14-item survey on experiences of inappropriate behaviours, perpetrators, and raising concerns to incidents. | 41% and 39% had experienced or witnessed sexual misconduct respectively; 0.7% and 0.1% had experienced or witnessed sexual assault. Perpetrators and reporting mechanisms and outcomes were not clarified for sexual misconduct or assault. |

| Study | Study design | Country and setting | Population studied and sample size | Reported aims/ objectives | Data collection methods | Key findings and notable quotes, excerpts or observations |
|---|---|---|---|---|---|---|
| Diaz (2022) | Cross-sectional survey study | USA; online | 233 male dental hygienists | Demographics and experiences of men in dental hygiene. | 41-item survey including demographics, professional characteristics and experiences relating to discrimination and misconduct. | Total prevalence not clearly stated, though 49 (21%) experienced sexual misconduct from patients, 15 (6.4%) from employers, and 23 (9.9%) from coworkers. Sexual misconduct by patients was reported by approximately 20% of the participants with less than 10% reporting this was perpetrated by co-workers or employers. |
| Ellis (2020) | Media search | UK; media outlets | 122 media articles | Explore reports on dental professional behaviours in newspaper media. | Analysis of newspaper articles in the top 10 UK newspapers. | 14 articles reported on sexual misconduct, with dramatization and sensationalism, not reflective of fitness to practise cases managed by the GDC. |
| Foong-Reichert (2023) | Disciplinary action case analysis | Canada; dental regulatory bodies in 5 provinces | 344 disciplinary cases | Reasons for disciplinary action, consequences, and associations with demographic factors for dentists. | Coding of publicly available disciplinary action cases from regulatory body websites. | Sexual misconduct was not a common reason for disciplinary action (more often clinical incompetence or professional misconduct). Transparency in disciplinary processes is critical for public trust and professional accountability. |

| Study | Study design | Country and setting | Population studied and sample size | Reported aims/ objectives | Data collection methods | Key findings and notable quotes, excerpts or observations |
|---|---|---|---|---|---|---|
| Gallagher (2021) | Deductive thematic analysis of case data | UK; professional regulatory bodies | 18 relevant disciplinary cases (of 344 total) | Examine the fitness-to-practice process for UK health professionals involved in sexual misconduct and the rationale for sanctions. | Document analysis of publicly available case determinations relating to sexual misconduct. | Most cases resulted in sanctions, including erasure, regardless of direct patient safety risk. 'Erasure is necessary to maintain public and professional trust, even absent direct patient safety risks.' Regulators emphasize professional standards and public confidence over case-by-case risk evaluations. |
| Garbin (2010) | Cross-sectional survey study | Brazil; single university dental school | 208 dental students | Sexual misconduct prevalence, and experiences and attitudes of undergraduate dental students. | Self-administered 18-item survey during a scheduled class; 11 questions on personal experiences or witnessing of sexual misconduct. | 15% had been sexually harassed (~1/3 due to male patients, 1/3 female patients, 1/3 male professors), of these 19 (9.1%; 8 women and 11 men) participants had been sexually harassed by patients. In addition, 53 (25.4%) had witnessed a student colleague being sexually harassed (about half from patients and half from faculty). Witnesses of misconduct believed that most instances were partially the fault of the victim due to 'own inappropriate behaviour or a close relationship with the patient'. ~40% reported |

| Study | Study design | Country and setting | Population studied and sample size | Reported aims/ objectives | Data collection methods | Key findings and notable quotes, excerpts or observations |
|---|---|---|---|---|---|---|
| | | | | | | they wouldn't know what to do if involved in an incident. |
| Ghoneim (2022) | Cross-sectional survey study | Canada; online | 3780 dental hygienists | Experiences of different forms of mistreatment for dental hygienists in dental workplaces. | A 72-item self-administered survey; demographics, relevant training, workplace policies, experiences of mistreatment, and reasons for inaction in reporting. | 23.9% and 15.7% had experienced or witnessed sexual misconduct respectively; 2.7% and 2.3% had experienced or witnessed sexual assault respectively. Perpetrators were most commonly patients followed by dentists. Respondents reported either not having (42%) or were unaware (18%) of formal policies for misconduct. 42%, 36%, and 37% reported experiencing mistreatment from dentists, office managers, and coworkers respectively. |
| Heaton (2020) | Cross-sectional survey study | USA; American Assoc. for Dental Research conferences | 824 attendees of the 2015-2018 conferences | Assess perceptions and experiences of sexual misconduct, associations of characteristics, and collect facilitators and | Self-administered survey; demographics, experiences of sexual misconduct t and other misconduct. | 21% experienced one or more types of misconduct; gender harassment was more common than sexual misconduct. Within this, 8% experienced sexual remarks, 7% ogling, 1% suggestive materials, 2% |

| Study | Study design | Country and setting | Population studied and sample size | Reported aims/ objectives | Data collection methods | Key findings and notable quotes, excerpts or observations |
|---|---|---|---|---|---|---|
| | | | | solutions to address misconduct. | | unwanted advances, and 5% inappropriate touching. |
| Hunt (2020) | Cross-sectional survey study | USA; online | 161 dental hygienists in Virginia | Prevalence of sexual misconduct for dental hygienists. | Used the 'Sexual Experienced Questionnaire' (SEQ-W); has 17 situational items under gender harassment, unwanted sexual attention and sexual coercion. | 27% reported at least one experience of sexual misconduct in the previous 24 months. 27.3% reported gender misconduct, 18.6% unwanted sexual attention, and 6.8% sexual coercion. The most common types were being told offensive sexual jokes or stories (21%) and hearing crude and offensive sexual remarks (18%). |
| Inglehart (2024) | Cross-sectional survey study | USA | 212 surgeons; paediatric dentistry, prosthodontics, OMFS | Compare experiences of sexual misconduct, discrimination of women, stress, and career satisfaction. | Survey; demographics, training, observed treatment of women, experiences of misconduct and job satisfaction. | Did not report prevalence, rather the average number of incidences experienced. OMFS and Prosthodontics had the highest frequency, with staff, faculty and patients all the most common perpetrators, with other residents being the least common perpetrators. |

| Study | Study design | Country and setting | Population studied and sample size | Reported aims/ objectives | Data collection methods | Key findings and notable quotes, excerpts or observations |
|---|---|---|---|---|---|---|
| Ivanoff et. al. (2018) | Cross-sectional survey study | USA, Bulgaria, Brazil, India; one dental school form each country | 990 female dental students | Assess and compare female dental student perceptions of gender bias and experiences of sexual misconduct. | 24-item self-administered survey distributed at each school, including perceived bias against female students, experiences of abuse or assault. | Participants from the US, Brazil, Bulgaria, and India reported that 6%, 6.2%, 2.5%, and 0% respectively reported experiencing some form of sexual assault. The study suggests that gender and cultural differences impact perceptions and experiences of sexual misconduct in educational settings. |
| Kim (2017) | Cross-sectional survey study | South Korea; dental hospitals and clinics in one region | 224 dental hygienists | Investigate workplace bullying and sexual misconduct and explore countermeasures and preventive measures. | 46-item self-administered questionnaire survey; demographics, workplace bullying and experience of sexual misconduct. | Nearly half (48.7%) reported experiencing sexual misconduct, with abusive language and leering/staring most common. Visual and physical misconduct were less common. Reference to the close physical proximity of dental hygienists to dentists as a potential risk factor; 67.3% of misconduct offenders were dentists. 84.5% did not report or confront the perpetrator. |
| Liaw (2022) | Cross-sectional survey study | New Zealand; single university | 185 dental students | Prevalence and impact of misconduct by patients on dental students. | 14-item self-administered survey; demographics, | 9 (4.9%) participants (all female) experienced sexual misconduct; unwanted compliments/sexual remarks and touching were most common. “He made very |

| Study | Study design | Country and setting | Population studied and sample size | Reported aims/ objectives | Data collection methods | Key findings and notable quotes, excerpts or observations |
|---|---|---|---|---|---|---|
| | | dental school | | | number and types of misconduct. | inappropriate sexual jokes about dental dams being like condoms, (and) made a comment saying, 'it is interesting having a young girl put her fingers in your mouth'." |
| Llewellyn (2016) | Restorative Justice Process Analysis | Canada; single university dental school | 29 fourth-year dental students | Address harms caused by misconduct within the dental student cohort, and evaluate culture and climate | Interviews, workshops, group discussions, and restorative process documentation | Not quantified; focussed on qualitative impacts which are comprehensively detailed in participants' statements in the report. Highlighted systemic issues within the Faculty's culture and climate. |
| Millbank (2020) | Review of publicly available tribunal data | Australia; tribunal data | 794 disciplinary cases | To examine if uniform law produces consistent outcomes between five professions and jurisdictions. | Review of public tribunal data; respondent attributes, type of allegation, and outcomes including severity. | Men comprised 80.4% of respondents in sexual misconduct matters, and 96.7% for inappropriate sexual contact were male. Dentists comprised 6.5% of dataset, but were overrepresented relative to their profession (double workforce proportion). |
| Patel (2021) | Cross-sectional survey study | USA; online | 232 dental hygienists | Experiences of inappropriate sexual behaviour (IPSB) in the workplace perpetrated by patients. | 71-item survey, including 6 demographic and 65 relating to IPSB risk and experience. | Career occurrence of IFSB of 85.8%; 82.3% patients staring at body parts, 85.8% sexually suggesting remark, 53% asking for a date, 9.1% sexual/romantic gift, 72.4% sexual joke, 12.1% |

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| | | | | | | proposed a sexual activity, 41.3% sexually suggesting gestures, 7.3% deliberately exposed genitals or breasts, 6.5% patient masturbated during dental session, 24.1% were purposefully touched or grabbed in a sexual manner, 14.3% were followed, watched or harassed inside or outside workplace. “Most patients with inappropriate sexual behaviours were men over 60.” There was a reported lack of support by supervisors/senior colleagues, through being dismissed or ignored. |
| Premadasa (2011) | Cross-sectional survey study | Sri Lanka; single university dental school | 65 dental students | Perceived mistreatment of student students, measures taken by students and negative consequences of abuse | 80-item anonymous self-administered survey during a scheduled class | 18% experienced sexual misconduct, mostly being stared/leered at or unwelcome sexual comments or jokes. There were no instances of sexual advances involving physical contact or unwanted touching. Fellow male students were the most common perpetrators. |

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| Quick (2014) | Mixed methods (survey and focus groups) | USA; single university dental school | 188 dental students | Perceptions of factors affecting the dental school environment, and experiences relating to their gender. | Structured focus group (interpersonal challenges, effects of challenges, how to manage) and survey. | Had a broader focus on male and female differences in dental school, of which misconduct was a small part. Experiences of sexual misconduct were 34% for women and 7% for men, mostly sexual slurs and advances. |
| Rostami (2010) | Cross-sectional survey study | USA; online | 216 female dental oral & maxillofacial surgeons | Tabulate personal and professional characteristics of female dental residents and practitioners. | Self-administered survey; demographics, practice characteristics, experiencing biases or sexual misconduct; satisfaction with speciality. | 29% of residents and 38% of practitioners reported experiencing sexual misconduct during their careers. Caucasians (80%) were more likely to claim sexual misconduct. "OMFS continues to be an 'old boys club,' even in 2008." Despite facing bias, most respondents (93% of residents) would recommend OMFS to other women, citing determination and resilience as key to success. |
| Shakeel (2022) | Cross-sectional survey study | Pakistan; dental institutions and clinics | 524 dental surgeons | Awareness and experiences of violence and aggression, including reporting and | Self-administered survey; demographics, experiences of abuse or violence, | Broader focus on violence and abuse, minimal information present about sexual harassment. 6.9% had experienced sexual abuse; 78.4% |

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| | | | | prevention approaches. | perceptions of laws and policies on abuse. | of perpetrators were patients or their relatives. |
| Won (2021) | Cross-sectional survey study | Korea; dental clinics, hospitals and university hospitals | 201 dental hygienists | Develop, validate and use a verified tool to measure experiences of workplace violence. | 31-item self-administered survey; five domains; verbal attacks and alienation, inappropriate work experiences physical threats, sexual misconduct, verbal violence. | Not possible to accurately determine the total prevalence, though from the 6 statements on sexual misconduct, 19 (9.5%) had a coworker physically touch them, 22 (10.9%) had a coworker make an obscene joke or story, 36 (17.9%) had a coworker make sexual innuendos or comment on appearance, 16 (8.0%) had a coworker ask for sexual information of distributed information of a sexual nature, 23 (11.4%) had a coworker gaze unpleasantly, and 15 (7.5%) had a coworker use language or behaviour that induced sexual humiliation. In addition, 15 (7.5% had a patient say something sexually insulting. |