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Junior Doctors Have Lower Mental Health Scores Compared To Senior Doctors and Their Normative Scores

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Introduction

It is known that in the US, UK and Australia, junior doctors (JDs) undergo a significant amount of stress^{1,2,3}, and this is largely attributable to their traineeship and working conditions. This occupational stress may lead to serious mental and physical health problems³, as well as having a detrimental impact on their clinical performance and affect patient safety.⁴ It is hence important to determine if junior doctors' Health Related Quality of Life (HR-QoL) is affected by their working conditions.

Objective

To compare Junior Doctors' (JDs) Health-Related Quality of Life (HR-QoL) to firstly age, gender and race adjusted normative values (NV) of the general population and secondly, Senior Doctors (SDs) in a teaching hospital in Singapore.

Methodology

A cross-sectional anonymous survey was conducted. SF-36 (an internationally validated multi-purpose, short-form health survey) was self-administered to 185 doctors (48% JDs). JD's were defined to be 30 years or less as it was assumed that the majority of the hospital-based junior doctors would still be undergoing traineeship.

The mean score differences between JDs and their NV and SDs and their NV were compared using bivariate and multivariate. The NV were determined using a SF-36 Normative Value calculator developed by the SingHealth Centre for Health Services Research. The abovementioned calculator is able to generate the NVs of the general Singapore population with the same age groups, gender and race group characteristics as the JD population. From Hays et al, the minimum clinical importance difference of HR-QoL was defined as 5 points.⁵

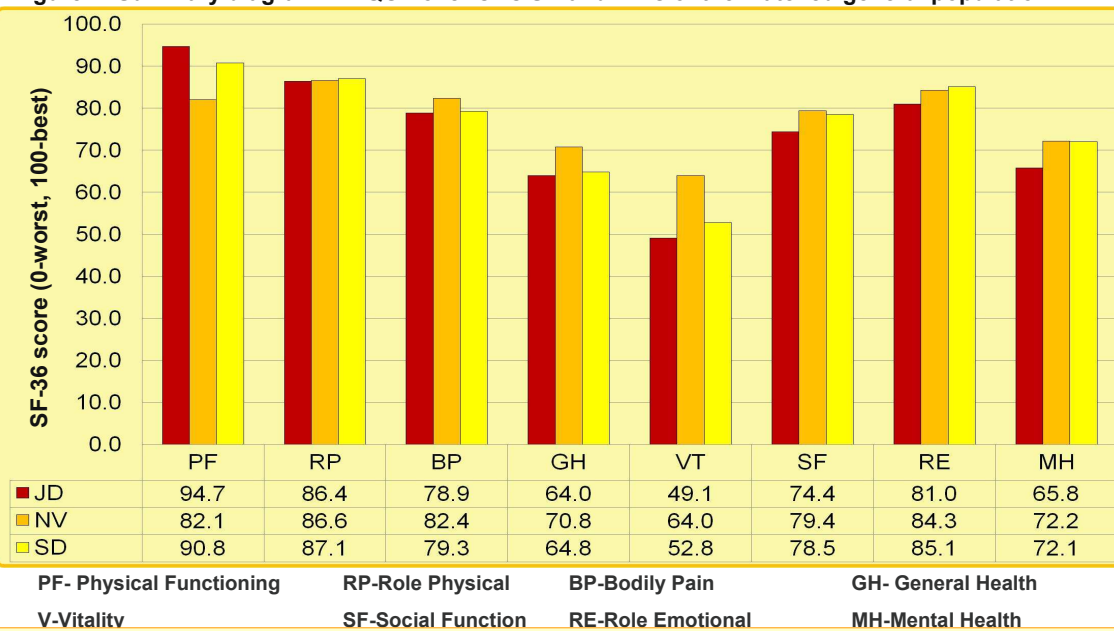
Key Findings

- JD's report lower Vitality, General Health, Social Functioning and Mental Health scores when compared to their NV
- JD's report lower Mental Health Scores when compared to SD
- More work should be done to determine individual and system-level interventions to support JD

Results

JDs scored lower in all 7 domains except for physical functioning when compared with NV (Fig 1). In particular, the difference between JDs and the general population NV for vitality was -14.9. Other clinically significant factors were General Health (-5.8), Social Functioning (-5.0) and Mental Health (-6.4). When compared to SDs, JDs also showed lower scores in HR-QoL other than physical functioning. After adjusting for gender and race, JDs mental health scores were significantly lower than SDs (p=0.01). JDs' physical functioning were also significantly higher than the SDs, which could be attributed to their younger age.

Figure 1: Summary diagram HR-QoL of JDs vs SD and NV's of the matched general population



Discussion & Conclusion

The results show that junior doctors, when compared to the NV of the general population, have lower vitality. This can be attributed to the fatigue felt by JD's and this is consistent with other studies which report that junior doctors experience fatigue⁵. Sleep deprivation⁶ is a likely contributing factor to the lack of vitality and fatigue experienced by JDs. This is a cause for concern since fatigue is also linked to increases in needle stick injuries, traffic accidents among trainees as well as increases in medication errors and adverse events among the patients they treat.⁷⁻¹¹ The lower mental health scores is consistent with studies suggesting that residents have higher psychiatric morbidity and show more burnout symptoms than their senior colleagues.³ This suggests that it is the workload, training hours and lack of clinical experience¹² which contribute to the higher level of stress and fatigue. As these issues may detrimental impact on JDs' clinical performance and affect patient safety, more work should be done to determine individual and system-level interventions to support JDs.

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