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The reproduction of gender differences in early career choices and professional identity of young dentist in Finland

Short title: Dentist's career choices and professional identity

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key words: dentistry, gender, professional identity, value, career

The data are available from the Finnish Dental Association but restrictions apply to the availability of these data, which were used under license for the current study, and are thus not publicly available. Data are, however, available from the authors upon reasonable request and with permission of the Finnish Dental Association.

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The reproduction of gender differences in early career choices and professional identity of young dentist in Finland

Abstract

Introduction: For over the last 20 years approximately 70% of working dentists in Finland have been women. However, there is internal division of the profession along gender lines. Female dentists work more often in the public sector and male dentists in the private sector. The aim of this study was to investigate the gender differences in young dentists' early career choices, specialization plans, values, and perceptions of professional identity.

Materials and methods: The data were taken from a national email questionnaire study called 'Young Dentist', which was sent to 458 dentists who had received their license to practise dentistry in 2014–2016 from all four universities with dental curricula in Finland. A total of 52% young dentists (n=238) answered the questionnaire.

Results and discussion: The results indicated that whereas female dentists were more likely to perceive themselves as comforters, social workers and health promoters, male dentists tended to perceive themselves as technicians. These professional identities were interrelated with early stage career choices in which female dentists worked more often in the public than in the private sector when compared to male dentists. There were also clear gender differences in the importance of values and the specialization plans of the young dentists.

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Conclusion: Young dentists in Finland make career choices and develop professional identity in accordance with the attributes traditionally associated with cultural ideals related to femininity and masculinity.

key words: dentistry, gender, professional identity, value, career

Introduction

Professions are not gender-neutral and several aspects affect professional hierarchies and specialties.[1,2] Gender operates at multiple levels and is central to the establishment of professions.[3] Gendered processes shape career choices and professional hierarchies in which women continue to be disadvantaged in their access to positions of power, authority and influence.[4-6] Gender is also central to the status of professions [1,7], and influences professionals' social practices and identities.[1] The gendered organization of professions operates through women's and men's active participation in the reproduction of career choices that better fit either women's or men's life experience and professional expectations.[8,9] Some of women's professional choices are influenced not only by their sense of what is occupationally advantageous, but also by their gendered identity in terms of the professional expectations and career opportunities marked as appropriate for them as women.[9,10]

The dental profession in Finland is considered an example of a successful female professional project in contrast to other countries where dentistry has been constituted as a male-dominated profession.[2,11] Finnish female dentists have good opportunities to combine career and family life compared to for example Finnish physicians.[12] The features of family, care and emotions, which are traditionally associated with womanhood, have been appreciated in the dental profession in Finland compared to many male-dominated professions.[9,13] In addition, unity has been strong between female dentists, which led to the founding of the Finnish Women Dentists Association already in 1943.[13]

In Finland, there are approximately 4500 working dentists and the proportion of female dentists is approximately 70%.[14] Slightly over half of the dentists in Finland work in the public sector (main workplace) and the other half in private practices, hospitals or in teaching and research positions at universities.[15] Comparison of the public and private sectors by male

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and female dentists in Finland, reveals that males work more often in the private sector than in the public sector and females more often in the public than in the private sector (Figure 1).

Of Finnish dentists, 15% have specialized.[16] In Finland, specialist training is possible in dental public health, oral and maxillofacial surgery, orthodontics, diagnostics (oral radiology, oral pathology, oral microbiology), and clinical dentistry (paediatric dentistry, cariology and endodontics, periodontology, prosthodontics and stomatognathic physiology). The duration of dental specialist training is three years when training full time, except maxillofacial surgery, which lasts for six years. When comparing specializations by gender, males are overrepresented in prosthodontics and stomatognathic physiology and oral and maxillofacial surgery, and females in orthodontics (Figure 2).

Based on the existing literature and analyses of Finnish dentists, we hypothesize that there are clear gendered patterns in the career choices of recently graduated dentists in Finland. The aim of this study was to investigate the gender differences in young dentists' early career choices, specialization plans, values, and perceptions of their professional identity.

Material and methods

The data for this study were taken from a national online questionnaire study called 'Young Dentist', which was hosted in the Finnish Dental Association. The Young Dentists study has been enrolled three times, in 2011, 2014, and 2017 and it is planned to be repeated every three years. The questionnaire has altogether 36 questions for the recently graduated dentists and 10 questions for their supervisors.[17] Young Dentist study has aimed to evaluate the similar data than Physicians study in Finland in order to compare data if needed. Physician studies, named as Junior Physician in 1988, have been conducted seven times, most recent in 2018. The questions have been formed mostly by the study group of Junior Physician 88 research in the 1980's, and most of the questions have been in the same format since then to ensure comparability between studies.

The link for the questionnaire was sent by email to dentists graduated in Finland who had received their license to practise dentistry by the National Supervisory Authority for Welfare and Health (Valvira) during 2014–2016 and had an email address in the register of the

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Finnish Dental Association (n=458) [17] (Table 1). The dentists licensed during these years had received their undergraduate education at the Universities of Eastern Finland, Helsinki, Oulu or Turku.

The data were collected between May 24th and June 11th in 2017. All subjects received one e-mail reminder and were resent the questionnaire. Information on the study was also announced in the Finnish Dental Journal and on social media (Facebook).

In Finland, no formal ethical review for this type of questionnaire-based study was required [18], the permission from the Finnish Dental Association was achieved. However, ethical principles of Helsinki Declaration were rigorously adhered to in the study. The participants were informed of the aims of the study and received the contact information of the responsible researcher. The questionnaire was filled in anonymously and participation in the research was voluntary. The data contained no identifiers and the participants could not be recognized in the research reports.

The gender differences were evaluated in terms of early career choices, specialization plans, importance of values, and professional identity. Early career choices were acquired by asking about the reasons for the respondents' choice of first workplace, and about their current main job. Their specialization plans were elicited in the questionnaire by asking about their desired field, with the response options: '(already) started specialization studies', 'wish to specialize', 'no wish to specialize', 'do not know yet'.

The values and professional identity positions were chosen from a questionnaire study Physician 2013 of physicians in Finland [19] to cover the characteristic values and identity positions dealing with dental profession. We choose 13 values from 18 values presented in 'Physician 2013', but we added scale with five options for answers differing from four options in the Physician 2013. Similarly, we choose 13 identity positions from 25 identity positions in the survey 'Physician 2013', the scale was identical in this question.

The importance of values included: belief in God, economic security, equality between people, equity, family life, home country, health, helping disadvantaged people, nature, possibilities for hobbies, respect for humanity, self-actualization and traditions, and work, which the respondents categorized as 'not at all important', 'hardly important', 'slightly important', 'important' or 'very important'.

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The professional identity positions of the young dentists were covered by the question: 'How do the following identity positions describe you as a dentist?' The identity positions were modified from the questionnaire study of physicians in Finland [19] and the options were: assembly line worker, civil servant, comforter, a doctor without calling, doctor reducing anxiety, gatekeeper, healer, health promoter, helper, leader, listener, mainstay, missionary doctor, physician of the soul, prioritised researcher, social worker, team member, teacher, or technician. The response options were 'very poorly', 'quite poorly', 'hard to say', 'quite well' and 'very well'.

The distributions of the responses between male and female dentists were compared using the χ^2 test, and $p<0.05$ was considered significant. The analyses were conducted using IMB SPSS statistics 25.

Results

Altogether 238 young dentists (response rate 52%) answered the questionnaire (Table 1). A higher proportion of females than males participated in the study. The participation rate was highest among those under 27–30 compared to other age groups and those having graduated in 2014 than later. Participation rates were 50% or over in all universities that provided dental education.

The majority of all young female dentists currently worked in the public sector (84% vs 14% in the private sector), whereas young male dentists worked quite evenly in the public (55%) and the private sector (44%) ($p<0.001$ for difference between genders). About 2% of young dentists worked in other places (hospitals, universities, student healthcare, associations or abroad).

Among the reasons for the choice of one's first workplace, the greatest gender difference was found in willingness to be an entrepreneur in male dentists ($p<0.001$) (Figure 3). Male dentists most often reported being influenced by the 'working opportunities for a spouse', 'I was asked to join the workplace where I had worked before my graduation' and 'good postgraduate training possibilities' (response options: 'the most important thing' or 'a lot'). Female dentists reported being influenced to a greater extent by 'I was asked to come to work at the workplace', 'stability and permanence of work' and 'working opportunities for a spouse' (options: 'the most important thing' or 'a lot').

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Of the respondents, 66% answered the question on specialization plans. Of these, 4% had already started specialization studies and 43% expressed a wish to specialize, whereas 30% expressed no wish to do so and 23% did not know whether or not they would specialize. A higher proportion of females (29%) than males (16%) did not yet know their preferred field. Among those who expressed a wish to specialize or had already started specialization, the most popular fields were prosthodontics and stomatognathic physiology (21%), oral and maxillofacial surgery (14%) and orthodontics (11%). The results revealed clear gender differences in favoured specializations (p=0.006) (Figure 4). Male dentists more often favoured oral and maxillofacial surgery, and prosthodontics and stomatognathic physiology, whereas females more often favoured orthodontics, periodontology and cariology and endodontics (Figure 4).

For the question regarding the importance of values, female dentists marked them to be very important more often than males (Figure 5). Among the female dentists, the most important values were health, respect for humanity and equity; and among the male dentists, health, equity and respect for humanity.

In regard to professional identity positions, the female dentists most often reported perceiving themselves as health promoters, team members, healers, and social workers (options 'very well' or 'quite well'). The male dentists reported perceiving themselves as team members, health promoters, technicians, and healers (Figure 6).

Discussion

The study evaluated the reproduction of gender differences in early career choices, specialization plans, values, and perceptions of professional identity among young dentists in Finland. The results confirm our hypothesis that there are clear gendered patterns in the career choices of recently graduated dentists in Finland. For instance, female dentists were more likely to identify themselves professionally as healers, social workers, comforters, team members, and health promoters. Male dentists tended to identify themselves as technicians. In a similar study, the physicians identified themselves most often as helpers, members of the work team, health experts and listeners.[20] The biggest difference between genders among physicians was in the identity of a health educator, although the work sites had more influence on the physicians' identity than their gender or age.[20] However, identity is not stable, and develops over the years through interaction with patients, colleagues and the work environment.[21]

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The professional identity positions coincided well with the career choices, as prosthodontics is a 'technical' specialization and was favoured more often by male dentists both as a specialization field and a specialization goal. The identity positions of social worker, team member and health promoter coincided well with public dental health, and that of comforter coincided with pedodontics, both of which were favoured by female dentists. The professional identity of an entrepreneur was in line with the fact that almost half of the men worked in the private sector, compared to only 14% of the women. Men seem to be more amenable to taking the risks involved in the private sector, and for women dentists, employee status in the public sector offers more generous maternity leaves. In addition, for females, stability and permanence were more important aspects in the choice of first workplace than for males, as was also the point that female dentists preferred staying in a workplace in which they have already worked. For male dentists, professional plurality and the chance to proceed in their professional career are important.[22] These results are not surprising in the light of new studies showing the shifting significance of gender to professional work, especially among young cohorts of healthcare professionals who experience more uncertainty, stress and less collegial support.[12,23,24] Challenges with finding supportive mentors during the education and cultural pressures put on young women in terms of work-family balance make young female professional to choose specialties that are professionally perceived as more appropriate for women.[23]

The results also suggest that dental education can play a great part in the process of forming the important values. The former research shows that the professional values begin to be adopted already during studies and lead to quite a homogeneous professional group of dentists or physicians.[25] In addition, it has been shown that male and female young dentists assess their own competences acquired in dental education in different ways.[26] In a study of newly licensed dentists in 2011, men appeared to be more confident in their competence in all of the studied clinical procedures except diagnosing a malocclusion in developing dentition, and the most significantly in surgical procedures.[26] Dentists appreciate the autonomy and altruistic features of the work, but on the other hand are dissatisfied with the lack of autonomy and administrative side of practising.[27] In our study, the young dentists of both genders scored high on similar values, which were health, respect for humanity and respect for equity. These results are in accord with other studies on dentists that indicate that the values of dentists relate to practising (focus on patient), family and friends, and personal wellbeing.[22,28] However, there was discrepancy in responses on the importance of equity and

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helping disadvantaged people among young dentists as helping disadvantaged people was reported to be less important.

The greatest gender differences in terms of the values of young dentists were seen in the 'very important' response category, since in all values, females reported the values to be very important than males. The value of work is very interesting, as female dentists perceive their work more often as very important or important compared to male dentists. So, even though women are culturally pressured to choose specialties that enable work-family balance, this does not mean that they do not value work greatly. In fact, according to our results young cohort of female dentists value work more than their male colleagues. Our findings are in line with other studies that show that the values of work-family balance and work are not contradictory for women and professional women in their careers strive for both some kind of work-family balance and meaningful and challenging work.[9,29]

Conclusions

Little is known from previous literature about the values of professional identities or career choices among dental professionals in Finland. The results of this study provide valuable insights into the issue from the perspective of young dentists in Finland. The results show that young dentists follow the old gendered pattern of Finnish dentistry as a female-dominated profession. In addition, our study also shows that there are new gendered patterns emerging among young dentists where the increasing number of men enters the dental education and profession and favours specialties and sectors of work that are perceived as more technical, better paid and more risky. In this respect, the traditionally female-dominated profession with the influx of new graduates becomes more internally stratified along gender lines with men clustering in the private sector and in more financially rewarding fields of specialization, and women more often working in the public sector and in specializations that are related to care (healers, social workers, comforters) or common/social issues (team players, health promoters). Thus, it appears that young dentists in Finland make career choices and develop professional identity in accordance with the attributes traditionally associated with cultural ideals related to femininity and masculinity.

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We argue that our results make a focal contribution to the scholarship on oral health workforce, which need further investigation. Our study also raises some important questions for future research, as we still know little about the mechanisms behind these gendered patterns in Finnish dentistry. Future research should investigate whether candidates for dentistry enter dental education and training with certain presumptions about tasks, jobs and specializations that they perceive as especially appropriate for them as women or men, or whether they develop their gendered professional identity during their dental education and training.

Authors declare no conflict of interest.

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Tables

Table 1. Background information of the sample and the respondents

	sample	respondents		response rate
	n	**n**	**%**	
All	458	238	52	52
Gender				
female	299	165	72	55
male	159	65	28	41
missing		8		
Age group (years)				
< 27	46	28	12	61
27 - 30	254	128	54	50
>30	158	80	34	51
missing		2		
Year of license				
2014	137	90	38	66
2015	131	64	27	49
2016	190	84	35	44
University				
Eastern Finland[#]	27	16	7	59
Helsinki	137	69	29	50
Oulu	179	89	37	50
Turku	115	64	27	56

[#]The University of Eastern Finland started the dental education in 2010 and first dentists graduated in year 2015.

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Figure legends

Figure 1. Proportions (%) of Finnish dentists by main workplace and gender (n=1 282) (Source: Labour market survey 2017)

Figure 2. Proportions (%) of Finnish dentists by specialization and gender in 2017 (n=715) (Finnish Dental Association's register)

Figure 3. Distributions (%) of factors that influenced the choice of first workplace of young dentists by gender. The figure presents 7 out of 21 items that had a difference of $p<.05$. between genders.

Figure 4**:** Specialization plans of young dentists by gender (49 male and 103 female) ($p<0.05$).

Figure 5. Importance of values by gender. The figure presents 7 out of 13 items that had a difference of $p<.05$. between genders.

Figure 6: Professional identity of young dentists by gender. The figure presents 7 out of 21 items that had a difference of $p<.05$ between genders.

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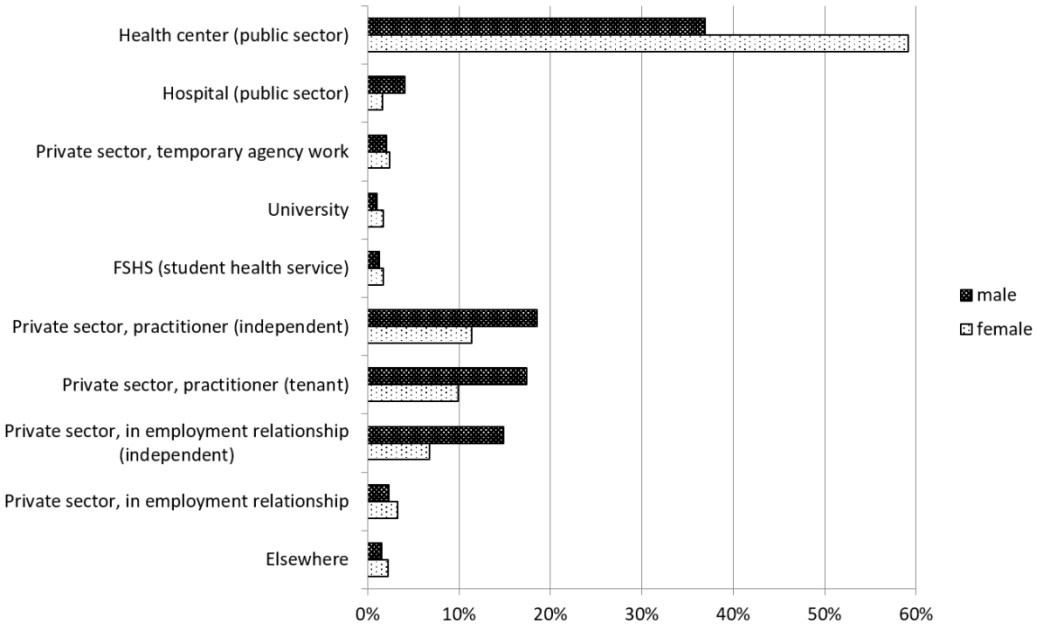

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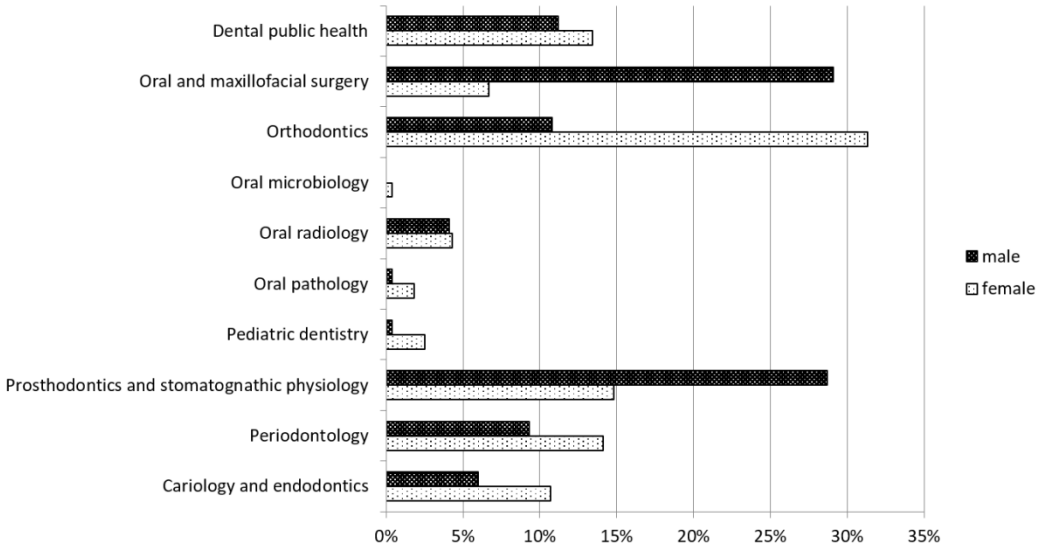

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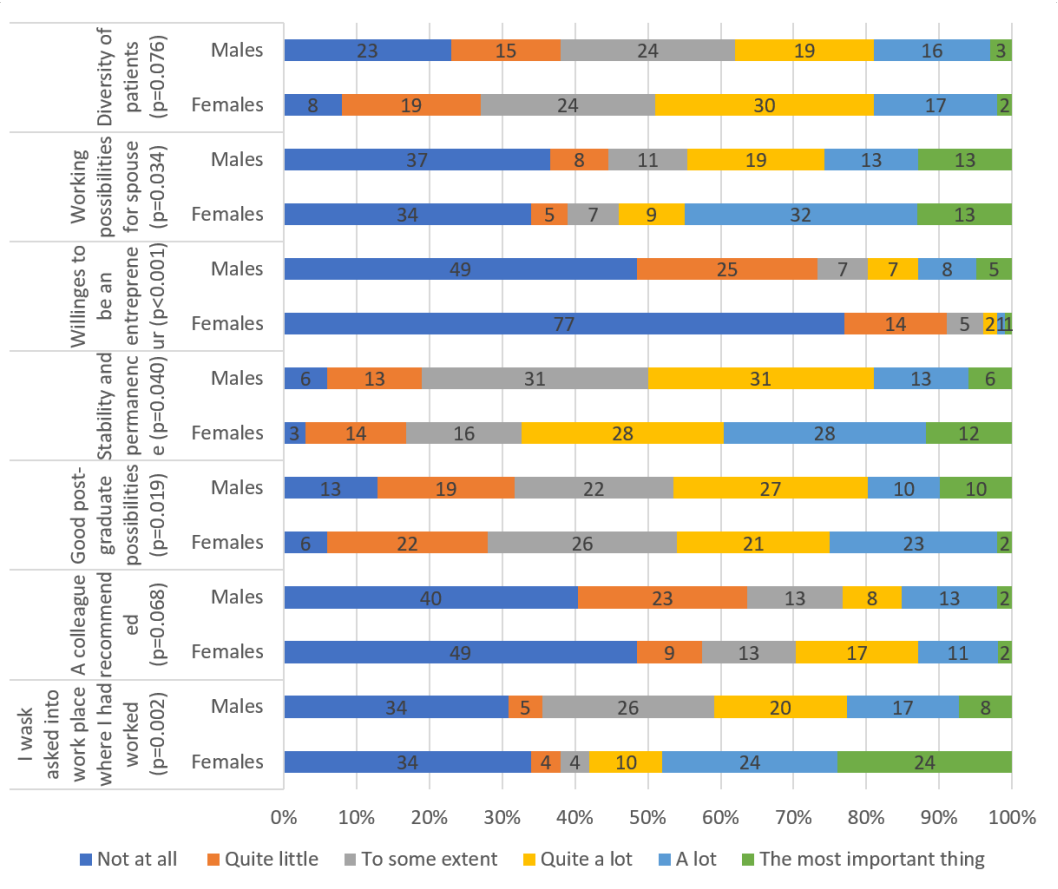

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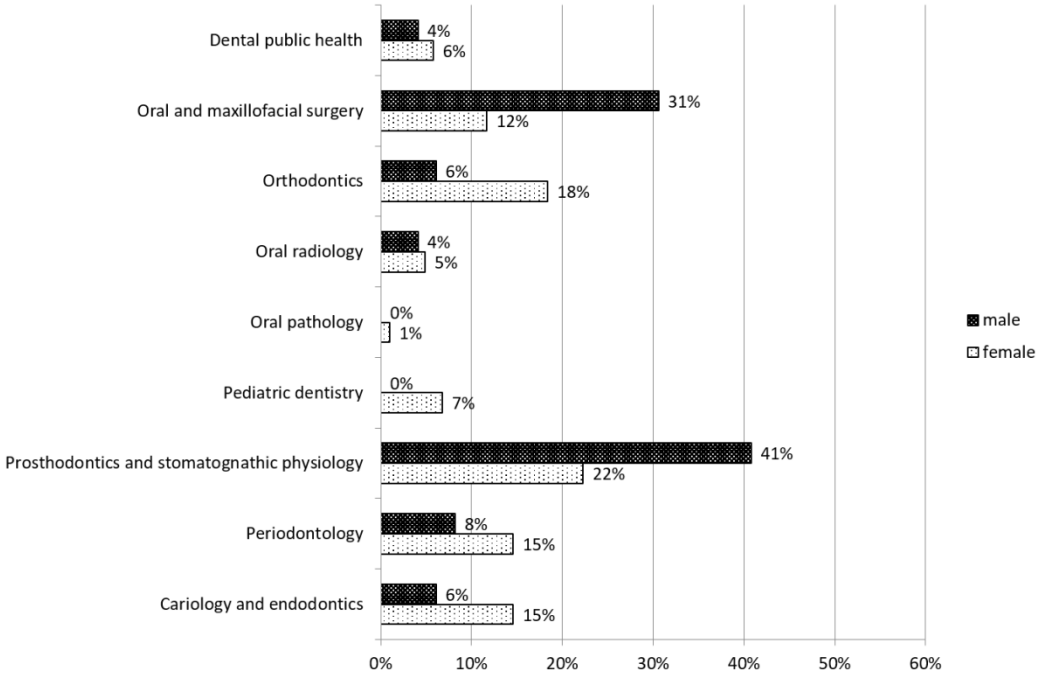

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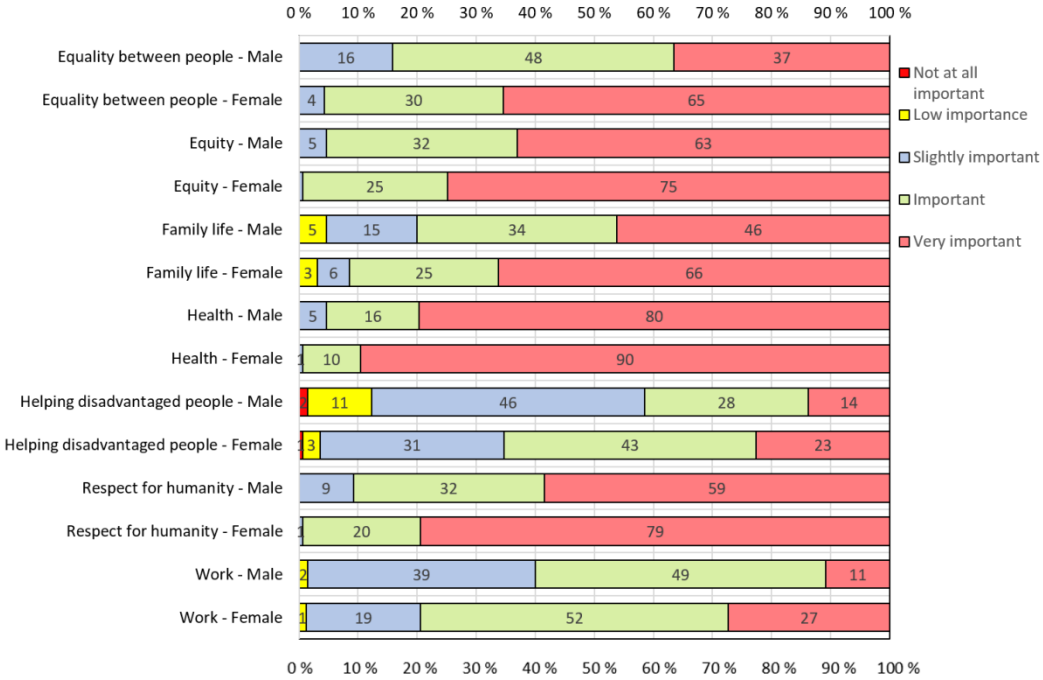

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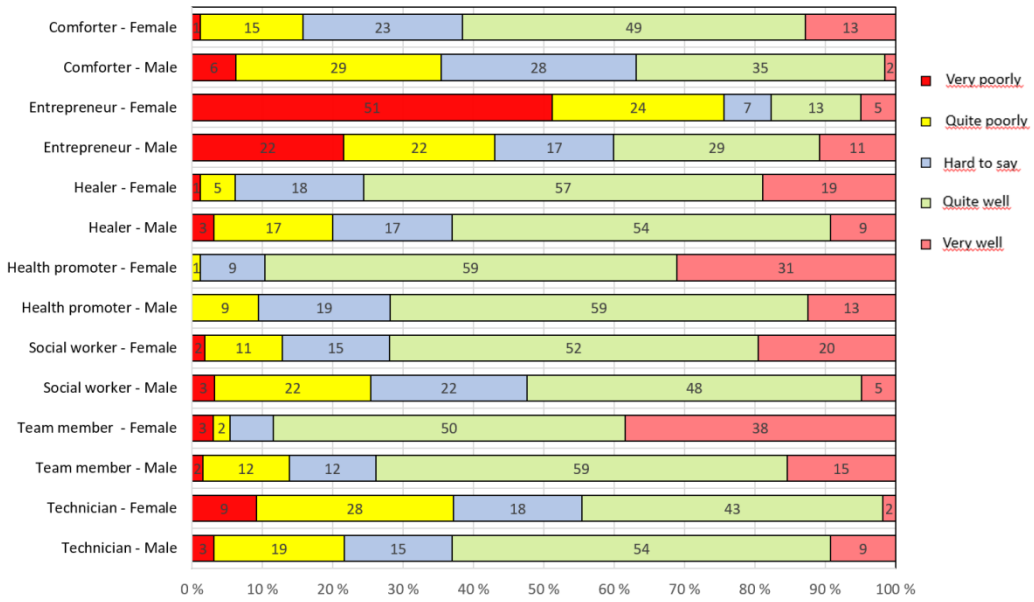

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