Patterns of job satisfaction among Australian prevocational doctors

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Introduction

Recent media reports have highlighted the prevalence of bullying, discrimination and sexual harassment in the Australian health care system[1,2]. Indeed, the Royal Australasian College of Surgeons Expert Advisory Group has found that 39% of Fellows, Trainees and International Medical Graduates report bullying, 18% report discrimination, 19% report workplace harassment and 7% sexual harassment[3]. Such incidents and experiences have a profoundly detrimental impact on the overall job satisfaction of junior doctors.

Job satisfaction comprises an "evaluative judgment of an individual's job or job situation, reflecting their responses to the characteristics, challenges, and benefits of the work in which they are engaged"[4]. Job satisfaction amongst doctors is important not only for the individual practitioner, but for the patients under their care, for their employer and for the economy. In addition to the clear benefits to the individual's health and well-being, increased job satisfaction amongst physicians has been linked to increased patient satisfaction[6], reduced employee turnover[7], and improved overall labour market productivity[8].

A previous study has demonstrated that Australian doctors in all career stages report overall high levels of job satisfaction[9]. However, the authors note that "hospital non-specialists", 85% of whom are interns and hospital medical officers, experience the lowest levels of job satisfaction and hypothesize this may be due to a lack of autonomy, dissatisfaction with long working hours and poor supervision. Of concern, they state that lower levels of job satisfaction amongst this group of doctors "may be part of the medical training culture" and therefore simply accepted as not being a problem. Whilst specialists and doctors engaged in specialty training have the support of their respective learned colleges, prevocational doctors have fewer formal support channels. Little research has looked specifically at the job satisfaction of prevocational doctors. Understanding how personal, professional and work factors and characteristics influence job satisfaction among prevocational doctors will help shape prevocational training, education and support programs Australia wide.

Aims

The aim of this study was threefold; (1) to gain an insight into the job satisfaction levels of prevocational doctors, (2) to analyse personal, professional and work factors contributing to job satisfaction, and (3) to demonstrate a link between excessive working hours and reduced job satisfaction.

Methods

Data from the seventh wave of the Medicine in Australia – Balancing Employment and Life (MABEL) survey of doctors was analysed. The MABEL survey is a longitudinal panel survey of medical practitioners in Australia, with a particular focus on work-life balance issues. The primary aim of MABEL is to investigate labour supply decisions and their determinants among Australian doctors[10]. The MABEL survey and dataset has ethics approval from the University of Melbourne Faculty of Economics and Commerce Human Ethics Advisory Group and the Monash University Standing Committee on Ethics in Research Involving Humans.

The seventh wave of the survey was conducted in 2014 and invited 16,855 doctors who had participated in previous waves of the MABEL survey, as well as a further 2,697 doctors who

were new to the Australian medical workforce and registered on Australasian Medical Publishing Company's Medical Directory database. Doctors could choose to complete a paper copy of the questionnaire or an online version through the secure study website. Job satisfaction was measured with the widely used 10-item version of the Warr-Cook-Wall job content questionnaire, which includes nine questions about aspects of a job and one global satisfaction question. Participants responded on a five-point Likert scale from "very dissatisfied" (0) to "very satisfied" (4). The survey groups respondents into one of four categories: GPs and GP registrars, specialists, specialists-in-training and hospital non-specialists. The latter group are largely made up of interns, postgraduate non-specialists in years 1 to 3 of their training and other hospital medical officers (i.e. pre-vocational doctors) although a small minority of this cohort are "career medical officers" who do not fit into the other categories. Therefore, in this study hospital non-specialists are used as a surrogate for prevocational doctor. Demographic data including age, gender, metro vs rural location, working hours and income was also analysed.

All statistical analysis was performed using IBM SPSS Statistics version 23 (IBM Corp., Armonk, NY, USA). Graphical representation of data was produced using either SPSS or Microsoft Excel (Microsoft Corp., Redmond, WA, USA). Comparative outcomes between groups, were assessed using the $\chi 2$-test or Fisher's exact test for categorical variables, and a Mann-Whitney U-test for continuous variables where appropriate. Correlation coefficients were calculated using Pearson correlation measure. All analyses used a two-sided α value of 0.05 to indicate statistical significance.

Results

Of the total sample size of 19,522 doctors the response rate was 47.5%. This included 5399 "hospital non-specialists" who collectively had a response rate of 36.7%.

Mean overall and specific job satisfaction levels amongst the various groups of doctors is displayed in Table 1. GP's and GP registrars were the most satisfied group overall, whilst prevocational doctors were the least satisfied group. The majority (86.5%) of prevocational doctors responded as being at least moderately satisfied overall (data not presented).

		Mean	95% Confidence Interval for Mean	
			Lower Bound	Upper Bound
Satisfaction: Overall	[1]GP	3.3	3.27	3.33
	[2]specialist	3.24	3.21	3.27
	[3]hospital non-specialist	3.05	3	3.1
	[4]specialist-in-training	3.09	3.04	3.13
	Total	3.22	3.2	3.24
Satisfaction: Freedom to choose your own method of working	[1]GP	3.41	3.39	3.44
	[2]specialist	3.17	3.14	3.2
	[3]hospital non-specialist	2.53	2.47	2.59
	[4]specialist-in-training	2.51	2.45	2.57
	Total	3.1	3.08	3.12
Satisfaction: Amount of variety in your work	[1]GP	3.4	3.38	3.43
	[2]specialist	3.35	3.33	3.38
	[3]hospital non-specialist	3.15	3.1	3.2
	[4]specialist-in-training	3.32	3.28	3.37
	Total	3.34	3.33	3.36

Satisfaction: Physical working conditions	[1]GP	3.4	3.37	3.42
	[2]specialist	3.13	3.1	3.16
	[3]hospital non-specialist	2.9	2.84	2.96
	[4]specialist-in-training	2.92	2.86	2.98
	Total	3.17	3.15	3.19
Satisfaction: Opportunities to use your abilities	[1]GP	3.33	3.3	3.36
	[2]specialist	3.25	3.22	3.28
	[3]hospital non-specialist	2.98	2.92	3.03
	[4]specialist-in-training	3.22	3.17	3.27
	Total	3.25	3.23	3.26
Satisfaction: Your colleagues and fellow workers	[1]GP	3.35	3.32	3.38
	[2]specialist	3.25	3.22	3.27
	[3]hospital non-specialist	3.29	3.25	3.34
	[4]specialist-in-training	3.29	3.24	3.33
	Total	3.29	3.28	3.31
Satisfaction: Recognition you get for good work	[1]GP	2.97	2.94	3.01
	[2]specialist	2.84	2.8	2.87
	[3]hospital non-specialist	2.65	2.59	2.72
	[4]specialist-in-training	2.68	2.62	2.74
	Total	2.85	2.82	2.87
Satisfaction: Your hours of work	[1]GP	3.12	3.09	3.16
	[2]specialist	2.91	2.88	2.94
	[3]hospital non-specialist	2.6	2.53	2.67
	[4]specialist-in-training	2.57	2.5	2.64
	Total	2.91	2.89	2.93
Satisfaction: Your remuneration	[1]GP	2.76	2.72	2.8
	[2]specialist	3.12	3.09	3.15
	[3]hospital non-specialist	2.7	2.63	2.77
	[4]specialist-in-training	2.6	2.53	2.67
	Total	2.88	2.85	2.9
Satisfaction: Amount of responsibility you are given	[1]GP	3.4	3.37	3.43
	[2]specialist	3.41	3.39	3.44
	[3]hospital non-specialist	3.03	2.98	3.07
	[4]specialist-in-training	3.12	3.07	3.17
	Total	3.33	3.31	3.35

Table 1. Mean job satisfaction levels amongst doctors in various career stages.

Prevocational doctors were the least satisfied group of doctors in response to 5 of the 9 specific aspects of job satisfaction, namely “amount of variety in your work”, “physical working conditions”, “opportunities to use your abilities”, “recognition you get for good work”, and “amount of responsibility you are given”. There was no significant difference between satisfaction levels amongst prevocational doctors and specialists-in-training in response to “freedom to choose your own method of working”, “your hours of work”, and “your remuneration”; in these categories, specialists and GPs/GP registrars had significantly higher satisfaction levels. The only aspect of job satisfaction that prevocational doctors did

not score lower than the overall mean for all doctors was “your colleagues and fellow workers”.

When examining prevocational doctors in isolation, there was no significant difference in overall job satisfaction between males and females, those from metro versus non-metro locations, various post-graduate year (PGY) levels, or age groups (data not presented). Over one-third (36.4%) of doctors reported a desire to reduce working hours; this group significantly less satisfied compared to those who were content with their working hours (mean overall satisfaction of 2.73 compared to 3.26). Fewer doctors (6.2%) wished to increase their working hours; this minority was also less satisfied compared to those who were content with their working hours (3.1 vs 3.26) although this difference was not statistically significant.

There was a moderate correlation between overall job satisfaction and self-reported health ($r = 0.294$) and overall satisfaction with life in general ($r = 0.511$). Those who reported poor health had a mean job satisfaction of 2.11 compared to 3.29 in those who reported their health as excellent.

Individuals responded to a range of statements about personal and work factors; Appendix 1 contains the mean job satisfaction level depending on how respondents answered each statement. There was moderate correlation with overall job satisfaction when respondents agreed that they had the “right balance of personal and professional commitments” ($r = 0.355$), when “there is enough time for me to do personal study” ($r = 0.299$) and “I have good support and supervision from qualified specialists” ($r = 0.431$). In regards to the latter statement, respondents who strongly disagreed had a mean overall job satisfaction of 1.71 compared to 3.45 amongst those who strongly agreed.

Discussion

This study used data collected in the Medicine in Australia – Balancing Employment and Life survey in 2014 in order to gain an insight into the job satisfaction levels of prevocational doctors. Similar to results from previous research examining data from 2008[9], this study found that although overall job satisfaction amongst Australian doctors is high, prevocational doctors are the least satisfied group of doctors in Australia. This study went on to examine the various aspects of job satisfaction and found that prevocational doctors are more dissatisfied compared to other groups of doctors in regards to almost all of the surveyed work related elements of job satisfaction.

Research using population data generally shows a “U-shaped” distribution of job satisfaction in relation to age (i.e. job satisfaction peaks in younger and more elderly employees, but declines with middle age) and this seems to be the case across most industry sectors[11]. However, the MABEL dataset does not support this theory for Australian doctors; hospital non-specialists were on average the youngest cohort, yet the least satisfied.

It has been hypothesized that heavier load of on-call work and longer working hours, less autonomy, career ambivalence, lack of job security and poor supervision may negatively influence the job satisfaction amongst junior doctors when compared to their senior colleagues[9,12] and our findings are generally supportive of this. The findings of lower satisfaction levels amongst prevocational doctors in terms of workplace autonomy, physical conditions and working hours, as well as a relatively strong correlation between job satisfaction and degree of support and supervision by specialists, suggest health networks

should focus on these areas in an effort to improve satisfaction amongst prevocational junior doctors.

It is of little surprise that a significant proportion (over one-third) of prevocational doctors expressed a desire to reduce their working hours and that this group was significantly less satisfied with their work compared to their peers. The Australian Medical Association acknowledges that, despite a shift in hospital culture and tradition surrounding unsafe working hours of junior medical staff, "extremes in hospital doctor working hours still persist and many hospital doctors continue to work rosters that place [doctors] in higher risk categories"[13]. Worryingly, almost 1 in 7 prevocational doctors (13.5%) were not at least moderately satisfied in their job, indicating more needs to be done by individual hospitals, health networks and regulatory bodies to protect against stress, burnout and detrimental health outcomes amongst this group.

This study had a number of limitations. As with any research relying on a survey or questionnaire there is the potential for response bias. Furthermore, the retrospective nature of the data means causality cannot be established. Hospital non-specialists were used as a surrogate cohort for prevocational doctors; although it has been established that the majority of this group represents interns and junior hospital medical officers[9], a small subset of this group will be "career medical officers" who are neither specialists, GPs, nor in specialty training. This small subset is unlikely to be representative of prevocational doctors and may skew the results. Finally, due to data anonymity and privacy issues, data regarding specific states or hospitals was unavailable. Such data would likely have provided an insight into regional satisfaction patterns amongst prevocational doctors and potentially highlighted particular health services where support and supervision is lacking.

Previous research into job satisfaction rates, both in the general population and amongst doctors, is extremely heterogeneous. Such research often focuses on specific professions, specific geographic locations, individual institutions, specific target demographics (e.g. ethnic minorities or particular genders), and often uses a combination of these variables. Furthermore, the reporting of job satisfaction is not standardized and many different questionnaires, survey tools and measurements exists. Therefore, it is difficult to compare the job satisfaction levels reported in this study with previous research. However, given the longitudinal nature of the MABEL survey, it would be interesting to compare job satisfaction levels over time, as well as use the data for cohort studies in order to follow up the trend in job satisfaction over time for individual practitioners; certainly this is an area for future research.

Conclusion

This study found prevocational doctors are the least satisfied group of doctors in Australia. Within this cohort, factors such as gender, age, post-graduate year level and metro vs non-metro location did not influence overall job satisfaction levels. A substantial proportion of prevocational doctors preferred to work fewer hours and these doctors were significantly less satisfied in their jobs.

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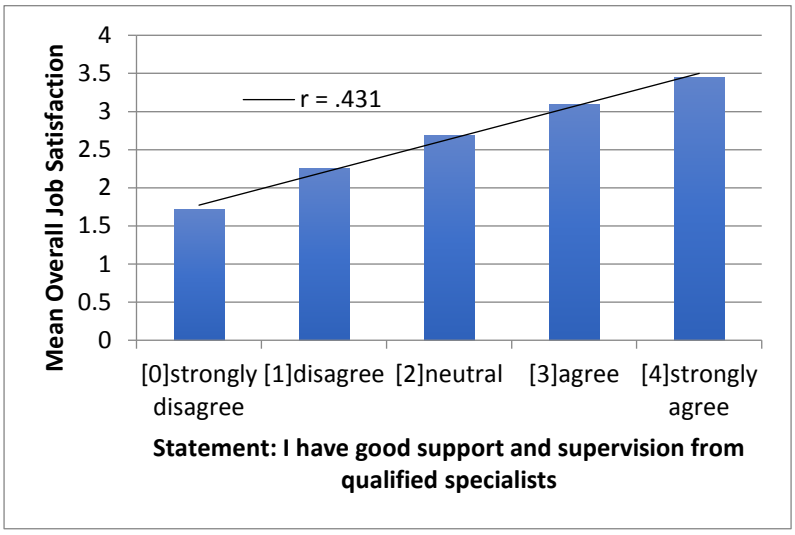
Appendix 1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3.5
3
2.5
2
1.5
1
0.5
0
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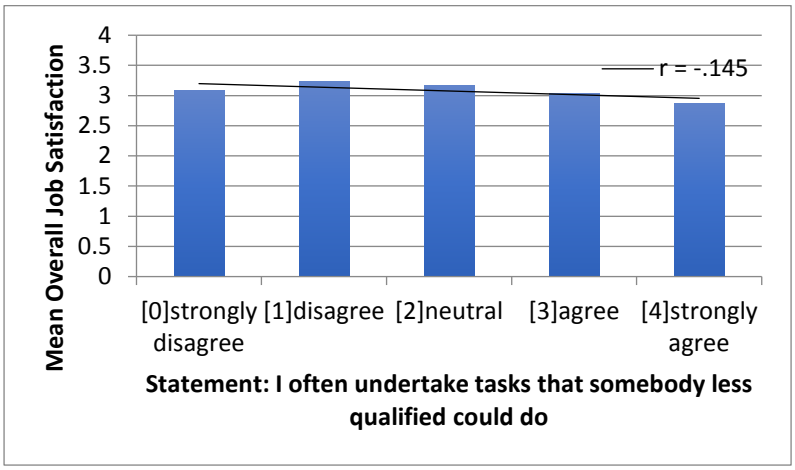
[3]agree
[4]strongly agree
Statement: I have good support and supervision from qualified specialists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2.5
2
1.5
1
0.5
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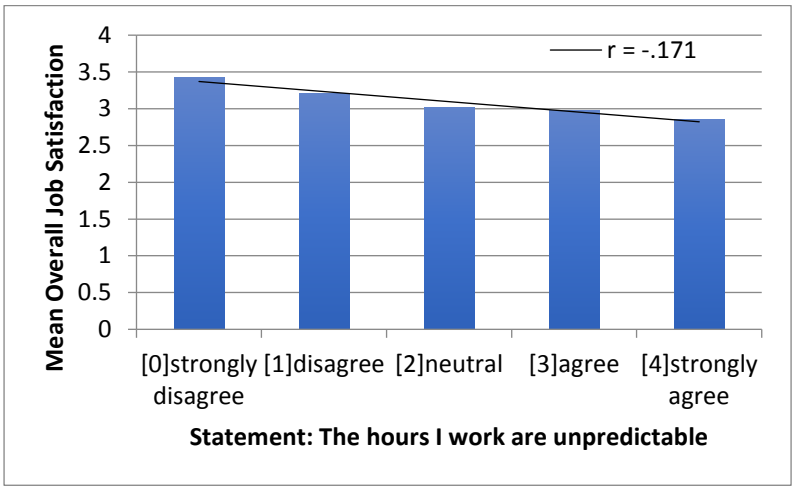
[4]strongly agree
Statement: I often undertake tasks that somebody less qualified could do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2
1.5
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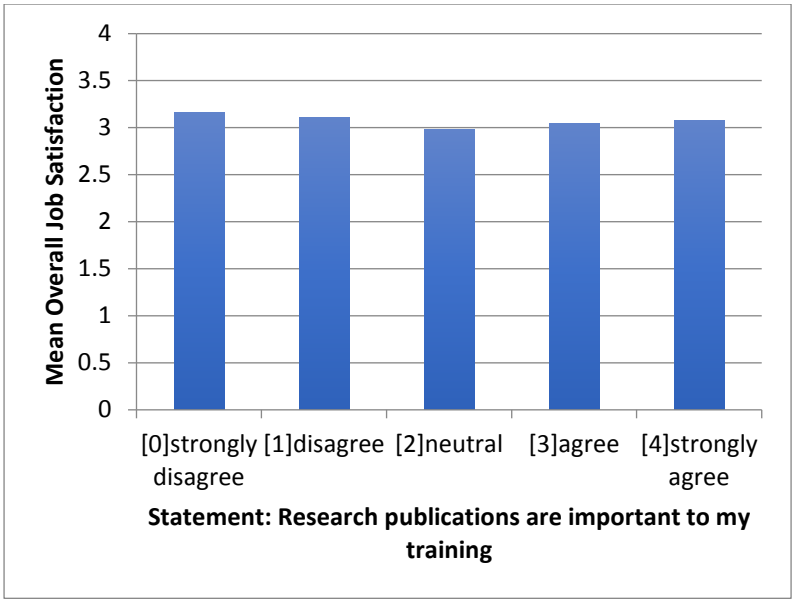
[2]neutral
[3]agree
[4]strongly agree
Statement: The hours I work are unpredictable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3
2.5
2
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1
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[0]strongly disagree
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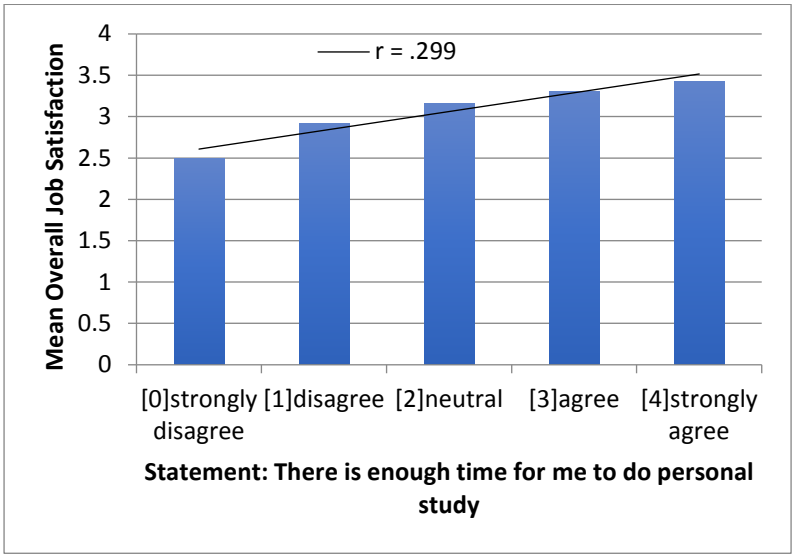
[2]neutral
[3]agree
[4]strongly agree
Statement: Research publications are important to my training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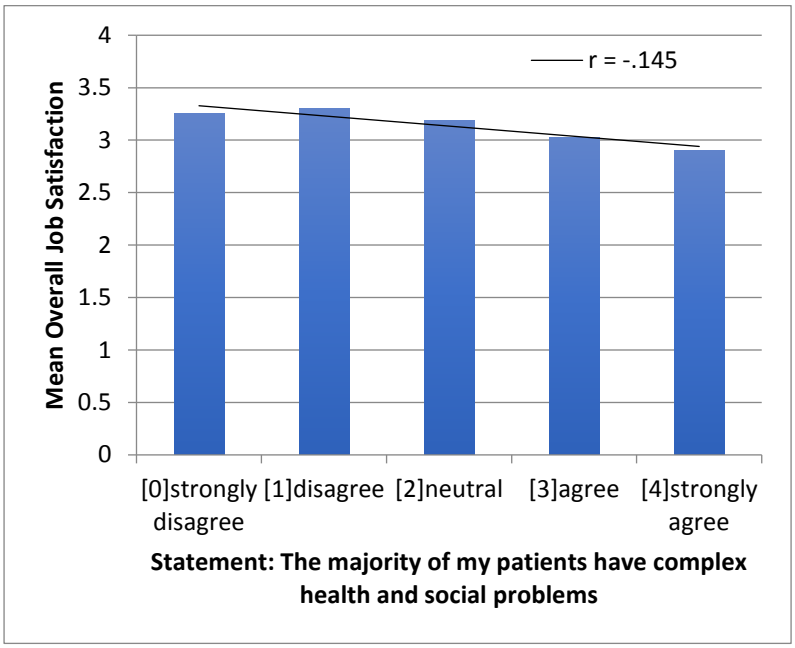
[3]agree
[4]strongly agree
Statement: There is enough time for me to do personal study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3
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2
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1
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[0]strongly disagree
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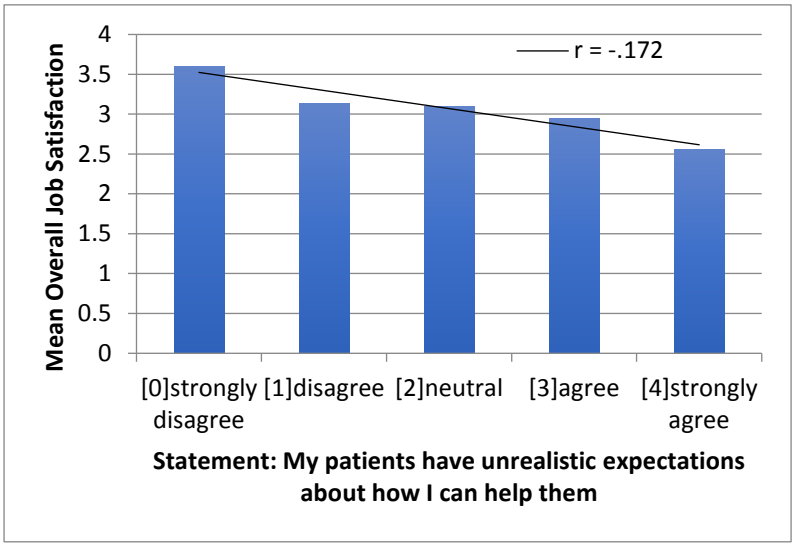
[4]strongly agree
Statement: The majority of my patients have complex health and social problems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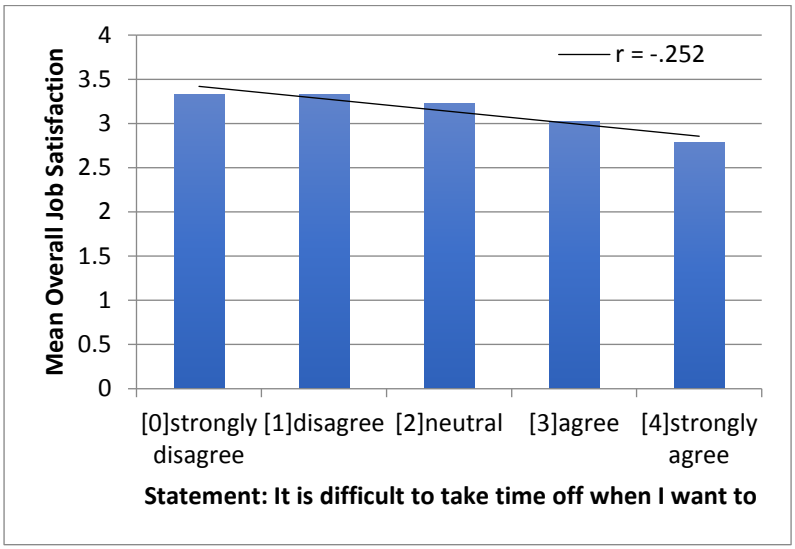
Statement: My patients have unrealistic expectations about how I can help them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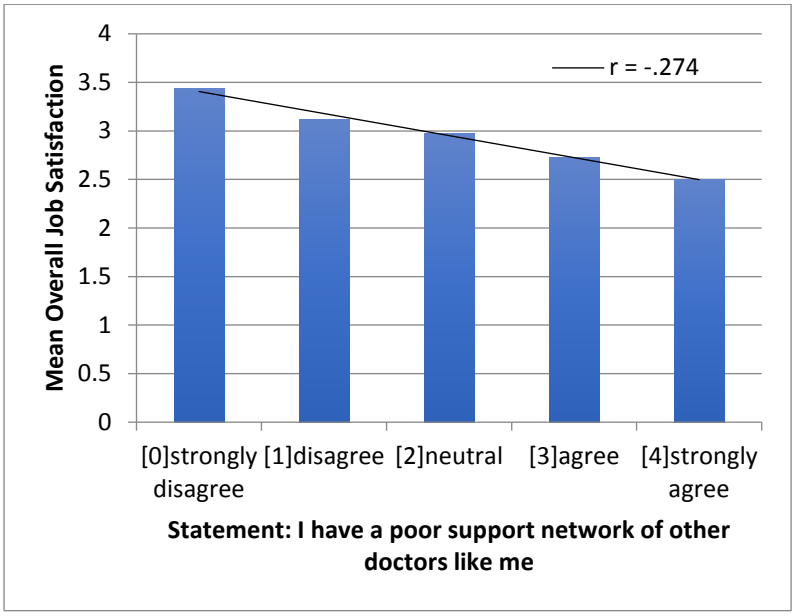
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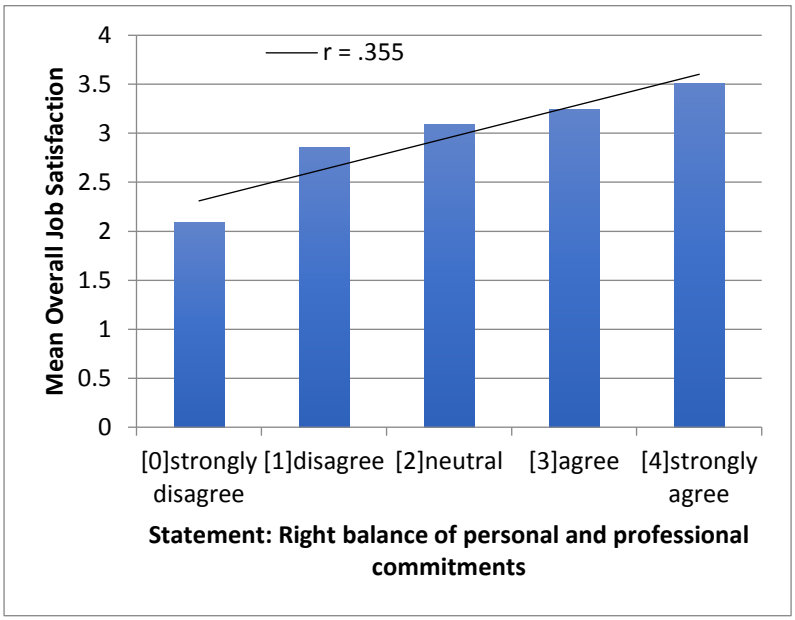
Statement: I have a poor support network of other doctors like me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2
1.5
1
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[3]agree
[4]strongly agree
Statement: Right balance of personal and professional commitments