

Direct and Moderating Effects of Work Environment and Structural Empowerment on Job Stress and Job Satisfaction Among Nurses in Oman

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ABSTRACT: *Objectives:* This study aimed to explore the relationships between nurses' work environment, job stress and job satisfaction, along with the moderating effects of work environment and empowerment on the relationship between job stress and job satisfaction. *Methods:* A descriptive correlational design was utilised for this study. The study encompassed a convenience sample of 1,796 hospital nurses from the 11 governorates in Oman. Moreover, a self-report questionnaire that included a set of instruments was used to collect the data. *Results:* Nurses who perceived higher levels of job stress reported lower levels of satisfaction and empowerment and perceived their work environment as less favourable and supportive. The findings only confirmed the direct effects of work environment and empowerment on satisfaction, whereas no support was found for indirect or moderating effects. Furthermore, the hierarchical regression model showed that 46.5% of the variation in the level of job satisfaction was explained by the study variables. *Conclusion:* The results of this study demonstrate the importance of implementing strategies that empower staff, provide a supportive and positive work environment and tackle job stress to enhance levels of job satisfaction.

Keywords: Work Environment; Empowerment; Job Stress; Job Satisfaction; Nurses; Oman.

ADVANCES IN KNOWLEDGE

- The findings of the study supported the negative correlations between job stress and job satisfaction, job stress and work environment and job stress and empowerment.
- Moreover, the study also supports the positive direct effects of work environment and empowerment on job stress and job satisfaction. However, the indirect or moderating effects of work environment and empowerment on the relationship between job stress and job satisfaction were not supported among nurses working in Oman.
- Background variables, job stress, work environment and empowerment explained 46.5% of the variation in the level of job satisfaction among nurses working in Oman.
- The results support the existing evidence on the importance of adopting and implementing strategies that tackle job stress and promote a supportive work environment.

APPLICATION TO PATIENT CARE

- Auditing healthcare services, implementing programmes to lean process of tests and procedures execution and investing in subacute health services and home-based care programmes are essential steps to improve early discharges and minimise inappropriate hospital stay.
- Moreover, identifying modifiable factors that can enhance satisfaction among nurses working in Oman can help improve the quality of care provided to patients.

WORKING IN HEALTHCARE IS STRESSFUL AND can be physically and emotionally demanding.¹ The work environment can either support or hinder workers' health and performance. Therefore, promoting a healthy work environment has become a focus of healthcare organisations worldwide.

Research evidence has shown a strong association between a supportive work environment and nurse outcomes, including enhanced quality of patient care,

lower levels of job stress, fewer adverse events, higher levels of job satisfaction, reduced levels of intention to leave and higher levels of willingness to engage in leadership roles.^{2–7}

In contrast, unhealthy work environments can lead to negative staff outcomes, such as higher levels of job stress and lower levels of job satisfaction. Evidence has shown that unhealthy work environments can lead to decreased productivity, increased turnover rates and increased healthcare costs by billions of

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dollars annually.⁸ Furthermore, working in unhealthy work environments can negatively impact patient safety and quality outcomes.⁶ Therefore, exploring the work environment and its underpinning variables is paramount in healthcare institutions.

One such variable is the concept of empowerment, which is well-researched among nurses. The structural empowerment model based on Kanter's theory stands out among the various models in the nursing context.^{9,10} According to Kanter, the characteristics of the work environment determine work behaviours and attitudes, regardless of personal characteristics.¹⁰ Thus, when the workplace is characterised by a supportive work environment that provides the 'necessary power' to meet job demands, nurses feel empowered. Mounting evidence has demonstrated a strong positive relationship between structural empowerment and job satisfaction.^{11,12} For instance, a meta-analysis of 59 studies showed that higher levels of job satisfaction among hospital nurses are associated with a positive work environment, an increased level of structural empowerment and a decreased level of job stress.¹³

Nursing is regarded as a stressful profession.¹⁴ Psychological risks at work, such as job stress, conflicts and excessive workloads, have become a major challenge of the 21st century due to their negative impact on staff and organisational outcomes.¹⁵ Job stress and strain have been associated with the physical and mental well-being of employees.¹ Increased levels of job stressors are significantly correlated with burnout and decreased levels of empowerment.¹⁶

Exploring job satisfaction and its associated variables has been of great interest to nurse researchers around the globe. To date, several variables that have mediating or moderating effects on job satisfaction have been identified by researchers.¹³ Despite the abundance of research on job stress and satisfaction, there has been a relative lack of studies that focus on the association between empowerment and job stress, along with their impact on job satisfaction among nurses. To the best of the authors' knowledge, no existing study has specifically investigated the moderating effects of work environment and empowerment on the relationship between job stress and job satisfaction. However, studies in Western countries have investigated these concepts with different aims. Evidence of the impact of the nurse work environment on nurses' outcomes in Oman is scant. Thus, this study was conducted to explore the direct and moderating effects of work environment and structured empowerment on job stress and job satisfaction among nurses in Oman.

Methods

A descriptive correlational design was used to answer the research objectives.

A convenience sampling method was used to recruit nurses who had at least one year of experience and at least a diploma degree. The required participants were recruited conveniently from a proportional stratified clustered sample of hospitals from the 11 governorates of Oman. The hospitals were stratified based on two dimensions: type (private versus public hospitals) and location (based on the 11 governorates in the country). Public hospitals included both those under the Ministry of Health and those not under the Ministry of Health. As the population of governorates in Oman is geographically diverse, some governorates have only one public hospital. For governorates that have more than one public and/or more than one private hospital, hospitals were selected using a convenience approach. For example, in Muscat, where there are several public and private hospitals, hospitals were selected based on their convenient accessibility.

The sample size in the present study was 1,796 registered nurses, which was based on the calculated total accessible population size of nurses working in Oman (11,096 at the time of the survey).¹⁷ According to Yamane's standardised formula for calculating sample size from the defined population, the estimated sample size was 386 nurses.¹⁸ However, given that the sample was drawn from 11 governorates in Oman, applying these calculations will mostly result in an unrepresentative sample. Therefore, the researchers decided to sample at least 10% of the accessible population to produce representative results. A total of 2,000 nurses were recruited from across the 11 governorates. The use of this method is supported in the literature.^{6,19}

Approvals from the institutional review boards of the affiliated university (SQU-EC/067/19), the Ministry of Health (MoH/CSR/18/10004) and the targeted private hospitals were granted before the study commenced. The purpose and significance of the study were explained to the nurse administrators and participants. Nurses were invited to participate by research assistants during different shifts. Moreover, the participants were provided with a package that contained information about the purpose and significance of the study, a return envelope and the study instruments, such as the Nursing Work Index (PES-NWI), the Conditions of Work Effectiveness Questionnaire-II (CWQ-II), one question to assess job satisfaction ('How satisfied are you with

your current job?') and the Perceived Stress Scale. The English version of all instruments was used, as there were expatriate nurses among the sample. The participants were asked to drop the completed surveys in a locked box in their manager's office and were assured that their responses would remain confidential and would be reported in aggregate form.

The nursing practice environment was measured using the PES–NWI.²⁰ The PES–NWI consists of 31 items and 5 subscales: nurse participation in hospital affairs; nursing foundation for quality care; nurse manager ability, leadership, and support of nurses; staffing and resource adequacy; and collegial nurse–physician relations. Items are rated on a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). A score below an average of 2.5 for the scale or its subscales represents disagreement, whereas a score of an average higher than 2.5 represents an agreement that the scale or the subscale items are present in the current practice environment. The scale was reported to be reliable and valid in previous studies.^{6,20} In the present study, the alpha coefficient was determined to be 0.94.

Structural empowerment was evaluated using the CWQ–II.²¹ The CWQ–II is a 12-item Likert scale, where 1 indicates 'none' and 5 'a lot'. It measures four dimensions of empowerment: information, access to opportunity, support and resources. The reliability and validity of the scale have been well established (Cronbach's alpha = 0.82 for the composite score).²¹

Job satisfaction was assessed using a single question: 'How satisfied are you with your current job?' The responses to this question range from 1 ('very dissatisfied') to 4 ('very satisfied'). This measure has been widely used in international health services studies.^{22,23} It has also been selected over other measures of job satisfaction to overcome the overlap with the satisfaction components of the PES–NWI.

Job stress was measured using the four-item Perceived Stress Scale.²⁴ The respondents were asked to indicate their agreement with each item on a 5-point Likert scale, with 0 indicating 'never' and 4 indicating 'very often'. Finally, a demographic form was used to collect information on participants' age, gender, level of education, nationality, years of work experience, marital status, place of work and position.

Statistical Package for the Social Sciences (SPSS) Version 22.0 (IBM Corp., Armonk, New York, USA) was used for the analysis. Descriptive statistics were utilised to analyse participants' characteristics. Pearson's correlation coefficient was used to examine the relationships between the study variables. Furthermore, hierarchical regression analysis was used to examine the moderating effects of work

environment and empowerment on the relationship between job stress and job satisfaction, as well as the variance in job satisfaction explained by the study variables. Variables with more than 10% missing data were excluded from the final analysis. A *P* value of 0.05 was set as the cut-off point for significance; however, the exact *P* values, whether higher or lower than 0.05, were reported for all statistical tests.

Results

A total of 1,796 registered nurses working in Omani hospitals participated in the study. The mean age of the participants was 34 ± 6.9 years; ranging from 20 to 61 years. The majority of them were females ($n = 1,546, 87.2\%$), married ($n = 1,388, 79.4\%$) and worked as staff nurses ($n = 912, 76.8\%$). More than 50% of the participants were expatriates ($n = 1,030, 58.5\%$) who worked full-time ($n = 1,560, 91.9\%$) in governmental ($n = 1,750, 97.4\%$) and non-teaching hospitals ($n = 983, 54.7\%$). The mean value for nurses' experience in their current unit was 7.3 ± 5.1 years. Approximately 42% of the participants had a bachelor's degree ($n = 731, 41.9\%$). More than a third of the participants ($n = 253, 37.6\%$) worked day shifts in different units, such as medical–surgical ($n = 60, 35.2\%$) and critical care ($n = 509, 29.9\%$). Background variables were analysed and reported separately for Omani and expatriate nurses [Table 1].

The results demonstrated that the participants of the present study perceived a low level of job stress (1.7 ± 0.59 on a scale from 0 to 4) and above a moderate level of job satisfaction (2.9 ± 0.76 on a scale from 1 to 4). The results also showed that participants perceived their work environment as positive (2.8 ± 0.90 on a scale from 1 to 4). All five subscales of the work environment scale were perceived positively. The subscale that received the highest rating was 'foundations for quality care' (3 ± 0.47). On the other hand, 'staffing and resources adequacy' was perceived as the lowest among the subscales (2.7 ± 0.62). Furthermore, the participants perceived above a moderate level of empowerment (3.5 ± 0.71 on a scale from 1 to 5). The subscale 'access to opportunity' was rated by the participants as the highest (3.7 ± 0.90), followed by 'access to information' (3.5 ± 0.92) and 'access to support' (3.5 ± 0.92). 'Access to resources' was rated as the lowest (3.2 ± 0.86) [Table 2].

Further analysis showed that expatriate nurses perceived (1) lower levels of job stress in comparison with their counterparts (expatriate nurses = 1.7 versus Omani nurses = 1.9; $P = 0.001$); (2) their work environment more positively than Omani nurses

Table 1: Background variables of participants (N = 1,796)

Variable	n (%)
Gender*	
Male	226 (12.8)
Female	1,546 (87.2)
Marital status*	
Single	360 (20.6)
Married	1,388 (79.4)
Nationality*	
Omani	731 (41.5)
Non-Omani	1,030 (58.5)
Employment status	
Full-time	1,560 (91.9)
Part-time	137 (8.1)
Education level*	
Diploma degree	973 (55.8)
Bachelor's degree	731 (41.9)
Master's degree	40 (2.3)
Shift Type*	
Day	253 (37.6)
Evening	211 (31.4)
Night	209 (31)
Unit	
Medical/surgical	601 (35.3)
Critical care	509 (29.9)
Obstetrics/gynecology	218 (12.8)
Pediatrics	176 (10.3)
Oncology	64 (3.8)
Mental health	36 (2.1)
Operating Theater	25(1.5)
Hospital type	
Governmental	1,750 (97.4)
Private	46 (2.6)
Hospital teaching status	
Teaching	813 (45.3)
Non-teaching	983 (54.7)
	Mean ± SD
Age in years*	36 ± 6.9
Years of experience in the current unit	7.3 ± 5.1

SD = standard deviation.

*These variables are missing data as follows: age = 485; gender = 29; marital status = 33; nationality = 43; education level = 63; shift type = 1326.

Table 2: Means and standard deviation of study variables (N = 1,796)

Variable (scale and subscales)	Mean ± SD
Job stress	1.7 ± 0.59
Job satisfaction	2.9 ± 0.76
Work environment	2.8 ± 0.40
Participation in hospital affairs	2.8 ± 0.55
Foundations for quality of care	3.0 ± 0.47
Manager ability, leadership and support	2.9 ± 0.54
Staffing and resource adequacy	2.7 ± 0.62
Collegial nurse–physician relations	2.9 ± 0.54
Structural empowerment	3.5 ± 0.71
Access to opportunity	3.7 ± 0.90
Access to resources	3.2 ± 0.86
Access to information	3.5 ± 0.92
Access to support	3.5 ± 0.90

SD = standard deviation.

Table 3: The differences between Omani and expatriate nurses concerning study variables (N = 1,796)

Variable		Mean ± SD	t-test	P value
Job stress	Omani nurses	1.9 ± 0.54	10.4	0.001
	Expatriate nurses	1.7 ± 0.59		
Work environment	Omani nurses	2.7 ± 0.41	-11.2	0.001
	Expatriate nurses	2.9 ± 0.40		
Structural empowerment	Omani nurses	3.2 ± 0.72	-11.8	0.001
	Expatriate nurses	3.6 ± 0.65		
Job satisfaction	Omani nurses	2.6 ± 0.84	-12.2	0.001
	Expatriate nurses	3.1 ± 0.65		

SD = standard deviation.

(expatriate nurses = 2.9 versus Omani nurses = 2.7; $P = 0.001$); (3) higher levels of structural empowerment than Omani nurses (expatriate nurses = 3.6 versus Omani nurses = 3.2; $P = 0.001$); and (4) higher levels of job satisfaction in comparison with their Omani counterparts (expatriate nurses = 3.1 versus Omani nurses = 2.6; $P = 0.001$) [Table 3].

Furthermore, an analysis was performed to examine if the levels of job stress, work environment, empowerment and job satisfaction vary according to

Table 4: Pearson correlations for work environment, empowerment, job stress and job satisfaction (N = 1,796)

	Work environment	Empowerment	Job stress	Job satisfaction
Work environment	1	-	-	-
Empowerment	0.47*	1	-	-
Job stress	-0.19*	-0.19*	1	-
Job satisfaction	0.31*	0.18*	-0.32*	1

*Correlation is significant at $P < 0.01$.

the educational degree of participants and the type of hospital. The results showed that a significant difference was only found for the stress level, where nurses who had a diploma degree perceived higher levels of stress than nurses with a bachelor’s degree ($t = 2.5$; $P = 0.01$). For the type of hospital, the results showed that significant differences were only found for the work environment and empowerment, where nurses who worked in private hospitals perceived higher levels of empowerment ($t = -3.4$; $P < 0.001$) and perceived their work environment more positive ($t = -5.1$; $P < 0.001$) than nurses who work in governmental hospitals.

The results showed that there was a significant negative correlation between job stress and job satisfaction ($r = -0.32$; $P < 0.001$), suggesting that nurses who perceived having more job stress had lower perceptions of job satisfaction. Job stress was also negatively correlated with work environment ($r = -0.19$; $P < 0.001$) and empowerment ($r = -0.19$; $P < 0.001$), suggesting that nurses with higher levels of job stress perceived lower levels of empowerment and a less supportive work environment. As regards the relationships between work environment, job satisfaction and empowerment, the results showed significant positive correlations between work environment and job satisfaction ($r = 0.31$; $P < 0.001$) and between work environment and empowerment (r

$= 0.47$; $P < 0.001$), indicating that nurses who perceived their work environment as supportive reported higher levels of job satisfaction and empowerment. Furthermore, empowerment was positively correlated with job satisfaction ($r = 0.18$; $P < 0.001$), meaning that nurses who felt more empowered were more satisfied at work [Table 4].

Hierarchical regression analysis was utilised to investigate the moderating effects of work environment and empowerment on the job stress–job satisfaction relationship. Table 5 presents a summary of the hierarchical regression analysis. In the first step, the demographic and work-related variables (age, experience in the current unit, nationality, gender, marital status, level of education, work unit, type of hospital, work status and shift worked) were entered to control for their effects on the dependent variable (job satisfaction). These variables explained 31% of the variation (R^2) in job satisfaction (cumulative $R^2 = 31\%$).

In the second step, job stress was entered into the regression model. It showed that job stress explained an additional 13% of the variation in job satisfaction (R^2 change = 13%, cumulative $R^2 = 44\%$; $P < 0.01$). This step revealed that the relationship between job stress and job satisfaction was negative ($r = -0.39$; $P < 0.001$).

In the third step, the work environment was added to the regression model. Work environment explained another 2% of the variation in job satisfaction (R^2 change = 2%, cumulative $R^2 = 46\%$; $P < 0.01$). This increase in R^2 was statistically significant, which demonstrated that the perception of a positive work environment enhanced the level of job satisfaction ($r = 0.16$; $P < 0.001$).

In the fourth step, the empowerment variable was added to the model. It showed only a 0.003 addition to the cumulative R^2 (46.3%), which did not reach the level of significance.

In the fifth step, the product or multiplicative term of work environment and job stress was added to the model to explore the moderating effect of work environment on the relationship between job

Table 5: Hierarchical regression for job satisfaction as a dependent variable (N = 1,796)

Step	Variables	R ² cum	R ² change	Std β	t value	P value
1	Background variables	0.31	0.31	-	-	-
2	Job stress	0.44	0.13	-0.39	-9.5	<0.001
3	Work environment	0.46	0.02	0.16	3.9	<0.001
4	Empowerment	0.463	0.003	-0.002	-0.05	0.96
5	Stress × work environment	0.465	0.002	0.31	1.1	0.26
6	Stress × empowerment	0.465	0.00	0.14	0.67	0.50

Std β = the standardised β coefficient; R² cum = R² cumulative.

Final model = $R^2 = 0.465$ (adjusted $R^2 = 0.44$), $F(16,392) = 21.31$, $P < 0.001$.

stress and job satisfaction. This step revealed only a 0.002 addition to the cumulative R^2 (46.5%), which was insignificant. This indicated that the interaction between job stress and work environment had no moderating effect on the relationship between job stress and job satisfaction.

In the sixth step, the product of empowerment and job stress was added to the model to explore the moderating effect of empowerment on the relationship between job stress and job satisfaction. This step showed no addition to the cumulative R^2 (46.5%). This indicated that the interaction between job stress and empowerment had no moderating effect on the job stress–job satisfaction relationship.

Discussion

The findings of the study indicated that participants of the study reported a low level of stress. However, Omani nurses reported higher levels of job stress in comparison to their expatriate counterparts. This might be related to the fact that expatriate nurses are older and have more years of experience than Omani nurses. This is an indication that Omani nurses have less experience at work, which might have implications for their management of stressful situations.

Research evidence has shown that as the age and years of experience of staff increased, their job stress levels decreased.^{22,23} The results also revealed that a higher percentage of Omani nurses (62.5%) had diploma degrees in comparison to expatriate nurses (51.8%), which might also have contributed to the higher levels of stress among Omani nurses, as the results of the present study revealed that the participants with diploma degrees reported higher levels of stress compared to those with bachelor's degrees. Furthermore, the results also demonstrated that the participants of the study reported an above-average level of job satisfaction and empowerment and perceived their work environment as positive. However, the results showed that Omani nurses reported lower levels of job satisfaction and empowerment and perceived their work environment as less positive in comparison with expatriate nurses. This could be related to the fact that Omani nurses reported higher stress levels than their counterparts, which, in turn, led to dissatisfaction and poor perceptions of their work environment, as was shown in the present study and the previous literature.^{1,13,16,22}

Furthermore, the results also showed that a higher percentage of Omani nurses (99.9%) worked in governmental hospitals compared to expatriate nurses (95.9%), which might also have contributed to

the lower levels of empowerment and the less positive perceptions of the work environment among Omani nurses, as the results of the present study revealed that participants who worked in private hospitals reported higher levels of empowerment and perceived their work environment as more positive compared to those working in governmental hospitals.

The findings of the study supported the negative correlation between job stress and job satisfaction and added to the research evidence on this issue.¹³ Increased stress levels affect the mental well-being of nurses and lead to Job dissatisfaction. There is a vicious circle between job stress and job satisfaction, where higher stress levels enhance job dissatisfaction, which, in turn, increases stress levels.²² The results also indicated significant negative relationships between job stress and work environment and empowerment. That is, nurses who perceived higher levels of job stress perceived their work environment as less positive. Stressed nurses usually do not participate in hospital affairs, do not focus on their collegial relationships and perceive resources in their organisations to be inadequate; thus, they perceive their work environment as less supportive. This result is congruent with the findings of previous studies.^{1,16,24} Furthermore, nurses who perceived higher levels of job stress reported lower levels of empowerment. This result confirms the findings reported by other researchers and adds an Omani cultural perspective to the international evidence in the literature.^{11,13,16}

Nurses in the present study rated the characteristics of their work environment concerning participation in hospital affairs, staffing and resources adequacy, adequate access to support from colleagues and perceptions of manager leadership abilities above the moderate level. However, it is worth noting that they rated staffing and resources adequacy as a dimension of their work environment as well as access to resources as a dimension of structural empowerment as the lowest among other dimensions. Evidence from research showed that better perceptions of work environment characteristics can lead to reduced stress levels and enhanced empowering levels of the staff.^{25,26}

Moreover, the results showed that nurses who perceived their work environment as supportive reported higher levels of job satisfaction. This result is consistent with the results of other previous studies.^{1,25,27} Staff experiences at work and how they perceive their work environment affect their well-being as well as their levels of job satisfaction. A positive work environment was also associated with higher levels of empowerment. This result is congruent with the findings of a previous study.²⁶ Such results

highlight the important role of nurse administrators in creating a work environment that values and promotes the empowerment of nurses.

Moreover, the results showed that there was no moderating or indirect effect of either work environment or empowerment on the relationship between job stress and job satisfaction. The findings of the study only provided evidence for the direct effect of work environment and empowerment on the level of job satisfaction. Nonetheless, the results highlight the importance of providing a supportive work environment and empowering all employees, not only highly stressed ones. The regression model that included background variables (31%), job stress (13%), work environment (2%), empowerment (0.04%), the product of stress and work environment (0.02%) and the product of stress and empowerment (0%) explained 46.5% of the total variation in job satisfaction. This percentage signifies the importance of the variables of job stress, work environment and empowerment in the prediction of the level of job satisfaction.

With regards to the limitations of the study, the subjective measurement of the study variables might have created reporting bias. Furthermore, the convenience sampling method might have limited the generalisability of the results. However, the latter was enhanced by the fact that the study utilised a national sample from different governorates of Oman.

The findings of the study emphasise the importance of implementing strategies to create a positive work environment. The perceptions of Omani nurses about their work environment need to be checked frequently. It is recommended to take suggestions from nurses themselves to improve the work environment. The explanatory regression model points to the significance of managing stress and providing a supportive work environment to enhance nurses' job satisfaction. Experienced nurses' opinions need to be considered when developing strategies regarding their job satisfaction and work environment. Nurse managers should also help their staff manage their stress by implementing stress management programmes. Another area of specific concern for nurses working in Oman was the adequacy of staffing and resources. The issue of nurse staffing is a global concern in healthcare organisations. Nurse managers must advocate for adequate staffing and resources in their units since these factors impact both nurses' and their patients' outcomes. Thus, they need to create an organisational culture that embraces a supportive work environment and empowers nurses through providing adequate resources, support, teamwork and cooperation.

Conclusion

The findings of the present study provided evidence only for the direct effects of work environment and empowerment on job satisfaction, with no support for the indirect or moderating effects. The results also showed that nurses working in Oman who had higher levels of job stress perceived lower levels of job satisfaction and empowerment and a less supportive work environment. Furthermore, nurses who perceived their work environment as supportive reported higher levels of job satisfaction and empowerment. Therefore, nurse administrators need to adopt and implement strategies that tackle job stress, empower staff and promote a supportive work environment for nurses working in Oman.

AUTHORS' CONTRIBUTION

RAA, SDS and OA-R conceptualised the study. OA-R designed the methodology and supervised the work. RAA performed the formal analysis and provided the visualisation. RAA, SDS, LJL and IAB drafted, reviewed and edited the manuscript. All authors approved the final version of the manuscript.

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CONFLICT OF INTEREST

The authors declare no conflicts of interests.

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