“My employer is exhausting”

Burnout in the senior medical workforce five years on

HEALTH DIALOGUE
ISSUE 17 | APRIL 2021

ASMS
TOI MATA HAUORA
www.asms.org.nz

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Foreword

Burnout is now an entrenched feature of our specialist medical and dental workforce.

In our latest survey, nearly 50% of respondents report burnout. This means in five years, there has been no substantive improvement since our last burnout survey.

The doctors and dentists who shared their experiences in this research conveyed their passion and determination, but also spoke of the challenging circumstances of their work.

> *"The work is wonderful. I love caring for the patients but it is relentless and impossible to actually achieve within the current staffing climate." – Radiation Oncologist*

The fact that one in two doctors continue to suffer from burnout represents a serious failure by the system to address the root cause of the problem. Our senior doctors and dentists continue to shoulder the load in our chronically understaffed and increasingly busy hospitals. We know there are specialist staffing shortages (estimated by ASMS to be 24%), and we also know this rate of burnout is unsustainable. Its effects are starting to snowball as acute demand continues to outstrip workforce resource and supply.

Burnout is not an individual problem; it is a system failure. Accordingly, we are calling for formal recognition of employers' responsibilities to provide physically and psychologically safe workplaces. Adequate resourcing, including increased administrative and IT support, must also play a part.

We also need a culture shift in hospitals and other public health care employers. The normalisation of excessively long working hours must stop.

As the Government launches its response to the Health and Disability System Review there is no better time to tackle the burnout problem.

As Health Minister Andrew Little acknowledged in his 24 March speech to sector representatives about the looming changes, the health workforce is increasingly stressed.

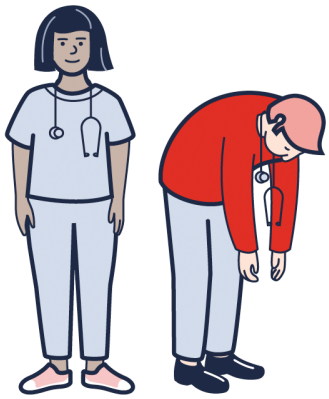
Our members can only work with government to enact these changes if they have the time, space, and support to do so. This means investing in our people first.

We present this burnout study with specific recommendations as to what needs to change. We welcome conversations about how these changes can be implemented. Our health system and those working within it cannot wait any longer. The time for action is now.

Sarah Dalton
Executive Director
Association of Salaried Medical Specialists

Introduction

In 2015 ASMS conducted the first nationwide survey of a senior medical workforce using the Copenhagen Burnout Inventory (CBI). The results were stark; one in two New Zealand medical and dental specialists were found to be suffering from high levels of fatigue and exhaustion. Many ascribed their symptoms to the conditions and experiences of their work. In August 2020, we repeated this study to see what, if anything, had changed in the intervening years. The 2020 survey findings are the focus of this report. This research extended observations made in the previous study regarding potential contributing factors to burnout, as well as improving aspects of the original methodology. This report focuses on differences in scores between the two surveys, and provides an updated commentary on the significance of burnout for the medical workforce. It concludes by presenting recommendations for change.



One in two

New Zealand medical and dental specialists experience high levels of fatigue and exhaustion, resulting in burnout

Chronic workplace stress

Burnout is an occupational syndrome – it means our doctors and dentists are suffering from chronic workplace stress

Definitions

Personal burnout	**The degree of physical and psychological fatigue and exhaustion experienced by the person overall, including work-related, patient-related burnout and non-work-related factors.**
Work-related burnout	**The degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work.**
Patient-related burnout	**The degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work with patients.**

Why burnout still matters

The 2015 report into burnout provided a critical lens on the consequences of a medical workforce enduring long-term staffing shortages, growing patient demand and clinical creep. At the time, it was the first nationwide study of burnout in the country's public health workforce of senior doctors and dentists using the CBI. Burnout is now established as a key indicator of the health and wellbeing of the senior medical and dental workforce in New Zealand and employers have a duty of care in this regard.

In 2019 the definition of burnout was changed by the World Health Organisation (WHO) to recognise burnout as an occupational syndrome. The International Classification of Diseases diagnostic manual now defines burnout as "resulting from chronic workplace stress that has not been successfully managed" (WHO 2019). This change in definition signals an important shift in understanding burnout as being a consequence of work. Burnout is not a sign of an individual weakness or failure to cope. This syndrome is caused by stressors in the workplace. This change in emphasis requires the deployment of new strategies to address burnout. While mindfulness techniques, stress management, and personal resilience have their place, fixing burnout will entail addressing the conditions of work which create stress and considering how these can be modified (Maslach and Leiter 2017).

Burnout is not a sign of an individual weakness or failure to cope. This syndrome is caused by stressors in the workplace. This change in emphasis requires the deployment of new strategies to address burnout.

While screening tools such as the CBI and the Maslach burnout inventory (MBI) are not clinical diagnostic tools (Bianchi, Boffy et al. 2013, Lall, Gaeta et al. 2019), surveys that signal a high prevalence of burnout in a population warrant serious consideration and attention. As myriad studies have demonstrated, there are close associations between burnout and intentions to leave work (Ran, Chen et al. 2020), working through illness (Pei, Lin et al. 2020), suicidal ideation (Kane 2019, Menon, Shanafelt et al. 2020), and quality of patient care (Hewitt, Ellis et al. 2020). Burnout has significant associations with sleep deprivation and is in turn related to the likelihood of making clinically significant medical errors (Trockel, Menon et al. 2020). Defined as a complex and dynamic

phenomenon, rather than a fixed end point (Danhauer, Files et al. 2020), burnout studies such as these undertaken by the ASMS provide important insights into the health and wellbeing of critical workforces. These studies are key marker points, providing valuable information and data regarding burnout, hours of work, gender, and age as well as perceptions of key stressors that individuals view as key contributing factors.

Burnout is now established as a key indicator of the health and wellbeing of the senior medical and dental workforce in New Zealand and employers have a duty of care in this regard.

One of the key findings from the 2015 research was the high level of burnout experienced by doctors in their 30s, particularly women. The subsequent qualitative study into the lived experiences of women working in medicine (ASMS 2019a) explored whether burnout can result from challenges with work-life integration (Johnson, Irish et al. 2020). As the research demonstrated, concerns for work-life integration reflected gender schemas which frame responsibility for domestic affairs as the duty of women (Chadwick and Baruah 2020). A key contribution of this study, moreover, was the demonstration of the pervasive nature of gendered assumptions concerning appropriate behaviour, comportment, and indicators of success and dedication as they pertain to medicine. Some of these indicators such as long working hours, negative views concerning part-time work, and the expectation to always prioritise work were shown to result in significant stress and illustrated concerning aspects of current working practices (Paredes and Cochran 2020). They also illustrated how gender-based discrimination can add significant pressure to the already demanding nature of medical work (Wang, Tanious et al. 2020). The 2020 study sought to further explore these trends by including questions pertaining to the number of dependants as well as hours of work.

At present, ASMS estimates New Zealand has an SMO staffing shortage of approximately 24% based on the views of clinical directors working around the country (ASMS 2019b). Attending to conditions of work which may improve work-life integration, and in turn, reduce burnout propensity, is likely to pay dividends in the retention of this highly qualified workforce (Nuss, Tessier et al. 2020). As with previous surveys, this research sought to analyse qualitative comments left by responders to highlight issues that individuals felt were most pressing in terms of their respective work-life balance and satisfaction at work.

Methodology

A total of 4653 members of the ASMS were asked by email to take part in an anonymous online survey in August 2020. Hosted by Survey Monkey, it was open for one month and four reminders were sent to encourage survey completion. Participation was voluntary and no incentives for participation were provided.

As with the original 2015 burnout survey, the research used the CBI to assess the degree of burnout in the ASMS membership. The CBI attempts to simplify and refine the concept of burnout to a state of emotional and physical exhaustion. In this examination of burnout, personal burnout is assessed on the degree to which respondents feel tired, worn out, or physically and emotionally exhausted, regardless of perceived cause. It is conceptualized as the degree of overall burnout experienced by an individual. Work-related burnout is a measure of the "degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to their work" (Kristensen, Hannerz et al. 2005 p197). Client or patient-related burnout is "the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to their work with clients" (Ibid). This 'client' or 'patient' related aspect is deemed to be a second tier of work-related issues, but one which has a focus on the impact of 'people work'. Only those who work face-to-face with clients, or in the medical context, patients, were required to answer this section of the inventory.

Degree of burnout was measured according to a five-item Likert scale using response categories 'Always', 'Often', 'Sometimes', 'Seldom', 'Never/ almost never', and 'To a very high degree', To a high degree', 'Somewhat', 'To a low degree', and 'To a very low degree'. Burnout was defined according to instructions in the inventory where those who score equal to or above 50 on average in each of the three scales are classed as experiencing a high level of burnout. Prevalence scores were calculated by assessing the percentage of individuals who score as 'burnt-out' (i.e. with scores ≥ 50) as a percentage of the overall respondents. Mean burnout scores were then calculated by averaging the scores for each line of questioning and taking an overall average of the score (see instructions on the CBI in Kristensen, Hannerz et al. 2005).

Additional questions were based on the Australian Medical Association's (AMA) Risk Assessment checklist into hours of work, including whether participants had worked more than 24 consecutive hours, and whether they have a period of rest of less than 10 hours (AMA 2005). Respondents were also asked to estimate total hours of work for the week prior to completing the survey. Hours of work were defined as including standard hours worked, private work, hours on-call (including time on-call but not called in), and any time spent doing administrative tasks at home, including email. Hours of work were reported in ten hour increments.

Independant variables were taken from responses to the World Health Organisation's (WHO) self-health assessment tool (a single item measure of health) and demographic data including gender, age (according to five categories), length of time worked in New Zealand (according to five categories), primary DHB and specialty. Specialties were summarised according to number of respondents and all specialties with n>/=20 were included in the analysis. Others were included according to broader specialty groupings. For a list of specialties <20 and their grouping see Appendix 1. Additional demographic data was sought on number of dependants. Dependants were defined as children for whom an individual was parent or guardian, living in the same household. Ethnicity data was not collected in this study. This is a limitation and future work will include this demographic variable.

The CBI was situated alongside a broader suite of questions examining indicators of working

conditions, staffing issues and membership priorities for the year ahead. Where relevant, these questions were used in correlation analysis, but this report mainly focusses on the findings of the burnout questionnaire. Associations between the mean and prevalence scores on the three burnout scales, hours of work, responses to the risk assessment checklist questions, and the independant demographic variables specified above were tested using Spearman's rho, Chi-square and one-way ANOVA as appropriate on SPSS (version 23.0). These results are summarised using 95% confidence intervals.

Qualitative data analysis

Data analysis of the comments left in each section of the burnout survey was undertaken separately by importing them into NVivo pro (version 11), reading them in detail and coding themes as they emerged. Those from the 'general comments' section at the end of the survey were also examined but the qualitative data analysis was restricted in this instance to the comments left in the burnout section of the survey.

Patterns and trends emerging from the quantitative data analysis were explored by cross-cutting comments by gender, selected specialties with high burnout scores and selected DHBs with high burnout scores. This cross-cut qualitative material was considered further and where relevant comparative analysis was performed between categories of comments to examine any differences in how themes were expressed or the frequency of thematic expression.

Comments selected for inclusion in the final report were those that best expressed the themes. These were transcribed verbatim and any omitted words are signalled by ellipses. Any words replaced or altered to preserve anonymity or correct for tense or sense are placed in square brackets.

Results

A total of 2102 of the 4653 potential respondents responded to the survey (45% response rate). Analysis was undertaken using the best available data. Where applicable, n values are specified for each question. Only 1.2% of the survey applied to non-DHB members. For ease of comparability, analysis of the burnout data is restricted to DHB members as this was the focus of the 2015 survey.

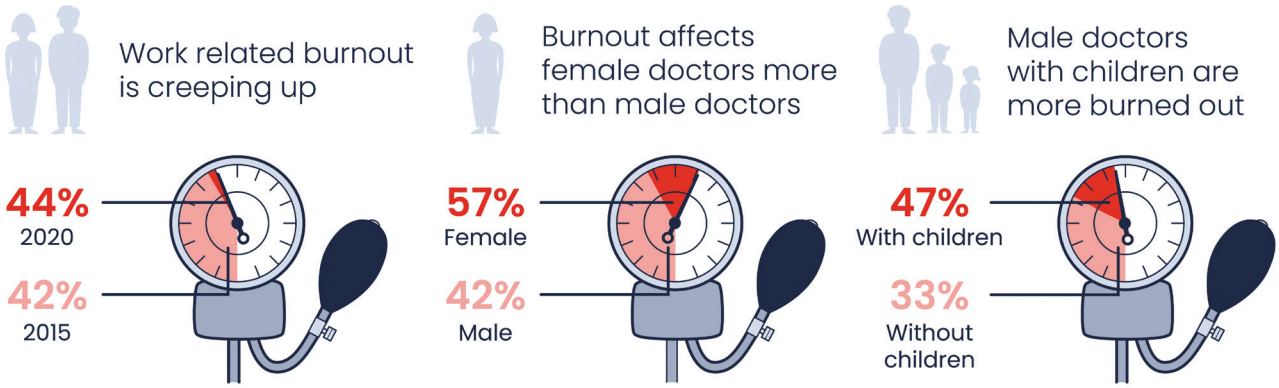
Demographic information

The demographic pattern of respondents is broadly consistent with previous surveys. 2020 was the first time gender-diverse was included as an option. The low number of gender-diverse respondents meant their answers were excluded from the main statistical analysis. Full demographic characteristics of respondents are summarized in Table 1. Most respondents were male (54%), aged between 40-49 (35%), and had worked in New Zealand for between 15-30 years (45%). 48% had two or more dependants.

TABLE 1: DEMOGRAPHIC INFORMATION OF RESPONDENTS

HOW MANY YEARS HAVE YOU WORKED IN THE NEW ZEALAND PUBLIC HEALTH CARE SYSTEM?		
Less than 5 years	194	10%
5-14 years	644	33%
15-30 years	877	45%
More than 30 years	225	12%
IN GENERAL HOW WOULD YOU RATE YOUR HEALTH?		
Excellent	452	23%
Very good	855	44%
Good	474	24%
Fair	146	8%
Poor	13	1%
WHAT IS YOUR AGE GROUP?		
20-29	6	0.3%
30-39	285	15%
40-49	670	35%
50-59	619	32%
60 or over	355	18%
WHAT DO YOU PRIMARILY IDENTIFY AS?		
Male	1037	54%
Female	837	43%
Gender diverse	5	0.3%
Prefer not to answer	53	3%
HOW MANY CHILDREN ARE YOU PARENT OR GUARDIAN FOR AND LIVE IN YOUR HOUSEHOLD?		
None	672	35%
1	317	17%
2	606	32%
3	259	14%
4	47	2%
More than 4	17	1%

WHAT IS YOUR PRIMARY SPECIALTY?		
Anaesthesia	289	16%
Psychiatry	211	12%
Emergency Medicine	164	9%
Medicine	146	8%
Paediatrics	136	8%
Diagnostic & Interventional Radiology	94	5%
Obstetrics/Gynaecology	77	4%
Geriatric Medicine	60	3%
General Surgery	55	3%
Intensive Care Medicine	51	3%
Pathology	52	3%
Orthopaedic Surgery	47	3%
Dentistry	37	2%
General Practice	32	2%
Medical Oncology	28	2%
Otolaryngology	27	2%
Public Health Medicine	26	2%
Rural Hospital Medicine	22	1%
Gastroenterology	21	1%
Ophthalmology	21	1%
Radiation Oncology	20	1%
Respiratory Medicine	20	1%
Internal Medicine	76	4%
Surgery	58	3%
WHICH DHB IS YOUR PRIMARY PLACE OF WORK? (% = PROPORTION OF POTENTIAL DHB RESPONDENTS)		
Auckland	302	37%
Bay of Plenty	106	52%
Canterbury	227	43%
Capital & Coast	137	39%
Counties Manukau	194	43%
Hawke's Bay	59	44%
Hutt Valley	59	47%
Lakes	47	51%
MidCentral	67	48%
Nelson Marlborough	72	56%
Northland	64	40%
South Canterbury	20	48%
Southern	101	63%
Tairawhiti	17	40%
Taranaki	38	37%
Waikato	145	39%
Wairarapa	9	47%
Waitemata	178	39%
West Coast	12	46%
Whanganui	15	35%



Burnout results

The CBI was used to ascertain the proportion of individual ASMS members who were scored as likely burnt-out (i.e. had scores ≥ 50) as well as calculating the mean burnout scores for the survey population to summarise the overall level of burnout within the ASMS sample. Proportionately, nearly 50% of the respondents identified as having high personal burnout while only 16.7% attributed their burnout to interactions with patients. These proportionate burnout scores are detailed in Table 2. Analysis found 13% of the ASMS survey respondents were likely to be experiencing burnout in all three dimensions with over 25% of those responding to the survey experiencing burnout in two out of the three dimensions. 808 (43.5%) individuals did not score as suffering from burnout in any of the three dimensions.

TABLE 2: PROPORTION OF ASMS RESPONDENTS WITH BURNOUT BY SCALE

	% OF ASMS PARTICIPANTS WITH BURNOUT 2020 n=2005 (2015 scores)	% OF FEMALE ASMS PARTICIPANTS WITH BURNOUT 2020 n=801 (2015 scores)	% OF MALE ASMS PARTICIPANTS WITH BURNOUT 2020 n=857 (2015 scores)
Personal Burnout	49.3% (49.9%)	57.1% (59.4%)	42.2% (43.9%)
Work-related Burnout	43.5% (42.1%)	50.4% (46.9%)	36.4% (39.0%)
Patient-related Burnout	16.7% (15.7%)	15.7% (17.0%)	17.7% (14.7%)

The mean ASMS burnout scores are detailed in Table 3 with comparative mean burnout scores from other studies using the CBI. Note that low numbers of participants in the other studies make meaningful comparisons difficult. The mean scores found in the current study are slightly higher, although not significantly different from the mean scores in the 2015 research.

TABLE 3: MEAN AND STANDARD DEVIATION SCORES FOR RECENT STUDIES EXAMINING RATES OF BURNOUT IN MEDICAL PROFESSIONALS USING THE COPENHAGEN BURNOUT INVENTORY

	2020 ASMS SURVEY (n=2005)	2015 ASMS STUDY (n=1487) (Chambers, Frampton et al. 2016)	UK TERTIARY TRAUMA CENTRE STUDY ED DOCTORS (n=51) (Caesar, Barakat et al. 2020)	HONG KONG DOCTORS (n=496) (Ng, Chin et al. 2020)	GERMAN UNIVERSITY HOSPITALS (n=995) (Messias, Gathright et al. 2019)	NZ ED STAFF (DRS SCORES DETAILED) (n=40) (Kumar, Pio et al. 2019)
Personal Burnout	47.5 (18.3)	47.4 (17.5)	50 (14.4)	57.4 (21.4)	not used	41.8 (16.7)
Work-related Burnout	45.8 (17.3)	44.0 (19.0)	53.5 (13.1)	48.9 (7.4)	not used	37.4 (16.3)
Patient-related Burnout	31.1 (16.5)	29.5 (17.9)	32.65(13.9)	41.5 (21.8)	28.0(16.5)	31.0 (18.1)

As indicated in Figure 1 there were no significant differences in degree of burnout across any of the types of burnout over the five year period since the last survey was undertaken. As with 2015, the degree of overall 'personal' burnout was significantly higher than either the degree of burnout attributed to work or interactions with patients.

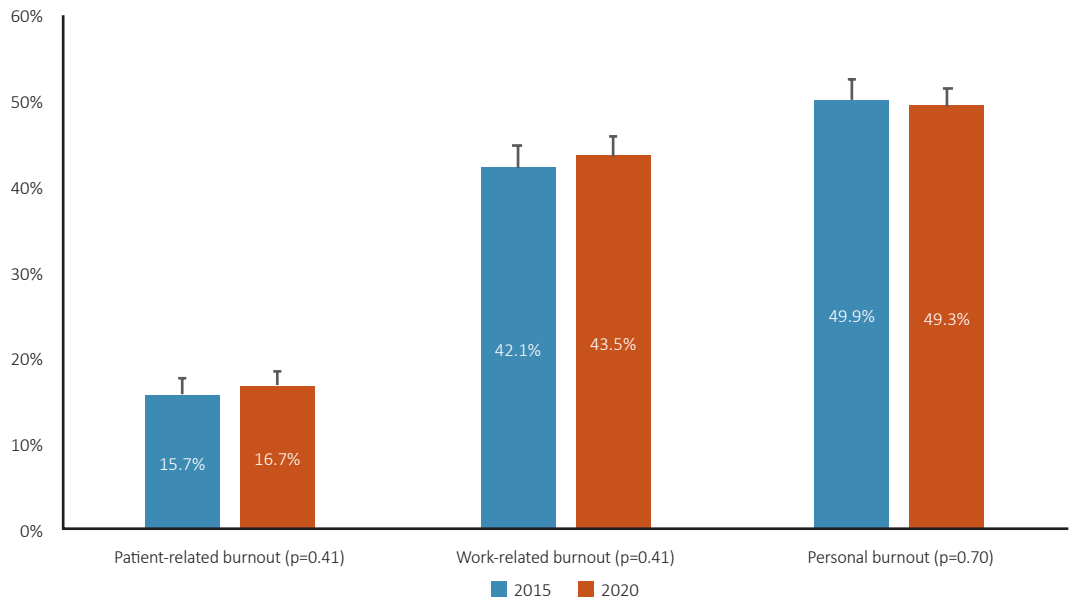


FIGURE 1: OVERALL INDICATORS OF BURNOUT 2015-2020

Burnout and demographic variables

As with the 2015 survey all forms of burnout were significantly associated with worsening health status (Figure 2).

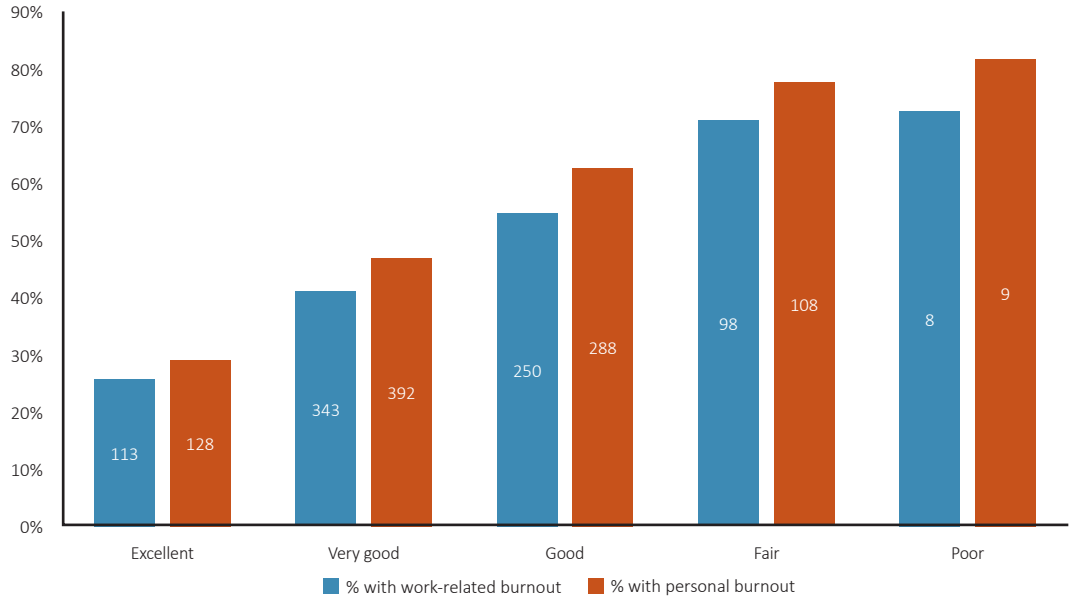


FIGURE 2: RELATIONSHIP BETWEEN BURNOUT AND SELF-RATED HEALTH STATUS (p=0.000)

When broken down by gender, male and female respondents had a slight decrease in overall burnout but this was not significant (Figure 3). Female respondents had a slight increase in the proportion with work-related burnout but this was also not significant (Figure 4). No significant differences were recorded in the degree of burnout related to patient interactions (Figure 5).

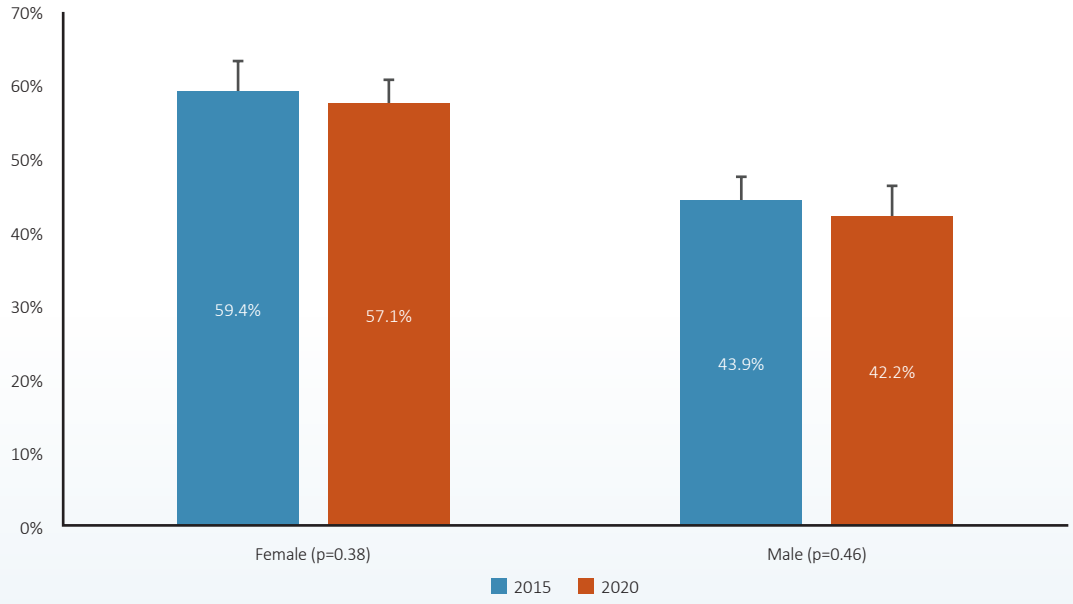


FIGURE 3: PERSONAL BURNOUT BY GENDER 2015-2020

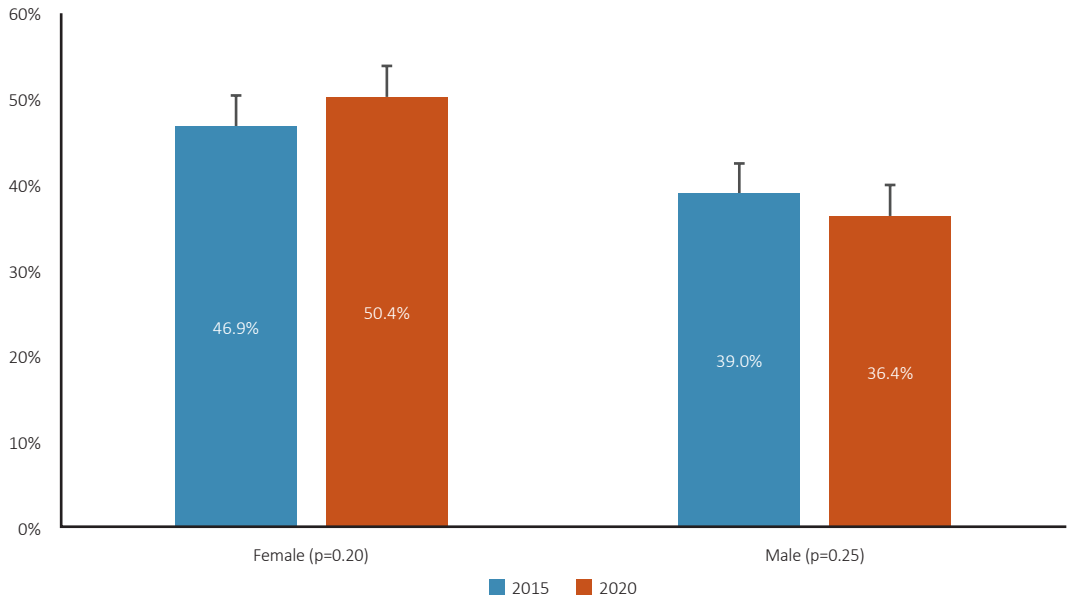


FIGURE 4: WORK-RELATED BURNOUT BY GENDER 2015-2020

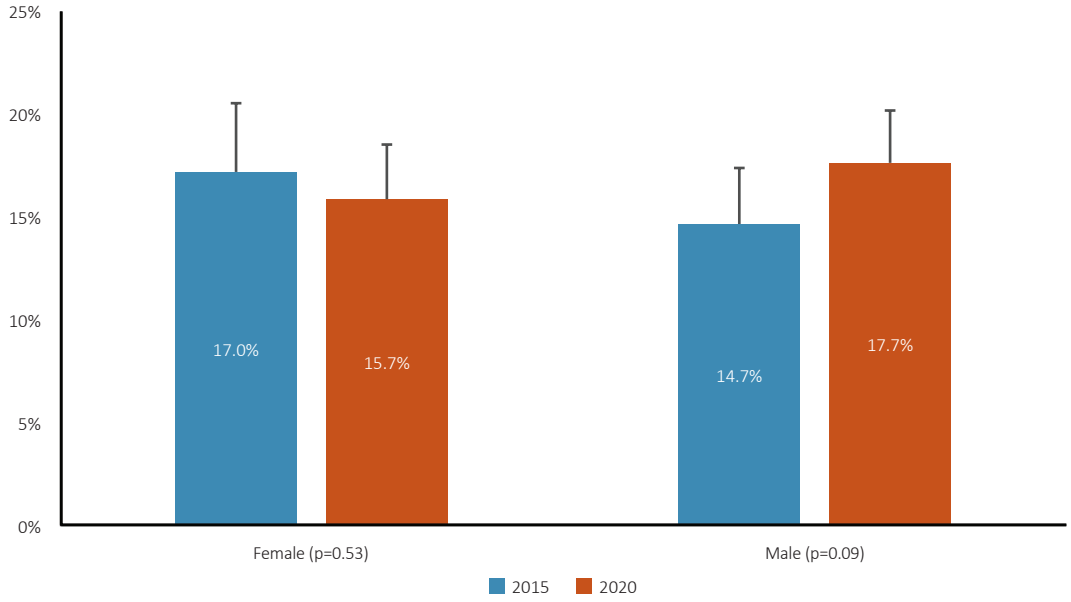


FIGURE 5: PATIENT-RELATED BURNOUT BY GENDER 2015-2020

Gender and burnout 2020

Figure 6 and Figure 7 display the proportion of respondents by age group and gender scoring as likely to be experiencing personal and work-related burnout. There was a statistically significant difference in the proportion of respondents experiencing burnout by gender in all age groups with a higher proportion of women likely to be experiencing burnout than their male counterparts overall. Respondents in younger age cohorts are more likely to experience burnout than those in the older age cohorts. Both men and women are most likely to experience personal and work-related burnout in their 40s. Of note was the decrease in the proportion of women in their 30s likely to be suffering from burnout when compared to the 2015 data

(56.5% cf 70.5%, p=0.033). For all other female age groups there was negligible difference with the 2015 data. There was a slight decrease in the proportion of male respondents in their 30s experiencing burnout (51.4% cf 43.6%) but this was not statistically significant due to the lower numbers in the 2015 survey (p=0.295). There was a statistically significant increase in the proportion of men in their 50s experiencing patient-related burnout (22.7% cf 14.7%, p=0.010).

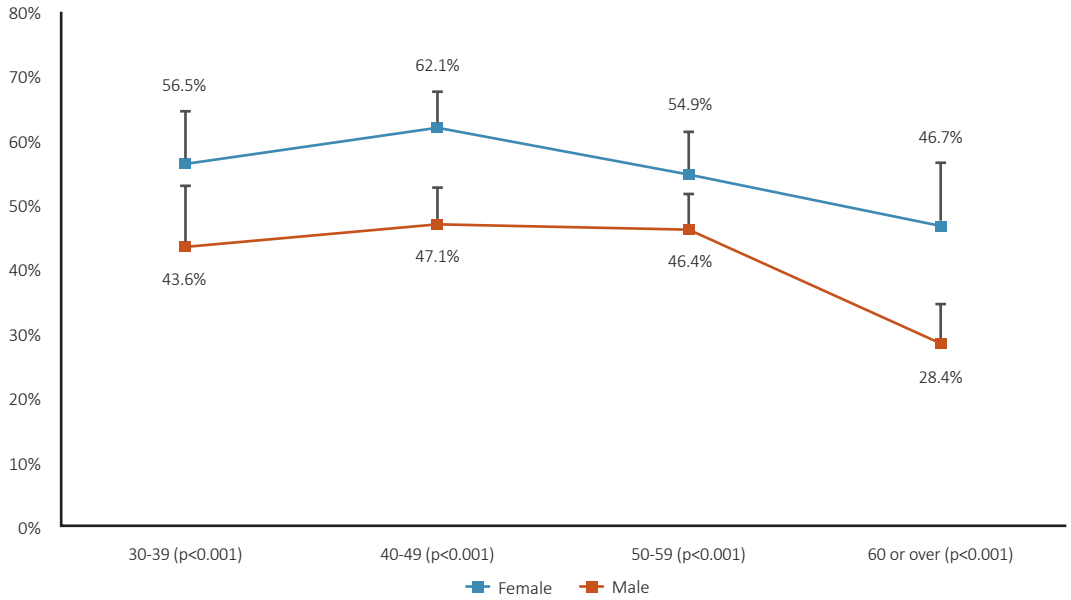


FIGURE 6: DEGREE OF PERSONAL BURNOUT BY GENDER AND AGE 2020

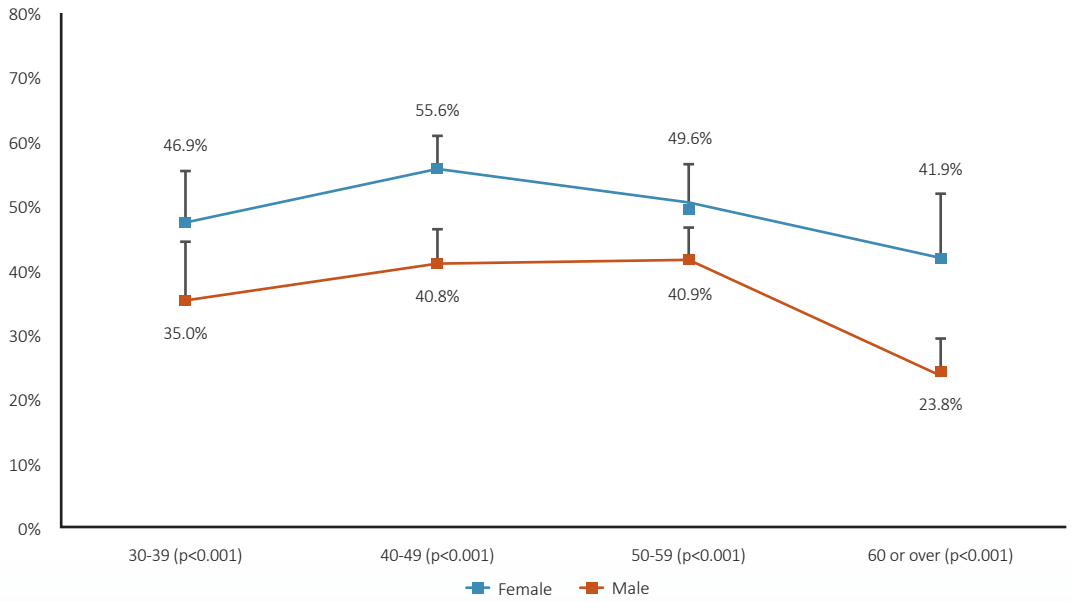


FIGURE 7: DEGREE OF WORK-RELATED BURNOUT BY GENDER AND AGE GROUP 2020

Dependants

In the 2020 survey we sought to determine whether having dependants, specifically children still living in the home, was associated with a higher degree of burnout experienced. Overall, we found that the mean score for personal burnout increased slightly with number of dependants (p=0.015).

There was no statistical relationship between experiencing either work-related or patient-related burnout and whether respondents had dependants.

When the data was split according to gender, further patterns emerged. There was negligible difference in the proportion of female respondents experiencing either work-related burnout or personal burnout and whether or not they had dependants. For men, however, having one or more children resulted in higher rates of personal and work-related burnout, as well as a slight increase in the proportion experiencing patient-related burnout (Figure 8, Figure 9, Figure 10). The p-values signal the significant difference in degree of burnout by gender.

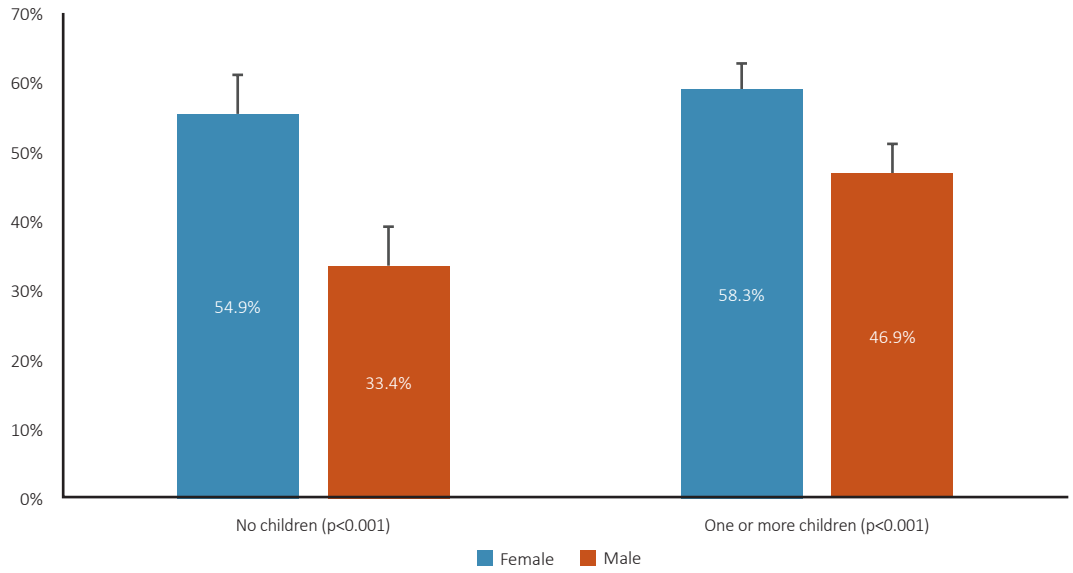


FIGURE 8: PROPORTION OF RESPONDENTS EXPERIENCING PERSONAL BURNOUT BY DEPENDANT STATUS AND GENDER

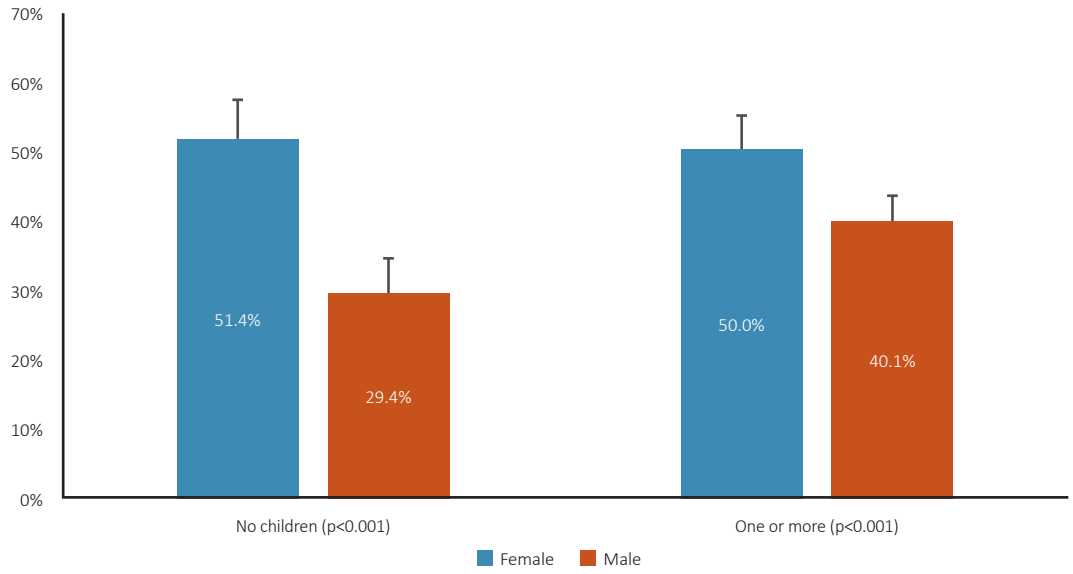


FIGURE 9: PROPORTION OF RESPONDENTS EXPERIENCING WORK-RELATED BURNOUT BY DEPENDANT STATUS AND GENDER

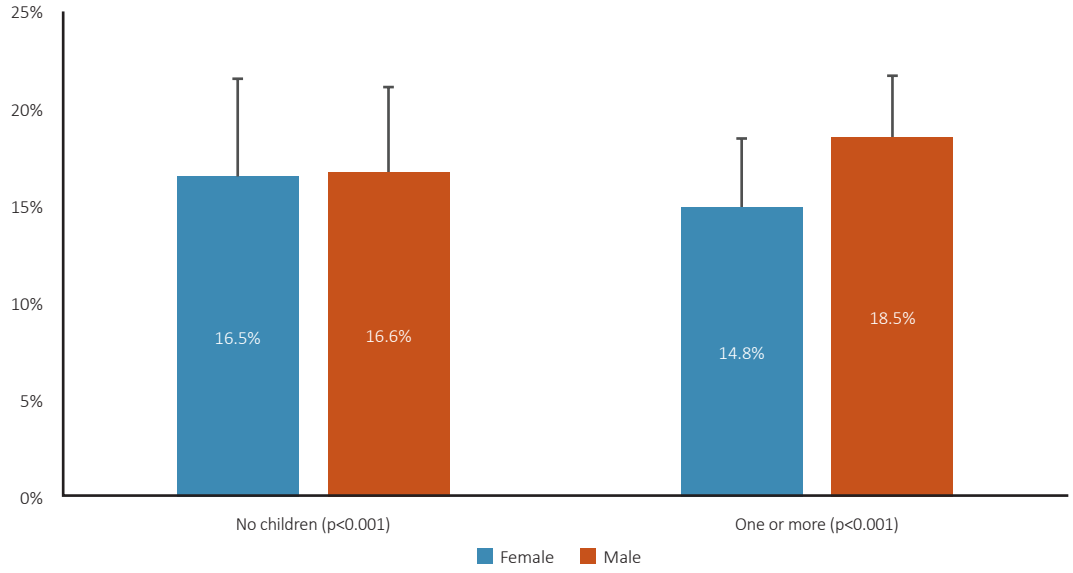


FIGURE 10: PROPORTION OF RESPONDENTS EXPERIENCING PATIENT-RELATED BURNOUT BY DEPENDANT STATUS AND GENDER

There was no statistical relationship between experiencing either work-related or patient-related burnout and whether respondents had dependants.

Further analysis was undertaken to explore the relationship between age, dependants, and burnout. The highest proportion of women experiencing personal burnout were in their 30s and 40s without children (65.3% and 64.4% respectively). Just over 50% of men experiencing personal burnout were in their 50s with children (50.4%). Similar trends existed for work-related burnout with the highest proportion experiencing work-related burnout being women in their 30s and 40s without children (57% and 63% respectively). Further analysis of these trends was undertaken by examining the number of hours worked by age, gender, and number of dependants.

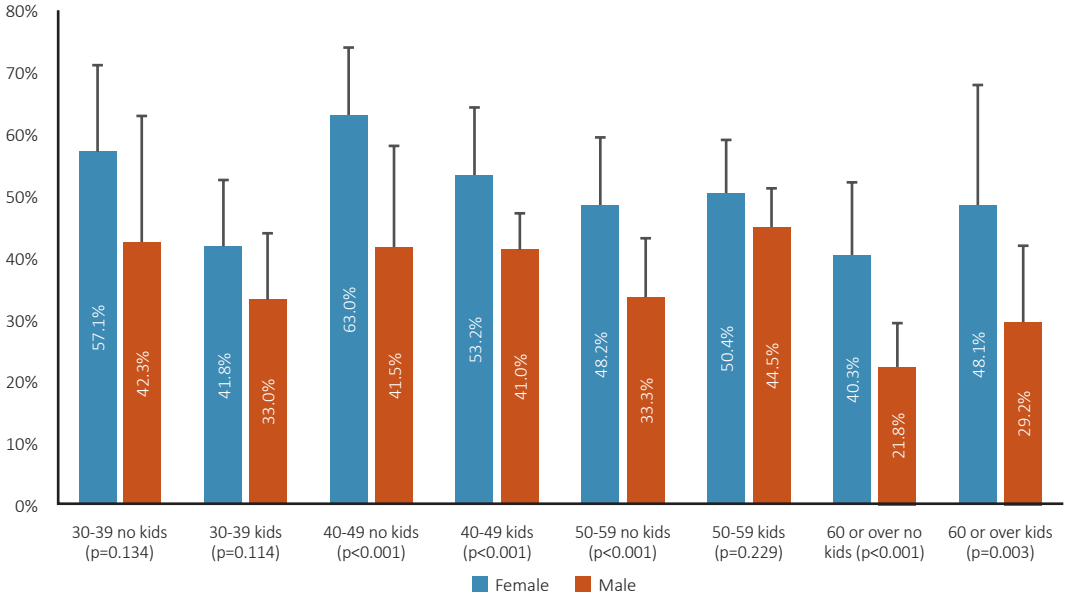


FIGURE 11: PROPORTION OF RESPONDENTS WITH WORK-RELATED BURNOUT BY AGE, GENDER AND DEPENDANTS

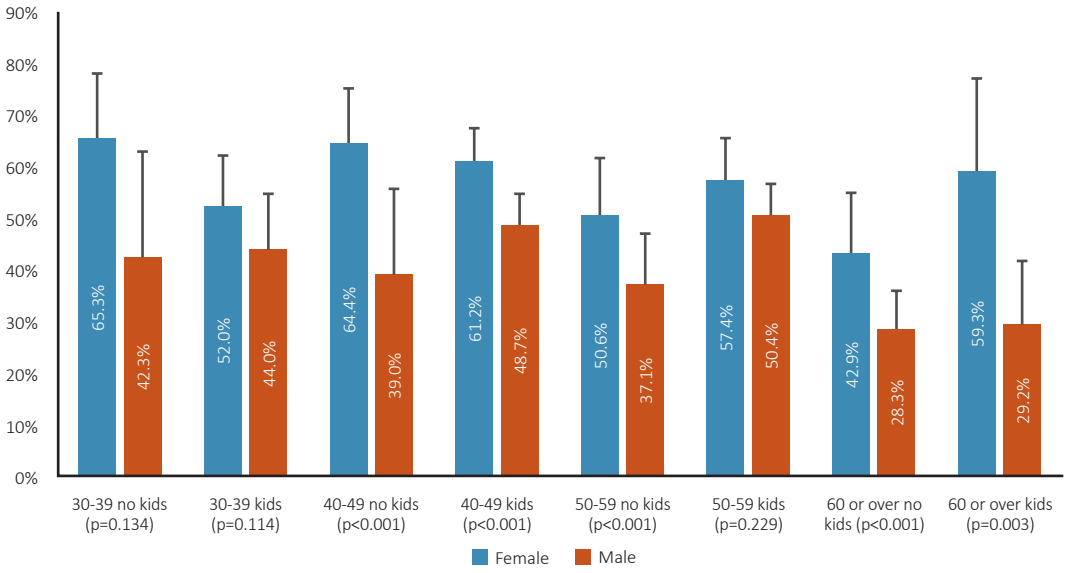


FIGURE 12: PROPORTION OF RESPONDENTS WITH PERSONAL BURNOUT BY AGE, GENDER AND DEPENDANTS

Hours of work and burnout

Consistent with trends from the 2015 survey, work-related and personal burnout was positively correlated with increasing numbers of hours worked. There was no relationship between hours of work and the mean score of patient-related burnout (Figure 13) There was a slight negative correlation between increasing numbers of private hours worked per week and the likelihood of experiencing personal burnout (correlation coefficient = -0.046, p=0.042).

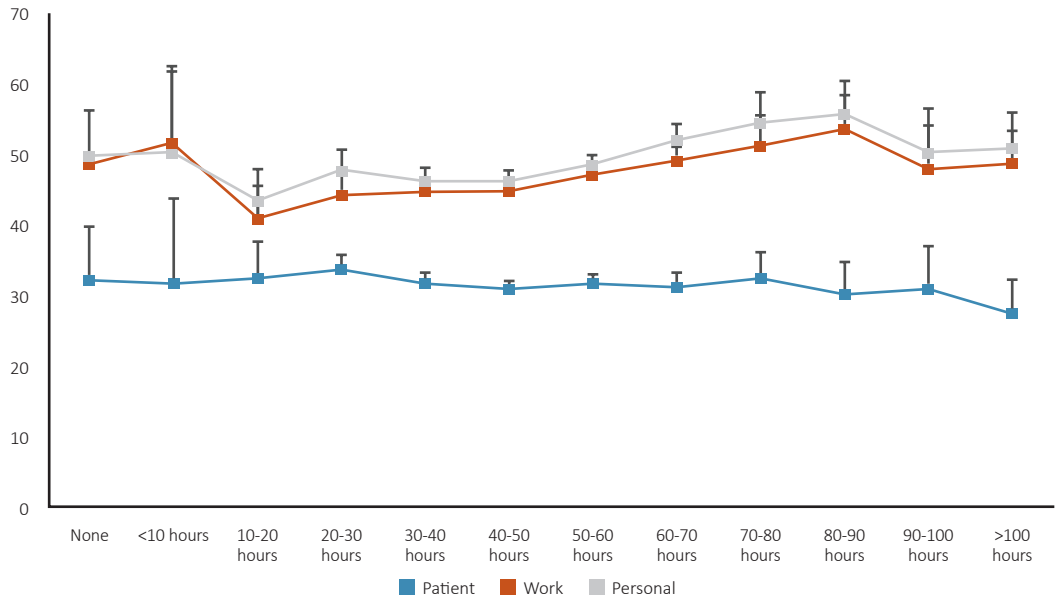


FIGURE 13: MEAN BURNOUT SCORE AND WEEKLY HOURS OF WORK

Correlations between the burnout scores and AMA safe work guidelines suggest a significant association between respondents reporting working more than 14 consecutive hours as well as failing to have a 24 hour break free of any scheduled work and the proportion scoring as burnt out for work-related and personal burnout (Table 4).

TABLE 4: BURNOUT AND RESPONSES TO THE AMA SAFE WORK GUIDELINES

		PERSONAL BURNOUT			WORK-RELATED BURNOUT			PATIENT-RELATED BURNOUT		
		NOT BURNT-OUT	BURNT-OUT	p VALUE	NOT BURNT-OUT	BURNT-OUT	p VALUE	NOT BURNT-OUT	BURNT-OUT	p VALUE
Have you worked more than 14 consecutive hours in any one period?	No	54.7%	45.3%		61.1%	38.9%		84.7%	15.3%	
	Yes	43.0%	57.0%	<0.001	46.9%	53.1%	<0.001	80.4%	19.6%	0.020
Did you have a period of rest between scheduled work	No	51.5%	48.5%		58.3%	41.7%		83.3%	16.7%	
	Yes	49.8%	50.2%	0.467	54.3%	45.7%	0.075	84.1%	15.9%	0.672
Did you have a 24-hour break free of any scheduled work	No	41.5%	58.5%		49.1%	50.9%		80.6%	19.4%	
	Yes	53.9%	46.1%	<0.001	59.1%	40.9%	<0.001	84.4%	15.6%	0.060

Hours of work and dependants

The data shows that 40% of women with one or more children work fewer than 40 hours per week. Just over half of men with one or more children work in excess of 50 hours per week (Figure 14). The data suggests females without children work more hours than those with children.

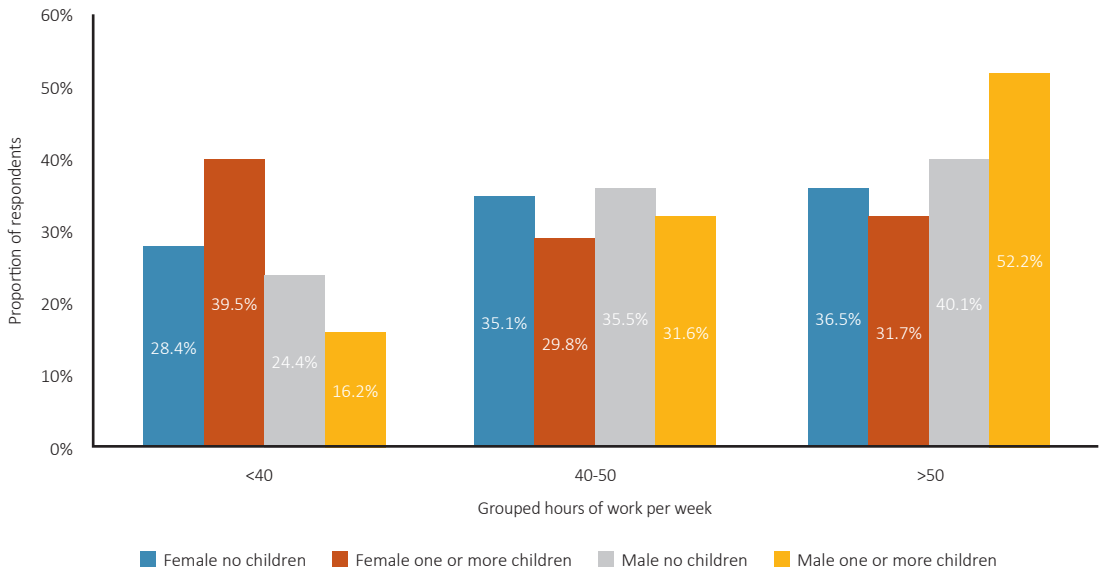


FIGURE 14: GROUPED WEEKLY HOURS OF WORK PER WEEK BY GENDER AND DEPENDANTS STATUS

Burnout and place of work

Burnout scores and place of work analysis of the data suggests that degree of work-related and personal burnout differed significantly by main place of work. Eleven of the 20 DHBs had over half of their respondents scoring as likely to be suffering from personal burnout. Eight of the 20 DHBs had over half of their respondents likely to be suffering from work-related burnout. As displayed in Figure 15, just over 60% of respondents at Southern DHB were experiencing work-related burnout and 62% were experiencing personal burnout. Southern DHB had a high response rate with 63% of the possible 161 respondents completing the survey. Over 75% of Wairarapa DHB respondents were likely to be experiencing personal burnout but the DHB response rate was lower at 47%.

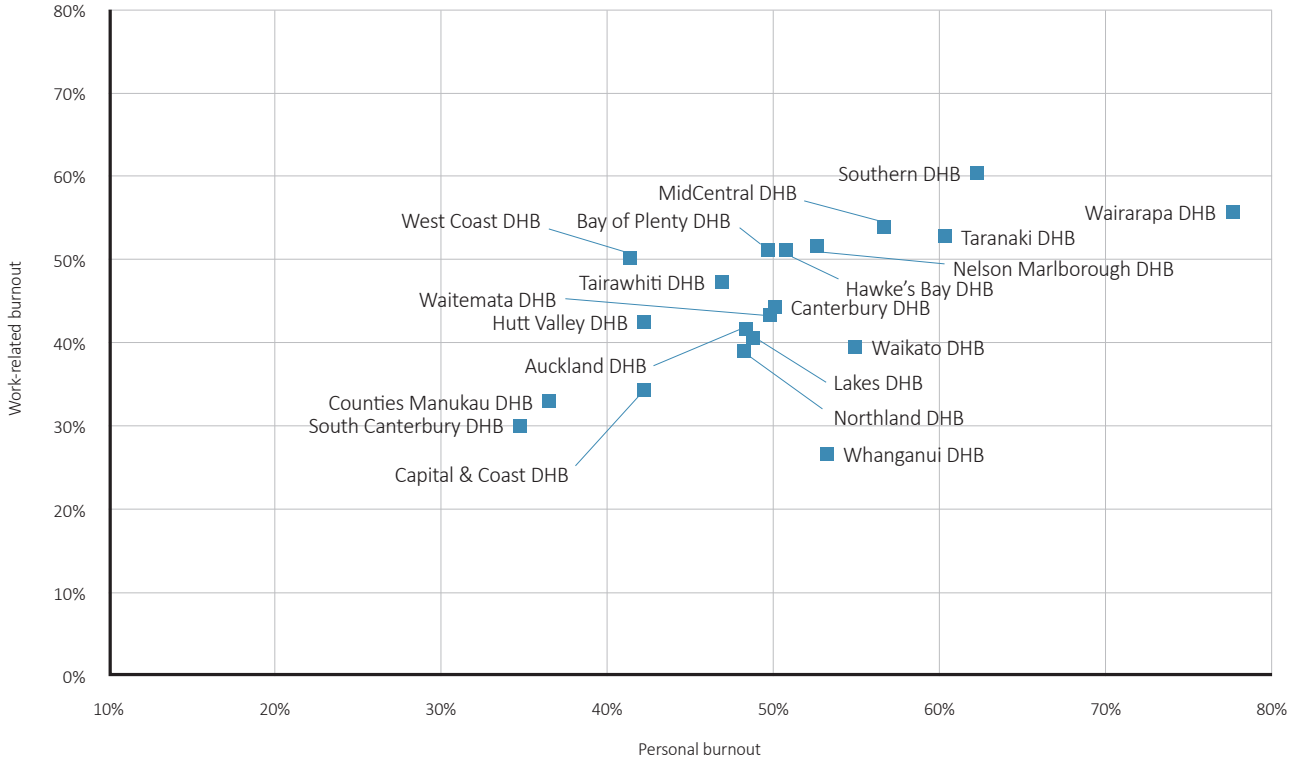


FIGURE 15: WORK-RELATED AND PERSONAL BURNOUT BY DHB 2020

When compared with the 2015 data, 12 DHBs had increased their rate of personal and work-related burnout and seven had decreased (Table 5 & Table 6). Only Southern DHB's increased burnout score was statistically significant when compared to the 2015 survey (p=0.013). The improvement in personal burnout for Hutt Valley DHB was also statistically significant (p=0.033). Southern DHB was also a statistically significant increased score for work-related burnout (p=0.002).

TABLE 5: PERSONAL BURNOUT AND DHB BY YEAR OF SURVEY

PERSONAL BURNOUT	2020	2015
Auckland	48.7%	54.8%
Bay of Plenty	50.0%	44.9%
Canterbury	50.2%	46.8%
Capital and Coast	42.3%	46.5%
Counties Manukau	36.6%	47.3%
Hawke's Bay	50.8%	51.1%
Hutt Valley	42.4%**	63.6%
Lakes	48.9%	44.8%
MidCentral	56.7%	55.6%
Nelson Marlborough	52.8%	59.6%
Northland	48.4%	53.1%
South Canterbury	35.0%	17.6%
Southern	62.4%**	44.6%
Tairawhiti	47.1%	52.2%
Taranaki	60.5%	58.3%
Waikato	55.2%	48.7%
Wairarapa	77.8%	42.9%
Waitemata	50.0%	50.0%
West Coast	41.7%	40.0%
Whanganui	53.3%	0.0%

Green text indicates improvement and red text indicates an increase in the rate of burnout. Blue indicates no change.
** indicates statistical significance.

TABLE 6: WORK-RELATED BURNOUT AND DHB BY YEAR OF SURVEY

WORK-RELATED BURNOUT	2020	2015
Auckland	41.5%	48.3%
Bay of Plenty	50.9%	38.8%
Canterbury	44.1%	38.3%
Capital and Coast	34.3%	32.5%
Counties Manukau	33.0%	32.8%
Hawke's Bay	50.8%	40.4%
Hutt Valley	42.4%	45.5%
Lakes	40.4%	41.4%
MidCentral	53.7%	57.8%
Nelson Marlborough	51.4%	61.5%
Northland	39.1%	48.4%
South Canterbury	30.0%	29.4%
Southern	60.4%**	38.5%
Tairawhiti	47.1%	47.8%
Taranaki	52.6%	50.0%
Waikato	39.3%	37.0%
Wairarapa	55.6%	50.0%
Waitemata	43.3%	39.4%
West Coast	50.0%	50.0%
Whanganui	26.7%	0.0%

Green text indicates improvement and red text indicates an increase in the rate of burnout. Blue indicates no change.
** indicates statistical significance.

Specialty and burnout

The larger number of respondents in the 2020 survey meant that burnout scores could be presented in a more finely delineated manner. As displayed in Figure 16, there was a good spread of burnout scores with Radiation Oncology and Respiratory Medicine topping prevalence for both personal and work-related burnout (total n=20 for both). Respondents in Rural Hospital Medicine had the second highest score for overall personal burnout (total n=21, 64% personal burnout) and those in Emergency Medicine (total n=164) had very high scores for both personal and work-related burnout.

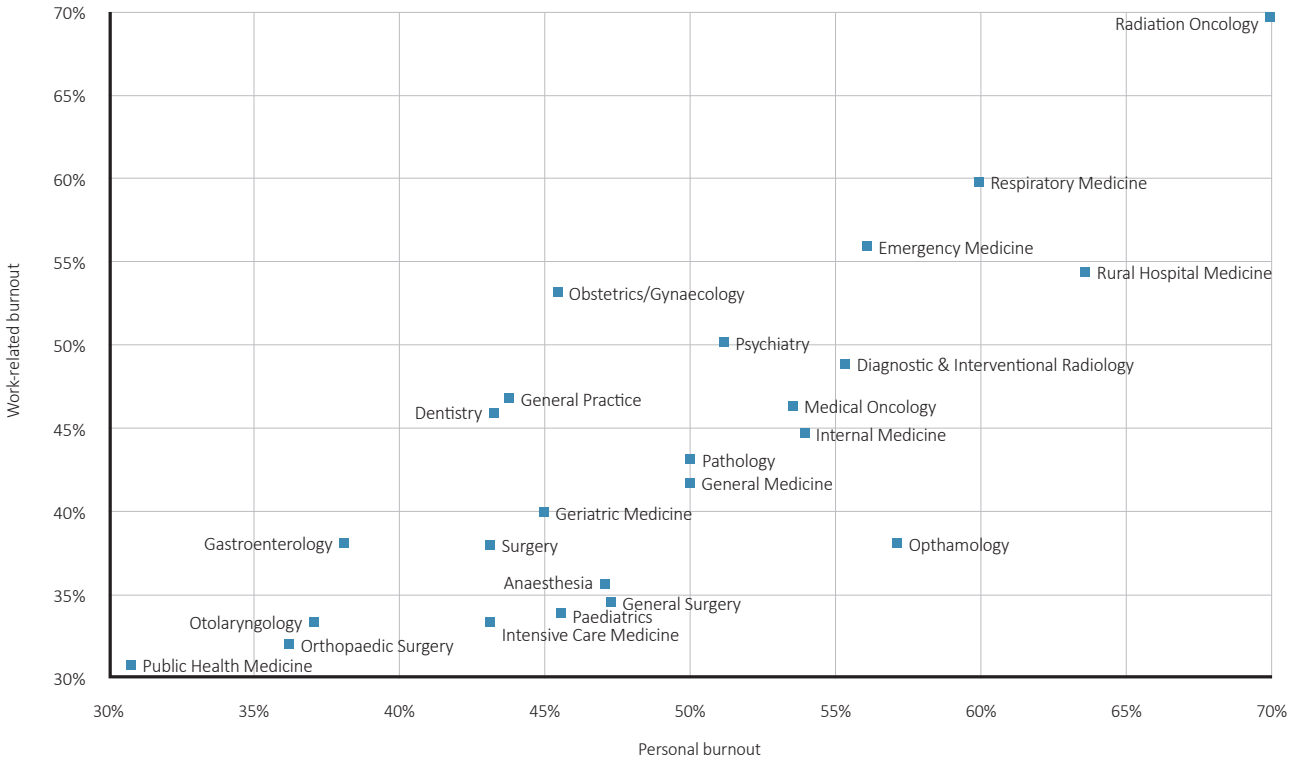


FIGURE 16: WORK-RELATED AND PERSONAL BURNOUT BY SPECIALTY 2020

For patient-related burnout, those working in General Practice (n=39) had the highest prevalence score followed by those in Rural Hospital Medicine (n=25). Specialties shaded in grey had higher than the overall patient-related burnout score (16.7%). Comparisons with the 2015 grouped data found that only Psychiatry had a statistically significant change in their patient-related burnout scores; 30.1% in 2015 scored with patient-related burnout compared with 21% in 2020 (p=0.032).

SPECIALITY n≥20	% PATIENT-RELATED BURNOUT	TOTAL n
General Practice	35.9%	39
Rural Hospital Medicine	32.0%	25
Medical Oncology	28.6%	28
Emergency Medicine	25.0%	160
Respiratory Medicine	25.0%	20
Ophthalmology	23.8%	21
Orthopaedic Surgery	21.3%	47
Psychiatry	21.0%	210
Medicine	19.2%	146
Otolaryngology	17.9%	28
Other	17.1%	70
General Surgery	16.4%	55
Obstetrics/Gynaecology	14.3%	77
Gastroenterology	13.6%	22
Geriatric Medicine	13.3%	60
Paediatrics	11.7%	137
Diagnostic & Interventional Radiology	11.4%	79
Dentistry	10.8%	37
Anaesthesia	9.2%	292
Intensive Care Medicine	8.0%	50
Palliative Medicine	6.9%	29

Qualitative data analysis

In this iteration of the burnout survey, there were fewer qualitative comments left by respondents. Analysis was undertaken on comments by section of the burnout survey as follows:

Personal burnout	n= 202
Work-related burnout	n= 187
Patient-related burnout	n= 192
Overall comments	n= 426

As with the 2015 survey, comments reference a range of issues including the emotionally draining nature of work, the impact of extra duties such as being a head of department, issues outside of work such as having young children, and the various strategies individuals had implemented to avoid burnout such as reducing hours of work. Consistent with the 2015 survey, the main themes expressed were workload pressures, lack of staff including lack of administrative support, poor relationships with management and frustrations with resourcing, growing patient load, lack of control and autonomy. Consistent with previous trends, most respondents noted the pleasures associated with patient contact and signalled how energising this component of their work could be. Notable in this year's survey were comments expressing the impact of COVID-19 with many reflecting on the significant toll COVID-19 had taken on their work and their personal stress and exhaustion levels.

One respondent summed up the core themes as following:

> *"Lack of resources. Inefficiencies. Focus on targets rather on service provision. Low morale due to cultural factors. Lack of administrative support."*

Another summarised their feelings as:

> *"I love my work, I love dealing with the patients, I wish I had more time to do my job properly. But I and my colleagues are frustrated by the unrealistic expectations of the management teams of our capability within the constraints of time and budgets."*

As with previous surveys, the comments provided important contextual detail to the statistical trends, as well as reflecting how burnout was conceptualised by the participants, and what was subjectively perceived to be the main contributing factors. The main themes are grouped into Table 7 and summarised with illustrative quotes.

TABLE 7: MAIN THEMES FROM QUALITATIVE ANALYSIS

THEME	ILLUSTRATIVE QUOTE
Workload pressures	Often feel very rushed and pressured for time, and frequently interrupted. I usually need to work during my half day off (like filling in this survey) and work late one night per week. Worry about clinical situations or next day's work outside of work. Think about how to fit more work in the day. ... Very poor support for one role I do.
Personal strategies to avoid burnout	I'm very careful now to set aside days where I don't look at anything to do with work, this is due to previous burnout. I have energy to spend on activities which regenerate me, but seldom can muster the energy to dedicate to those things that are not work, but that I should do but which drain me. I've used all my energy for that at work.
Impact of personal situation, family, health	I have a young child at home. Shift work on top of this can mean several days of very little sleep. Days off are devoted to childcare and not that restorative.
Lack of recognition/ support from management/ frustrations with management	In the last 2 years or so there has been a dramatic increase in workload. This has not been openly recognized by management in any way at all. On the whole management denies that there is a problem.
	The last 3 years have been particularly bad with increased in-patient workload, along with consistent very high out-patient workload. No recognition of this in any meaningful way by the managerial group. The latter do not engage as they know they cannot solve the problems on existing budget.
Out of hours work, call work	This is due to working long consecutive hours on the weekends and working with inadequate sleep on weekends and after overnight on call.
	I face most days with an anxious feeling before I've even left the door, and worse if I am on call. The burden of continuity now lies firmly with the SMO and demands/expectations are increasing year by year, with more tasks (including clerical duties) falling on to SMOs.
Impact of COVID	During the COVID-19 lockdown I worked every day for 6 weeks. The ongoing workload (I work in public health) is not sustainable.
Stressful nature of work	Working in a very stressful combinations of jobs, with very poor/no poor resourcing in at least one area I work in. Complex dynamics in team are stressful. Very limited administrative support. I still enjoy job but battling to get adequate care for patients and make a failing system work is very tiring.
	The long hours of work are a contributing factor but the main exhausting component of the work is the demands (unmet patient need) and stress (trying to accommodate this unmet need) that comes from the demands and unrealistic expectations from management that the pressure of this unmet need will be accommodated by the end provider "the doctors".
	I find patient time usually quite satisfying but endless paperwork is irritating and complaints involve huge stress, endless unpaid hours and make me wish I wasn't doing medicine in a way I never felt before.
Poor resourcing	It is exhausting because of chronic under-resourcing and working in substandard conditions (physical environment and crappy IT systems which create unnecessary extra stress) - with no end in sight or hope of it improving before I retire.
	The strain comes from a lack of resources. A constant pressure regarding requests for radiology and the long waits associated is a big one - the fear of once again being pushed back. Difficulty in getting the appropriate specialist service to see the patient in a timely way is also frustrating. When I see what is available in private, it's very demoralising for those of us committed to public practice and meeting the needs of all of our patients not just those with means.

THEME	ILLUSTRATIVE QUOTE
Impact of extra duties	Most of the feeling of burnout is secondary to having a clinical workload on top of managerial work (clinical director work). It is the managerial/DHB side of the work that is the most frustrating.
Lack of control	There are very specific stressors with work which lie around lack of control over clinic size, operating lists and the conflicting pressures of patient care, teaching juniors and meeting DHB compliance thresholds. If I had control over this my stress could be managed but I am forced to have clinics that are too big and patient loads that provide competing demands.

Qualitative analysis of trends

Further analysis was undertaken to see if the comments could assist with understanding some of the quantitative trends with burnout. For example, the qualitative data was cut by specialty and DHB to see if there were any apparent trends, especially for work-related burnout. The following provides quotes taken from respondents in the specialties with the highest combined work-related and personal burnout scores (see Figure 16) as well as Southern DHB which had the highest work-related and personal burnout scores for the places of work analysis.

TABLE 8: QUALITATIVE COMMENTS BY SPECIALTY AND DHB

SPECIALTY	QUALITATIVE COMMENTS
Radiation Oncologists	Increased frustration caused by gap between care I would like to provide to patients and the care I am able to provide due to departmental and DHB resource constraints. Insufficient time to spend with individual patients/whanau due to lack of FTE and having to see too many patients per SMO. New ideas which could be helpful are not developed because of possible funding ramifications.
	We are understaffed. This does not mean people do not get leave, but it does place a burden on those remaining. I am sick today - instead of taking the day off, I will be working this morning, doing emails attending a clinical meeting via zoom, and my clinic will be converted to phone. Probably as I have had leave over the last while and upcoming, I feel less able to be sick.
	My main work related stress is that I am theoretically part time and work much more than the hours I am paid to work.
	The work is wonderful - I love caring for the patients but it is relentless and impossible to actually achieve within the current staffing climate, so we are always giving beyond ourselves to try and meet targets etc.
Emergency Medicine specialists	Admin time never ends. Constantly being asked to respond to emails is a big part of fatigue.
	Work pressure has increased. Covid-19 has had an insidious effect of generally increasing many workplace stressors. Access block has become extremely difficult to manage in the face of poor physical resource and inadequate system wide planning.
Southern	Frustration is with management. Growing divide between management and those at the coal face.
	Frustrations are often about the system, e.g. operating lists insufficient for the service, managers constantly wanting to change processes that are working, inadequate physical space to work in, lack of good equipment. Expectation that we will do extra work to catch up on COVID-19 delays without a clear idea of when we will have achieved the target. Offering outsiders locum rates but not wanting to be generous to current staff doing extra.
	My colleagues and I often work well over the paid number of hours to get the job done for our patients.

Discussion

The findings from this research provide an updated nationwide perspective on the degree of burnout experienced by senior doctors and dentists working in the New Zealand health system. The research suggests that burnout continues to be widespread amongst the senior medical and dental workforce in New Zealand with little change in the five years since the first study. The high scores for work-related burnout suggest that the impact of work, and particularly the stress and exhaustion associated with work, continue to be a driving factor for burnout in this professional group. The relatively low incidence of patient-related burnout suggests that for the majority their feelings of exhaustion are not driven by their interactions with patients. On the contrary many referenced their contact with patients as being a source of pleasure and fulfilment.

The CBI continues to be a useful tool for understanding which factors individuals most clearly associate as driving their fatigue and exhaustion. In this regard, the themes noted in the qualitative comments are particularly illustrative for providing detail as to what individuals perceive as stressful elements of their lives at the time of the survey. Notable in the survey this year were references to the impact of COVID-19 as well as findings regarding the impact of dependants and degree of burnout. These issues are discussed in greater detail below.

The correlation analyses were consistent with the findings in the 2015 survey; burnout continues to be strongly associated with worsening self-rated health status, younger age and being female. Due to the cross-sectional nature of the survey, however, directional causality cannot be inferred.

In the following sections, matters with the timing and response rates to the survey are discussed as are points pertaining to the 2015 research and core findings regarding gender, age, and dependants.

The high scores for work-related burnout suggest that the impact of work, and particularly the stress and exhaustion associated with work, continue to be a driving factor for burnout in this professional group.

Timing of survey

The survey was distributed in the August of 2020, three months after the nationwide lockdown ended and New Zealand moved to Alert Level 2. The timing of the survey was deliberate as it was decided not to distribute the survey too soon after the lockdown period ended. For many specialists lockdown had been an intensely stressful and uncertain period. Some qualitative comments, however, referenced that their experiences of COVID-19 lockdown had resulted in increased workload pressures, particularly for those with work that was cancelled or delayed during that period. For example, one respondent noted: “It’s a bit of a tough time to answer these questions, the overhang of COVID work has taken its toll. I think I’m still recovering from that!”. Another noted: “The current COVID-19 response has accentuated a lot of the issues that have been identified in this survey”. It is possible the impact of COVID-19 exacerbated the problem of burnout. Again, it is not possible to interrogate this fully due to the nature of the survey design.

Responder bias

The response rate of the survey was reasonable given the mode of delivery (electronic distribution) and was consistent with the response rates in previous surveys of the ASMS membership. The representativeness of the survey respondents is a moot point. Research published by Simonetti, Clinton et al. (2020) suggest that despite many burnout surveys of medical professionals

experiencing low response rates, non-responder bias may slightly favour those experiencing burnout. In their research, burnout prevalence was found to be 3-4% higher after adjusting for non-response (p3). Given that high workloads and lack of time are key contributing factors for burnout, it is possible that non-responder bias may result in an underestimation of true burnout prevalence. For example, comments on early presentations of these findings noted the low estimate of burnout prevalence for specialists working in public health medicine, particularly given the impact of COVID-19 on these medical specialists. It is possible that non-responder bias may affect those who were exhausted or overworked in the immediate aftermath of the COVID-19 outbreak who might not have had the capacity to answer the survey request. Given the cross-sectional nature of the data, however, it is not possible to interrogate this further. Nevertheless, the close congruence between the 2015 and 2020 results suggests the 50% burnout prevalence is a reasonably reliable estimate.

Factors associated with burnout

Burnout scores increased concurrently with more hours worked each week, a trend consistent with the 2015 findings, as well as other recent studies (Ng, Chin et al. 2020). The qualitative comments further suggested that issues such as long hours of work, shift work and lack of recovery time are perceived as significant factors for individual respondent's levels of fatigue and exhaustion. Recent research by Trockel, Menon et al. (2020), found a close association between burnout and sleep deprivation. Their study found sleep deprivation reduced cognitive performance as well as negatively affecting mood leading to a greater propensity for emotional exhaustion. They. recommend closer attention to the impact of sleep deprivation and its relationship to burnout and suggest tighter regulation on hours of work as a significant factor in reducing burnout prevalence. The correlation between scoring as burnt-out and failing to have a 24-hour break free of scheduled work and working more than 14 consecutive hours suggests that protecting rest and recovery time is likely to have a significant positive effect on burnout propensity in the New Zealand senior medical workforce.

Total hours of private work were low in this study; over half of all respondents (54%) had worked no private hours. The slight negative correlation between hours of private work and burnout was consistent with the 2015 study and appears to suggest working in private may be protective against burnout. This finding was consistent with other research including a study into New Zealand radiation oncologists in 2015 (Leung, Rioseco et al. 2015) and more recent research by Liu and Cheng (2018).

The qualitative comments further suggested that issues such as long hours of work, shift work and lack of recovery time are perceived as significant factors for individual respondent's levels of fatigue and exhaustion.

Gender and burnout

Very few survey respondents identified as gender-diverse (n=4); as a consequence of low numbers their burnout scores were not included in the analysis. A brief assessment found their scores were very close to the overall scores for women surveyed. Of note were the proportionately higher burnout scores experienced by 52 individuals who wished not to disclose their gender identity. This may be due to fear of identification. The burnout scores for this group were approximately 65% for work-related burnout and 64% for personal burnout. These scores are of concern.

Consistent with the 2015 study and other research, this survey found women continue to have significantly higher burnout scores than their male counterparts (Obregon, Luo et al. 2020). Gyorffy, Dweik et al. (2016), for example, found female doctors had significantly worse indicators of mental health than other professional women. Their research also found correlations between

workload and frequency of work-related stressful situations with many experiencing sleep disorders and a decreased sense of personal accomplishment (a key dimension of burnout). Other research focuses on the wider impact of gender-based discrimination on women in medicine and suggests associations with burnout (Chesak, Cutshall et al. 2020). The significance of gendered expectations as an additional burden carried by women in medicine is also emphasised in research by Linzer and Harwood (2018). Other recent research found experience of gender-based discrimination to be a key predictor of women experiencing burnout (Wang, Tanious et al. 2020). Despite growing acknowledgement of the existence and significance of gender discrimination, the persistence of high burnout scores for women in this study suggest further attention is required. Further discussion regarding the interface between gender, dependants and burnout is below.

Age and burnout

In contrast to the prior research where burnout scores of respondents peaked in their 30s, the highest prevalence of burnout in this current study was for both men and women in their 40s. While initially it was thought perhaps there was a cohort effect (burnt-out respondents aging), there was negligible difference in burnout scores for both male and female respondents in their 40s when comparing the 2015 and 2020 studies.

This change in burnout score by age cohort is notable but given the limitations of the study design, it is not possible to interrogate further. A longitudinal study examining the changes in work experiences and levels of burnout of a consistent cohort would be a useful contribution to this research space. Longitudinal research would have the additional benefit of assessing the impact of solutions implemented to address burnout, as well as enabling research to understand more fully how experiences of burnout change over time and with what consequences (West, Dyrbye et al. 2018). The significant decrease of burnout for women respondents in their 30s is also a notable and pleasing improvement; again, it is not possible to understand the factors that may have contributed to this decrease in burnout, but it is a positive change.

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Impact of dependants

This survey improved upon the original 2015 methodology by examining how burnout related to numbers of dependants. For women, their rates of burnout were around the same irrespective of whether they had dependants. For male respondents, however, there was a significant association between having dependants and experiencing higher rates of burnout. This trend is not consistent with other studies. For example data published by Elmore, Jeffe et al. (2016) suggest that men who are either partnered or have children will experience lower rates of emotional exhaustion (a key facet of burnout as per the MBI) than their female counterparts in the same situation.

Analysis of the qualitative data for those respondents with dependants found a number of comments left by male respondents noting that their exhaustion was a consequence of having small children. For example, “much of the exhaustion is due to having your children”; “my answers are affected by having a young family”; “Not sure this is work-related – I have a toddler too”. This was an unexpected finding in the research and may suggest that men’s experiences of work-life conflict are a significant contributor to their feelings of exhaustion.

Other research postulates work-life conflict as being a key source of stress and exhaustion for women in medicine, often but not always due to the pressures and expectations associated with having children. The negligible differences in

burnout rates for women with dependants versus those without in this study suggests that factors other than dependants may be contributing to their levels of burnout (McMurray, Linzer et al. 2000). As explored in ASMS' Health Dialogue, 'Making up for being female' (ASMS 2019a) the consistently higher rates of burnout experienced by women may reflect the impact of gendered behavioural expectations and the stressors associated with being a woman in medicine rather than work-life conflict per se.

Burnout and medical specialty

The pattern of certain medical specialties having consistently higher rates of burnout is worrying and cause for concern. The spike in burnout rates for those respondents working in Radiation Oncology and Respiratory Medicine is concerning; due to the lower numbers of respondents in the 2015 survey it is not possible to check whether the change is statistically significant. It is however of concern. The consistently high rates of burnout for doctors working in Emergency Medicine suggests little has improved for this cohort of doctors. The high equal scores for work-related and personal burnout for doctors in these three specialties suggest that working conditions are the main factors to which respondents attribute their feelings of exhaustion and fatigue. The scores for Emergency Medicine specialists in this study are higher than those found in the study by Kumar, Pio et al. (2019) which found personal burnout rates of 42% (cf 56%) and work-related burnout rates of 37% (cf 56%) for doctors working in a single emergency department (n=40 cf n=167).

Known factors that lead to burnout include long hours of work, fatigue, and lack of control. The comments left by doctors in emergency medicine settings emphasise the wearing effects of poor resourcing, growing administrative loads and increasing patient numbers and acuity. Recent US research by Harry, Sinsky et al. (2021) found doctors working in Emergency Medicine had the highest scores for physician task loads (a measure of cognitive task loading) of the doctors surveyed; they further found a close relationship between the degree of physician task load and burnout. Their research concludes that reducing the cognitive task loading of doctors is likely to pay dividends in reducing the propensity for doctors to experience burnout, as well as improving the ability of doctors to perform their job well. Other studies summarized by Zhang, Mu et al. (2020) found that Emergency Medicine doctors were likely to be more susceptible to burnout likely due to the particularly stressful nature of Emergency Medicine. These consistent trends for burnout in Emergency Medicine specialists highlight the immediate need to attend to the working conditions of this particular group of the ASMS membership.

The consistently high rates of burnout for doctors working in Emergency Medicine suggests little has improved for this cohort of doctors.

Conclusions

While doctors are more likely to suffer from burnout than other professional groups (Shanafelt, Gorringe et al. 2015), suffering from burnout has critical consequences and should not be taken as an inevitable consequence of choosing to work in the medical profession. Burnout has significant negative consequences for individual doctors experiencing the syndrome (Menon, Shanafelt et al. 2020), their colleagues (Shanafelt, Makowski et al. 2020), and the quality of care their patients receive (Chung, Dillon et al. 2020). As numerous studies continue to substantiate, having a high proportion of doctors suffering from burnout has significant negative consequences for the quality, sustainability, and longevity of a medical workforce (Willard-Grace, Knox et al. 2019, Niconchuk and Hyman 2020).

The findings from this research suggest that little has changed in terms of the rates of burnout experienced by senior doctors and dentists working in the New Zealand public health system. The negligible change in all three spheres of the CBI suggest that burnout continues to be a significant and pressing problem.

Consistent with the change in definition of burnout from individualised failing to an occupational syndrome, solutions must reflect this significant shift in focus. Fixing burnout should not be seen as the responsibility of individuals alone. The problem and finding solutions to mitigate burnout in medicine is a shared responsibility between employers and leaders as well as individuals who may be at risk. Furthermore, failure to enact organisational level solutions can have negative consequences; research has found that emphasising individual responsibility for burnout can unintentionally increase feelings of stress which can lead to higher rates of burnout (Eden, Jabbarpour et al. 2020).

The findings from this research continue to emphasise burnout as arising from long working hours, failure to have adequate rest breaks, medical specialties with growing patient demand and perpetual staffing shortfalls. These themes are echoed in the qualitative comments with clear emphasis on the significance of high workloads, lack of administrative support, lack of control and/or autonomy in workplaces, poor workplace culture and issues with leadership or managerialism (West, Dyrbye et al. 2018).

As summarised by West, Dyrbye et al. (2018), ensuring fairly distributed workloads, roles, and hours can assist with mitigating the risk of burnout as can increasing numbers of administrative staff to relieve the burden placed on doctors. Actively respecting home responsibilities when work and meetings are scheduled can pay dividends in reducing work-life conflict issues. Other organisational level strategies likely to have a positive impact on reducing rates of burnout include job sizing all expected tasks to expected hours of work (i.e. removing the need to take work home), supporting flexible working schedules including normalising part-time work in medicine, ensuring active engagement of doctors in all managerial decision-making processes that impact work expectations and structure, and having shared decision-making (see p522 for a full list).

ASMS is of the view that burnout strategies need to be based on formal recognition that it is the employer's responsibility to provide a workplace that is both physically and psychologically safe (Kendrick, Kendrick et al. 2020). Further, those tasked with ensuring the wellbeing and sustainability of the senior medical and dental workforce must look at strategies and approaches to prevent burnout before it results in serious consequences, including potential staff attrition, doctor suicide, patient complaints, and medical error. Research evidence suggests that implementing changes to working patterns to enable adequate sleep, rest and recovery time would be a sensible place to start (Ng, Chin et al. 2020). As summarised in a recent

Lancet article (Marchalik 2019) the wellbeing of medical and dental workforces must be seen as an organisational priority where "like operating budgets and expansion plans, it must become a standing agenda item at the leadership table" (p869). Particularly in light of the recent COVID-19 pandemic, the stressors and pressures that medical professionals continue to face emphasise the pressing need to put wellbeing firmly on the agenda (Rimmer and Chatfield 2020).

ASMS is of the view that burnout strategies need to be based on formal recognition that it is the employer's responsibility to provide a workplace that is both physically and psychologically safe.

What needs to change:

- Normalisation of long working hours that extend beyond contracted job-sizing.
- Outdated and inefficient technology, including IT systems and cumbersome administrative protocols.
- Lack of administrative support and the expectation that admin will be completed outside of working hours.
- Poor connections between management and clinicians, particularly in terms of work-place culture and lack of understanding from management of the day-to-day realities of the coalface.
- Insufficient resources to enable clinicians to do the work.

What we are calling for:

- Formal recognition that it is the employer's responsibility to provide a workplace that is both physically and psychologically safe.
- Formalised regular assessment of burnout rates using consistent and validated tools. In addition, other mental wellbeing surveys should be undertaken regularly and reported in a non-punitive manner.
- Adequate resourcing of departments in terms of staff, technology, and provision of appropriate levels of administrative support. This should include work with unions and Colleges to agree safe staffing levels for each service and recognising that these will vary depending on hospital size, location, and other staffing (Resident doctors, allied, and nursing).
- Staffing levels and working hours data should be collected and reviewed to establish and maintain safe sustainable work for all clinicians. This data should be publicly available.
- Regular staff-focussed service reviews to accurately assess social factors and psychological stressors as well as physical workplace factors which present specific stress factors for doctors and their teams. Placing an emphasis on the creation of congenial workplaces and civil behaviour to minimise staff experiences of stress at work.
- Formalised strategies to promote professional wellbeing including the provision of confidential easily accessible professional supervision and counselling. Establishment and normalisation of a no-blame culture for reporting and hours of (over)work and a speaking out culture on matters of staff and patient safety, as per existing MECA clauses.
- A shift in focus away from financial priorities to people and attaching a dollar value to wellbeing (decrease in presenteeism, decrease in turnover rates, better medical outcomes, better collegiality in departments etc).
- Adding indicators of staff wellbeing as standing items in hospital audits and reporting to Boards and having MOH targets for DHBs on these staff wellbeing measures.
- Normalising the practice of DHB leaders (Board and executive staff) speaking up about resource constraints, limits to care, waiting lists. This would be different from the current culture of making do and pretending there is enough health resource if we all just "work smarter", which is damaging to staff and communities.

Appendix 1

SPECIALTY	GROUPING
Plastic & reconstructive surgery	Surgery
Urology	Surgery
Paediatric surgery	Surgery
Neurosurgery	Surgery
Vascular surgery	Surgery
Cardiothoracic surgery	Surgery
Oral & Maxillofacial Surgery	Surgery
Haematology	Internal Medicine
Palliative Medicine	Internal Medicine
Infectious Diseases Medicine	Internal Medicine
Dermatology	Internal Medicine
Rehabilitation Medicine	Internal Medicine
Sexual Health Medicine	Internal Medicine
Clinical Genetics	Internal Medicine
Pain Medicine	Internal Medicine
Occupational Medicine	Internal Medicine
Musculoskeletal Medicine	Internal Medicine
Family Planning & Reproductive Health	General Practice
Accident & Medical Practice	Emergency Medicine
Medical Administration	Miscellaneous

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