

**HEALTH-RELATED QUALITY OF LIFE AND ITS
ASSOCIATION AMONG MEDICAL OFFICERS IN
SELANGOR**

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**HEALTH-RELATED QUALITY OF LIFE AND ITS
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SELANGOR**

by

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LIST OF SYMBOLS

a	Adjusted coefficient of regression
<	Less than
≥	Greater than or equal to
=	Equal to
r^2	Coefficient of determination
β	Coefficient of regression

LIST OF ABBREVIATIONS

Abbreviations	Definitions
BMI	Body mass index
MOs	Medical officers
QoL	Quality of life
ProQoL	Professional Quality of Life Scale
HRQoL	Health-Related Quality Of Life
WHO	World Health Organization
WHOQOL Group	World Health Organization Quality of Life Group
MOH	Ministry of Health
MMA	Malaysian Medical Association
DOSM	Department of Statistics Malaysia
DOSH	Department of Occupational Safety and Health
SF-36	Short Form Health Survey
CRC	Clinical Research Centre
CDC	Centers for Disease Control and Prevention
MMC	Malaysian Medical Council
SPSS	Statistical Package for the Social Sciences
PRisMA	Psychosocial Risk Assessment and Management at the Workplace
VIF	Variance Inflation Factor
USM	Universiti Sains Malaysia
HTAR	Tengku Ampuan Rahimah Hospital
JKNS	Jabatan Kesihatan Negeri Selangor
NMRR	National Medical Research Register
NIH	National Institute of Health
SLR	Simple Linear Regression
MLR	Multiple Linear Regression
SD	Standard deviation

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KUALITI HIDUP BERKAITAN KESIHATAN DAN KAITANNYA

DALAM KALANGAN PEGAWAI PERUBATAN DI SELANGOR

ABSTRAK

Pengenalan: Kesihatan merupakan hak asasi manusia dan sumber penting bagi produktiviti serta kesejahteraan masyarakat. Bagi para petugas kesihatan, terutamanya pegawai perubatan (MO), mengekalkan kesejahteraan fizikal, mental dan sosial yang optimum adalah penting untuk kualiti hidup (QoL) mereka serta menjamin rawatan serta penjagaan pesakit yang berkualiti. Ini adalah kerana, pegawai perubatan kini semakin terkesan dengan tekanan kerja seperti waktu kerja yang panjang, beban pentadbiran, ketidakjaminan pekerjaan, dan ketidakefisienan sistem yang memberi kesan negatif terhadap QoL mereka. Ini merupakan isu penting, disebabkan MO memainkan peranan penting dalam sistem kesihatan di Malaysia. Oleh itu, kualiti hidup para pegawai perubatan perlulah dinilai supaya tindakan selanjutnya dapat dilakukan bagi menjaga kualiti kesihatan di masa akan datang.

Objektif: Kajian ini bertujuan untuk menilai kualiti hidup MO di Selangor serta mengenal pasti faktor-faktor yang mempengaruhi kesejahteraan mereka. Penemuan ini diharap dapat menyumbang kepada cadangan dasar bagi meningkatkan keseimbangan kerja-hidup, mengurangkan tekanan psikologi dan memperbaiki penyampaian perkhidmatan kesihatan.

Kaedah dan Keputusan: Seramai 165 MO telah dipilih melalui pensampelan rawak mudah dari kalangan hospital dan klinik kesihatan. Data dikumpulkan menggunakan soal selidik atas talian yang merangkumi maklumat sosiodemografi dan instrumen WHOQOL-BREF bagi menilai QoL. Analisis data melibatkan statistik deskriptif dan regresi linear. Purata skor bagi domain kesihatan psikologi ialah 55.45, lebih rendah

daripada norma populasi umum, menunjukkan cabaran psikologi yang ketara dalam kalangan MO. Analisis regresi linear berbilang mengenal pasti dua faktor signifikan yang dikaitkan dengan kesihatan psikologi yang lebih baik: indeks jisim badan (BMI) yang normal dan status pekerjaan tetap. MO dengan BMI normal mencatatkan skor 3.61 mata lebih tinggi dalam kesejahteraan psikologi berbanding mereka yang berlebihan berat badan ($p = 0.030$). Selain itu, MO dengan pekerjaan tetap menunjukkan skor psikologi 9.55 mata lebih tinggi daripada mereka yang berstatus kontrak ($p = 0.003$). Dapatan ini menunjukkan bahawa kesihatan fizikal dan kestabilan pekerjaan adalah penentu penting kepada kesejahteraan psikologi MO.

Kesimpulan: Hasil kajian menunjukkan status pekerjaan serta kesihatan fizikal para pegawai perubatan memberi impak terhadap kesihatan mental. Intervensi holistik yang merangkumi penambahbaikan keadaan kerja dan kesihatan peribadi adalah penting untuk meningkatkan kualiti hidup dan prestasi para pegawai perubatan.

Kata kunci: QoL, Kualiti hidup, pegawai perubatan, WHOQOL-BREF

HEALTH-RELATED QUALITY OF LIFE AND ITS ASSOCIATION AMONG MEDICAL OFFICERS IN SELANGOR

ABSTRACT

Introduction: Health is a fundamental human right and a vital resource for societal productivity and well-being. For health professionals, particularly medical officers (MOs), maintaining optimal physical, mental, and social well-being is crucial, as it affects both their quality of life (QoL) and the quality of patient care. Despite their essential role, MOs are increasingly affected by occupational stressors, including extended working hours, administrative burdens, job insecurity, and system inefficiencies, which negatively impact their QoL.

Objectives: This study aims to assess the QoL of medical officers in Selangor and examine the underlying factors influencing their well-being. The findings are expected to contribute to policy recommendations that enhance work-life balance, reduce psychological distress, and improve healthcare delivery.

Methods and Results: 165 MOs were selected through simple random sampling from hospitals and health clinics. Data were collected using an online questionnaire with sociodemographic information and the WHOQOL-BREF to measure QoL. The analysis involved descriptive statistics and linear regression. The mean score for the psychological health domain was 55.45, lower than the general population norm, indicating considerable psychological challenges among MOs. Multiple linear regression analysis identified two significant factors associated with better psychological health: normal body mass index (BMI) and permanent employment status. MOs with a normal BMI scored 3.61 points higher in psychological well-being than those who were overweight ($p = 0.030$). Additionally, MOs in permanent

positions had psychological scores 9.55 points higher than those employed on a contract basis ($p = 0.003$). These results suggest that physical health and employment stability are important determinants of psychological well-being among MOs.

Conclusion: The results highlight the impact of lifestyle and job security on mental health. Holistic interventions addressing work conditions and personal health are essential to improve the quality of life and performance of MOs.

Keywords: Quality of life, medical officer, WHOQOL-BREF

CHAPTER 1

INTRODUCTION

1.1 Introduction

Health is a global asset, contributing to all countries' economies, productivity, and happiness. WHO defines health as a state of complete physical, mental, and social well-being rather than just the absence of disease or infirmity (Otorkpa, 2019). Every individual has the fundamental right to attain the highest possible standard of health, regardless of race or socioeconomic status. Consequently, a healthy doctor is better equipped to manage patients effectively than an unhealthy one. Moreover, health should not be limited to physical well-being but must also encompass mental and social well-being, especially for doctors who play a critical role in patient care.

Quality of life (QoL), as articulated by the World Health Organization Quality of Life (WHOQOL) group, refers to individuals' perceptions of their life situation, which are shaped by the cultural and value systems in which they exist, as well as their personal goals, expectations, standards, and concerns (The WHOQOL Group, 1998). This definition emphasizes that these perceptions are deeply rooted in cultural, social, and environmental contexts.

Healthcare workers have been recognized as contributing to the high prevalence of job dissatisfaction and work-related emotional disturbances among various professions. Recent studies have also drawn attention to the negative impact of work-related stress, extended working hours, and administrative burdens on the QoL of medical officers (MOs) (Chin *et al.*, 2022).

MOs are significantly affected by the complexities of the healthcare system, driven by increasing patient care demands and the integration of technology such as electronic health records into clinical workflows. Factors such as excessive workload,

irregular shifts, and prolonged working hours have been associated with job dissatisfaction, heightened burnout, moral fatigue, and emotional exhaustion, all of which negatively impact their QoL (Lodh and Ghosh, 2022). Although the present study did not specifically examine the effects of working hours, recent evidence highlights their significant impact on mental health and quality of life. For example, a study conducted during the COVID-19 pandemic found that extended working hours were strongly linked to increased risks of depression and anxiety. Individuals working more than 60 hours per week had notably higher odds of experiencing depression (OR = 10.58, 95% CI: 2.78–40.32, $p = 0.002$) and anxiety (OR = 8.69, 95% CI: 2.13–35.46, $p = 0.008$), indicating a clear dose-response relationship between working hours and psychological distress (Che *et al.*, 2023). These findings are highly relevant to MOs, who routinely face extended working hours, frequent on-call shifts, and weekend duties. While not assessed in this study, these occupational demands may similarly affect their QoL and warrant further investigation in future research.

Occupational stress not only compromises physicians' mental health and well-being but also negatively impacts their QoL. This decline in QoL can reduce empathy, increase burnout, and impair job performance, subsequently affecting patient care quality, safety, and satisfaction (Pariser, 2017).

Burnout and mental health issues are common among healthcare workers and have adverse effects on QoL (Woon and Tiong, 2020). Higher levels of burnout are also associated with lower general and psychological QoL among healthcare workers (Asante *et al.*, 2019). Studies also show that healthcare workers suffer from a higher amount of psychological stress and burnout, such as depression, anxiety, and sleep disorders. Subsequently, this will reduce their QoL, affecting their standard of care

and increasing the risk of making mistakes and patient mortality (Mohammadi *et al.*, 2023).

According to the WHO, approximately 3.8% of the population experiences depression, with 5% of them being adults. In addition, depression is more prevalent in women than in men, with medical professionals facing a higher risk of suicide worldwide (WHO, 2023).

A 2023 report published by Ipsos Group, a multinational market research and consulting firm, identified mental health as the most pressing health issue in Malaysia, ranking even higher in concern than obesity or diabetes. This report was shared with the public in October 2023, with a survey conducted among 500 Malaysians online, giving opinions on the biggest problem that our healthcare service is facing now. It shows that there needs to be more staff, around 45%; long waiting times are 50%; and poor-quality treatment is around 19%, possibly due to increased workload and subsequently reduced QoL, which impacts healthcare quality in the long run (Azamat Ababakirov, 2023).

In Malaysia, the government is the primary provider of healthcare services, supported by private hospitals and general practitioners, which further highlights the critical role of public healthcare providers (Ang KT *et al.*, 2014). As such, MOs are the backbone of the country's public healthcare system. When MOs feel satisfied and supported in their roles, it enhances their well-being and contributes to better patient care, a more resilient healthcare system, and improved health outcomes for the broader community (Ramlan *et al.*, 2014).

Numerous studies show that better QoL leads to higher job satisfaction, lowers psychological stress, and improves healthcare delivery. In light of this, the present study aims to assess the QoL of MOs in Selangor, Malaysia, and to identify the factors

that influence it. The findings aim to provide valuable insights that drive efforts to enhance the well-being of MOs. Additionally, the results support practical, evidence-based recommendations for government agencies to implement interventions, such as work rescheduling or additional rest days, to promote work-life balance and reduce psychological distress among healthcare professionals.

1.2 Statement of the Problem

MOs in Malaysia are increasingly exposed to work-related stress due to systemic and occupational challenges. These include the ongoing transition within the healthcare system, high patient loads, limited career progression opportunities, income dissatisfaction, and job insecurity (Ramlan *et al.*, 2014). Such stressors, compounded by difficulties in achieving work-life balance, place MOs at heightened risk of burnout and reduced QoL.

The growing demands on Malaysia's healthcare sector further exacerbate this situation. Population growth and the rapid rise in the proportion of older adults, specifically those aged 60 years and above, projected to reach 15% by 2030, will significantly increase the burden of chronic disease management (Institute for Public Health (IKU), 2024). As frontline providers, MOs are expected to shoulder much of this demand, which may compromise not only their QoL and job satisfaction but also the quality of care delivered, ultimately affecting the resilience of the healthcare system. This demographic shift will intensify the burden of chronic disease management as the prevalence of non-communicable diseases continues to rise (CodeBlue, 2025).

Evidence of these challenges is reflected in the rising resignation rates among MOs in the Ministry of Health (MOH). Contract MO resignations rose from 768 in

2021 to 1,354 in 2022, declining slightly to 924 in 2023 (CodeBlue, 2024). Permanent MOs also recorded a concerning total of 2,385 resignations between 2019 and 2023, despite a downward trend in recent years (Boo, 2024b). These attrition patterns highlight the need to examine occupational stressors and their impact on QoL to ensure workforce sustainability.

1.3 Rationale of the Study

In Malaysia, the government remains the principal provider of healthcare services, and doctors play a pivotal role in ensuring high-quality medical care. To maintain a motivated and effective workforce capable of upholding these standards, it is essential to understand the challenges and expectations of MOs. However, various systemic and occupational stressors threaten their health and well-being. These include difficulty achieving work-life balance, job insecurity, dissatisfaction with income due to limited financial incentives, restricted opportunities for career progression and specialization, and inadequate access to professional training (Ramlan *et al.*, 2014). Additional workplace stressors such as unfavourable working hours, frequent transfers, rural postings, and strained relationships with superiors or colleagues further compound their difficulties. Age-related fatigue and emotional strain may also exacerbate the burden experienced by MOs in the public healthcare sector.

The demanding nature of the medical profession has long been associated with poor psychological health, particularly in relation to extended working hours, night shifts, and high job demands (Yahaya *et al.*, 2018). Anxiety, stress, and depression are well-documented consequences of these pressures, which in turn negatively affect QoL. For example, a study among environmental health practitioners demonstrated that declines in QoL during the COVID-19 pandemic were associated with heightened

levels of depression, anxiety, and stress (Ishak *et al.*, 2022). These findings highlight the importance of assessing QoL among MOs, especially in the psychological domain, as their well-being directly influences job performance and the sustainability of healthcare delivery.

Given these challenges, this study aims to explore the factors that shape the QoL of MOs in Selangor. By understanding what most affects their well-being, the findings can help healthcare administrators develop more targeted strategies to support doctors in their daily work. Improving MOs' QoL is important not only for their own health and job satisfaction, but also for ensuring better care for patients and a stronger, more resilient healthcare system.

1.4 Research Questions

1. What are the QoL (physical health, psychological health, social relationship, and environment) scores among MOs in Selangor?
2. What factors affect their QoL (psychological health) score?
3. Is there any relationship between sociodemographic factors, job factors, lifestyle factors, and health status with QoL (psychological health) scores among MOs?

1.5 Objectives

1.5.1 General objectives

To study the quality of life and its associated factors among MOs in Selangor

1.5.2 Specific Objectives

1. To describe the QoL scores among MOs working in Selangor

2. To determine the factors associated with the QoL (psychological health) score among MOs in Selangor

1.6 Research Hypothesis

Alternative Hypothesis: There is a significant association between QoL and sociodemographic characteristics, job characteristics, lifestyle, and health status among medical officers in Selangor.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The literature review was conducted using multiple search engines, such as PubMed and Google Scholar, available freely online. Besides that, the university's subscribed databases, such as Scopus and ScienceDirect, are also being utilized as a medium to look for literature. The entire literature search was filtered to include publications between 2013 and 2025. Numerous searching strategies were applied, such as combining terms with Boolean operators (AND, OR, NOT). List of keywords applies during search: Quality of Life among Medical officers, Quality of Life among Healthcare workers, healthcare professional, factors associated with Quality of Life, Health-related Quality of Life, Quality of Life and Psychological, psychological health, WHOQOL-BREF, obesity, job satisfaction, smoking, and Physical Activity.

2.2 Quality of life

Quality of Life (QoL), as defined by the World Health Organization Quality of Life (WHOQOL) group, encompasses an individual's perception of their position in life, influenced by the cultural and value systems they live in, along with their personal goals, expectations, standards, and concerns (The WHOQOL Group, 1998)

Research on health-related QoL among MOs in Malaysia remains limited. A study conducted in Kuching, Sarawak, reported that more than half (54%) of the 276 MOs surveyed experienced poor overall QoL, as measured by the WHOQOL-BREF. Domain-specific findings further revealed that 29% had poor physical QoL, which was significantly associated with chronic illness, active on-calls, and a combination of active and passive on-calls. The study also highlighted the influence of effort-reward

imbalance, where MOs with high effort but low reward reported a markedly higher risk of poor QoL across the general (AOR = 4.71), physical (AOR = 4.53), psychological (AOR = 5.95), and environmental domains (AOR = 4.21). Conversely, those with low effort and high reward were less likely to experience poor QoL in the social domain (AOR = 0.13) (Chin *et al.*, 2022). Comparable patterns have been observed internationally. For instance, (Tang *et al.*, 2022) found that medical professionals in China reported a poorer quality of working life than the general population, largely due to heavy workloads, inadequate rewards, and workplace violence. The consistency between Malaysian and Chinese findings underscores the importance of organizational and occupational stressors in shaping the QoL of healthcare providers. However, both studies have limitations: the Malaysian study was geographically restricted to a single state and limited by its cross-sectional design, while the Chinese study assessed healthcare professionals more broadly rather than focusing specifically on MOs.

Taken together, these findings suggest that occupational stressors, particularly effort-reward imbalance and heavy workload, are recurrent predictors of poor QoL across settings. Nevertheless, there remains a paucity of empirical evidence exploring QoL among MOs across different regions of Malaysia. In particular, research is scarce in high-demand areas such as Selangor, where population density and healthcare utilization are among the highest in the country. Addressing this gap is critical to better understand the well-being of MOs and to inform targeted interventions that can enhance both workforce sustainability and quality of care.

2.3 Factors associated with quality of life

2.3.1 Age

Age has been identified as one of the factors associated with QoL, although findings remain inconsistent. A study conducted in Putrajaya and Selangor reported that respondents aged 36 to 55 years had significantly higher mean QoL scores compared to younger participants ($p < 0.001$), suggesting that older individuals may perceive better QoL (Rillera Marzo *et al.*, 2022). This could be explained by greater maturity, improved coping mechanisms, or more stable career trajectories among older medical professionals.

However, not all studies support a strong relationship between age and QoL. For instance, a study employed Spearman's rho to examine the association and, despite finding a statistically significant result ($p = 0.008$), the correlation was weak, indicating little practical significance. This suggests that while age may shape perceptions, resilience, or coping strategies, its direct influence on QoL may be limited and potentially overshadowed by occupational demands, psychosocial stressors, or workplace environment (Treesa Jose and Bhat, 2014).

Overall, the evidence indicates that age-related differences in QoL may exist, but the strength and consistency of the association remain uncertain. These mixed findings highlight the need for further context-specific research to clarify whether age meaningfully influences QoL among medical officers, particularly in high-demand healthcare settings such as Selangor.

2.3.2 Sex

In the environmental domain, one study in Kuching, Sarawak, noted that men have significantly poorer QoL than females. The perception of masculinity could be causing this poor QoL, which was contributed to by income and dissatisfaction with