

Stress and coping in fourth-year medical and dental students

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ABSTRACT

Medicine and dentistry are stressful professions. Dental and medical students suffer high levels of stress and may experience adverse psychological symptoms and use dysfunctional coping mechanisms.

Aim: To investigate levels and sources of stress, anger, anxiety and sadness, and associated coping mechanisms, in fourth-year dental and medical students.

Methods: A link to an online questionnaire was emailed to all fourth-year dental and medical students at the University of Otago, in Dunedin (New Zealand).

Results: The response rate was 60.2% (N = 100). The majority of students (58.6%) reported frequently feeling stressed. More dental than medical students reported always feeling stressed, but a greater proportion of medical students reported not coping well with stress, suffering abnormal anxiety, anger and sadness, and having these feelings for prolonged periods. Destructive coping mechanisms were more common among dental students, while positive coping mechanisms were also used by both groups. Few students (13.5%) reported using professional counselling services during their undergraduate years.

Conclusions: Mental stability is indispensable for the compassionate, professional and competent delivery of care by health professionals. The high prevalence of detrimental emotions and adverse mental states reported by students before they enter the health workforce is alarming and needs to be addressed.

INTRODUCTION

Dentistry and medicine are stressful professions, with practitioners reporting high levels of stress and associated burn-out, anxiety and depression (Rutter et al, 2002; Rada and Johnson-Leong, 2004; Newton et al, 2006; Ayers et al, 2008). Many studies have investigated stress levels and putative causes among practising dentists and physicians. The findings have shown high stress levels in both groups. Two New Zealand studies provided similar findings, with 38% of dentists and 44% of doctors reporting high stress (Dowell et al, 2000; Ayers et al, 2008). It is noteworthy that, while stress levels are consistently high across the two professions, their causes of stress appear to differ. Doctors' most frequent stressors are job and patient demands, work-related interference with family life, constant interruptions, and practice administration; for dentists, they are difficult interactions with patients, time stresses, practice management pressure, and maintaining high levels of concentration (Rutter et al, 2002; Ayers et al, 2008).

Research on stress levels has not only focused on practitioners; it has also extended to students of dentistry

and medicine. The latter have been found to suffer high stress levels, psychological disturbance and emotional disturbance (Firth, 1986; Newbury-Birch et al, 2002; Humphris et al, 2002; Sanders and Lushington, 2002; Pau et al, 2003; Dahlin et al, 2005; Jadoon et al, 2010; Leahy et al, 2010; Prinz et al, 2012). Dental and medical students have been found to engage in destructive coping mechanisms as a consequence of that high stress (Newbury-Birch et al, 2002; Sanders and Lushington, 2002; Pau et al, 2003; Prinz et al, 2012). A US study by Murphy et al (2009) examined perceived stress and potential stressors among both dental and medical students using a modified version of the Dental Environment Stress questionnaire (DES) developed by Garbee et al (1980). Dental students had higher levels of perceived stress than their medical counterparts. However, because the DES was originally designed to measure dental student stress, it was suggested that other sources of stress unique to medical students may not have been included (Murphy et al, 2009). Moreover, the study did not investigate participants' coping mechanisms.

Although a number of studies of practitioner and student stress have been conducted internationally, only one study involving New Zealand dental students could be found (Gambetta-Tessini et al, 2013). That study found that students in the fourth year of their dental course had the highest stress levels, suggesting that those students may be more at risk and should be the focus of research into stress and coping, especially in view of the authors' finding that those with more favourable coping mechanisms were better off. The objective of the current study was to investigate levels and sources of stress, anger, anxiety and sadness, and associated coping mechanisms, in fourth-year dental and medical students at the University of Otago, in Dunedin (New Zealand).

METHODS

This study was approved by the University of Otago Human Ethics Committee. A single online questionnaire comprising 75 questions was emailed in May 2014 to all 86 fourth-year dental students and all 80 fourth-year medical students at the Dunedin campus of the University of Otago. Students were asked to complete the questionnaire and advised that, upon completion, they would enter a prize draw sponsored by local businesses. The questionnaire included questions about levels of stress; sources of stress, anxiety, anger and sadness, and coping mechanisms. The modified General Health Questionnaire (GHQ-12; Goldberg and Williams, 1988) was included as a measure of current mental state and to determine the presence or absence of psychological distress. It is a commonly used 12-item screening tool for identifying those who have a mental state of concern; it can also be used as a research tool for the purposes of comparison (Goldberg et al, 1997). For example, the first item asks: "Have you recently been able to concentrate on whatever you are doing?". It uses the ordinal response options 'Better than usual' (scoring 0), 'Same as usual' (1), 'Less than usual' (2) or 'Much less than

usual' (3). Scale scores are computed by summing the responses to all 12 items, and giving a range of possible scores from 0 to 36, with higher scores indicating a more adverse mental state. Items 2, 5, 6, 9, 10, and 11 are typically reverse-scored. However, for ease of analysis, they were reversed within the questionnaire. No "case" threshold score was used in this study, although Goldberg et al (1988) suggested that summated GHQ scores higher than 11 indicate psychological morbidity. The scores were used to compare mean scores between dental and medical students, and to compare mean scores in groups who identified with certain stressors or behaviours of interest. An error in the online questionnaire meant that the final item of the GHQ-12 was inadvertently excluded, and so each person's response for the missing item was imputed by assigning his/her mean score for the other 11 items.

After the computation of summary statistics, Chi-square tests were used to examine the statistical significance of differences in proportions between the dental students and the medical students. The alpha value was revised so the critical P value was adjusted to 0.1 instead of 0.05, deemed necessary because of the relatively low number of participants.

RESULTS

Responses were received from 59 dental students and 41 medical students, giving an overall response rate of 60.2%. There was

a higher proportion of females in both groups (Table 1). Ages ranged from 20 to 39 years. Just under half had been born in a Western country or in South Africa, with the remainder born in either Asia or the Middle East. Fewer dental than medical students had entered their course through the Health Sciences First Year (HSFY), and a higher proportion of medical students were taking their first choice of course. A higher proportion of dental students felt that they were doing their course for the prestige of being a professional. Approximately one-third of respondents had experienced pressure from family members to gain entry, although a higher proportion of dental students found this pressure to cause anxiety, anger or sadness.

Most respondents enjoyed their respective courses (Table 2), but most also reported feeling more stressed since commencing, with a greater proportion of medical students reporting this. Course requirements were felt by most respondents to be a source of stress. Around one-fifth felt unable to cope with them; of those, nearly 90% felt anxiety, anger or sadness in relation to course requirements. One-third of dental students and nearly half of the medical students reported striving for goals which they acknowledged as unattainable, and most of those reported associated anxiety, anger or sadness. Around three-quarters also reported having unreasonable expectations of themselves. A significantly greater proportion of dental students reported feeling pressure to compete with their peers; of those who

Table 1. Demographic characteristics of participants and circumstances of entry to course, by course (brackets contain row percentages unless otherwise indicated)

	Course		Both combined
	Dental	Medical	
Number	59 (59.0)	41 (41.0)	100 (100.0)
<i>Demographic characteristics</i>			
Male	21 (35.6)	17 (41.5)	38 (38.0)
Female	38 (64.4)	24 (58.5)	62 (62.0)
Mean age in years (sd)	22.7 (3.5)	22.2 (2.2)	22.5 (3.0)
Number of responses	43	34	78
Born in New Zealand, Australia, United Kingdom or South Africa	18 (41.9)	20 (58.8) ^a	38 (49.4)
Born in Asia	24 (55.8)	11 (32.4) ^a	35 (45.5)
Born in The Middle East	1 (2.3)	3 (8.8) ^a	4 (5.2)
<i>Circumstances of entry to course</i>			
Number of responses	57	41	98
Entered course via HSFY ^b	39 (68.4)	32 (78.0)	71 (72.4)
Course was their first choice	45 (77.6)	39 (95.1) ^a	84 (84.1)
Would prefer to be studying something without restricted entry	3 (5.2)	3 (7.3)	6 (6.1)
Would prefer to not be studying	9 (15.8)	10 (24.4)	19 (19.2)
Decision for course was theirs alone	40 (70.2)	32 (78.0)	72 (73.5)
Doing course solely for prestige	14 (24.6)	7 (17.0)	21 (21.4)
Prestige of profession contributed to reasoning for doing course	29 (67.4)	15 (44.1) ^a	44 (57.1)
Felt pressure from family to gain entry into course	21 (36.8)	14 (34.1)	35 (35.7)
Feel that pressure from family has caused anxiety, anger or sadness	22 (38.6)	9 (22.0) ^a	31 (31.6)
Raised their concerns about the pressure with family	6 (27.3)	4 (44.4)	10 (32.3)
Feel their family understood those concerns	6 (100.0)	2 (50.0) ^a	8 (80.0)

^a P<0.1

^b Health Sciences First Year

Table 2. Course-associated enjoyment, stress and coping, personal expectations and competition, by course (brackets contain row percentages unless otherwise indicated)

	Course		
	Dental	Medical	Both combined
Number of responses	58	41	99
Enjoy their course as a whole	53 (91.4)	37 (90.2)	90 (90.9)
Feel more stressed since commencing course	45 (77.6)	34 (82.9)	79 (79.8)
Feel that course requirements are a source of stress	49 (84.5)	36 (87.8)	85 (85.9)
Feel unable to cope with the course requirements	11 (19.0)	7 (17.1)	18 (18.2)
Feeling unable to cope creates anxiety, anger or sadness	11 (100.0)	6 (85.7)	18 (100.0)
Feel they will cope with stresses of their profession in future	36 (63.2)	24 (58.5)	60 (61.2)
Strive for unattainable goals	19 (33.3)	18 (43.9)	37 (37.8)
Unattainable goals cause anxiety, anger or sadness	18 (94.7)	15 (83.3)	33 (89.2)
Have unreasonable expectations of themselves	42 (73.7)	32 (78.0)	74 (75.5)
Feel pressure to compete with peers within course	48 (84.2) ^a	28 (68.3) ^a	76 (77.6) ^a
Pressure to compete causes anxiety, anger or sadness	32 (66.7)	20 (71.4)	52 (68.4)
Have lied about their grades to peers within course	13 (22.8)	9 (22.0)	22 (22.4)
Have lied about their grades to family members	11 (19.3)	4 (9.8)	15 (15.3)

^a P<0.1

^b Health Sciences First Year

Table 3. Feelings of stress, anxiety, anger or sadness and related behaviours, by course (brackets contain row percentages unless otherwise indicated)

	Course		
	Dental	Medical	Both combined
Number of responses	58	41	99
Never feel stressed	0 (0.0)	1 (2.4)	1 (1.0)
Occasionally feel stressed	18 (31.0)	15 (36.6)	33 (33.3)
Often feel stressed	34 (58.6)	24 (58.5)	58 (58.6)
Always feel stressed	6 (10.3)	1 (2.4)	7 (7.1)
Number of responses	43	34	77
Feel they suffer anxiety, anger or sadness beyond what is normal	8 (18.6)	10 (29.4)	32 (41.6)
Have suffered prolonged periods of anxiety, anger or sadness since commencing the course	17 (39.5)	15 (44.1)	32 (41.6)
Occasionally feel overwhelmingly stressed or unable to cope	27 (62.8)	24 (70.6)	51 (66.2)
Often feel overwhelmingly stressed or unable to cope	2 (4.7)	1 (2.9)	3 (3.9)
Feel they cope well with feelings of stress	29 (67.4)	19 (55.9)	48 (62.3)
Feel they cope well with feelings of anxiety, anger or sadness	33 (76.7) ^a	18 (52.9) ^a	51 (66.2) ^a
Can confide in family members	33 (76.7) ^a	31 (91.2) ^a	64 (83.1) ^a
Can confide in a close friend or partner	39 (90.7)	31 (91.2)	70 (90.9)
Have trouble sleeping often or always	5 (11.6)	5 (14.7)	10 (13.0)
Trouble sleeping is due to psychological reasons ^b	4 (80.0)	5 (100.0)	9 (90.0)
Use prescription medication to assist sleeping often or always	1 (3.0)	2 (10.0)	3 (5.7)
Feel they have abnormal eating habits	15 (34.9) ^a	6 (17.6) ^a	21 (27.3) ^a
Abnormal eating habits due to stress, anxiety, anger or sadness	10 (66.7)	4 (66.7)	14 (66.7)
Avoid social interactions due to stress, anxiety, anger or sadness	28 (49.1)	17 (41.5)	45 (45.9)

^a P<0.1

^b Such as stress, anxiety, anger or sadness

did, two-thirds of dental students and nearly three-quarters of medical students reported associated anxiety, anger or sadness. Just over one-fifth of each group reported having lied about their grades to their peers. One-fifth of dental students (but only one in ten medical students) reported lying to their family about their grades.

Just under one-third (31.2%) of respondents felt that their ethnic background made some situations, and this was higher among medical than dental students (41.2% and 23.2% respectively; $P < 0.1$). Some 44.2% of either group practised a religion, but only one in six of those felt that their religion made for more difficult situations during their studies. Some 80.5% of participants in either course felt that their course was financially demanding, with approximately half of those reporting subsequent anxiety or unhappiness.

Most participants reported often feeling stressed (58.6%), with only 1% reporting never feeling so (Table 3). A larger proportion of dental students than medical students reported always feeling stressed, but more of the latter felt they had suffered abnormal anxiety, anger or sadness and had endured prolonged periods with these emotions since commencing their course. More than two-thirds of dental students (but only half of the medical students) felt that they coped well with feelings of stress, anxiety, anger and sadness. Fewer dental students reported being able to confide in family members as a means of coping.

Resting, talking with people who care, social interactions and hobbies were the most commonly reported coping

mechanisms (Table 4). These were closely followed by eating, using social media and spending money; they were all used by higher proportions of dental than medical students, as were alternative therapies. The use of smoking, prescription medication and recreational drugs was low. A small minority (13.5%) reported using professional counselling services during their study years while most (86.5%) said they had never accessed these services during their time at university. Overall, 17.0% had ever used some form of counselling or prescribed psychotropic medication (15.3% and 19.5% among dental and medical students, respectively).

The mean GHQ-12 score for all respondents was 13.4 (sd, 5.7), with mean scores of 13.6 (sd, 5.6) for dental students, and 13.1 (sd, 5.7) for medical students. Table 5 presents mean GHQ-12 score data by responses to the item about identifying with unfavourable feelings, stressors or behaviours of interest. Almost all of those who identified adverse feelings, stressors or problematic behaviours had very high mean GHQ-12 scores, with all scores being above 11 (indicating psychological morbidity). The most notable difference was that those who often felt overwhelmingly stressed or unable to cope had twice the mean GHQ-12 score of those who did not feel this way.

DISCUSSION

Stress and the associated risks to mental health are widely recognised problems in the dental and medical professions. This study investigated, characterised and compared reported

Table 4. Coping mechanisms used by participants to cope with feelings of stress, anxiety, anger or sadness (brackets contain row percentages unless otherwise indicated)

	Course		Both combined
	Dental	Medical	
Number of responses	57	39	96
Resting	57 (100.0)	38 (97.4)	95 (99.0)
Talking with people who care ^b	57 (100.0)	37 (94.9)	94 (97.9)
Social interactions	55 (96.5)	36 (92.3)	91 (94.8)
Hobbies	52 (91.2)	39 (100.0)	91 (94.8)
Eating	54 (94.7)	33 (84.6) ^a	87 (90.6)
Social media	47 (82.5)	24 (61.5) ^a	71 (74.0)
Spending money	51 (89.5)	28 (71.8) ^a	79 (82.3)
Alcohol	23 (40.4)	17 (43.6)	40 (41.7)
Sexual activities	16 (28.1)	10 (25.6)	26 (27.1)
Smoking	6 (10.5)	2 (5.1)	8 (8.3)
Pornography	6 (10.5)	5 (12.8)	11 (11.5)
Pain relievers	10 (17.5)	3 (7.7)	13 (13.5)
Alternative therapies ^c	18 (31.6)	3 (7.7) ^a	21 (21.9)
Professional counselling services	7 (12.3)	6 (15.4)	13 (13.5)
Prescribed medications for anxiety	1 (1.8)	2 (5.1)	3 (3.1)
Prescribed medications for depression	3 (5.3)	2 (5.1)	5 (5.2)
Prescribed tranquillisers or sleeping pills	1 (1.8)	3 (7.7)	4 (4.2)
Recreational drugs	5 (8.8)	2 (5.1)	7 (7.3)
Alternative medicines ^d	6 (10.5)	2 (5.1)	8 (8.3)

^a $P < 0.1$

^b Such as family members or friends

^c Such as massage, acupuncture, etc.

^d Such as homeopathic medicines, Rescue Remedy, etc.

Table 5. Mean GHQ-12 scores, by answers to questions of interest (brackets contain std. deviation unless otherwise indicated)

	Mean GHQ-12 score			
	Yes		No	
Feel unable to cope with course requirements often or always	18.4	(5.5)	12.3	(5.1)
Feel more stressed since commencing course	14.1	(5.7)	9.2	(3.0)
Occasionally feel overwhelmingly stressed or unable to cope	13.3	(4.5)	10.2	(5.5)
Often feel overwhelmingly stressed or unable to cope	20.0	(1.7)	10.2	(5.5)
Strive for unattainable goals	16.1	(5.9)	11.9	(5.1)
Have unreasonable expectations of themselves	13.5	(6.0)	13.4	(5.1)
Felt pressure from family to gain entry into course	15.0	(6.2)	12.6	(5.3)
Feel that pressure from family has caused anxiety, anger or sadness	14.5	(6.1)	13.0	(5.5)
Feel pressure to compete with peers within course	13.7	(5.5)	12.7	(6.4)
Feel they suffer anxiety, anger or sadness beyond what is normal	15.3	(5.7)	11.9	(4.8)
Have suffered prolonged periods of anxiety, anger or sadness since commencing the course	15.1	(5.9)	10.9	(3.8)
Have trouble sleeping often or always	15.3	(5.4)	12.2	(5.0)
Feel they have abnormal eating habits	13.0	(4.5)	12.5	(5.4)
Avoid social interactions due to stress, anxiety, anger or sadness	15.6	(5.7)	11.5	(5.1)
Feel their ethnic background makes situations during study more difficult	12.2	(3.7)	12.8	(5.7)
Feel their religion makes situations during study more difficult	14.0	(5.1)	10.2	(3.8)

stress levels and associated coping strategies in the two professions' student populations at the University of Otago. It was found that fourth-year dental and medical students suffer from high levels of stress and psychological morbidity, consistent with findings among practising dentists and doctors (Rutter et al, 2002; Rada and Johnson-Leong, 2004; Newton et al, 2006; Ayers et al, 2008), and among students abroad (Firth, 1986; Newbury-Birch et al, 2002; Humphris et al, 2002; Sanders and Lushington, 2002; Pau et al, 2003; Dahlin et al, 2005; Jadoon et al, 2010; Prinz et al, 2012; Murphy et al, 2009). For the most part, the coping mechanisms employed by those practising were healthier than those employed by students abroad (Newbury-Birch et al, 2002) and similar to those used among dentists in New Zealand (Ayers et al, 2008). Furthermore, we observed an association between identification with unfavourable feelings, stressors and behaviours, and greater psychological morbidity.

The limitations and strengths of this study must be considered before a detailed discussion of the findings. The overall response rate was acceptable by modern standards (Locker, 2000; Nulty, 2008). Moreover, the low number of study participants affected the statistical power of the study, making Type 2 error likely. Even after revising the alpha value to adjust the critical P value to 0.1 instead of 0.05, most observed differences between the two groups were not statistically significant. As previously mentioned, the GHQ-12 was scored using the Likert scale method of scoring (0-1-2-3), instead of the alternative bi-modal scoring method (0-0-1-1), and no "case" threshold score was determined. Adopting the bi-modal scoring method and determining a minimum score (usually 3), at which point participants qualify as a "case" of significant psychological morbidity, would have allowed greater comparison with previous studies (Humphris et al, 2002). Finally, the inadvertent omission (and subsequent imputation)

of the twelfth item of the GHQ-12 meant that the validity of the final scores may have been compromised. The study's main strength (and point of difference from previous work in this area) was its investigation of the coping mechanisms used by dental and medical students.

Consistent with their practising professional counterparts (Rutter et al, 2002; Rada and Johnson-Leong, 2004; Newton et al, 2006; Ayers et al, 2008), most students often felt stressed, with the majority also reporting feeling more stressed since commencing their course. Only one respondent (a medical student) reported never feeling stressed. A greater proportion of dental students were stressed at all times, consistent with the findings of Murphy et al (2009); however, they appeared to cope better with stress than medical students. Even with lower reported stress levels, a greater proportion of medical students reported not coping well with stress, suffering from abnormal anxiety, anger and sadness, and having prolonged periods with such feelings. The course requirements created stress for most dental and medical students, with one-fifth reporting feeling unable to cope and suffering subsequent anger, anxiety and sadness. Other sources of anger, anxiety and sadness were pressure to compete with peers and striving for unattainable goals. Most reported having unreasonable expectations of themselves which may be related to perfectionistic traits in the students themselves and to the highly demanding nature of their coursework.

Resting, talking with people who care (that is, friends and family members), social interactions and hobbies were the most commonly used coping methods. These are typical of what has been described as "active-functional coping" (Prinz et al, 2012). The students' coping mechanisms were very similar to the findings of Ayers et al (2008) in relation to practising dentists. A higher proportion of dental students than medical students used eating, social media and spending money as

coping mechanisms, with eating and spending money also common among practising dentists in New Zealand (Ayers et al, 2008). These may not be unfavourable outlets, but they could be detrimental if used in excess. Moreover, the use of dysfunctional coping mechanisms (Prinz et al, 2012; such as alcohol, prescription medication, smoking, and recreational drugs) was also greater among dental than medical students. However, the use of these was still relatively lower than the more commonly used positive coping mechanisms. Overall, the coping mechanisms employed by both groups were healthy ones, which is a contrast to the 2002 findings in a UK dental school (Newbury-Birch et al, 2002).

A noteworthy finding was the apparent reluctance of all students — despite their high stress levels — to use the professional counselling services which are both cheap and readily available for them. Possible reasons for this include: concerns about stigma and confidentiality, as reported by Ey et al (2000) for US students; time constraints precluding care-seeking; and the issue of whether seeking care might affect their career. Whatever the reason, the low utilisation of professional care for severe stress has negative implications for the respondents' future practising careers.

The mean GHQ-12 scores suggest that, at the time of completing the questionnaire, both groups were experiencing greater psychological morbidity than the general public. Mean GHQ-12 scores in both groups were beyond the threshold of 11, suggested by Goldberg et al (1997) as indicating psychological morbidity. Moreover, all of those who reported unfavourable feelings, stressors, or behaviours had mean scores much greater than 11, irrespective of their course. Dental students reported higher stress levels and a wider range of coping mechanisms than medical students, who had higher levels of anxiety, anger and sadness; overall though, their mental state scores were comparable. The higher levels of stress in dental students, and the medical students' poorer coping and subsequent higher levels of anxiety, anger and sadness are strong cause for concern. The prevalence of psychological morbidity among both groups reinforces this. Given that dentistry and medicine are stressful professions, the findings are alarming. Even without the use of dysfunctional coping mechanisms, the detrimental emotions and adverse mental states observed may give rise to more serious problems as these students progress into the work force. Dentists and doctors are among a particularly high-achieving section of the population and are likely to put undue pressure on themselves, while simultaneously being likely to be working in high-stress environments. Personality traits such as perfectionism and narcissism have been observed to be more prevalent among dental and medical students (Henning et al, 1998; Alemany Martinez et al, 2008), and these are likely to play some part. Mental stability is a necessary foundation for the compassion, professionalism and competence required of health professionals. Maintaining good mental health and well-being is essential, not only for their own well-being, but for the best interests of patients. It is important that help is sought in these areas and that the importance of self-care is recognised. While the age-old question of "do the medical and dental professions select for people susceptible to adverse mental health, or do the professions induce it?" remains largely unanswered, the findings suggest that problems exist at the student level, and that preventive and intervention efforts should be directed at this need early in the student years.

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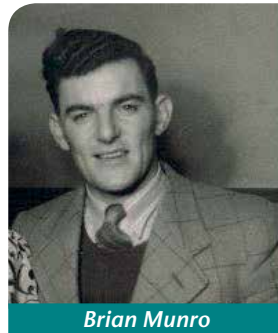
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Obituary Brian Munro

BRIAN JAMES MUNRO

1925-2014

Brian James Munro, dentist and coastal identity, born 1925, Opunake; died 22 December 2014, Opunake. Brian Munro, who died three days before Christmas, aged 89, lived nearly all of his life in Opunake. He often remarked that with the ocean at his doorstep and the picturesque mountain looming behind, there was no other place he'd rather be. He treasured the outdoors life that Opunake and the surrounding district offered, and in between the demands of running his dental practice, raising – with wife, Kathleen – a family of six, and involving himself in community life, Brian made the most of the natural attractions within easy reach. Among his favourites were a day on the mountain's slopes (in recent years he had settled on 28 as the number of times he scaled the summit), or an evening spent surfcasting for snapper off Maungahume Beach, south of Opunake.



Brian Munro

The above was the opening of a detailed obituary which recently appeared in *The Opunake and Coastal News*. Clearly Brian was a favourite son of Opunake where he had been born 90 years before. He completed all his schooling in Opunake, receiving Higher School Certificate in 1943.

Brian Munro enrolled at the University of Otago in 1944 and completed his BDS in 1950. He was capped in May 1951. A curious fact was that only once during his time in Dunedin did he return home to his family in Taranaki. Instead, determined to pay his own way through University, he remained in 'digs' in Dunedin taking the higher wages he could earn at Burnside freezing works. His preference to stay in Dunedin may also have been influenced

by the fact that he had met his future wife at a St Kilda dance in 1945. Brian and Kathleen were married in January 1952.

After graduation he spent a year working as the dentist in a clinic for adolescents run by the Department of Health. While there he received an offer from his home town dentist, Graham Hammond, to sell Brian his practice. This offer was accepted and Brian returned to Opunake in 1953 and practised from 81 Tasman Street for the next 40 years.

Brian was a complete sportsman: athletics, where he excelled at the javelin (also taking a significant part in athletics administration), single-figure handicap golfer, tennis, rugby, surf life-saving, horse racing, and fishing. An active Lion, he served locally and nationally. He also took a regular part in the Catholic Church where he was a Lay Reader. Somehow Brian also fitted in an acting career with the Opunake Players, as well as choral work with church and community groups.

Brian Munro was loved by his many patients from throughout the western part of Taranaki where he was the only dentist. Dwindling population in rural regions meant that Brian was unable to sell his practice, and his patients now travel more than 40 km to seek full dental care. Conscientious in all aspects of dentistry Brian Munro took an active part in branch affairs holding most if not all offices, culminating with being President of Taranaki Branch 1978 to 1980.

He is survived by a family of six children and nine grandchildren.

David Haszard