

FACTORS PREDICTING UNSATISFACTORY WORK PERFORMANCE AMONG MEDICAL INTERNS



Mat Hassan, Nurulhuda; Norwati, Daud; Nik Nor Ronaidi, Nik Mahdi; Mohd Salami, Ibrahim; Yuzana, Mohd Yusop; Mohd Faiez, Pauzi; Ong, Yu Xuan. Faculty of Medicine, Universiti Sultan Zainal Abidin, 20400, Terengganu, Malaysia

BACKGROUND

- Medical internship is usually a challenging period that a doctor has to go through, meant to ensure that medical interns are adequately equipped with the skills required to be safe medical practitioners.
- Recent data showed increasing rate of medical interns with unsatisfactory work performance.¹
- This affects the quality of care for patients and impacts the emotional state of the medical interns themselves.
- There are lack of data determining the factors predicting the performance of medical interns.
- **Objective:** to determine the proportion of unsatisfactory work performance among medical interns and determine its predicting factors.



METHODOLOGY

- **Type of study:** prospective cohort study, nationwide study
- **Ethical approval:** National Medical Research Register (NMRR) 21st January 2020. (KKM/NIHSEC/P20-65 (6))
- **Sample population:** Inclusion criteria: newly reported medical interns in selected Malaysian hospitals accredited for medical intern training
Exclusion: refused, no access to internet
- **Sample size** using PS software (doubled + 30%)= 671
- **Sampling:** multistage- simple random sampling to choose 17 hospitals, all medical interns who reported from January to April 2020 included & invited to answer an online questionnaire.
- Followed up after one year of their internship to assess their work performance. Extension or quitting from the internship programme was considered as unsatisfactory work performance.
- **Data analysis:** SPSS ver25- simple and multiple logistic regression
- **Dependent variable:** **Unsatisfactory performance**
- **Independent Variable:** age, gender, religion, race, medical school type, failure in clinical, involvement in student activities, additional intern courses, religiosity, Preparedness for Hospital Practice questionnaire (PHPQ), Connor-Davidson Resilience scale 10 (CD-RISC 10), USM emotional intelligence inventory (USMEQ-i), Duke University Religion Index (DUREL) and Brief-COPE inventory.

TOOLS

Name of questionnaire	Purpose (to assess)	Validity
Preparedness for Hospital Practice questionnaire (PHPQ)	Internship preparedness (9 subscales, including interpersonal skills)	Cronbach's alpha value of 0.86.
USMEQ-i	Level of Emotional Intelligence (EI)	Cronbach's alpha -0.96
DUREL	Religiosity level	Cronbach's alpha: 0.78 -0.91
CD-RISC 10	Resilience level	Cronbach Alpha:0.90
Brief-COPE inventory	Coping skills- Avoidant Coping, Problem-focused Coping, Emotional-focused Coping	Cronbach Alpha:0.83

Table 1: Tools used to measure the internship preparedness, EI, religiosity, resilience and coping skills of the medical interns

RESULTS AND DISCUSSION

- Initial response: 524 respondents.
- Completion of follow-up: 94.7%.
- The proportion of unsatisfactory work performance: 6.7% (CI: 4.0%, 9.0%).

Predictor	Adj. OR	95% CI	p-value
Preparedness in interpersonal skills	0.51	0.85, 0.98	0.010
Avoidant coping style	2.53	1.26, 5.08	0.009

*Classification table: 93.3%, Hosmer-Lemeshow Test- insignificant, Area under ROC curve: 0.69.

Table 2: The significant factors predicting unsatisfactory work performance among medical interns.

- The reduced proportion of unsatisfactory performance of medical interns may be due to success of the measures taken to improve, such as better supervision of medical interns,² restructuring of internship programme,¹ introduction of the mentor-mentee programme and Flexi-shift system.³
- This study showed that an increase in one score of **interpersonal skills preparedness were associated with almost 50% lower odds for unsatisfactory work performance** while the **avoidant coping style was associated with 2.5 times higher odds for unsatisfactory work performance** among medical interns in Malaysia.
- The results suggested that medical schools should increase efforts to improve preparedness in interpersonal skills and positive coping skills among medical students, which will help them to perform better as medical interns of the future.

CONCLUSION

- The significance of interpersonal skills and coping skills predicting work performance showed the importance of these elements in internship programme.
- Further study may need to be done on the role of interpersonal skills and coping styles on the quality of work performance among medical interns in Malaysia.

ACKNOWLEDGEMENT

- This study was funded by the Ministry of Higher Education, Malaysia. (RACER/1/2019/SKK01/UNISZA//1)

REFERENCES

1. Han LL. Housemanship programme in Malaysia : Availability of positions and quality of training 21 July 2017. Penang Institute, 2017.
2. Subramaniam A, Silon AD, Uli J and Ismail IA. Effects of coaching supervision, mentoring supervision and abusive supervision on talent development among trainee doctors in public hospitals: Moderating role of clinical learning environment. BMC Medical Education. 2015; 15(1), 1–9. <https://doi.org/10.1186/s12909-015-0407-1>
3. Ismail M, Lee KY, Sutrisno TA., Jelani IA et al. The prevalence of psychological distress and its association with coping strategies among medical interns in Malaysia: A national-level cross-sectional study. Asia-Pacific Psychiatry. 2020. 13(2).