

ORIGINAL ARTICLE

Quality of Work life Among the Paediatricians Graduated from Master of Medicine (MMed) of Universiti Sains Malaysia

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ABSTRACT

Introduction: Malaysian Paediatricians suffer from psychological challenges and stresses, but unfortunately, their quality of work life (QWL) has yet to be studied. This study aims to explore the QWL score and its predictors among the qualified paediatricians of Universiti Sains Malaysia (USM). **Methods:** A cross-sectional study using a validated QWL questionnaire was performed from June to December 2022. The graduates of Master of Medicine in Paediatrics (USM) were invited to participate in the study, through an online built QWL questionnaire. Reminders were sent a few times to increase the response rate. The QWL was used due to a good internal consistency with Cronbach alpha of 0.95. Descriptive statistics were used to analyse the sociodemographic characteristics. The variables for QWL were determined using logistic regression analysis. **Results:** The study included the participation of 123 paediatricians. Majority of the participants were Malay (87.8%), Muslim (90%) and married (78%). Among all participants, 53.6% has good QWL score. Factors that associated with good QWL were married status ($p=0.02$) and higher salary ($p=0.012$). Individuals whose are married and having higher income are 3.2 and 5.2 times respectively more likely to have good QWL. **Conclusion:** More than half of qualified paediatricians had good QWL and necessary steps should be strived at improving these factors for a better work-life balance.

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INTRODUCTION

Upon reaching the third decade of the twenty-first century, and human resource management in enterprises continues to provide significant issues. The human component is widely acknowledged as the most significant organizational resource for determining an organization's growth and survival (1). Human beings have long been concerned about the quality of their work lives (QWL). People have varied perspectives on life and work from a global perspective, which leads them to compare cultures, workplace innovation, and the flow of ideas and values. (2).

QWL terminology first appeared in the 1970s, however there was no universally agreed definition (3). It was used to study work-life balance among the employees. According to Garg et al. (4), the QWL covers a person's feelings about all job sectors, including monetary remuneration, benefits, working conditions, career

prospects, internal and external equity, decision capacity, and interpersonal and organizational relationships, which are critical in an individual's life. The QWL can also have different meanings for different professional groups (5). Physicians have a unique working time; they work at all hours of the day, sometimes longer than the ordinary person, and place their patients' health and well-being ahead of their own. High QWL means higher ability for an organization to retain high performance workforce especially in healthcare sectors. Availability of highly specialized personnel in the country's would exert positive productivity and capacities for a country and organization (6).

The subject on job dissatisfaction among the healthcare workers has become increasingly important due to its direct impact on medically and psychologically (7,8). The QWL would be significantly reduced in those with a low level of job satisfaction and high stress among doctors, and thus the reason for QWL research to be undertaken among our population. Better service and work-life balance is becoming an important component for the doctors based in Malaysia. Burnout among paediatricians is a cause of concern and several factors such as physician's health, resources and social

support would play vital part in its prevention (9). Other characteristics include workloads and conflicts may influence the work-life balance.

Most of the literatures show that QWL concept is latent, multi-dimensional and need-based. These needs comprised of items such as health/safety, family, social, self-esteem and self-actualization, knowledge, and aesthetic needs. Some other factors like job promotion performance, attractive and supportive working environment and individual work performance would also be the determinants for a positive QWL (6).

Factors that would have influenced QWL were shown by models by Walton's (1973), Westley's (1979), and Hackman and Oldham's (1975) (10). These models are thought to be useful in evaluating QWL investigations (11). We choose Walton's (1973) model because of the QWL properties applicable in a variety of sociocultural circumstances (12). Walton (1973) emphasizes on personnel reaction to meeting job needs and maintaining one's psychological health. The model places a focus on individual results, professional experiences, and ways to improve individual needs.

Doctors' QWL, like that of all healthcare professionals, has an indirect impact on the quality of patient care and related health outcomes. As a result, identifying areas of low QWL among paediatricians can aid in the development of programmes aimed at improving their professional satisfaction, thereby improving job performance and employee retention. This study attempts to discover and determine the factors that would have influenced good QWL among USM's MMed Paediatric graduates, who have qualified since the programme's inception in 1992.

MATERIALS AND METHODS

Participants

Our participants are the paediatricians qualified from Master of Medicine (Paeds) Programme of Universiti Sains Malaysia (USM). They are those who qualified between the year 1992 until 2020. These cohort of paediatricians are at different stage of their life career with some nearly reaching their retirement age, majority in the mid-career phase and entering sub-specialization. Until recently, USM has already produced a total of 162 practicing paediatricians, with most of them based in Malaysia.

Setting

There are 10 postgraduate qualifications which have been recognized as the pathway to becoming pediatricians, including the Master of Medicine (MMed) programme at USM (13). MMed programme remained the earliest specialist training programme for paediatrics subspecialty in Malaysia, with the aim to produce general paediatricians workforce commencing from

1987. These paediatricians work in public, private, army or academic settings in Malaysia.

Data Collection

We performed a cross-sectional study by collecting the data from the month of June to December 2021. We utilized a standardized QWL questionnaire that was uploaded onto Google Forms. A link to the questionnaire was generated in the form of URL address and QR code, which subsequently was shared via online platforms such as Whatsapp and Telegram messaging services. To increase the number of participations, the second reminder was distributed again to the participants within a week apart, followed by the third reminder using a hardcopy of the questionnaire, letter of invitation for the study and consent forms to the participants. The completed questionnaires were anonymized with only one researcher (first author) coordinating the payment of honorarium for the participants.

Tool

The QWL questionnaire was designed by Walton et al. (14). It was made up of two parts: part one consists of demographic details which include age, religion, race, marital status, year of enrolment, current workplace, subspeciality taken, working hours, duration of service, income, health comorbidity and highest position achieved either in working place or society.

Part two consists of 35 items ranging from (1) dissatisfied to (5) completely satisfied on a 5-point Likert scale (10). The cumulative score was further categorized into score poor QWL (35 -80), moderate QWL (81 -130), and good QWL (131-175). This questionnaire has a Cronbach alpha of 0.95 and the reliability coefficient was reported to be between 0.86 and 0.95.

Statistical Analysis

For statistical analysis, categorical data was presented as frequency(n) and percentage (%) while numerical data was presented as mean and standard deviation (SD). Simple Logistic Regression (SLR) tests was used in the univariate analysis. The variables with p-value less than 0.25 or clinically important were selected for the multivariable analysis. A forward, backward, and manual method were used to determine our final model. The multivariable analysis was performed using the Multiple Logistic Regression (MLR) test. Significant variables are those having a p-value of less than 0.05. The data was analyzed using SPSS software version 26.

This study was approved by the Human Research Ethics Committee (HREC) USM/JEPeM/20120672.

RESULTS

The sociodemographic characteristics of the participants are summarized in Table I. The response rate was 75.9% (123 respondents out of 162 graduates). Majority of

Table I: Socio-demographic Characteristic of participants (N=123)

Variables	n	%	Mean	SD
Age			43.86	7.21
Graduation				
On Time	59	48.0		
Extended	64	52.0		
Race				
Malay	108	87.8		
Chinese	8	6.5		
Indian	6	4.8		
Bumiputera Sabah/ S'wak	1	0.8		
Religion				
Islam	111	90.0		
Christian	2	1.6		
Buddha	6	4.8		
Hindu	4	3.2		
Marital Status				
Single	25	20.3		
Married	96	78.0		
Divorced	2	1.6		
Workplace				
Government	74	60.1		
University	18	14.6		
Private	29	23.5		
Army	1	0.8		
Others	1	0.8		
Subspecialty				
Completed	31	25.2		
Incomplete	12	9.7		
Not Taken	62	50.4		
Under Training	18	14.6		
Salary				
< RM 10000 (USD 2240)	19	15.4		
RM 10000 (USD 2240) – RM 20000 (USD 4480)	64	52.0		
RM 20000 (> USD 4480)	40	32.5		
Comorbidities				
Yes	40	32.5		
No	83	67.4		
No Of Family Members			5.68	2.03
Service Duration			9.31	7.08
Daily Working Hours			9.46	3.92
Weekly Working Hours			60.24	55.05

respondents were Malay (87.8%), Muslim (90%), and were married (78%). Nearly half (48%) graduated on time, with 60.9% were working in the government sector. About one fourth (25.2%) of them have pursued in their own subspecialty of preference. More than half of participant (52%) had income between RM10000 - RM20000 (USD 2240 - USD 4480). One third of them had reported of having health comorbidities (32.5%). Mean daily working hours was 9.46 hours with mean weekly working hours was 60.24 hours.

For the QWL, 46.4% had poor to moderate QWL and the remaining 53.6% reported to have good QWL, as per Table II. Factors associated with good QWL were tested using a simple logistic regression. There was a significant association of age (Crude OR 1.078, 95% CI:1.02-1.14), p = 0.008), married status (Crude OR 4.17, 95% CI:1.60-10.86), p = 0.003), private workplace (Crude OR 4.16, 95% CI:1.57-11.00), p = 0.004) and salary more than RM 20,000 (Crude OR 7.28, 95% CI:2.08-25.53), p = 0.002), with good QWL. The rest was not significant and the factors for the simple logistic

Table II: Proportion QWL level among the MMed Paediatric graduates

Variables	N	%
QWL		
Poor/Moderate	57	46.4
Good	66	53.6

Table III: Factors Associated with Good QWL among the paediatric graduates of USM

Variables	Crude Odd Ratio (OR)	95% (Lower, Upper)	CI	P-Value*
Age	1.078	1.020	1.140	0.008
Graduation				
On Time	1			
Extended	1.723	0.831	3.571	0.143
Race				
Malay	1			
Non-Malay	1.078	0.364	3.192	0.892
Religion				
Muslim	1			
Non-Muslim	0.927	0.281	3.060	0.901
Marital Status				
Single/Divorcee	1			
Married	4.170	1.601	10.858	0.003
Workplace				
Government	1			
University/Others	1.783	0.599	5.306	0.298
Private	4.161	1.574	11.000	0.004
Subspecialty				
Completed	1			
Incomplete	1.100	0.273	4.430	0.893
Not Taken	0.982	0.386	2.497	0.970
Under Training	0.302	0.082	1.108	0.071
Salary				
< RM 10000 (USD 2240)	1			
RM 10000 (USD 2240) – RM 20000 (USD 4480)	2.545	0.819	7.916	0.107
RM 20000 (> USD 4480)	7.280	2.076	25.532	0.002
Comorbidities				
Yes	0.810	0.373	1.758	0.593
No	1			
No of Family Members	1.014	0.848	1.212	0.881
Service Duration	1.049	0.994	1.106	0.080
Daily Working Hours	0.963	0.872	1.065	0.465
Weekly Working Hours	1.007	0.993	1.021	0.328

*Simple Logistic Regression

regression were summarized in Table III.

In the multivariable analysis (Table IV), the final model consisted of marital status and salary have a significant association with good QWL. A married doctor has 3.22 likelihood of good QWL compared to single or divorcee (AdjOR 95% CI (1.19,8.75), p = 0.022) when salary variable was controlled. A doctor with salary of more than RM20,000 (USD 4480) has a significant association with good QWL with 5.29 likelihood of it compared to other salary groups (AdjOR 95% CI (1.44, 19.45), p <0.012) when marital status was controlled. However, a doctor with salary of between RM 10,000 (USD 2240) to RM 20,000 (USD 4480) has no significant association with good QWL despite 2.02 likelihood of having it compared to other salary groups (AdjOR 95% CI (1.44, 19.45), p <0.012) when marital status was controlled.

Table IV: Factors associated with Good QWL among the paediatric graduates of USM

Variables	Adjusted Odd Ratio (AdjOR)	95 % (Upper, Lower)	CI	P- Value*
Marital Status				
Single/Divorcee	1			
Married	3.222	1.187	8.746	0.022
Salary				
< RM 10000 (USD 2240)	1			
RM 10000 (USD 2240) – RM 20000 (USD 4480)	2.023	0.623	6.569	0.241
RM 20000 (> USD 4480)	5.292	1.440	19.450	0.012

* Multiple Logistic Regression

Constant = - 1.727

Forward LR, Backward LR and manual method were applied

No multicollinearity and no interaction

Hosmer Lemeshow test, p-value= 0.292

Classification table 66.10% correctly classified

Area under Receiver Operating Characteristics (ROC) curve was 72.0 % (p<0.001)

DISCUSSION

The number of studies on QWL among healthcare professionals is relatively limited around the world. In fact, there is no information about QWL among paediatric healthcare workers in Malaysia. Nadia et al. has completed the study among the newly qualified junior doctors, which would be the closest to our population (15).

From this study, majority of the responders were Malay and Muslim. This correlates with our country’s ethnic distribution which is Malay and Muslim majority. More than half of the responders were married at the time of study, and this was a common cultural practice even prior to or when undertaking their master programme. We noticed that participants ‘graduated on time’ were almost equal to those who completed outside the time as MMed with the percentages of 48% and 52% respectively. Even though Malaysia possessed a large number of private hospitals compared to government hospitals (16), most of our graduate paediatricians (60.1%) have stayed in the government sector. This is healthy for our healthcare service because of the availability of the general specialist paediatrics service, especially for the public patients. For subspecialty career, almost half (n =49) have already completed the subspecialty training, with some still under the training in variety of paediatric branches (n=18) nationally. Majority of the participants who have just graduated within 1 to 2 years period, they have yet to pursue in the subspecialty training. Most of the graduate continued their proficiency in the general paediatrics prior to pursuing with the subspecialty later based on their preference or choice.

Only 32.5% of the 634 medical trainees in a Thailand university hospital demonstrated good QWL, according to research (17). Another study found that the medical graduates of University of Gdansk possessed a better quality of life compared to the general Polish population (18). In contrast, the QWL of Mazandaran family physicians was reported to be between low to moderate level (19). Zare et al. discovered that 50% of the medical

residents had a good or very good QWL, with paediatric residents had the highest QWL (20). However, healthcare professionals working in oncology had an average QWL (21). Another study documented that the junior surgical residents experienced worse work-related quality of life than the senior residents (22). Compared to these studies, we found a much higher percentage of good QWL (53.6%) compared to poor/ moderate QWL (46.4%) in our graduated paediatric trainees.

Our study identified factors such as age, marital status, working in the private sector and higher salary as factors associated with good QWL. The longer one spends in his /her career pathway, the better QWL outcomes reported. This was probably due to improved clinical experience and conducive working environment which could have contributed to the findings. Previous study also has elicited similar result (19). Good moral support, especially from own family, influences the mental health and this reflects in the QWL findings. Working at private sector and earning higher salary scale have been seen as important factors for a good QWL outcome among our graduates.

For those paediatricians working in the government hospital, they are obliged to participate in the busy on-call system leading to the need to stay in hospital and working for longer working hours. The current working hours for non-medical personnel is between 45-48 hours/week, however, for medical personal weekly working hours could range between 60 -100 hours/week depending on the specialty. This may have been the source of stress which could potentially affect the QWL. There was an impression that decreasing the workload would result in greater patients’ care. Working in a less stressful environment would lead to better clinical judgement and decision making when reviewing the patients (23). Doctors would need to be equipped with problem-solving abilities, good clinical acumen, and communication. This would be more conducive for effective learning and better working time. Motivation to learn and continue to explore knowledge would aid in their continuous medical learning (24).

Work-life balance has become an essential factor in the era of globalization. Balancing the roles between the family and social life would be the key to happiness. There are many domains intertwined and closely related to the QWL such as work, leisure, neighbourhood, family, friendships, social involvement, religiosity, and health (25). Study has indicated that religiosity has a positive effect on work attitudes and personal behaviours with altruistic features (25).

To the best of our knowledge, this is the first study to explore QWL among the local paediatricians in Malaysia. The job scope is different from others specialty as the career deals with managing paediatric population as well as patients’ caregiver. Heavy workload and long

working hours may have contributed to high stress and burnout levels among the paediatricians (26).

Several limitations exist in this study. Only 75% of the participants who have answered the questionnaire. We were unable to increase the response rate despite several reminders. The study was done during the national Movement Control Order (MCO) for COVID-19 pandemic in place; hence the questionnaire was disseminated through the online platform. The second issue related to the questionnaire cultural adaptation and field testing was not performed locally, due to high Cronbach's value. The other limitation was wide confidence interval from the tables. This could be due to limited number of responses in our study. It is interesting to investigate the QWL among the qualified paediatricians despite the data analysis came from a single center in Malaysia. Existing research have shown factors such as lack of decisional autonomy, and religiosity may have influenced the overall QWL outcome, but these subjects were not covered in the current study.

CONCLUSION

There was positive result from this study as more than half of qualified paediatricians had good QWL (53.6%) compared to 46.4% with poor/ moderate QWL. The QWL can be viewed as a personal reaction to work, organisations, and employers; as a result, doctors in various departments may have varied reactions to the QWL. More study is needed to establish the relative value of the various QWL predictors in order to motivate the implementation of a comprehensive programme. The aggregated QWL assessments of healthcare personnel might be forwarded to hospital administrators, who could endeavour to improve QWL in the workplace. Employee requirements and the organization's well-being are critical to ensuring employee longevity and contentment, particularly for paediatricians in their areas.

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REFERENCES

1. Kwahar N., Iyortsuun A. Determining the Underlying Dimensions of Quality of Work Life (QWL) in the Nigerian Hotel Industry. *Entrepreneurial Business and Economics Review*. 2018; 6(1): 53-70. doi:10.15678/EBER.2018.060103
2. Ibrahim A. The Impact of Globalization on Africa. *International Journal of Humanities and Social*. 2013; 3(15): 85-93.
3. Beh LS, Rose RC. Linking Quality of Work Life and job performance: implications for organizations. *Perform Improv*. 2007;46(6):30–35. doi:10.1002/pfi.139
4. Garg CP, Munjal N, Bansal P, et al. Quality of work life: an overview. *Int J Phys Soc Sci*. 1999; 2(3):231–242.
5. Sojka L. Specification of the Quality of Work Life Characteristics in the Slovak Economic Environment. *Sociolygia* 2014; 46 (3): 283-299.
6. Akhtar M, Qureshi QA. Impacts of QWL (Promotion & Work Environment) on Doctors' Performance in Public Sectors Hospital of Pakistan. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*. 2020; 11(5):1-9
7. Haas JS, Cook EF, Puopolo AL, et al. Is the professional satisfaction of general internists associated with patient satisfaction? *J Gen Intern Med*. 2000; 15:122–128. doi:10.1046/j.1525-1497.2000.02219.x
8. Di Matteo ME, Sherbourne CD, Hays RD, et al. Physicians, characteristics influence patients, adherence to medical treatment; results from the Medical Outcomes Study. *Health Psychol*. 1993; 12: 93–102. doi:10.1037/0278-6133.12.2.93
9. Jones H. Tackling burnout among senior clinicians: the paediatrician *BMJ* 2020; 369: m1839 doi:10.1136/bmj.m1839
10. Fernandes RB, Martins BS, Caixeta RP, Costa Filho CG, Braga GA, Antonialli LM. Quality of Work Life: an evaluation of Walton model with analysis of structural equations. *Revista Espacios* 2017; 38(3): 5
11. Sabonete SA. Quality of Work Life According to Walton's Model: Case Study of the Higher Institute of Defense Studies of Mozambique. *Social Sciences* 2021; 10: 244. doi:10.3390/socsci10070244
12. Almarshad, Sultan O. A Measurement Scale for Evaluating Quality of Work Life: Conceptualization and Empirical Validation. *Trends in Applied Sciences Research*. 2015; 10: 143–56. doi: 10.3923/tasr.2015.143.156
13. National Specialist Register. MMC (Internet. 2021 Dec 31.) Available from: <https://www.nsr.org.my/Qualifications.html>
14. Walton RE. Criteria for Quality of Working Life. In L.E. Davis, A.B. Cherns and Associates (Eds.) *The Quality of Working*. New York: The Free Press, Life. 1975; 91-104.
15. Ab Ghaffar N, Ismail Z, Abdul-Hamid H, Abdul-Razak S.. Work-related Quality of Life and Its Associated Factors Among House Officers Working at Two Hospitals in Selangor. *Mal J Med Health Sci*. 2021; 17(2): 137-145.
16. Hirschmann R. Number of Public and Private

- Hospitals in Malaysia from 2013 to 2019. Statista (Internet). 2021 Apr 7 (cited 2021 Dec 31). Available from: <https://www.statista.com/statistics/794860/number-of-public-and-private-hospitals-malaysia>
17. Somsila N, Chaiear N, Boonjaraspinyo S, Tiamkao S. Work-related quality of life among medical residents at a university hospital in northeastern Thailand. *J Med Assoc Thai*. 2015;98(12):1244–1253.
 18. Walkiewicz M, Tartas M, Majkiewicz M, Budzinski W. Quality of life of resident doctors – graduates of the Medical University of Gdańsk. *Ann Acad Med Gedan*. 2013; 43: 89–102.
 19. Shabani H. Determine the quality of work-life (QWL) family physicians in the province in 1388. MSc thesis. Tehran University of Medical Sciences.
 20. Zare MH, Ahmadi B, Sari AA, et al. Quality of working life on residents working in hospitals. *Iran J Public Health*. 2012;41(9):78–83.
 21. Bragard I, Dupuis G, Razavi D, et al. Quality of work life in doctors working with cancer patients. *Occup Med*. 2012;62(1):34–40. doi:10.1093/occmed/kqr149
 22. Zubair MH, Hussain LR, Williams KN, et al. Work-related quality of life of US general surgery residents: is it really so bad? *J Surg Educ*. 2017;74(6):e138–e146. doi:10.1016/j.jsurg.2017.09.018
 23. Mosadeghrad AM. Occupational stress and its consequences: Implications for health policy and management. *Leadership in Health Service*. 2014; 27(3): 224-39. doi: 10.1108/LHS-07-2013-0032
 24. Adrian C L. Impact of A Newly Introduction Medical Officer Night Float On-call System in a Medical Department In Singapore. *Singapore Med J* 2011; 52(1): 60.
 25. Muthu Kumarasamy M, Hasbolah F, Hamzah H, Mohd Fazmi KN, Omar SA, Bhuiyan AB. Conceptual Review on Religiosity and Work Life Balance and Employee Performance in the Higher Education Institutions, *American International Journal of Social Science Research*.2021; 10(1): 15-27. doi: 10.46281/aijssr.v10i1.1469
 26. Jewett EA, Anderson MR, Gilchrist GS. The pediatric subspecialty workforce: public policy and forces for change. *Pediatrics*. 2005;116(5):1192-202. doi: 10.1542/peds.2004-2339.