Feminism, pipelines and gender myths: interrogating gender equality and inclusion in dentistry

Theme: Professionalism, Ethics and Inequalities

Author: Dr Patricia Neville

Institutional address: Bristol Dental School, Lower Maudlin Street, Bristol, BS1 2LY

Email for correspondence: patricia.neville@bristol.ac.uk

Abstract

This book chapter will critically assess the feminization of dentistry and the popular claim that dentistry is an equal opportunities profession.

Since the 1970s there has been a steady increase in the number of women entering the profession, indicating that dentistry has undergone a process of feminization(Gross and Schafer 2011; Adams 2005; Brocklehurst and Tickle 2012) namely, a numerical increase in women in the dental profession(Riska 2005). Repeated workforce studies document the flexibility of the dental profession with female dentists being more likely to work part time and take career breaks than their male counterparts (Ayers et al 2008 p.347). In fact, studies exploring students' motivations to study dentistry support the perception that dentistry is a more 'female-friendly', 'family friendly' healthcare profession vis a vis medicine (e.g. Scarabecz and Ross 2003, du Toit et al 2014, Waylen et al 2017).

Using a sociological approach, this book chapter argues that a 'gender myth' pervades about dentistry which assumes incorrectly that there is gender equality in the profession. Such a myth is dangerous as it misleads prospective dental students about the reality of their future working lives and the assumed inclusivity of the profession. The chapter will use feminist theories and research methods to interrogate the role and place of women in the profession. International and national

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data on the gender composition of dentistry will be used, alongside qualitative studies documenting the experiences of women in general dental practice and clinical academia, to test the veracity of this 'gender myth'. Through these lines of enquiry, we will discover the masculinist culture and organization of dentistry, evidence for the prevalence of sexism and sexual harassment within the profession, as well as the vertical and horizontal segregation which women encounter that 'block' their progression through the dental pipeline.

Introduction

Historically dentistry developed as a male-dominated profession (Chia-Chun et al 2010). Though the historical record contains mention of individual women practising a form of dental care until the medieval period, the extraction of carious teeth by barbers and blacksmiths from the sixteenth century onwards effectively closed off dental care to women positing that it required a physical strength assumed lacking in women (Ring 1985, Ortiz and Diaz de Kori 2001, Loevy and Kowitz 2002). This masculinist logic persisted into the nineteenthcentury when dentistry became a recognised profession and formal programme of study. Dr George Baker, writing at the time, proclaimed that women did not possess the 'mental and physical equipment of the highest order' to become dentists (Baker 1865). Despite these claims women were eventually accepted in UK dental schools with Lilian Lindsey graduating as the first UK female dentist in 1895, followed in 1912 by women being accepted into the Royal College of Surgeons in England (Lala and Thompson 2020, Stewart and Drummond 2000).

Since the 1970s there has been a steady increase in the number of women entering the profession. For instance, in 2010 46.6 per cent of US dental students were female (Ioannidou, D'Souza, MacDougall 2014). This grew to 50 per cent in 2015(Feldman 2015, p.S14). In the Asia sub-continent, 50-60 per cent of Indian dental students were female in 2006 (Parkhash et al 2006). The

increased participation of women in dentistry has also been recorded in Europe. In 2013 63 per cent of dental students and 49 per cent of registered dentists in the EU/EEA were female (CDE 2015, p.33, p.39). According to the General Dental Council (UK), parity was achieved between male and female dental students in 2011/12(Pacey 2014). By 2018, 63 per cent of UK dental graduates were female (Evans 2018). It is now estimated that 50 per cent of the global dental workforce under the age of 35 are female (Ivanoff et al 2018). These university and workplace statistics indicate that dentistry has undergone a process of feminization (Gross and Schafer 2011; Adams 2005; Brocklehurst and Tickle 2012) namely, a numerical increase in women in the dental profession (Riska 2005). This process of feminization has also been found in medicine (Riska 2005, 2011, Heru 2005) and veterinary science (e.g. Chieffo, Kelly and Ferguson 2008, Women in the veterinary profession 2014, Treanor 2016).

For some, the changing gender composition of the profession of dentistry signifies that the masculinist nature of dentistry (Adams, 2005) has been reversed and that gender equality has been achieved in the profession. The increased representation of women in the profession, both as students and practitioners, could indicate that dentistry does not suffer from the 'leaky pipeline' common to most STEM disciplines (Blickenstaff 2005). Also, US research has claimed that dentistry has become more welcoming and accepting of the women entering the profession (Rosenberg, Cucchiara and Helpin 1998). Such pronouncements about the gender inclusivity of dentistry are echoed in individual motivations for pursuing a career in dentistry. One of the leading reasons why both genders are attracted to dentistry is its perceived flexibility and amenable work-life balance vis-a-vis other healthcare professions like medicine (Scarabecz and Ross 2003, du Toit et al 2014, Waylen et al 2017). This is supported by the finding that female dentists are more likely to work part time and take career breaks than their male counterparts (Ayers et al 2008 p.347). In their sum, these findings could be interpreted as evidence that dentistry is an inclusive and progressive profession.

Feminist and sociological scholarship warns against conflating the numerical increase of women into the dental profession with the assumption that dentistry is an equal opportunities profession. In particular, they contend that the process of feminization can be a complicated one and does not automatically ensure the successful integration of women into the profession (e.g. Reskin and Roos 1990 cited in Riska 2008, pp.4-5**,** Bolton and Muzio 2008). For instance, there has been a rise in studies documenting the prevalence of sexual harassment in dental surgery and dental hygiene education since the 1990s (e.g. Webster et al 1999, Garbin et al 2010, Ivanoff et al, 2018, Zarkowski, 2018, Zurayki et al 2019). In addition, the high incidence of women working part time in dental practice is itself a recognition that work-life balance is difficult to attain in this profession rather than an indication of the opposite (Macerollo 2008, p.125).

Despite such feminist pronouncements, it is striking how a perception of dentistry as an inclusive, meritocratic, and family friendly profession has established itself as a taken for granted 'fact' among young and aspiring dental professionals (e.g. Scarabecz and Ross 2003, du Toit et al 2014, Waylen et al 2017). While this ideology is prominent within and outside the dental profession, it has been rarely reflected upon or acknowledged by the dental profession. It is the aim of this book chapter to study this ideology. It contends that a gender myth operates in dentistry that works to 'obscure' or 'covers up or 'disappears' contrary or inconvenient facts' (Lye 1999) about the gendered nature of dentistry. This 'gender myth' asserts the belief that women's increased access to education automatically leads to personal choice and personal power in their dental career, regardless of any structural factors and cultural constraints (Cornwall, Harrison and Whitehead 2006 cited in Rao and Sweetman 2014, p.6). Such a gender myth is dangerous to both the profession and its members as it perpetuates an unproblematic world view of the dental profession and obscures the extent to which gender is an active constituent of the day-to-day working lives of dentists and the organisation of the profession itself. As a result, the prevalence of sexism and sexual harassment within the profession, as well as the vertical and horizontal segregation which women encounter that 'block' their progression through the dental pipeline hides in plain sight and evades critical attention. This

'silencing' of gender discrimination is also damaging for those victimised by sexism and gender discrimination because it means that they are forced to face this experience alone, possibly blaming themselves for personal wrongdoing rather than seeing it as a structural issue of the profession.

By naming and documenting instances of gender discrimination within the dental profession, the chapter will contribute to a larger project of challenging/disrupting how gender inequalities are reproduced within the profession. To this end, a sociological analysis of the dental profession will be presented, one that uses feminist theory and methods in its attempt to demystify the gender myth of the dental profession. In this way, it will bear witness to the gendered/patriarchal experiences of women in the dental profession and also signpost ways in which the profession must change.

A note on feminist analysis

This chapter uses feminist theory and methods to expose and examine the gender myth that pervades the dental profession. Feminist analysis has been chosen as been the most appropriate for the task for a number of reasons.

First, feminism is an academic discipline and a social movement concerned with gender as a discriminating variable in the organisation of modern society. It contends that modern society is patriarchal, having historically and persistently prioritised the role and experience of men over that of women. When studied through this gender lens, modern society is found to be organised on gender asymmetries, with men, and male experiences adopting the 'ideal' position and women its inverse and opposite. Such privileging of men, their ideas, work, outputs etc. is not merely figurative, it is manifest in concrete material ways in the form of gender hierarchies and inequalities that criss-cross both the private worlds of men and women(e.g. domestic labour and childcare) as well as institutionally(e.g. the institutes of science, media, education, and health, law etc). The legacy of patriarchy is the systemic disadvantaging of women in a discriminating social system. As a result, feminist thinking is concerned with critiquing the status quo as well as imagining and

defending the merits of an alternative worldview based not on the exploitation of women (e.g. Grosz 1990). In so far as feminism can be defined as 'a movement to end sexism, sexist exploitation, and oppression' (hooks 1984), the values of feminism mirror the values of this research and its researcher: a desire to challenge the status quo and question the gender hierarchies, male privilege and power imbalances that define dentistry (Kangere et al. 2017: 901).

Second, feminist scholarship has a longstanding relationship with critiquing the gendered nature of the healthcare profession, including dentistry. Since the 1970s feminist writers have challenged the gendered construction of health care work (e.g. Witz 1992, Davies 1996 , Riska 2001). Feminist studies have revealed that medicine is an essentially patriarchal institution (e.g. Ehrenreich and English, 1978, Oakley 1980 cited in Riska 2001) with a masculinist work culture (see De Simone and Scano 2017) and that nursing as a female dominated profession suffers from less status than medicine (Abbott and Wallace, 1990, Witz, 1992, Davies, 1995 cited in Riska 2001). Gendered analysis of the dental profession has also been undertaken by Adams (2000, 2005, 2010) to establish how the historical development of dentistry in Canada has been inextricably linked to the role of women. As a result, it is apt that this chapter adopts a feminist approach to the task at hand.

Third, feminism has developed a theoretical vocabulary and range of research methods that enable us name and investigate how gender inequalities are implicated in the relationships of women and men, where these inequalities emanate at a structure/macro systems level and how they impact on the lifeworld/micro level (Locke et al 2018, p. 5) of women. As a result, feminist analysis allows us to catalogue the different faces of gender inequality in the dental profession as well as ascertain the scale of the inequalities (Ahmed 2015, pp.10-11).

Using feminism to navigate the dental pipeline

According to the 'critical mass' theory of change, 'the presence of a sufficient number of women brings about qualitative improvement in conditions and accelerates the dynamics of change' (Etzkowitz et al 2000 cited in Lagesen 2007, p.71). Advocates of this theory assume that once the critical mass of women has been achieved, a process of change will be triggered 'automatically' culminating in the full integration of women into the profession (Studlar and McAllister 2002 cited in Lagesen 2007, p.71). However, feminists are keen to highlight that such an interpretation of feminization is simplistic and naïve. They maintain that the process of feminization is paradoxical, creating opportunities for women but also gender imbalances within the profession (Bolton and Muzio 2008), such as the possible "re-segregation of the profession" as 'women's work' and with it a devaluation of its social status, and/or "ghettoization" of women within the profession (Reskin and Roos 1990 cited in Riska 2008, pp.4-5). This section takes the more complicated interpretation of feminization as its starting point and will use the feminist tool of the 'pipeline' to examine whether there is gender-based change and inclusion for women in dentistry.

The concept of the 'pipeline' was first coined by Berryman (1983) to convey the challenges women face in pursuing a career in science, a profession where they have traditionally been under-represented. The model contests the popular assumption that people progress seamlessly through their career of choice, from first establishing an initial desire to become a scientist, to attending and graduating college and then achieving full employment. This pipeline model identifies 'blockages' (Berryman, 1983, p.5) at a number of key junctures which prevent women progressing in the scientific professions. In her initial theorizing, Berryman focused on how the educational experience of women at primary and secondary school level can adversely influence college and career choices later in life. This could include teaching staff and schools discouraging female students from pursuing an interest in mathematics or science, by limiting or undermining female students' opportunities to study these subjects. This 'early educational pipeline' (Berryman 1983, p.5) was presented as the first obstacle or 'leak' that women need to overcome in order to develop an interest and career in the sciences. Cronin and Roger (1999) later identify three further stages to the pipeline: access,

participation in higher education and career progression. Together, these four stages offer us a method of gaining a critical insight into whether a profession can be considered inclusive. We will now interrogate the scholarship conducted on two key theoretical stages- access and participation in higher education and the career progression- in order to ascertain whether women are treated fairly in the dental profession.

Access and participation in higher education

Dentistry is a widely considered to be a valued profession to enter, either as an undergraduate or postgraduate qualification. As a result, dental school selection is very competitive with applicants required to demonstrate scientific acumen and overall academic excellance (Adams 2005, p.76) Despite such high admissions criteria, dental school enrolment and completion figures suggest an interesting pattern. For instance, in the UK from 2007-2014 the number of women applying for and being accepted into dental surgery programmes increased. Niven et al (2013, p.119) found that 58 per cent of applicants for the 5 year dental degree programmes, 59 per cent of the four year dental programmes and 67 per cent of the 3 year /six dental year programmes in 2007-2008 accepted female applicants. In their 5 year analysis of UK UCAS applications to dentistry (2010-2014), Gallagher et al.(2017, p.187) found that females were more likely to be offered and accept a place in dentistry than men, with on average 60/40 split (p. 183). This trend is mirrored in many other countries such as the US, Canada, Bulgaria, Ireland, Germany and Sweden (Blanton 2006, Adams, 2005, Ioannidou, D'Souza and MacDougall 2014, Katrova, Gross and Schäefer 2011, Neville 2016) where women make up more than half of the dental student body as well as the dental workforce.

The over-representation of female applications to dental schools would appear to signal that the structural barriers that may have traditionally blocked women's access through the 'educational pipeline'(Berryman 1983) into dentistry have become movable. This steady flow of women into the profession can be taken to indicate that dentistry does not suffer from the 'leaky pipeline' common

to most STEM disciplines (Blickenstaff 2005) on the point of access and participation in higher education.

Career progression

The next question to consider is, what impact does a steady influx of women into dentistry have on the profession, their working lives and career prospects? The traditional pipeline model contends that women can experience a further narrowing of the pipeline at the career progression stage. This 'narrowing' represent pressure points in the women's career which can cause them to 'fall out' of the profession altogether or have their efforts restricted by being shoehorned into specific types of work and conditions. Common examples of pressure points include the decision to have children, the number of actual children and other family responsibilities (Rees 2001 cited in Bennett 2011, p. 151). Two processes sustain and underpin these pressures- horizontal and vertical segregation. Horizontal segregation refers to the process whereby women and men are clustered into specific job types or roles. This practice appears to be informed by gender stereotyping and sexism (Riska 2008, p.4). Vertical segregation is concerned with the position of women in relation to power, status and control in their profession. It assumes that women have less power and influence than men in determining their career trajectory and that their ability to attain positions of power, prestige and status is inhibited by such mechanisms as gender discrimination and glass ceilings (Riska 2008).

Horizontal segregation

There are different ways of measuring/evidencing the extent of horizontal sex segregation in dentistry. First, studies report that women are over-represented in special care dentistry, paediatric dentistry, dental public health and dental education and under-represented in oral maxillofacial surgery and endodontics (e.g. Adams 2005, McKay and Quinenoz 2012, Pacey 2014, Dental Schools Council 2013). This mirrors a trend observed in medicine where there are less women in the surgical and more prestigious specialism (Hinze 1999, Gjerberg 2002, Riska 2001 cited in Adams 2005, p. 78).

Second, a gendered work pattern has been identified with male dentists working more hours and taking less career breaks than women (Robinson, Patrick and Newton 2011 cited in Pacey 2014, p.4). Female dentists are more likely to work part time (Ayers et al 2008 p.347, Newton 2001 cited in Pacey 2014, p.4), as associates or in hospitals (De Wet, Truter and Ligthelm 1997, Newton, Thorogood and Gibbons 2000 cited in Ayers et al 2008, p.348) and are less likely to own their own dental practices (Murray 2002, Newton, Thorogood and Gibbons 2000 cited in Ayers et al 2008, p.348, (Riley et al 2011, Adams 2005, Ayers et al 2008 cited in McKay and Quinenoz 2012, p.3). For instance, in the US, 20 per cent of female dentists work less than 30 hours a week, 36 per cent were dental practice owners are female compared with 53 per cent of male dentists, and 41 per cent of women work as associates compared to 28 per cent of men (Dringer, Phipps and Carsel 2013, cited in Feldman, 2015, p.315).

It would be easy to explain these known occupational trends as nothing more than the expression of personal choice; however, feminists would counter this to argue that gender stereotyping and structural issues are in fact at play . Gender stereotyping alludes to the presumption that men and women have different skills sets because of their gender. As a result, women are assumed to have a natural affinity to work with children, the elderly and other vulnerable groups. This example of gender essentialism resonates in dentistry as the popular assumption that women have better empathy and communication skills than their male dental counterparts (Hannah et al 2009, Morris, 2000 cited in McKay and Quineroz 2012, p.4). There is also the perception that female dentists are less likely to rush a patient, be more caring and spend more time with their patients than male counterparts (Smith and Dundes 2008 cited in McKay and Quineroz 2012, p.4). Despite the populism of this belief there is no evidence that women have better communication and empathy skills than men; it has been found that women and men express themselves differently (e.g. Tannen, 1995, Kendall and Tannen, 2015).

The gendered pattern of work described above reveals that female dentists, like most formally employed women, occupy a non-linear or non-continuous career path with having children identified as the leading contributor for these changes in work patterns (Matthews and Scully 1994, Brenn et al 1992, Price 1990, De Wet et al, 1997, Newton, Thorogood and Gibbons 2000, Seward and McEwen 1987, Baldwin, Dodd and Rennie 1998 cited in Ayers et al 2008, p.349). Female dentists are more likely to work part time and take career breaks than their male counterparts (Ayers et al 2008 p.347). The most popular reason women take a career break is to care for children, whereas men use it as an opportunity to find a new job, to pursue further studies or out of personal choice (Ayers et al 2008, p.348). Most women take on postgraduate training before children (60.7 per cent) compared with men (34.3 per cent) (Ayers et al 2008). A woman's choice of speciality is also determined by location and proximity to family (Saeed et al 2008 cited in McKay and Quineroz 2012, p.4). A further implication of this gendered work pattern is the fact that women prefer to be in salaried positions, either in clinics or universities. This desire for a salaried position helps to offset the financial stress of self-employment and lends security to maternity leave provisions (De Wet, Truter and Ligthelm 1997, Newton, Thorogood and Gibbons 2000 cited in Ayers et al 2008, p.348).

Furthermore, this gendered pattern of working also reveals the existence of a gender pay gap in dentistry. Since women are more likely to work less hours and be salaried compared to male dentists they record a significant loss in earnings vis a vis their male counterparts. US research in the 1990s put this gender wage gap at approximately 78 per cent of male counterparts' incomes (Brown and Lazar 1998, Kaldenberg et al 1996 cited in Adams 2005, p.76). In 2014, the gap was 74% (New York Times April 23, 2014 cited in Feldman 2015, p.316). In the UK, the gender pay gap for NHS contracted dentists is smaller at 17 per cent (NHS Digital 2019 cited in www.bda.org, Lala and Thompson 2020). Nevertheless, the mean average taxable income for self-employed primary care physicians (from NHS and private dentistry by gender) was over £80,000 for men and under £60,000 for women (NHS Digital report on NHS Earnings and Expenses Estimates 2015/16). Clearly, female dentists earn less than their male counterparts. The material difference between men and women's

earning power has an impact on women's financial independence and pension planning. Another telling indicator of women's lack of control over their financial future is their under-representation as practice owners. Female dentists are more likely to be 'performer-only' dentists (90 per cent) than their male colleagues (72 per cent) (NHS Digital report on NHS Earnings and Expenses Estimates 2015/16). In the UK, while 49 per cent of NHS dentists are female only 9 per cent are practice owners, compared with the 18 per cent male dentists practice owners with NHS contracts (NHS Digital Data cited in www.bda.org)

Vertical sex segregation

Vertical sex segregation attends to the position and status of women within the profession. Failure to acknowledge the contribution of women suggests an organisational and professional culture that could be 'chillly' towards women (Bryne 1999 cited in Blickenstaff 2005, p.376), as well as downright discriminatory and patriarchal. In this section we will attend to two examples- the glass ceiling in academic dentistry and the prevalence of sexism and harassment, both in dental schools as well as in the profession itself- to ascertain the level of power, influence and status women have within dentistry.

Glass ceilings and academic dentistry

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A sectoral analysis of staffing levels in UK dental academia reveals that the process of feminisation has transformed UK dental academic. Between 2004 and 2016, UK dentistry witnessed a substantive increase of 104.1 per cent in the number of women working as clinical academics compared to an increase of 7.6 per cent in male clinical academics (DSC 2017, p.17). This was represented in a headcount of 562 men and 426 women. This report claims that while '(M)ost of the overall expansion of the academic workforce has therefore been of women'(DSC 2017, p.17), there was still a higher proportion of men at senior grades (DSC 2017, p.17) with only 21.2 per cent of professors in

dentistry being female. There were only 2 female Dental Deans in the UK in 2015 (Whelton and Wardman 2015, p.S10). This continues a trend seen internationally. In 2006, only 18% of dental deans in the US were female. By 2019 it has risen slightly to 20.8% (Li et al 2019).

Why is there an underrepresentation of female dental academics in positions of leadership (Blanton 2006)? Feminist scholarship posits that patriarchal work practices and misogynistic ethos impose a glass ceiling, or 'that invisible barrier to advancement that women face at the top level of the workplace' (Betrand 2018). This includes the practice of academic sexism whereby a discipline fails to recognise women's contribution to the field, by failing to cite the work of women, or when the physical appearance of female faculty is mentioned in staff and teaching evaluations. (Ahmed 2015). In addition, others claim that the 'job design' of academia (i.e. teaching, research and scholarship) is inflexible when trying to juggle work and family responsibilities (See Betrand 2018). Female career academics have been found to devote less time to research after they have children (Misra et al 2012) compared to male counterparts (Misra et al 2012). Relatedly, more women have difficulty with playing the 'corporate game' of higher education compared to their male counterparts with more women spending more time on college administrative tasks and committees than male colleagues (Misra et al 2012). Such activities, though clear examples of good citizenship, rank as being of 'low promotability' (Babock et al 2017) from a career progression perspective.

Academic dentistry is also hallmarked by similar patterns. There is a lack of positive female role models in academic dentistry. It has been noted there is a tendency for less dental conferences to have female speakers (www.biaswatchneuro.com cited in Faber 2017, p.1). In a study of 68 major dental journals only 14.8 per cent of their editorial board members were women (Ioannidou and Rosania, 2015). Only 3 out of 38 Editors-in-Chief of a North American oral health journal are female (Li et al 2019). UK dental professional associations struggle to attain gender parity in the composition of their official Boards, despite the growing number of women in the profession (O'Brien et al 2020).

Research publications are a commonly understood marker of academic activity as well as being a key component in determining ones eligibility for progression and promotion. It has been found that female dental academics produce less academic outputs then male counterparts, and spend more time on administration and teaching than research (Whelton and Wardiman, 2015, Albino et al 2019). A study by Nesbitt et al. (2003 cited in McKay and Quineroz 2012, p.4) reported that while female dental academics do the same hours as male counterparts, the men had more administrative support, office space, and protected research time than women. These studies indicate that the existence of an unconscious bias towards women's work in academic dentistry (D'Silva et al 2019).

Sexism

Sexism, according to Ahmed (2015) is a 'problem' that invades all aspects of women's professional lives. This 'problem' can take many different forms: as barriers to career progression (Biggs et al 2018), being treated differently to your male colleagues (Powell and Sang 2015), having your performance and ability measured against 'false

aspirations/ideals' or stereotyping of what is expected of women (Calder-Rowe and Gavey 2016) or a fear of unwanted physical contact(McLaughlin et al 2017). In their sum sexism amounts to a wide range of discriminatory practices against women simply because they are women. Sexism and sexual harassment exist at every stage of the dental pipeline- as a student, in the dental workplace and finally at the level of professional bodies.

Sexual harassment has been recorded in dental schools since the 1990s (e.g. Webster et al 1999, Garbin et al 2010, Ivanoff et al 2018). The first transnational survey of female dental students and their perception of gender bias and harassment reported that 6 per cent of US and Brazilian students had been a victim of sexual assault, of which 4 per cent identified their aggressor as a male dental

student (Ivanoff et al 2018). Another study found that 15 per cent of the Brazilian respondents were sexually harassed by a patient, relative of a patient or a professional. 25.4 per cent witnessed sexual harassment in dental school (Garbin et al 2010). This sexual harassment can also occur online, as exemplified by the Dalhousie University scandal(Hunter et al. 2015) when thirteen male dental students were suspended from their programme while calms that they had created a 'Class of DDS 2015 Gentlemen' containing misogynistic statements about their female colleagues and 'gendered hate speech'(Jane 2017, p.2).

The dental workplace is not immune to sexual harassment. In their survey of female maxillofacial surgical residents Zurayki et al (2019) found that 96 per cent of the respondents (n=67) experienced at least one form of sexual harassment and gender harassment. 52 per cent has unwanted sexual attention and 61 per cent said they had no training on how to respond to harassment and gender bias. These studies call for the need for training on how to respond to harassment and gender bias in everyday interactions (Garbin et al 2010, Ivanoff et al 2018, Zurayki et al 2019).

Sexism also appears to be part of the profession itself. In 2019 the British Dental Association was openly critiqued for the marketing style adopted by one of the orthodontic companies exhibiting at their British Dental Conference and Dentistry Show. One source described the sight of three women wearing clear PVC raincoats over revealing dresses and stiletto heels as something reminiscent of 1990s 'laddish culture'(Thompson 2019 cited in Lala and Thompson 2020) and wholly inappropriate for such a professional platform. The use of 'booth babes' (BBC News 2019) at a professional show registers as a particularly tone-deaf move by the BDA. Though not then in breach of Advertising Standards Authority (ASA) and the Committee of Advertising Practice because of the use of potent gender stereotypes, it did result in over 400 critical comments being posted on the Facebook page of the event (Lala and Thompson 2019). These responses represent both a 'calling out' of the sexism of the event as well as holding the BDA to account for their actions.

Discussion and recommendations

The above evidence strikes at the heart of the gender myth of dentistry as an equal opportunities' profession. What should dentistry do to address these issues? A multi-pronged approach is needed due to the multifaceted nature of this inequality. Here are some suggested recommendations.

First, there needs to be more widespread recognition that dentistry is a patriarchal institution, underpinned by misogyny, gender stereotyping and sexism. This recognition needs to be matched by the will to tackle these biases at an individual and institutional level. Including content on gender and sexism as part of the undergraduate curriculum would be a good starting point from which to build individual awareness of how gender impacts on oral health but also the vertical and horizontal segregation of the profession and the importance of work-life balance in the profession. Sexual harassment training and bystander training should be offered to both student and faculty. Though all universities have a sexual harassment policy, it would be important that the Dental School Council, the body that oversees dental education in the UK, puts its support behind a sector wide sexual harassment and acceptable behaviours policy.

Second, whether female dentists pursue a clinical career or an academic career, the work culture of both share many masculinist values. Both are premised on an 'ideal' professional worker who is single-minded, independent, unfettered by caring responsibilities, able to work long hours and be flexible to move to pursue further opportunities and achieve career goals. While there is a backlash against this 'toxic' work culture in academia (e.g. Dumitrescu 2019), profound structural and policy changes will be needed to remove the glass ceiling in dental academia. This includes reconfiguring productivity and markers of esteem as not something that can only be measured quantitively in terms of research outputs, but one that also recognizes and values contributions to academic citizenship and communities of practice. Many equality and diversity scholars point to the success of the Athena Swan Award scheme as an encouraging sign of gender based sectoral change. Athena SWAN statistics reveal that all UK Dental Schools have fully engaged with this gender equality initiative with most of UK Dental Schools have been awarded Silver Athena SWAN awards, demonstrating evidence of good gender-based institutional practices. However, the Athena SWAN award scheme has become so successful in UK higher education that Athena SWAN is now treated as a 'proper noun' rather than an acronym (Cafferty et al 2016) leading some to query whether the process has become a tick box exercise since success at a Silver award status is a condition of securing NIHR funding (Bhopal and Henderson 2019). One of the aims of the Athena Swan award scheme is to facilitate the sharing of good gender-based practice, however, the way in which the scheme is administered doesn't readily allow for this to happen. More networking events on the topic of gender inclusive practices in dental schools are needed to raise awareness and best practice in the sector.

Third, the preference for part-time work has implications for the future staffing of public health service (Brocklehurst and Tickle 2012, p.343). Within general dental practice, the feminisation of the dental workforce demands creating more flexi-working arrangements, not only to support returning women after maternity or parental leave but also with regards to specialist training. The transition to work after a period of leave can be challenging and mentoring may be a beneficial form of support at this. Most specialist training must be completed fulltime within a set number of years. This emphasis on full time study means women can find themselves in the difficult position of either delaying having children or postponing their studies or giving up on career aspirations. Establishing a

flexible training pathway, one that can accommodate pauses and periods of leave, will help increase the attractiveness of specialising.

Fourth, the lack of representation of women in positions of authority means that the dental profession is under-utilising the skills and talent coming into the field. It also resonates as a social justice issue (Betrand 2017, p.4). Efforts have been made by specialist groups to celebrate the contribution of women in dentistry by creating annual prizes as well as special issue and journals celebrating their scholarship and academic impact (e.g. Afshari et al 2017, Ionniadou et al 2019, D'Silva, Herrer, and Mina, 2019). While such competitions and publications help to increase the cultural visibility of female dental academics, their ability to effect actual change is questionable. it might be worth thinking about employing affirmative action and creating gender quotas for leadership posts/professorships.

Conclusions

Current student enrolment rates and workplace statistics appear to confirm that the future of dentistry is female. While many commentators may look upon this development as evidence that dentistry is a gender inclusive profession, this chapter finds little evidence to support this claim. Using a variety of feminist tools of analysis, such as the pipeline model and the processes of vertical and horizontal sex segregation, the career trajectory of women in dentistry was revealed to be non-continuous and prone to individual, structural and institutional pressures the further along the pipeline they travelled. The evidence suggests that while women have largely overcome the issue with access (pending grades and selection criteria), their opportunities to progress in the career upon qualification would appear to be constrained by a number of key pressures points: the decision to have children, the caring implications of having children and the sexism and patriarchal work culture they work in. Together, these challenges force women to manoeuvre creatively within their profession, by electing to work part-time, or seek out secure salaried positions, such as teaching and hospital jobs. However, on the issue of promotions and positions of leadership, there would appear to be more immovable structures in place to curtail progression.

It is important to state that the issues faced by women outlined here are not the exclusive preserve of dentistry; in fact they are experienced by all women working in the formal economy. Nevertheless, it is important to name and catalogue these gender related issues in dentistry because of the prevalence of a gender myth which openly propagates the belief that dentistry is an equal opportunities profession.

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