

Psychological impact of adverse childhood experiences and ostracism on depression among Malaysian youth

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Abstract

This study aimed to examine the relationship between adverse childhood experiences, ostracism and depression among young adults in Shah Alam, Malaysia. This research was made to contribute a clearer understanding of the prevalence of depression amongst young adults. The study used a quantitative, cross-sectional research design with non-probability sampling and the data was analyzed using structural equation modelling (SEM). Two hundred fifty respondents aged 18 - 29 from Shah Alam, Malaysia, participated. The Depression, Anxiety and Stress Scale - 21 Items (DASS-21), Adverse Childhood Experiences Questionnaire and Ostracism Experiences Scale (OES) were used in this study. Results have shown that there is a significant relationship between adverse childhood experiences, ostracism, and depression among young adults. Direct effects were assessed in a structural model. Adverse childhood experiences and ostracism both have significant effects on depression. Adverse childhood experiences positively affect depression ($\beta = 0.423$, $p < 0.001$), while ostracism also has an adverse effect on depression ($\beta = 0.534$, $p < 0.001$). In conclusion, these findings contribute to the knowledge that early life traumatic events and ignorance can influence a young adult psychologically.

Keywords

Adverse childhood experiences, depression, ostracism, structural equation modeling (SEM), young adults

Introduction

Depression is characterized by a persistent loss of interest and overwhelming sadness over time (Plieger et al., 2015). It results from a complex interplay of biological, genetic, environmental, and psychological factors (Remes et al., 2021). Recognition of depression requires the presence of symptoms persisting daily for at least two weeks, significantly impacting daily functioning (World Health Organization, 2023). Unfortunately, depression is a leading cause of suicide, with approximately 800,000 individuals succumbing to its effects (World Health Organization, 2023). Globally, the World Health Organization reports that over 280 million people grapple with depression.

The National Health Morbidity Survey V estimates that 29.2% of adults aged 16 and above face mental health challenges—an alarming increase from 1996's 10.7% (NHMS, 2019). The prevalence of lifelong depression in Malaysia stands at 2.4%, with current depression at 1.8%. National data indicates that 2.3% of Malaysian adults, including 2.0% of males and 2.6% of females aged 18 and above, grapple with depression, totalling nearly 500,000 individuals. Notably, the prevalence is higher among singles (3.2%) compared to divorcees (2.0%) and married individuals (1.8%). Non-working populations report a higher prevalence (4.5%), and rural areas (3.6%) exhibit a higher incidence than urban areas (1.9%). The prevalence is highest (4.9%) among households with an income below RM1,000 (NHMS, 2019). A cross-sectional study in Selangor found a 10.3% prevalence of depression in adults aged 18 and above (Kader Maideen et al., 2014). Given Selangor's substantial population

of 6.57 million and its alarmingly high depression prevalence of 29.3%, a focused study in Shah Alam, its capital city, is imperative (National Health Morbidity Survey, 2015).

Depression is a multifactorial disorder that is frequently caused by a combination of causes. With genetic and neurobiological markers being one of the primary risk factors that render individuals sensitive to the development of a depressive illness, the environment has also been linked to the emergence of clinical depression in the afflicted individuals (Klengel & Binder, 2013; Rudert et al., 2021). Research on possible environmental risk factors has focused chiefly on characteristics directly related to humans' fundamental sense of belonging (Nicholls, 2023). Positive interactions with others, or social support, have been identified as a psychosocial resource that protects individuals from developing depression (Eisman et al., 2015; Yu et al., 2021), and adverse interpersonal events predicted depressive presentations (Yarrington et al., 2023). One maladaptive social phenomenon that has been theorized

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to evoke depression symptoms is ostracism (Rudert et al., 2021), the experience of being excluded and ignored by others. Previous research found that minority students (with a migrated family background) at a German university reported elevated ostracism from visible groups, i.e. Southeast Asia and Africa, compared to less visible backgrounds due to the existing negative sentiments built historically, showing a direct connection with an impacted sense of belonging and indirect relation via perceived ostracism (Janke et al., 2024).

Among economically disadvantaged youths, there was a positive correlation between ostracism and depression, which is also supported by social risk theory (Yu et al., 2021; Gao et al., 2017). Arguably, social causation theory posits that individuals experiencing economic hardship increase the risk of subsequent mental illness, which contributes to a lack of accessibility to various facilities like enrolling in better educational programs, social activities, and healthcare. The absence of such privileges would eventually make one disengage from society and the environment, leading to poor life decision-making (Sheehy-Skeffington & Rea, 2017). Both theoretical and empirical investigations support the idea that ostracism might cause depression among economically disadvantaged people. A functional disorder, such as depression, prevents ostracised people from participating in social situations as it may have a detrimental impact on a person's self-control and capacity to regulate themselves (Chen et al., 2024). These are closely related to people's decision-making behavior in response to complex risk situations; they significantly predict negative risk-taking behavior among college students (Xu et al., 2015). In addition, ostracism as a stressful event can cause adolescents to develop negative emotions (anger, frustration, and sadness) or to undermine basic psychological needs in order to alleviate emotions and maintain psychological equilibrium through stimulating, rebellious, and antisocial risk-taking behaviors (Williams, 2009; Reinhard et al., 2020; He et al., 2021; Chen et al., 2024).

Beyond childhood experiences, depression is also associated with an individual's inability to cope with discomfort (Bhowmik & Costa, 2015). Previous studies have established that there are significant relationships between various types of adverse childhood experiences and depression, including emotional neglect, emotional abuse, and physical assault (Al Shawi et al., 2019). Psychological abuse is claimed to have a positive relationship with reported ostracism (Wang et al., 2021). The results were consistent with previous research indicating that an abusive environment leads to feelings which may sensitize adolescents to expect and perceive rejection from others readily, so they are prone to perceiving others' harmless actions as ostracism and to experience feelings of ostracism (Lev-Wiesel & Sternberg, 2012). Early psychological mistreatment (e.g., parental neglect of a child's needs) can hinder the fulfilment of humans' desire to belong, poorer mental well-being (Arslan et al., 2024; Bakhtiar et al., 2023; Ristyanda et al., 2024), internalizing and externalizing problems as well as positive correlations with anxious and avoidant attachment style making it harder for teenagers to develop a sense of belonging and thus feeling ostracized (Genc & Arslan, 2023).

This research aims to enhance understanding of adverse childhood experiences (ACEs), ostracism, and depression in

young adults. The findings contribute valuable insights into how early-life traumatic events and social neglect can impact young adults psychologically, providing guidance for relevant stakeholders in addressing this issue.

Method

Participants

This research involved 250 participants from Shah Alam, Selangor, Malaysia. The participants aged between 18 and 29 fell under the young adult category. The sample consisted of 115 male and 135 female respondents. The sampling technique used in this study was convenience sampling. The questionnaire was shared through social media and in face-to-face meetings. Although certain individuals may not represent the population, those samples have provided useful evidence to address questions and hypotheses (Creswell & Guetterman, 2019).

Research Instruments

The Depression Anxiety and Stress Scale 21 (DASS-21) was used to measure the depressive symptoms. The DASS-21 consisted of three sets of self-report scales designed to measure the negative emotional states of depression, anxiety, and stress (Lovibond & Lovibond, 1995). This depression subscale consisted of 7 items (3, 5, 10, 13, 16, 17, and 21) and was rated on a 5-point Likert scale. The Cronbach's alpha value is 0.81 for the depression subscale (Coker et al., 2018). The scale has outstanding internal consistency and discriminative, concurrent, and convergent validity.

The Adverse Childhood Experiences Questionnaire was designed to assess the prevalence of adverse experiences encountered by individuals prior to the age of 18 years (Cheong et al., 2017). This scale consisted of 10 items and was designed to measure physical and emotional abuse, abuse related to living in a dysfunctional household and physical neglect. The answer to each of the ten questions is rated on a 5-point Likert scale. The Cronbach's alpha value is 0.88, and the scale has excellent psychometric properties, with a high association between mental and physical health assessments and childhood trauma inventories.

The Ostracism Experiences Scale (OES) measured an individual's real-lived ostracism experiences. The Ostracism Experience Scale consists of an 8-item scale that comprises two factors: 4 items for ignoring and four items for excluding (Carter-Sowell, 2010). It is rated on a 5-point Likert scale. The Cronbach's alpha is .90. The scale has been validated as having convergent solid validity, as it can significantly predict depression, loneliness, life satisfaction, basic social needs, and rejection sensitivity, both of which have been identified as potentially crucial to the ostracism construct. Furthermore, since it can assess various ostracism outcomes, such as basic needs satisfaction, self-esteem, depression, and well-being, the OES has high criterion-related validity (Gilman et al., 2013; Niu et al., 2016).

Data Analysis Technique

Using IBM-SPSS-26, a descriptive analysis was conducted to discuss the survey items. The link between the dependent variable (Depression), and independent variables (Adverse

childhood experiences, ACE's) and (Ostracism) were also examined using multivariate data analysis. This study used structural equation modeling (SEM) to assess multivariate data. The latent link between adverse childhood experiences (ACEs), ostracism, and depression was discovered using SEM, which provides model fit indices to ensure model fitness. Three latent factors, i.e., adverse childhood experiences, ostracism, and depression, in this investigation, constrained the observed indicators for each of the respective.

The CB-SEM approach investigated the underlying link between observable variables and latent constructs. SEM analysis was performed using IBM-AMOS-26. The values of the comparative fit index (CFI), normed fit index, Tucker-Lewis's index (TLI), and root mean square error of approximation (RMSEA) were used to assess the model fitness of the measurement model. The acceptable fit index RMSEA assesses how well the model fits the covariance matrix of the population. For CFI values > 0.90 and TLI values > 0.90 , there is a cut-off point of 0.08 for RMSEA. Unidimensionality was assessed to validate that each item obtained a factor loading value greater than 0.6. Fitness analysis validated the measuring model's construct validity. Using the AVE values' square root, discriminant validity was evaluated to ensure the model was devoid of duplicated elements. A model is said to be devoid of redundant components if discriminant validity is obtained according to requirements. It is necessary for the correlation between exogenous constructs to be less than 0.85 to attain discriminating validity. Standardized and non-standard regression weights were examined for the proposed model for the structural model. Regression estimation links exogenous and endogenous components with fitness indices in structural models. In the structural model, the value that needs to be focused on is the usual regression weight value R^2 , which is placed on the endogenous depression construct (Sarstedt et al., 2014).

Result

Results of Multivariate Analysis

Adverse childhood experiences (ACEs), ostracism, and depression were examined in this study using the structural equation modeling technique. Fitness indicators for the measurement model were accurately good; for example, the Tucker-Lewis index (TLI) value was 0.967, the CFI value was 0.968, and the RMSEA value was 0.064, all of which fairly matched the standards (0.08). Therefore, 0.90 is the cut-off value for both indices. The Chi-square/df score for the total model, 2.668 and far below the cut-off threshold of 3, indicates a satisfactory model fit. Since the values of all the measuring elements in the measurement model are higher than 0.6, the model also achieves unidimensionality. As a result, the AVE and CR values for each construct are greater than 0.5 and greater than 0.6, respectively, showing that the measurement model's internal consistency and reliability were attained. Since all fitness indices were fairly attained, construct validity for the measurement methodology is also proven. To achieve discriminant validity for the measurement model, correlation values for exogenous constructs must be less than 0.85, which shows that the model is devoid of redundant items and does not suffer from multicollinearity.

Common Method Variance

The common method variance (CMV) was calculated by Harman's single factor test because the study was cross-sectional and only one source of data was utilized for data collection (Podsakoff et al., 2003). Because common methods were utilized for data collection, the study evaluated the extent of erroneous covariance shared among constructs. The top three factors, which together accounted for 63.278% of the variance in the construct according to an exploratory factor analysis of all construct items, were the first factor (33.498%), the second factor (16.554%), and the third factor (13.226%). As a result, the single component was unable to account for the vast majority of variance, proving that prevalent biases have no impact on the data.

Structural Model

The variance inflation factor (VIF) values we determined varied from 1.113 to 1.434, below the suggested threshold value of 3.0, demonstrating that multicollinearity would not impact the model and would not be a problem. Fitness indices for the structural model were accurately good; for example, RMSEA indicates a value of 0.064, CFI suggests a value of 0.968, and TLI indicates a value of 0.967. Therefore, 0.90 is the cut-off value for both indices. Since the Chi-square/df value for the total model is 1.766, well below the cut-off value, the model fits the data well. In the structural model, the standard regression weight value R^2 is 0.67 (value loaded on depression or an endogenous construct). The entire model achieved the model fitness criteria. Direct effects were assessed in a structural model. Adverse childhood experience has a positive effect on depression ($\beta = 0.423$, p-value 0.00). Secondly, the direct effect of ostracism on depression is also significant. Ostracism also has an adverse effect on depression ($\beta = 0.534$, p-value 0.00). For detailed information, see Picture 1.

Discussion

The initial research hypothesis posited a significant relationship between adverse childhood experiences (ACEs) and depression among young adults in Shah Alam. The findings support this hypothesis, aligning with past studies indicating a consistent and significant association between ACEs and depression (Salma et al., 2019). This reinforces the established notion that ACEs act as risk factors for mental health disorders during adolescence and early adulthood. Chronic stress during adolescence in individuals with ACEs amplifies hypothalamic pituitary adrenal (HPA) activity, leading to heightened and prolonged cortisol levels, thereby contributing to the onset of depression in young adults.

Similar findings were observed in a study conducted in rural Pakistan, emphasizing the significant association between adverse childhood experiences and depression, particularly among women (LeMasters et al., 2020). Domains of ACEs, such as family psychological distress, community violence, and domestic violence, were linked to depressive symptoms, underscoring the lasting impact of childhood exposure to violence and trauma on mental health in adulthood (Wei et al., 2023). Among the various kinds of childhood maltreatment, particularly forms of psychological abuse (i.e., emotional

Table 1. Discriminant Validity Index Summary

Construct	Mean	SD	Range	Skewness	VIF	ACE's	Ostracism	Depression
ACE's	4.41	0.91	3.60-4.30	0.449	1.113	0.851		
Ostracism	4.34	0.96	2.50-4.52	0.188	1.232	-0.32	0.850	
Depression	4.45	1.12	2.50-4.32	0.544	1.434	-0.45	0.45	0.820

Note: 1 = ACE's, 2 = Ostracism, 3 = Depression

The bold numbers in a diagonal row are the square roots of AVE. $P < 0.001$.

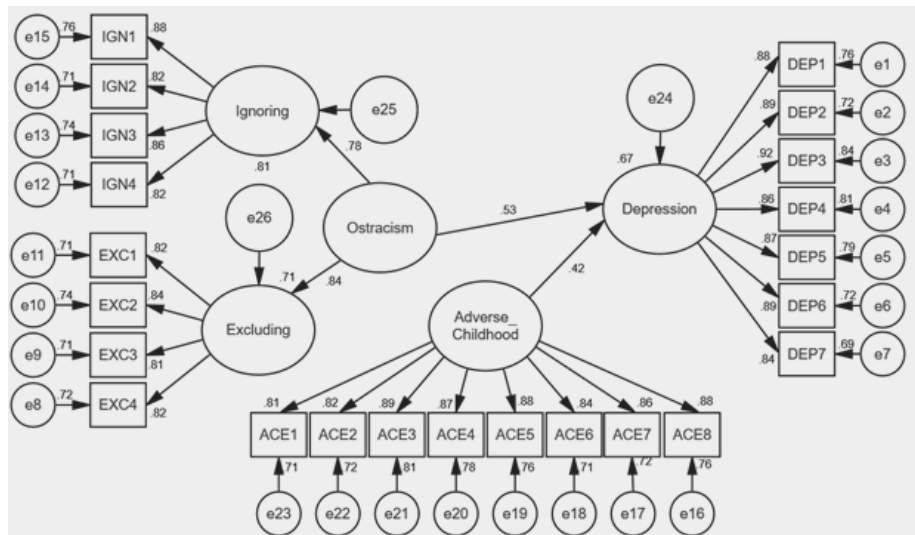


Figure 1. Structural model variable

and neglect), is linked to the sensitivity to social exclusion in emerging adults (Euteneuer et al., 2024). Additionally, emotional abuse and neglect were found to have distinct relationships with rejection sensitivity, with emotional abuse being the most potent predictor (Euteneuer et al., 2024). Hence, it is suggested that ACEs, specifically traumatic events, may be related to heightened sensitivity to social rejection in emerging adults. Another study on ostracism in a Cyberball paradigm (controlled study) also showed that patients experiencing ostracism exhibit stronger adverse emotional reactions and a higher depletion of fundamental needs (Reinhard et al., 2020).

Parallel results were noted in a study conducted in Iraq, where a statistically significant association was established between adverse childhood experiences—incredibly emotional abuse, emotional neglect, physical abuse, and physical neglect—and depression (Al Shawi et al., 2019). Traumatic events in childhood were identified as having enduring impacts on personality and emotions, emphasizing the role of hypothalamic-pituitary-adrenal axis dysfunction as a common consequence of ACEs, potentially originating psychopathological problems in adults. Consistently across these studies, a positive correlation emerged, affirming that adverse childhood experiences serve as a risk factor for depression. The level of depression in individuals tends to increase with the escalation of childhood adversities. Parents tend to overlook their substantial role in building a healthy relationship attachment to their child’s childhood due to the experienced psychological maltreatment in childhood; they may perceive their parents’ behaviour as rejection and neglect of them (Wang et al., 2021).

The second research hypothesis explored the significant relationship between ostracism and depression among

young adults in Shah Alam. The findings corroborate existing literature, indicating a significant positive relationship between long-term ostracism and depressive symptoms (Jiang & Chen, 2019). Higher levels of meaning in life were associated with more effective coping methods and quicker recovery after traumatic occurrences, contrasting with feelings of meaninglessness that detrimentally impact psychological health. Prolonged social exclusion, commonly observed in individuals with mental disorders, influences coping mechanisms, leading to resignation, loneliness, helplessness, worthlessness, and depression (Williams et al., 2011). Forgiveness can facilitate the reduction or replacement of momentary angry emotions with positive emotions and is expressed as the ability to cope with emotion-focused situations (Hudaynazarova & Avşaroğlu, 2023; Witvliet & McCullough, 2007; Berry et al., 2005). Previous studies stated that a high relationship exists between anger, aggression and social exclusion (Li et al., 2018).

Moreover, the current study aligns with previous research, affirming a positive correlation between cyber-ostracism and depression (Niu et al., 2018). The basic need for belonging and social connection was highlighted as crucial for health and well-being, while ostracism posed a significant threat, inducing a distressing and unpleasant experience that negatively impacted individuals’ health and well-being (Wang et al., 2021; Tang & Duan, 2021). A longitudinal study shows that signifies that depression is likely to be caused by ostracism experienced throughout the early years of adolescence, which is sensitive to the structuring of one’s social life by (Rudert et al., 2021). Neglecting social ostracism as a potential risk factor for clinical depression in adulthood may impede depressed patients’ recovery and perhaps raise

their likelihood of experiencing future depressive episodes. According to Riva et al. (2012), social exclusion activates the anterior cingulate cortex, causing individuals to suffer "social pain" akin to physical pain, which, in turn, may induce negative emotions such as depression. This further supports the notion that ostracism has a universally unsettling impact on individuals and increases the likelihood of depression, emphasizing the fundamental human need for belongingness and its role in psychological and physical well-being. As a result, it is reasonable to conclude that perceived ostracism was positively associated with depression and perceived ostracism was not only impacted by psychological mistreatment but it was also a predictor of depression (Wang et al., 2021).

The findings of this research hold implications for various interventions, including preventive, curative, and rehabilitative care. Given the mental health risks posed by the current global context, particularly with the new coronavirus pandemic, effective programs are imperative to prevent adverse childhood experiences, ostracism, and depression among young adults.

The study suggests a multifaceted approach to addressing the interconnected challenges of Adverse Childhood Experiences (ACEs), ostracism, and depression among young adults in Shah Alam, Malaysia. Key recommendations include fostering safe and nurturing environments through parental education, early intervention programs, and community support networks. A systematic review by Rowell & Neal-Barnett (2021) found that inexperienced parenting or parents with a history of adversity are reported to have an increase in problematic parenting practices. The review emphasizes that it is essential that parents equip themselves with sufficient knowledge to understand the significance of early parent-child interactions for their child's social and emotional development. Moreover, it is imperative to include mental health education in schools, ensure accessibility to mental health services, and advocate for trauma-informed care as vital elements of a comprehensive strategy. In childcare settings, it is crucial to equip the relevant stakeholders to recognize the signs of ACEs through their manifestations, thus fostering a supportive environment for the children's social development.

Additionally, public awareness campaigns, social and emotional learning programs, and the establishment of support groups aim to enhance resilience and reduce stigma surrounding mental health issues. In an institutional setting, some policies can promote a conducive environment, preventing obtrusive culture such as bullying, as it usually leads to ostracism, especially for minorities, even in a professional environment (Carter-Sowell et al., 2021). Some of the measures that can be done are breeding inclusiveness through group activities of various social groups, ethnicities and cultures so that individuals can exchange opinions and points of view on the stigma and prejudices faced across different groups (Noboru et al., 2021). Complementing these measures, the study underscores the importance of creating inclusive workplace cultures and enforcing strict anti-ostracism policies to prevent both ACEs and the adverse mental health outcomes associated with ostracism. The suggested approach reflects a collective commitment to fostering an environment that minimizes the impact of

adversity, ultimately reducing the likelihood of depression among young adults in Shah Alam.

Despite these contributions, several limitations were identified in this study. The predominant representation of Malay respondents (64.0%) may limit the generalizability of the findings to other racial groups. Additionally, the cross-sectional survey design utilized in this study, collecting data at a single point in time, may hinder the demonstration of consistent relationships between adverse childhood experiences, ostracism, and depression. Future research should employ longitudinal study designs to better understand these relationships over time.

Conclusion and Implications

In conclusion, the research hypotheses have been substantiated, revealing a significant relationship between adverse childhood experiences (ACEs), ostracism, and depression among young adults in Shah Alam, Malaysia. These findings contribute valuable insights into the impact of early-life traumatic events and social neglect on the psychological well-being of young adults. Moreover, the results provide actionable information for relevant agencies to address the pressing issue of depression among young adults in Shah Alam, Malaysia. By acknowledging and understanding the connections between ACEs, ostracism, and depression, interventions and support mechanisms can be tailored to mitigate the psychological consequences and improve the mental health outcomes of this demographic.

Based on the research findings, some concrete actions are suggested to prevent depression: first, implement early intervention programs that specifically target individuals who have experienced adverse childhood experiences (ACEs). Provide counselling and mental health support to young adults who may be at risk due to past traumatic events. The second is to conduct psychoeducation initiatives to raise awareness about the long-term consequences of adverse childhood experiences. These initiatives can be integrated into school curricula, community programs, and healthcare settings to inform individuals, families, and educators about the potential impact of childhood trauma on mental health. Moreover, integrate mental health education into the school curriculum to destigmatize discussions around mental health. Educate students about the signs of depression, the importance of seeking help, and available support resources. By fostering a culture of openness, students may feel more comfortable discussing their mental health concerns.

Declaration

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Author contributions

Shabina Rehman: Conceptualization, Methodology

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Conflict of interest

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