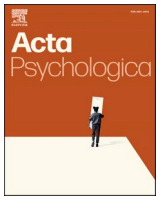
Acta Psychologica 263 (2026) 106375

Contents lists available at ScienceDirect

Acta Psychologica

journal homepage: www.elsevier.com/locate/actpsy



Perceived stress as mediator on the relationship between emotional intelligence and life satisfaction among low-income Malaysians

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ARTICLE INFO

Keywords:
Low-income
Emotional intelligence
Perceived stress
Mediation
Wellbeing

ABSTRACT

Perceived stress is one of the key psychological factors that influence overall life satisfaction. Low-income individuals are among those who consistently face stress. Emotional intelligence is known to reduce stress and improved wellbeing, yet limited research has been done among low-income populations. This study examined whether perceived stress mediates the relationship between emotional intelligence and life satisfaction among low-income adults in Malaysia. A cross-sectional study was conducted among participants recruited from a public primary healthcare clinic. The study inclusion criteria were Malaysian citizens, literate in Malay, and eligible for the national healthcare access for low-income scheme. Individuals with psychiatric disorders, physical disabilities, or cognitive impairments were excluded. The required sample size was calculated based on guidelines for mediation analysis with bootstrapping, taking into account non-response. Validated questionnaires in Malay language were administered. Mediation analysis was performed using the PROCESS Macro, controlling for age and ethnicity. A total of 427 participants were recruited, with a mean age of 62.1 (9.19) years, ranging from 40 to 83 years old. Results showed that individuals with higher emotional intelligence reported lower perceived stress, and those with lower stress reported greater life satisfaction. Perceived stress partially mediated this relationship. It suggests that emotional intelligence may shape life satisfaction by altering how stress is perceived and managed. These findings highlight the importance of emotional intelligence as a protective psychological resource in enhancing wellbeing among low-income adults. Interventions aimed at building emotional competencies could serve as a valuable addition to broader strategies addressing mental health and wellbeing in low-income populations.

1. Introduction

Stress is a serious and growing global public health concern, and in 77 countries, approximately 30–50% of the population reported experiencing psychological stress (Piao et al., 2024). Rapid socioeconomic changes, the rising cost of living and financial insecurity have contributed to elevated individuals' stress level. It is a pervasive and escalating issue that significantly affects people's mental health and wellbeing (Valikhani et al., 2019). It has been reported that it could even impact physical health over long-term period (Said et al., 2022).

The low-income or bottom 40% population particularly suffers from a multitude of daily stressors, including financial instability, job insecurity, and difficulty in meeting daily basic needs (Nasib et al., 2023). National data underscored this concern, with the low-income group recording the highest prevalence of severe stress of 2.7% compared to other income groups (National Institute of Health Malaysia, 2020). The data indicate that the Malaysian low-income individuals experience disproportionately high levels of stress (Hana et al., 2024). If continues, the trend could contribute to poorer chronic disease outcomes and increase the healthcare utilization which adds pressure on the national's public health care system.

Higher life satisfaction improves individuals' self-care behaviors and

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https://doi.org/10.1016/j.actpsy.2026.106375
Received 14 August 2025; Received in revised form 27 January 2026; Accepted 28 January 2026
Available online 30 January 2026

increases the likelihood of using preventive health care services (Kim et al., 2015). Life satisfaction is an important component of subjective well-being indicators (Organization for Economic Co-operation and Development, 2013). It has gained increasing recognition in public health research as it encourages preventive care practices. Life satisfaction may hold practical value for supporting healthier communities.

The Bar-On Emotional-Social Intelligence framework conceptualizes emotional intelligence as a set of emotional and interpersonal skills that facilitate effective coping, problem-solving, and adaptation to life's demands (Bar-on, 2006). Emotional intelligence, which refers to the ability to perceive, understand, and manage emotions, has emerged as a psychological resource for promoting better health (Petrides, Sanchez-Ruiz, Siegling, Saklofske and Mavroveli, 2018; Salovey et al., 1999). According to stress-buffering theory, emotionally intelligent people are better equipped to appraise challenging situations, regulate emotional responses, and manage stress more effectively (Lea et al., 2019; Zeidner et al., 2013).

Despite this theory, to our knowledge, no study exists about emotional intelligence, perceived stress, and life satisfaction among low-income population. Emerging research has begun to explore the mechanisms that explain how emotional intelligence significantly contributes to life satisfaction (Ruiz-Aranda et al., 2014). Perceived stress has been identified as a potential mediating factor in this relationship among student populations (Ruiz-Aranda et al., 2014; Schoeps et al., 2019), and its findings need to be replicated in other cultures and demographics to explore the generalizability of the results. In Malaysia, with its cultural differences, the pathway linking emotional intelligence, stress and life satisfaction may operate differently. The National Strategic Plan for Mental Health and the national healthcare initiative for low-income (Skim Peduli Kesihatan for the Bottom 40%, PeKa B40), highlight the need to strengthen psychological resilience to improve mental health among low-income populations (Ministry of Health Malaysia, 2020).

Considering these gaps, the present study aimed to investigate the mediation effect of perceived stress on the relationship between emotional intelligence and life satisfaction among the low-income population in Malaysia. Specifically, the study hypothesizes that (i) higher emotional intelligence is associated with lower perceived stress, (ii) lower perceived stress is associated with higher life satisfaction, (iii) perceived stress mediates the relationship between emotional intelligence and life satisfaction (Fig. 1). By exploring this pathway, the study seeks to provide empirical evidence that can support the integration of emotional intelligence training into community-based initiatives and public health programs for low-income population.

2. Method

2.1. Population and setting

A cross-sectional study was carried out using a validated questionnaire to achieve the study's objectives. The Kuala Langat district in Selangor was chosen as the study site due to its notably low poverty exit rate of 13.9% in 2022 (Department of Statistics Malaysia, 2022), the lowest among all districts in Selangor, indicating a persistently high prevalence of poverty.

Data were collected at Klinik Kesihatan (KK) Kampung Bandar, a public primary clinic which offers general healthcare and outpatient services that cover general consultation, diagnosis, treatment, and pharmacy. The KK was reported as one of the highest rates of healthcare utilization among the B40 income group in the district. The selection of this site was further supported by local data of PeKa B40 enrolment. PeKa B40 is a national initiative by the Ministry of Health Malaysia aimed at enhancing healthcare access for low-income or B40 individuals aged 40 years or above. In Malaysia, household income is typically categorized into three groups based on monthly earnings: B40 (bottom 40%), with income below RM5,250; M40 (middle 40%), with income between RM5,251 and RM11,819; and T20 (top 20%), with income of RM11,820 or above. These income thresholds were established by the Department of Statistics Malaysia (DOSM) in 2023 (Department of Statistics Malaysia, 2023).

The study inclusion criteria were: (i) Malaysian citizens, (ii) literate in the Malay language, and (iii) enrolled in or eligible for the PeKa B40 scheme. Individuals were excluded if they had a diagnosed psychiatric illness, severe physical disability, or cognitive impairment that could affect their ability to complete the survey. A convenience sampling method was employed to recruit participants who met the study's inclusion and exclusion criteria.

Sample size was determined a priori using simulation-based recommendations for bootstrapped mediation (Sim et al., 2022), targeting detection of a small-to-moderate indirect effect (≈0.03–0.05) with $\alpha = 0.05$, power = 0.80, and 5000 bootstrap resamples, which indicated minimum number of 420 for partial mediation. Allowing 10% non-response, the target sample size was 462 and the final analytic sample ($n = 427$) met the a priori requirement.

2.2. Data collection

Individuals eligible under the PeKa B40 programme who visited the clinic for medical services were invited to take part in the study. They were briefed using a participant information sheet, and those who agreed provided written informed consent. Participants then completed a set of self-administered questionnaires, which took around 15–20 min. After submission, the researcher reviewed the questionnaires for completeness and thanked the participants for their participation.

2.3. Ethical considerations

Ethical approval was obtained from the Medical Research and Ethics Committee, Malaysia Ministry of Health (NMRR ID-24-00643-YCZ) and the Human Research Ethics Committee, Universiti Sains Malaysia (USM/JEPeM/KK/24020157).

2.4. Measurement tools

The questionnaire of the study was in Malay language version,

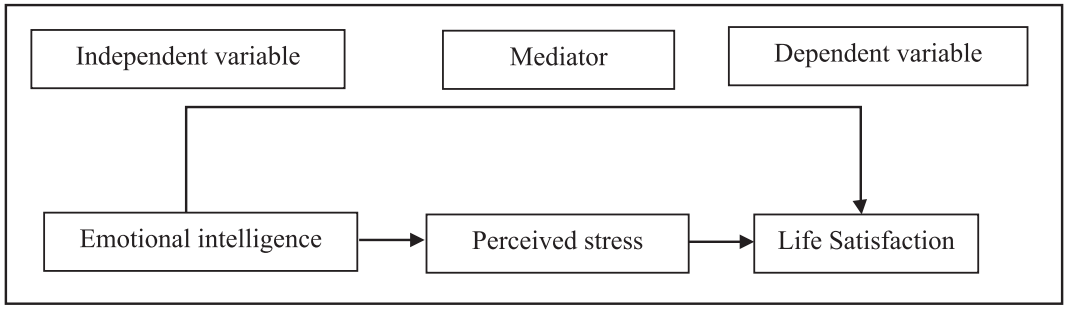

Fig. 1. Study conceptual framework.

divided into four sections: (a) Sociodemographic, (b) emotional intelligence, (c) perceived stress, and (d) life satisfaction. The sociodemographic measurement covered age, gender, ethnicity, marital status, employment status, and educational level of the participants. Schutte Emotional Intelligence Scale, developed by Schutte et al. (2009), was used to assess the level of emotional intelligence. The Malay-adapted version of the Schutte Emotional Intelligence Scale, known as the Adapted Schutte Emotional Intelligence Scale (A-SEIS), was modified to suit the cultural context of local populations in Malaysia (Ahmad et al., 2022). A-SEIS combines self-report and ability-based measures to assess emotional intelligence (Ahmad et al., 2022; Tee et al., 2024). The scale exhibits a five-factor structure, consisting of 37 items on a 5-point interval distributed as follows: 14 items for perception of emotions, four for utilization of emotions, six for understanding of emotions, eight for managing own emotions, and five for managing others' emotions. The total scores are from 37 to 185. Previous validation study established the unidimensionality of the emotional intelligence construct, and a higher score indicates greater emotional intelligence (Ahmad et al., 2022; Tee et al., 2024). Pearson's product-moment correlations of A-SEIS constructs ranged from 0.40 to 0.73 in this study, indicating a single dimension of emotional intelligence. The instrument has strong psychometric properties and excellent reliability, with the internal consistency of all factors above 0.87 (Ahmad et al., 2022) and a value of Cronbach's alpha of 0.80 in this study.

Perceived stress was assessed using the 10-item Malay version of the Perceived Stress Scale (PSS-10) developed by Cohen et al. (1983) and translated into Malay by Al-Dubai et al. (2012). This scale evaluates the extent to which respondents perceive life situations as stressful over the past month. A 5-point Likert scale from 0 (never) to 4 (very often) was used to rate each item. Four positively stated items are reverse-coded. Higher total scores reflect higher perceived stress. The Malay version of this scale demonstrated strong construct validity, with a Cronbach's alpha value above 0.72 (Al-Dubai et al., 2012). Cronbach's alpha in this study is 0.60, indicating an acceptable reliability.

Malay version of the Satisfaction with Life Scale (SWLS) (Swami & Chamorro-Premuzic, 2009) was used to assess life satisfaction among study participants. The SWLS consists of five items, rated on a 5-point Likert scale, ranging from “strongly disagree” (1) to “strongly agree” (5). The total score ranges from 5 to 25, with higher total scores indicating greater life satisfaction. The Malay version has good psychometric properties and is reliable, with reported internal consistency above 0.83 (Aishvarya et al., 2014). The Cronbach's alpha of the instrument in this study was 0.83, indicating excellent reliability.

2.5. Statistical analysis

Data were analyzed using SPSS version 29.0. Descriptive statistics were used to report the participants' characteristics. Mean (standard deviation [SD]) and median (interquartile range [IQR]) were reported for the total scores of emotional intelligence, perceived stress and life satisfaction. As the researchers checked for completeness of the answered questionnaires during data collection, no missing values were present in the data. The influence of the confounding effect of demographic variables on life satisfaction was identified using simple and multiple linear regression analyses. The assumptions for linear regression, including normality, linearity, and homoscedasticity, were checked. Multicollinearity of variables was checked using the variance inflation factor (VIF). Only significant demographic variables were controlled in the mediation model. The mediation effects of perceived stress on the emotional intelligence and life satisfaction relationship were verified with the SPSS Process Macro through model 4 (Hayes, 2017) with a bootstrap sample. This method offers an advancement over the traditional mediation analysis approach, which is based on a series of regression steps. Unlike the estimation of multiple mediators, single mediation analysis does not require correction for the significance level (Fairchild & McDaniel, 2017). In addition, Process Macro provides results in a single estimation without compromising Type I error. Previous researchers have highly recommended the use of this method and bootstrap estimation to estimate the direct and indirect effects of mediation (Hayes, 2017; Memon et al., 2018). Specifically, bias-corrected bootstrapping is regarded as a powerful method to detect mediation (Memon et al., 2018). Compared to other methods for estimating mediation effects, such as Structural Equation Modelling, the use of PROCESS Macro is inconsequential, as it generally yields identical results (Hayes, 2017). This procedure estimated the direct effect of emotional intelligence on life satisfaction as well as the indirect effect through perceived stress. A 95% bootstrap confidence interval that did not cross zero was considered evidence of a significant indirect effect (Jackson et al., 2000). Statistical significance was set at $p < .05$.

3. Results

Of the 459 distributed questionnaires, 427 participants completed them, yielding a response rate of 93.6%. The participants had a mean (SD) age of 62.1 (9.19) years. A summary of the participants' sociodemographic characteristics is presented in Table 1.

3.1. Measured variables

The mean (SD) and median (IQR) score for emotional intelligence were 138.8 (11.36) and 140 (134–146), respectively. For perceived stress, the mean (SD) was 27.1 (4.08), with a median (IQR) of 27 (24–30). Life satisfaction had a mean (SD) of 18.2 (3.27) and a median (IQR) of 19 (17–20). The mean emotional intelligence score indicated an average level among participants, while the mean stress score reflected a high level of perceived stress. In addition, the mean life satisfaction score suggested that participants were slightly dissatisfied with their lives. The scores of the three measured variables were clustered toward the higher end of their respective scale, which indicates potential ceiling effect among the participants (Table 2).

3.2. Sociodemographic confounders

Simple linear regression analysis revealed significant associations between life satisfaction and several sociodemographic variables, namely age, ethnicity, and employment status. However, in the multiple linear regression analysis, only age and ethnicity remained significant predictors in the final model. Age demonstrated a positive relationship with life satisfaction ($\beta = 0.05$; 95% CI: 0.02–0.08; $p = .004$), indicating that older participants reported higher life satisfaction. In contrast, non-Malays were negatively associated with life satisfaction ($\beta = -1.22$; 95% CI: −1.83 to −0.06; $p < .001$) compared to Malays (Table 3). The adjusted R^2 for the final multiple linear regression model was 4.4%, indicating that sociodemographic variables explained a small portion of

Table 1
Participants' characteristics.

Variable	n	(%)
Gender		
Male	187	(43.8)
Female	240	(56.2)
Ethnicity		
Malays	244	(57.1)
Non-Malays	183	(42.9)
Marital status		
Single/divorced/widowed	56	(13.1)
Married	371	(86.9)
Employment status		
Unemployed	324	(75.9)
Employed	103	(24.1)
Educational level		
Primary or below	151	(35.4)
Secondary or above	276	(64.6)

Table 2
Descriptive statistics of the variables (n = 427).

Variable	Mean	(SD)[a]	Median	(IQR)[b]
1. Emotional intelligence	138.8	(11.4)	140[c]	(134–146)
2. Perceived stress	27.1	(4.1)	27	(24–30)
3. Life satisfaction	18.2	(3.3)	19	(17–20)

[a] Standard deviation.
[b] Interquartile range (Q1-Q3).
[c] Skewed to the left.

the variance in life satisfaction. The sociodemographic factors in the model might have limited predictive value for life satisfaction in this sample.

Assumptions of normality, linearity and homoscedasticity were met. There was no multicollinearity between the variables.

3.3. Mediation analysis

The mediation model was adjusted for two significant confounding variables, age and ethnicity. The analysis showed that emotional intelligence had a significant inverse association with perceived stress ($\beta = -0.117$, $p < .001$), and perceived stress had a significant negative effect on life satisfaction ($\beta = -0.188$, $p < .001$). When perceived stress was not included in the model, emotional intelligence showed a significant positive effect on life satisfaction ($\beta = 0.053$, $p < .001$). After incorporating perceived stress into the mediation model, the direct effect of emotional intelligence on life satisfaction remained statistically significant, though reduced ($\beta = 0.031$, $p = .025$) (Table 4). This reduction suggests that part of the relationship operates through perceived stress.

The indirect effect of emotional intelligence on life satisfaction through perceived stress was also significant, as indicated by the bootstrap 95% confidence interval, which did not include zero ($\beta = 0.022$; 95% CI: 0.038, 0.112). These findings suggested that perceived stress partially mediated the relationship between emotional intelligence and life satisfaction (Table 4). While the mediation effect was statistically significant, the magnitude of the indirect effect was relatively small, highlighting that multiple unmeasured psychological, environmental, and health-related factors likely contribute to life satisfaction beyond emotional intelligence and stress.

The subgroup mediation analysis for gender and employment status revealed mixed findings, as presented in Fig. 2. Perceived stress was revealed to be a mediator among female participants but not among male participants. The mediating effect was also observed among those unemployed and employed participants. However, the effect was revealed to be full mediation among unemployed participants while partial mediation was observed among employed participants.

4. Discussion

Consistent with the proposed hypotheses, the results demonstrated that emotional intelligence was significantly associated with lower levels of perceived stress and increased life satisfaction. Perceived stress was inversely associated with life satisfaction. Importantly, perceived stress was found to be a partial mediator of the relationship between emotional intelligence and life satisfaction. This finding is consistent with previous research among student population (Ruiz-Aranda et al., 2014). The present study extends these findings to a low-income adult population, suggesting that emotional intelligence may be linked to life satisfaction, at least in part, through its association with perceived stress. This study highlighted that emotionally intelligent Malaysian low-income individuals were more likely to report higher life satisfaction, even under stressful situations.

The cultural context may play a significant role in shaping these

Table 4
Direct and indirect paths among the study variables.

Model	Model summary				
	B[a]	β[b]	SE[c]	t	p
Emotional intelligence ➔ Perceived stress	−0.326	−0.117	0.016	−7.12	<.001
Perceived stress ➔ Life satisfaction	−0.235	−0.188	0.038	−4.84	<.001
Emotional intelligence ➔ Life satisfaction (total effect)	0.185	0.053	0.013	3.94	<.001
Emotional intelligence ➔ Perceived stress ➔ Life satisfaction (direct effect)	0.108	0.031	0.014	2.24	.025

Model	Model summary			
	B[a]	β[b]	SE[d]	95% CI[e]
Emotional intelligence ➔ Perceived stress ➔ Life satisfaction (indirect effect)	0.076	0.022	0.014	(0.038, 0.112)

[a] Standardized regression coefficient.
[b] Unstandardized regression coefficient.
[c] Standard error.
[d] Bootstrap standard error.
[e] Bootstrap 95% confidence interval for standardized regression coefficient.

Table 3
Sociodemographic confounders for life satisfaction.

Variable	Simple linear regression			Multiple linear regression		
	β[a]	(95% CI[b])	p	Adj. β[c]	(95% CI[b])	p[d]
Age	0.04	(0.01, 0.08)	.011	0.05	(0.02, 0.08)	.004
Gender						
Male						
Female	0.15	(−0.48, 0.78)	.635			
Ethnicity						
Malays						
Non-Malays	−1.14	(−1.76, −0.52)	<.001	−1.22	(−1.83, −0.60)	<.001
Education						
Primary or below						
Secondary or above	0.13	(−0.52, 0.78)	.696			
Employment						
Unemployed						
Employed	−0.84	(−1.56, −0.12)	.023			

[a] Crude regression coefficient.
[b] 95% confidence interval.
[c] Adjusted regression coefficient (adjusted for variable in the model), adjusted $R^2 = 4.4\%$.
[d] Stepwise variable selection method was used.

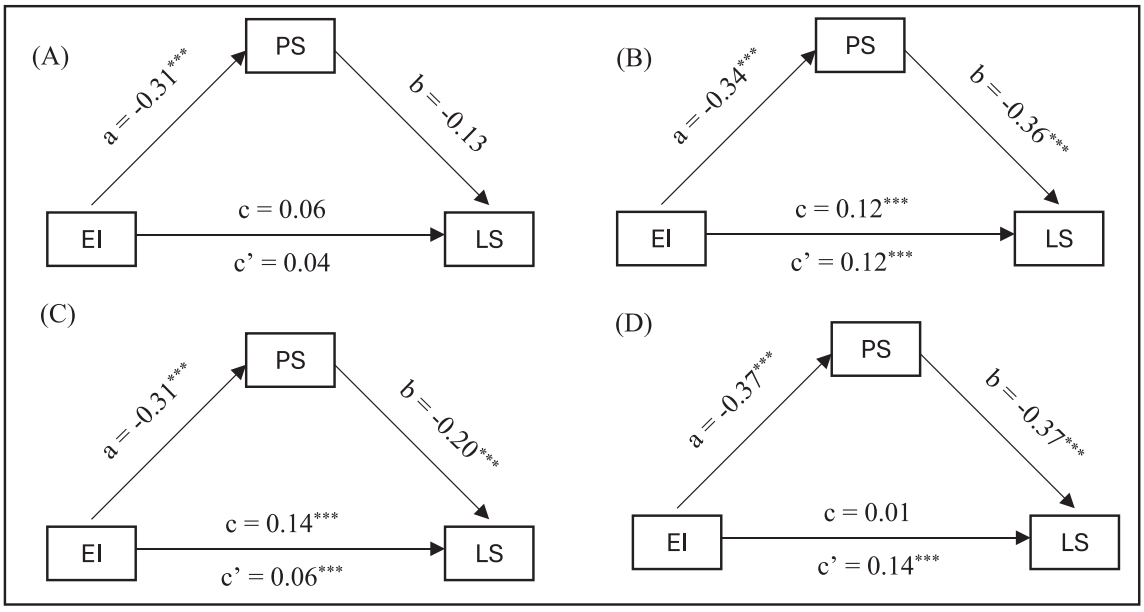

Fig. 2. Subgroup analysis assessing the mediation effect of perceived stress (standard regression coefficient).
Notes: (A) Male participants; (B) female participants; (C) employed participants; (D) unemployed participants; EI = emotional intelligence; PS = perceived stress; LS = life satisfaction; c = direct effect; c' = indirect effect.

relationships. In the Malaysian cultural context, emotional self-control and social harmony are highly acknowledged in the community. Values such as emotional regulation and adaptability are often encouraged (Zainal-Abidin et al., 2022). These elements are among the key components to foster an individual's emotional intelligence, which may help reduce the subjective experience of stress. Additionally, emotional support through family and friends, and religious practices are widely practiced among Malaysian low-income households. Family is the principal institution and pillar that enhances an individual's emotional development (Atoum & Al-Shoboul, 2018). These culturally embedded sources of support may buffer stress independently of emotional intelligence, potentially influencing the magnitude of observed variables. The current study sample, with the majority of Muslim Malays, might explain how religious moderation shapes individuals' stress management and life satisfaction. Empathy, as one of the major components of religious moderation attitude (Astana et al., 2025), may further strengthen emotional intelligence and well-being within this cultural setting.

Emotional intelligence influences life satisfaction both directly and indirectly through its effect on perceived stress. Individuals in this population struggle with unstable income, limited access to healthcare, household burden, and caregiving responsibilities (Zainal-Abidin et al., 2022). In this context, emotional intelligence may function as an internal psychological resource, enabling individuals to regulate emotions, regard stressful events as manageable, and employ adaptive coping strategies. These mechanisms align with Bar-On's ESI framework, which holds that emotional intelligence enhances life satisfaction by promoting positive emotional experiences and mitigating the negative effects of stress (Bar-On, 2006). From the perspective of stress-buffering theory, emotionally intelligent individuals are less likely to perceive stressful situations as overwhelming, thereby reducing the subjective experience of stress even when stressors remain (Lea et al., 2019; Zeidner et al., 2013).

The magnitude of the indirect effect was relatively small (0.076) in this study, a phenomenon observed in similar mediation analyses (Ruiz-Aranda et al., 2014). Such modest effect sizes are common in psychological research and may reflect the influence of multiple unmeasured contextual factors. This may reflect the influence of strong cultural, familial, and religious coping resources within low-income Malaysian communities, which could buffer stress independently of emotional intelligence and reduce the effect sizes. In addition, the opposite direction of association between emotional intelligence toward stress and life satisfaction, respectively, may have further reduced the effect sizes. The measured scores of emotional intelligence and perceived stress were relatively high in this study population. This pattern suggests a potential ceiling effect, which may have restricted variability and limited the size of the observed indirect effects.

Subgroup analyses further highlighted the contextual nature of the mediation process. Beyond demographic differences, cultural context may further shape how emotional intelligence and perceived stress interact to influence life satisfaction among low-income Malaysians. Malaysia is generally characterized as a collectivist society, where emotional restraint, social harmony, and interdependence are emphasized (Zainal-Abidin et al., 2022). In such contexts, emotional intelligence may function differently compared to individualistic cultures, as emotional regulation and empathy are often guided by social and religious norms rather than personal goals alone. These cultural expectations may partially explain why perceived stress played a mediating role in some subgroups but not others, particularly across gender and employment status. In the gender-based analysis, perceived stress was not found to mediate the relationship between emotional intelligence and life satisfaction among male participants. Previous studies have shown that gender influences levels of emotional intelligence, with women generally reporting higher levels than men (Kitsios et al., 2022; Naghavi & Redzuan, 2011). A possible explanation is that women demonstrate greater emotional awareness, self-reflection, and interpersonal sensitivity, all of which are crucial components of effective coping. Malaysian women may face stronger social expectations regarding emotional expressiveness and caregiving roles, thereby heightening the salience of stress in shaping life satisfaction.

Stress was shown to be a full mediator among the unemployed sample, compared as a partial mediator among the employed sample in this study. This difference suggests that the mechanisms linking emotional intelligence and life satisfaction may vary across employment contexts. Working low-income individuals are primarily exposed to workplace stress, including job insecurity, excessive workload, and work-life imbalances (Arshad et al., 2025). As such, individuals with greater emotional intelligence may regulate emotions effectively in

workplace challenges, leading to lower stress and increased life satisfaction. In contrast, unemployed individuals experience a broader set of daily stressors such as financial strain, household burden and loss of purpose (Muchemwa & Sodi, 2025). In addition, employment-related stress may carry different cultural meanings in low-income Malaysian households, where work is closely linked to family responsibility and social identity.

This study contributes new insights both conceptually and contextually. Theoretically, the findings extend Bar-On's ESI model to low-income individuals, who are underrepresented in the literature. Within the Malaysian context, the study provides evidence supporting the cross-cultural and socioeconomic applicability of this framework. Conceptually, it clarifies the role of perceived stress as a mediator of the link between emotional intelligence and life satisfaction. This field has received little empirical attention in Malaysian research.

This study offers a significant methodological contribution by employing a robust, theory-driven mediation model to examine the role of perceived stress in the relationship between emotional intelligence and life satisfaction. Using validated measurement tools and an adequately powered sample, the analysis was conducted within a real-world setting involving low-income Malaysian adults. By adopting a structured and statistically robust analytical approach, the study provides empirical support for the proposed mediation mechanism while acknowledging the complexity of psychosocial processes in disadvantaged populations. These strengths enhance the credibility of the findings and offer valuable direction for developing targeted mental health strategies for vulnerable groups.

Nevertheless, several limitations should be acknowledged. A key limitation of this study is the omission of several important psychosocial and socioeconomic variables that may have influenced the mediation findings. Factors such as personality traits, social support, coping styles and physical health status were not measured, and these variables could affect both emotional intelligence and perceived stress. For example, personality may shape how people respond to stress, while social support can reduce stress and improve life satisfaction regardless of emotional intelligence. Physical health may also play a role because individuals with chronic illnesses often experience higher stress and lower wellbeing. In addition, the study did not collect information on household income, chronic health conditions or access to healthcare, even though these factors are highly relevant for low-income adults in Malaysia. Differences in income levels, undiagnosed or unmanaged health problems and difficulties in getting healthcare services may influence stress and life satisfaction independently of emotional intelligence. The absence of these variables may have influenced the observed associations, and the findings should therefore be interpreted with caution. Cross-sectional design limits causal inference. While the mediation model is theoretically grounded, longitudinal studies are required to verify the nature of relationships. The use of convenience sampling and self-reported measures may introduce response biases, limiting the representativeness of the overall low-income population in this study and restrict the generalizability of the mediation results. Future research could expand the model to include these variables and methodology, offering a more comprehensive understanding of the emotional and contextual influences on life satisfaction.

5. Conclusion

Emotional intelligence plays a crucial role in enhancing life satisfaction, both directly and indirectly by reducing of perceived stress. These findings have several practical implications for mental health promotion and service delivery within low-income Malaysian communities. First, emotional intelligence interventions could be translated into brief, low-cost formats suitable for the populations, such as community-based workshops, group sessions delivered at KKs, or short digital modules integrated into existing PeKa B40 services. Mobile applications that incorporate social media-based microlearning or psychoeducation may offer cost-effective ways to enhance emotional competencies. Second, due to barriers in digital access and literacy among low-income individuals, interventions should adopt simple language, visual learning tools, and be culturally appropriate to improve accessibility. Third, stigma related to psychological help remains a barrier in the community. Embedding emotional intelligence training within routine primary care visits or chronic disease management programs may reduce stigma and increase uptake. Lastly, strengthening emotional intelligence skills among community health workers, caregivers, and local leaders could create a cascading effect, supporting stress management in wider community networks.

CRediT authorship contribution statement

Hazwan Mat Din: Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Conceptualization. **Mohd Noor Norhayati:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Funding acquisition, Conceptualization. **Nur Syahmina Rasudin:** Writing – review & editing, Supervision, Methodology, Funding acquisition. **Anusha Manoharan:** Writing – review & editing, Methodology. **Beatrice Jee Ngee Ling:** Writing – review & editing, Methodology.

Funding

No funding was involved in this study.

Declaration of competing interest

No conflict of interest exists for any of the authors of this manuscript.

Acknowledgements

The authors would like to thank the Director General of the Ministry of Health Malaysia for his permission to use the facility this study. The authors would also like to thank all participants who participated in this study.

Data availability

Data will be made available on request.

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