

## Article

# The Relationship between Quarter-Life Crisis and Psychological Well-Being among Undergraduates in Nigeria: Gender as a Moderator and Perceived Stress as a Mediator

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**ABSTRACT:** The transition to adulthood is often marked by identity struggles, commonly conceptualised as a quarter-life crisis (QLC), leading to poorer psychological well-being. This study examined the mediating role of perceived stress in the relationship between QLC and psychological well-being, and whether this indirect effect is moderated by gender. A cross-sectional survey of 301 Nigerian university students (158 males, 141 females) completed the self-report Developmental Crisis Questionnaire, Psychological well-being Scale and Perceived Stress Scale. Data was analysed using Hayes' PROCESS macro (Models 4 and 7). Results showed that QLC negatively predicted Psychological well-being ( $\beta = -0.34, p < 0.01$ ) and positively predicted perceived stress ( $\beta = 0.21, p < 0.01$ ). While there was no significant direct effect of QLC on PWB, there was a significant indirect effect through perceived stress ( $\beta = -0.07, 95\% \text{ CI } [-0.308, -0.051]$ ), supporting evidence for mediation. Gender moderated the QLC–stress path ( $\beta = 0.10, p = 0.03$ ). QLC predicted higher stress in females ( $\beta = 0.16, p < 0.001$ ) but not in males ( $\beta = 0.06, p = 0.11$ ). These findings highlight the gendered dynamics of QLC and underscore the importance of stress management, particularly among female students, in promoting psychological well-being during early adulthood.

**Keywords:** Quarter-life crisis; Perceived stress; Psychological well-being; Gender; Nigerian students



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## 1. Introduction

Transitioning into early adulthood, especially during university, brings some psychological and emotional uncertainties. For many emerging adults, this phase corresponds to what has been commonly labelled as the quarter-life crisis (QLC), a short period of acute instability characterised by identity confusion, dissatisfaction, and existential anxiety about their career, relationships, and personal growth [1]. Many university students at this phase of life face the pressures of academic performance, economic stability and independence, and concerted efforts toward their determined goals, relationships and career prospects, all of which can further impede their well-being [2]. The university education period often coincides with young people's adulthood. University students are likely exposed to more pressing responsibilities of handling social, relationship and economic challenges, and a few academic-related stressors might be detrimental to their psychological well-being [3–5]. University education appears to be a vital transition point for psychological well-being and health [2,3,5], as students most often report higher levels of psychological distress than those in the general population [6,7]. Recent evidence suggested that quarter-life crises may influence psychological well-being with specific emotional reactions such as dissatisfaction, disorientation, hopelessness, irritation, and inability to control their life outcomes [7,8]. University students may struggle with lowered self-esteem, emotional exhaustion, and insecurity when they perceive their life progression below their expectations [1,4]. Such negative self-perception could predispose them to depression, anxiety, and even suicide during the quarter-life crisis [5]. In Nigeria, this risk is intensified by personal and systemic limitations, including persistent economic constraints, poor access to career counselling, and a high rate of unemployment [8,9], which generate uncertainty around the prospects of their post-graduation opportunities [9,10]. With these statistics, the research on university students' well-being frequently overlooks the impact of elevated perceived stress, which stems from the challenges of emerging adulthood [2]. The

current study attempts to examine the relationship between quarter-life crisis and psychological well-being among a cohort of Nigerian university students, as well as the mediating role of perceived stress and the mediating role of gender.

## 2. Literature Review

### 2.1. Relationship between Quarter-Life Crisis and Psychological Well-Being

In past studies, the quarter-life crisis has been related to psychological well-being [11–14]. Psychological well-being is a multidimensional concept that comprises autonomy, environmental mastery, personal growth, purpose in life, positive relations with others, and self-acceptance [11]. Psychological well-being is a positive mental state that makes one feel good about life and satisfied with their condition [14,15]. For example, some studies have suggested that higher levels of well-being correspond with stronger resilience, better coping abilities and lower symptoms of stress and depression [16–18]. Individuals with a high level of psychological well-being may likely form quality relationships with others, become satisfied with their life, and maintain a purposeful living, ultimately facilitating their transition through life events, including quarter-life crisis [18–20]. Due to family or societal influence, the pressure to pursue undesired career paths, such as medicine or technology-inclined courses, can demoralise an individual's sense of independence and put them at risk of lower well-being [16]. Quarter-life crisis can exacerbate the feelings of hopelessness and perceived stagnation in university students due to poor access to opportunities for personal development, such as internships and skills enhancement training [19]. According to several studies, university students in quarter-life crisis may feel uncertain regarding their career path after school [19–22]. This may make them question the worth of their degrees, especially in a country with high unemployment rates or high levels of mismatch between academic training and labour market demands [10]. This experience may also increase self-comparison and criticism, especially as university students compare themselves to their successful peers on social media, leading to guilt and inadequacy [19,20]. Although [16] found that some individuals see QLC as a channel for personal development, they also observed that lower levels of psychological well-being are common among individuals with higher levels of quarter-life crisis, characterised by poor self-acceptance and self-doubting life purpose. Considerable research provides evidence of the significance of the inverse relationship between QLC and psychological well-being [16–18]. Anxiety and depression are the most common internal components associated with quarter-life crisis among university students [19–21], suggesting that a rise in anxiety and depression during the university years corresponds with a state of a drop in psychological well-being [19]. According to literature, psychological well-being could be negatively impacted by quarter-life crisis (QLC), due to the intensity of social and economic pressures, need to conform to societal expectations, such as inability to meet any of the societal milestones for marriage, employment or owning a house or vehicle, these may predispose the individuals to a sense of loss of control and hopelessness [19,22–24]. This also implies that when individuals base their self-worth on external validation during this phase, it can lead to the experience of depressive and anxiety symptoms and poorer well-being. Based on the existing findings, the current research hypothesises that quarter-life crisis will significantly predict psychological well-being (H1).

### 2.2. The Mediating Role of Perceived Stress

Although a quarter-life crisis (QLC) is a regular event that may intensify fear of uncertainty about an individual's identity and pose a serious risk to their well-being, the transactional stress model [18] can explain the interaction between QLC and psychological well-being through perceived stress. The transactional model of stress posits stress as the degree to which an individual subjectively appraises their life circumstances as unpredictable and overwhelming [25]. Since QLC comes with different changes and adjustments, individuals are more vulnerable to experiencing high levels of stress when they see their circumstances as unbearable or far more than their coping resources [18,19,24], which impedes their well-being [26–28]. Evidence shows that elevated stress from academic and social challenges may deplete critical psychological and emotional resources that support well-being [24,26,27]. Excessive exposure to stressful events decreases psychological well-being by lessening enthusiasm and excitement, instigating difficulties in emotional regulation, and impeding self-efficacy [24,28,29]. Heightened state of stress among university students has also been linked to poor sleep quality, examination-related worry and depression [26,30]. It can be inferred from the transactional model of stress that QLC does not directly impede well-being in individuals, and that stress plays a significant role in the psychological process by which the perceived burden of QLC translates into depletion of well-being since stress weakens an individual's capacity to effectively adjust to the changes brought about by QLC by

negatively appraising the events and then depleting well-being. Empirical data demonstrate that stress often mediates the relationship between significant life events and psychological well-being outcomes in young people [29,30].

QLC is likely to increase vulnerability to stress, especially with continuous exposure to uncertainties regarding personal growth and self-acceptance [18–20,31]. For instance, data showed that undergraduates' search for meaning and purpose in life is a significant cause of stress as they navigate university life [18,19]. About other sources of stress, the stress resulting from identity confusion and the need to find meaning in life has been demonstrated to have a greater negative impact on psychological well-being [28,29]. Additionally, people who are confused about who they are more likely to perceive ordinary life occurrences as unpleasant, which exacerbates psychological distress and compromises general well-being [22]. Longitudinal research among emerging adults supported the notion that identity confusion is strongly related to developing symptoms of anxiety and depression [31]. Intense stress that stems from inappropriate appraisal of one's capacity due to excessive and elongated uncertainty over identity-related concerns, like making a decision on one's ambitions for the future or career preference, maintaining an healthy relationships, determining one's sexual identity and behavior, religion, moral principles, and social affiliations come with consequent psychological disturbances and disruption to well-being [31–33]. Although a certain extent of identity confusion, uncertainty, and distress can facilitate the development of a sense of self [34,35], the process of experimenting with different life paths and reevaluating past decisions can lead to prolonged uncertainty that disrupts everyday functioning by undermining self-efficacy and environmental mastery of the ability to navigate through academic and social demands.

Some data from Nigerian studies also suggested that exposure to social media pressures may lead to poor self-image and aggravate identity-related stress among university students [36,37]. There is evidence that identity issues and academic-related demands are linked to intense stress levels among Nigerian students [38], implying that QLC may adversely impair psychological well-being through stress that comes from the way and manner in which students face their circumstances. According to a study, mental health and well-being were strongly and negatively impacted due to socio-economic constraints and difficulties, including financial pressure and existential stresses among a cohort of Nigerian young adults [38]. As the transactional model of stress states, it was observed from the study that individuals who are experiencing high levels of stress also expressed depressive and anxiety symptoms, as well as a diminished state of life satisfaction. Perceived stress is also related to the health outcomes in young people experiencing material hardship and role uncertainty as they navigate different developmental crises [9,10,23]. Similarly, the impact of socio-economic hardship that follows the stress of economic concerns and the high rate of unemployment is one of the major QLC issues that may impede the mental health of Nigerian undergraduates [9,10,38]. Data from Nigerian studies showed that the incidence of aggravated anxiety and depressive symptoms among students is linked not only to mounting socio-economic pressures and global economic recessions affecting both academic and daily life survival, but also to apprehensions regarding future economic stability [10,38]. According to a study of many Nigerian students, elevated stress was related to the prevailing deteriorating living conditions. It also exacerbated the fear that financial constraints may limit fulfilling their future ambitions, particularly within the competitive job market [39,40].

Perceived stress has been shown to mediate between different psycho-social determinants and mental health outcomes, including depression in Western countries [25–27,30,33]; however, empirical studies on the role of perceived stress in the relationship between QLC and psychological well-being remain limited, especially within the context of this study. Although numerous studies have investigated uncertainty stress and its impact on psychological disorders in Western countries, these theoretical frameworks may not be directly applicable to Nigerian undergraduates due to contextual factors such as economic instability, academic system challenges, and sociocultural expectations. The scarcity of empirical research examining the mediating role of perceived stress in the relationship between QLC and psychological well-being in this population underscores the need for the present study. Given that Nigerian students experienced stress from a variety of reasons, including a rapid socio-economic transformation, heightened rivalry for jobs, undeveloped social ideals, and sentiments of social anomie. It is plausible that the distress inherent in QLC increases perceived stress and impairs overall well-being. More specifically, this study attempts to determine whether the quarter-life crisis and perceived stress predict the psychological well-being of university students in Nigeria. Drawing from the existing literature, the present study postulates that perceived stress will mediate the relationship between QLC and psychological well-being (H2).

### 2.3. The Moderating Role of Gender

Since the period of university education coincides with the emerging adulthood, students are frequently exposed to intense stress originating from the need to perform well in school and graduate with good grades to leverage their

opportunities and prospects in the workforce. Gender has been consistently recognised to moderate the relationship between stressful life events and mental health outcomes in university students, particularly in the appraisal of the stressful event or the coping strategies adopted while navigating such stressful circumstances. Past studies have shown that females are likely to exhibit considerably greater levels of perceived stress and emotional reactions compared to their male counterparts when going through similar life challenges, particularly during any identity-related and academic transitions [22,27]. In a comprehensive study of Spanish young people, females were found to display higher levels of psychological distress, persistent stress, and emotional coping. At the same time, males reported positive self-esteem, higher problem-focused coping strategies and mindfulness [37,38]. Although females have access to social support, individual differences in the perception and coping strategies utilised during difficult times contributed significantly to the depletion of psychological well-being in both genders. For instance, women tend to have greater emotional sensitivity to everyday demands, making them more vulnerable to adverse emotional outcomes such as anxiety and depression [28]. In a mixed-methods study of adolescents and emerging adults, preferences for social support among young people with depressive and emotional disorders differ across gender [37–39]. Females preferred their peers to help them raise awareness of their emotional problems, while men sought peer support to enhance self-control. This implies that despite social support, there may be varied psychological outcomes across genders based on how they process support around them. According to literature, females tend to experience intense psychological distress that takes a toll on their well-being during QLC because they often internalise their emotional encounters, creating a sense of fear of uncertainties and relying on emotional coping, unlike men. For instance, males have been observed to underreport stressful events. They may not seek help on time based on their tendency to externalise problems by engaging in negative coping, such as substance abuse and gambling [39]. Drawing from the existing literature, the current study hypothesises that gender moderates the relationship between quarter-life crisis and psychological well-being as well as the mediating effect of perceived stress (H3).

### 3. Method

#### 3.1. Participants

This study employed a quantitative survey. A purposive sampling technique was utilised to select 301 university undergraduates aged between 18 and 29 years, with a mean age of 20.07 (SD = 2.15), enrolled in three conveniently selected universities in Lagos State, Nigeria. Participants comprised 52.5% male and 47.5% female undergraduates drawn from all academic levels (100–500 level), 33.9% of the participants were in their 400 level, followed by 19.3% for 300 level, 30.9% for 200 level, and 15.0% for 100 level. Only 1.0% were at the 500 level. Before the commencement of the study, the protocols of the study were reviewed and approved by the Ethics Committee of the Department of Psychology, Redeemer's University. The study adhered to ethical guidelines approved by the relevant university ethics review boards. Participation was voluntary, and the participants' informed consent was obtained; anonymity and confidentiality of data were maintained throughout the study. A total of 315 university undergraduates participated in the study, and 14 were excluded for answering the questionnaire incompletely (the response rate is 94.9%)

#### 3.2. Measures

1. Quarter-life crisis was evaluated using the developmental crisis questionnaire [40]. Participants were asked to recall the past two weeks when answering the questionnaire. DCQ-12 comprises 12 items, designed for the self-report assessment of psychological distress during a crisis, in the dimensions of emotional distress, cognitive overload, and perceived loss of control. The items are rated on a 5-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5), with a higher score denoting a higher impact of the crisis. The internal consistency of DCQ-12 is good ( $\alpha = 0.84$ ), and construct validity is acceptable [40]. A Cronbach's alpha coefficient of 0.82 was observed in the present study.
2. Psychological well-being was measured using the 18-item Psychological Well-being Scale [41]. PWBS is a self-report instrument used to assess six dimensions of psychological well-being: autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance, with responses recorded on a 6-point Likert scale ranging from 1 = Strongly Disagree to 6 = Strongly Agree. In the recent 2023 Swedish validation study, the 18-item version revealed good internal consistency ( $\alpha \geq 0.70$  for five dimensions) and structural validity via classical test theory and item response theory models. A Cronbach's alpha coefficient of 0.87 was observed in the present study.

3. The Perceived Stress Scale-10 (PSS-10) developed by [42] was utilised to assess the degree to which situations in the participant's life are appraised as stressful [43]. Items are scored on a 5-point Likert scale (0 = Never to 4 = Very Often), so a higher total score indicates greater perceived stress. The scale includes positively and negatively worded items, with positive items being reverse-scored before calculating a total score. Recent research has substantiated the two-factor structure (perceived helplessness and perceived self-efficacy) and high internal consistency ( $\alpha = 0.84\text{--}0.91$ ) across heterogeneous populations. Participants in this study were asked to remember their experience in the past month.

### 3.3. Statistical Analysis

Data were coded and analysed using IBM SPSS Statistics (Version 23). Descriptive statistics (frequencies, percentages, means, and standard deviations) were computed for the analysis of the demographics of the participants. Inferential statistics, including Pearson's correlation, were employed to assess associations between the study's variables. PROCESS Macro (Model 4) [43] was used for mediation analysis to examine the role of identity development and perceived stress in the relationship between quarter-life crisis and psychological outcomes. The mediation effects were tested using the bootstrap method, which provides 95% bias-corrected confidence intervals for estimates obtained from 5000 resamples of the data. Confidence intervals without zero indicate significant effects. A Monte Carlo simulation was calculated to assess the adequacy of the sample size of 301 used in the study, and to establish the sufficiency of the statistical power for detecting the hypothesised indirect effect of quarter-life crisis on psychological well-being through perceived stress.

## 4. Results

Table 1 presents the means, standard deviations, and Pearson correlation coefficients among study variables. Age was significantly correlated with quarter-life crisis ( $r = 0.21, p < 0.01$ ) and perceived stress ( $r = 0.29, p < 0.01$ ), suggesting that older students reported higher crisis and stress levels. Gender showed significant negative associations with quarter-life crisis ( $r = -0.15, p < 0.05$ ), perceived stress ( $r = 0.19, p < 0.01$ ) and psychological well-being ( $r = -0.13, p < 0.05$ ), indicating that female students reported greater stress and lower well-being. Quarter-life crisis was positively associated with perceived stress ( $r = 0.20, p < 0.01$ ). Negatively with psychological well-being ( $r = -0.12, p < 0.05$ ). Perceived stress had a strong negative relationship with psychological well-being ( $r = -0.35, p < 0.01$ ), emphasising the detrimental effect of stress on students' psychological well-being.

**Table 1.** Zero Order Correlation Matrix for the study variables (N = 301).

Variable	Mean (SD)	1	2	3	4	5
Age	20.05 (2.08)	1				
Gender	1.49 (0.50)	−0.15 *	1			
Quarter-Life Crisis	39.52 (4.92)	0.21 **	−0.15 *	1		
Perceived Stress	23.83 (6.62)	0.29 **	0.19 **	0.20 **	1	
Psychological Well-being	54.81 (11.24)	−0.08	−0.13 *	−0.12 *	−0.35 **	1

\*\*  $p < 0.01$ , \*  $p < 0.05$ .

### Monte Carlo Power Analysis

To establish whether the study's sample size (N = 301) was appropriate to detect the hypothesised indirect effect of quarter-life crisis (QLC) on psychological well-being (PWB) through perceived stress, a Monte Carlo simulation was conducted. The simulation was parameterised utilising the standardised estimates from the observed mediation model ( $a = 0.21, b = -0.34, c' = -0.04$ ). For each of 5,000 replications, a dataset with N = 301 was generated under this population model, with residual variances set to preserve unit variances ( $\text{Var}[\text{QLC}] = 1$ ). The mediation model was re-estimated, and the indirect effect was measured with a 95% bootstrap confidence interval (2000 draws) without zero.

The result implied that the design provided adequate statistical power to detect the indirect effect (0.91) with a 95% CI [0.88, 0.94], coverage for the actual indirect effect (−0.071). These findings indicated that the present research had adequate power to assess the mediation hypothesis. This provided support for the indirect mechanism reported in Table 2.

**Table 2.** Summary of Regression Analyses Examining the Mediation of Perceived Stress in the Relationship between Quarter-Life Crisis and Psychological Well-Being.

Predictor	Outcome	SE	$\beta$	t	95% CI
Quarter-Life Crisis	Perceived Stress	0.08	0.21	3.71 **	[0.132, 0.430]
Quarter-Life Crisis	Psychological Well-Being (Direct)	0.13	−0.04	−0.79	[−0.350, 0.150]
Perceived Stress	Psychological Well-Being	0.09	−0.34	−6.17 **	[−0.774, −0.400]
Quarter-Life Crisis	Psychological Well-Being (Total Effect)	0.13	−0.12	−2.01 *	[−0.524, −0.006]
QLC-Stress-PWB	Indirect Effect via Stress	0.07 *	−0.07 *	—	[−0.308, −0.051] #

Note. N = 301. \*\*  $p < 0.01$ , \*  $p < 0.05$ , CI = confidence interval; SE = standard error;  $\beta$  = standardised coefficient. # Bootstrapped SEs and CIs used for indirect effects.

Table 2 presents a mediation analysis conducted using Model 4 of the PROCESS macro to examine whether perceived stress mediates the relationship between quarter-life crisis and psychological well-being among university students. The results show that QLC significantly predicted higher levels of perceived stress ( $\beta = 0.21$ , SE = 0.08,  $t = 3.71$ , 95% CI [0.132, 0.430],  $p < 0.01$ ), suggesting that individuals experiencing greater QLC symptoms tend to report more stress. In turn, perceived stress significantly predicted lower psychological well-being ( $\beta = -0.34$ , SE = 0.09,  $t = -6.17$ , 95% CI [−0.774, −0.400],  $p < 0.01$ ), indicating that higher stress is related to diminished well-being.

Although the direct effect of QLC on PWB was not statistically significant ( $\beta = -0.04$ , SE = 0.13,  $t = -0.79$ , 95% CI [−0.350, 0.150]), the total effect of QLC on PWB was significant ( $\beta = -0.12$ , SE = 0.13,  $t = -2.01$ , 95% CI [−0.524, −0.006],  $p < 0.05$ ), indicating that the indirect pathway partially explains the overall relationship between QLC and PWB through stress. The indirect effect of QLC on PWB via perceived stress was statistically significant ( $\beta = -0.07$ , SE = 0.07, 95% CI [−0.308, −0.051]). Thus, the result supports the hypothesis that perceived stress mediates the association between quarter-life crisis and psychological well-being. These findings suggest that perceived stress serves as a significant psychological mechanism through which quarter-life crises negatively affect young adults' psychological well-being.

Table 3 shows the result of a moderated mediation analysis conducted to examine whether gender moderates the indirect effect of quarter-life crisis (QLC) on psychological well-being (PWB) through perceived stress.

**Table 3.** Moderated Mediation Model Summary and Conditional Effects.

Path	$\beta$	SE	t	p	95% CI
DV = Perceived Stress (M)					
Quarter-Life Crisis (X)	−0.05	0.08	−0.62	0.53	[−0.199, 0.104]
Gender (W)	−10.28	5.94	−1.73	0.08	[−21.97, 1.40]
Quarter-Life Crisis $\times$ Gender (X $\times$ W)	0.10	0.05	2.16	0.03	[0.009, 0.198]
DV = Psychological Well-being (Y)					
Quarter-Life Crisis (X)	−0.26	0.04	−6.73	<0.001	[−0.341, −0.188]
Perceived Stress (M)	−0.45	0.09	−5.04	<0.001	[−0.628, −0.276]

Effect of QLC and Gender on Perceived Stress. In the first stage of the model, perceived stress was regressed on QLC, gender, and the interaction term QLC  $\times$  gender. The main effect of QLC on perceived stress was not statistically significant,  $\beta = -0.05$ , SE = 0.08,  $t = -0.62$ ,  $p = 0.53$ , 95% CI [−0.199, 0.104], indicating that, on average, QLC did not significantly predict perceived stress across the sample.

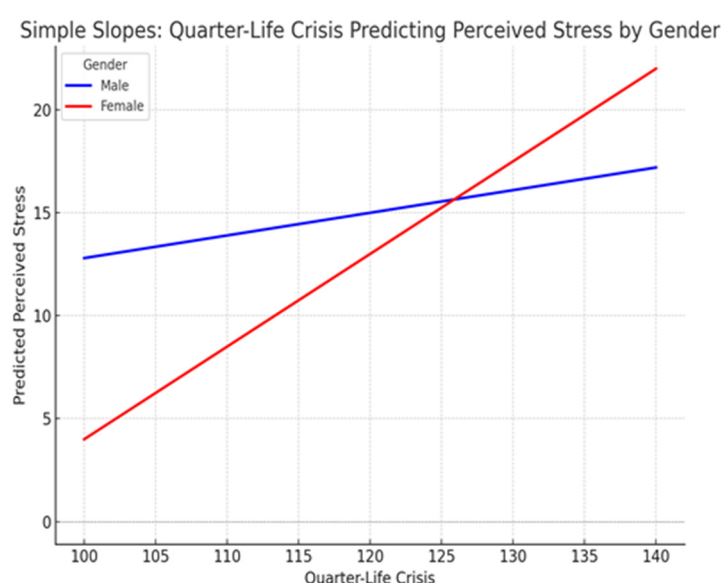
However, a significant interaction emerged between QLC and gender,  $\beta = 0.10$ , SE = 0.05,  $t = 2.16$ ,  $p = 0.03$ , 95% CI [0.009, 0.198], suggesting that the effect of QLC on perceived stress was conditional on gender. The main effect of gender approached statistical significance,  $\beta = -10.28$ , SE = 5.94,  $t = -1.73$ ,  $p = 0.08$ , 95% CI [−21.97, 1.40], indicating a potential trend toward gender-based differences in stress. In the second stage, psychological well-being was regressed on QLC and perceived stress. It was observed that QLC significantly and negatively predicted PWB,  $\beta = -0.26$ , SE = 0.04,  $t = -6.73$ ,  $p < 0.001$ , 95% CI [−0.341, −0.188], indicating that greater experiences of QLC were associated with lower levels of well-being. Perceived stress also negatively predicted PWB,  $\beta = -0.45$ , SE = 0.09,  $t = -5.04$ ,  $p < 0.001$ , 95% CI [−0.628, −0.276], suggesting that higher stress levels contributed to poorer psychological outcomes.

Table 4 and Figure 1 shows the significant interaction between Quarter-life crisis (QLC) and gender on perceived stress using a simple slopes analysis. The conditional effect of QLC on perceived stress was examined separately for males and females. For males, the effect of QLC on perceived stress was positive but not statistically significant,  $\beta = 0.06$ ,  $SE = 0.03$ ,  $t = 1.62$ ,  $p = 0.11$ , 95% CI  $[-0.012, 0.125]$ , indicating that QLC was not a significant predictor of stress in this group. In contrast, for females, the effect of QLC on perceived stress was positive and statistically significant,  $\beta = 0.16$ ,  $SE = 0.03$ ,  $t = 4.81$ ,  $p < 0.001$ , 95% CI  $[0.095, 0.226]$ , suggesting that higher levels of QLC are associated with increased perceived stress among female participants.

**Table 4.** Conditional Effects (Simple Slopes).

Gender	Effect of Quarter-Life Crisis on Stress	SE	t	p	95% CI
Male (1)	0.06	0.03	1.62	0.106	$[-0.012, 0.125]$
Female (2)	0.16	0.03	4.81	0.000	$[0.095, 0.226]$

These findings indicate that the relationship between QLC and perceived stress is moderated by gender, such that the association is more substantial for females than males.



**Figure 1.** Simple slopes showing the gender differences in the linkages between quarter-life crisis and perceived stress and psychological well-being.

## 5. Discussion

The study assessed whether perceived stress mediates the interaction between quarter-life crisis and psychological well-being, as well as the moderating role of gender in a cohort of university students in Nigeria. Consistent with existing literature, the findings indicate that quarter-life crisis significantly predicts elevated stress, which in turn undermines psychological well-being.

### 5.1. The Mediating Role of Perceived Stress in the Relationship between QLC and Psychological Well-Being

Notably, the findings show that quarter-life crises influence psychological well-being indirectly via perceived stress, suggesting that the adverse effects of quarter-life crises on well-being are primarily channelled through heightened stress levels. This supports research statistics that quarter-life crises are a usual experience in emerging adulthood, where personal aspirations frequently conflict with external expectations [18]. However, when not managed well, these issues could aggravate stress levels, which acts as a key psychological mechanism through which life transition challenges impact mental health outcomes [12,18,19,44]. A quarter-life crisis might feel overpowering when coping resources are scarce, despite being a typical developmental event [18,19,45]. Past studies have shown that university students frequently navigate academic, career, relational, and self-identity uncertainties simultaneously [21,32], which could result in heightened stress levels when their expected goals do not match reality. Relatedly, psychological well-being may decrease when they start perceiving themselves falling behind. As the pressures

originating from the crisis frequently contribute to a sense of underachievement and emotional distress [1,18,34]. Findings in the literature support the indirect impact of quarter-life crisis through perceived stress and align with how university undergraduates internalise and handle quarter-life crises [14,18,45,46]. This result aligns with research showing that young adults with poor emotion regulation and high stress sensitivity struggle more during life transitions [33–35]. Some students might see stressful events as a learning process and seek help when overwhelmed.

In contrast, others may internalise the stressful experience as a personal inadequacy and negatively ruminate on it, creating a sense of helplessness and anxiety [34,35]. This indicates that university students with poor emotion regulation skills were much more likely to experience a poor level of psychological well-being whenever they encountered quarter-life crises. Similarly, ref. [45] observed that people prone to being emotionally or physically overwhelmed frequently have difficulty managing everyday pressures, even when the pressures are not challenging. The findings of this study also affirm prior studies suggesting that university students with poor capacity for emotional regulation are likely to be less resilient in the face of quarter-life crises, such as socio-economic and academic stress that place demands on their psychological well-being [31,33,35,36]. Since university education usually coincides with the emerging adulthood phase, students attempt to acquire, accumulate and preserve their significant assets, such as finishing top of their class or winning several awards, which places them in a better position than their peers. A threat that comes as a loss of these desires, or which results in actual loss and incapability to achieve their dreams despite their efforts, can result in elevated stress levels [33–35]. This may be related to the understanding that psychological well-being could be affected by internal coping strategies adopted by university undergraduates as they navigate quarter-life crises, coupled with the demands of university education. Consequently, the actual difference in psychological well-being is not the presence of a quarter-life crisis, but rather how people handle and react to the stress that comes from it.

## 5.2. *The Moderating Role of Gender in the Relationship between QLC and Psychological Well-Being*

Consistent with past findings, the current study observed that gender significantly moderates the relationship between QLC and stress and suggested that female students experiencing quarter-life crises might be susceptible to elevated levels of stress, which in turn impedes their well-being. These results support prior studies highlighting gender differences in the manner by which individuals appraise life challenges and psychological distress [47–49]. Specifically, the link between quarter-life crisis and stress was significant for female students but not for males. This shows that young women may find the pressures and uncertainties of emerging adulthood more emotionally overwhelming [1,34] and might internalise the issues connected with social pressures and identity uncertainty more intensely, leading to increased stress amid quarter-life crises [17,18,39]. There is evidence that women are disposed toward more emotion-focused strategies, including rumination, self-blame, and seeking emotional support, in contrast to men who engage in problem-focused or avoidant styles when navigating quarter-life challenges [18,47]. The findings of this study have been documented in prior research, where women report higher levels of stress in academic and identity-threatening situations compared to their counterparts [24,39]. This may be explained in part by gender role socialisation, wherein females are socialised to be more emotionally expressive and attuned to relational stressors, enhancing their sensitivity to internal conflict during life transitions [39,50,51].

In contrast, the absence of moderation in the latter paths of the results implies that as stress levels begin to rise, its detrimental role on well-being appears uniform for both genders. This may suggest that, independent of gender, perceived stress serves as a universal risk factor for declined psychological well-being. This pattern is in line with other research showing that although stress may be more common or experienced differently by men and women, the effects of stress on mental health outcomes are frequently not significantly different [38,52,53]. Another likelihood is that gender influences how people interpret and react emotionally to life challenges [51,53]. However, once stress manifests, its impacts on well-being and mental health may be triggered by less gender-specific biological or mental processes [52]. In addition, gender not moderating the entire paths may also imply that there are other underlying factors, like the coping strategies, peer support or the sociocultural practices that may interact with gender to influence these pathways [53].

Despite the strengths of this study, there are some limitations. First, a cross-sectional study design is used, which prevents causal interpretation and demands longitudinal or experimental designs to determine temporal precedence. Moreover, the use of self-report instruments comes with response bias. Future researchers should attempt a mixed-method study, and qualitative data should be taken to achieve a deeper understanding. Furthermore, cultural variables influencing the perception and experience of quarter-life crises within the Nigerian context require further inquiry, because culture-based expectations could be developmentally stressful in a way that differs from Western populations.



## 6. Conclusions

The present study provides robust evidence that perceived stress fully mediates the relationship between quarter-life crisis and psychological well-being, and this relationship is moderated by gender among university students. The findings highlight the psychological vulnerability of emerging adults navigating identity-related challenges and emphasise the importance of targeted stress reduction strategies in fostering resilience and psychological well-being during this critical life period.

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## Author Contributions

Conceptualisation, Literature Review and Methodology, Formal analysis and Interpretation, Writing and Original Draft, Review & Editing, J.O.O.

## Ethics Statement

The study was conducted strictly following the guidelines of the 1975 Helsinki Declaration on human subject research and with the approval No. (RUN/REC/2025/358, Date of approval: 15 April 2025) by the Redeemer's University Ethics Committee.

## Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

## Data Availability Statement

Data of the study will be made available on justifiable request.

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## Declaration of Competing Interest

The author has no competing interests.

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