

# The Role of Retirement Anxiety in Shaping the Link between Late-Career Work Disengagement and Psychological Retirement Planning among Nurses

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## Abstract

In response to the growing number of employees approaching retirement and the challenges they encounter, this study, informed by life-span development theory, the resource-based dynamic perspective of retirement adjustment, and stress and coping theory, examines the moderating role of retirement anxiety in the relationship between late-career work disengagement and psychological retirement planning among nurses. This study explores whether anxiety related to retirement intensifies work disengagement, thereby affecting psychological retirement planning. A two-wave design was employed to recruit 500 Nigerian nurses aged 50–60 years ( $M=53.64$ ;  $SD=3.76$ ) with ten years or less until retirement using purposive sampling. Data were collected using the Psychological Retirement Planning Scale, Late-Career Work Disengagement Scale, and Retirement Anxiety Scale. Pearson's correlation was used to examine the bivariate relationships among the study variables, and Hayes PROCESS macro, Model 1, was employed for the analysis. The findings revealed a significant positive association between late-career work disengagement and psychological retirement planning, indicating that nurses experiencing higher levels of late-career work disengagement were more likely to engage in psychological retirement planning. Retirement anxiety was found to moderate this relationship; specifically, high retirement anxiety intensified the positive association between late-career work disengagement and psychological retirement planning, whereas low retirement anxiety diminished this association. These findings underscore the necessity for healthcare organizations to address retirement anxiety as a critical factor influencing nurses' engagement and preparatory behaviours for retirement. By understanding this dynamic, healthcare administrators can develop interventions to alleviate retirement anxiety and promote engagement and effective retirement planning among nurses. These implications extend beyond individual nurses, suggesting that enhancing retirement transitions may improve workforce sustainability and healthcare service quality, thereby contributing to a healthier work environment and optimizing patient-care outcomes.

**Keywords:** *Late-Career Work Disengagement, Nurses, Psychological Retirement Planning, Retirement Anxiety.*

## INTRODUCTION

The complexities associated with retirement for professionals, particularly in high-demand fields such as nursing, have become increasingly evident owing to demographic shifts and evolving healthcare systems (Fimmanò et al., 2026). The global nursing workforce is currently facing a critical shortage (Ike et al., 2025), exacerbated by an aging population and the impending retirement of experienced nurses, making it essential to understand the

psychological factors influencing this transition (Ren & Lim, 2026). Retirement, often perceived as a significant life milestone, can induce anxiety that affects work engagement, especially among nurses nearing the end of their careers (Lee & Kim, 2025). According to Pit et al. (2021), retirement necessitates a shift in roles and mindset as nurses' transition from caregivers to recipients of care. In alignment with this perspective, Rhan et al. (2021) noted that this change can be emotionally challenging, requiring nurses to acknowledge and accept their vulnerabilities while relying on others for support. This understanding is crucial because comprehending the psychological aspects of retirement planning can assist nurses in making informed financial decisions, managing their retirement savings, budgeting for retirement expenses, and adjusting to changes in income and financial responsibilities (Pilipiec et al., 2022). However, the transition from a long-held career to retirement represents a significant life stage that encompasses various psychological dimensions (Lee & Kim, 2025), particularly given the complex nature of nursing, which involves intense emotional labor and high levels of responsibility. As nurses approach the end of their careers, they often encounter a range of psychological challenges, including work disengagement and anxiety related to retirement (Ujoanonu et al., 2020), which can impact their ability to develop effective retirement plans. Understanding these dynamics is crucial, as the nursing profession faces an impending crisis of workforce shortages (Ike et al., 2025), underscoring the necessity for psychological retirement planning and a smoother transition for those nearing retirement age. According to Pilipiec et al. (2022), understanding the psychological aspects of retirement planning aids nurses in making informed financial decisions, managing their retirement savings, budgeting for retirement expenses, and adjusting to changes in social, income, and financial responsibilities. This is due to the myriad changes associated with retirement, which could lead to feelings of loss and grief as nurses' emotional connections with patients and colleagues may change or end. Kulik et al. (2014) assert that retirement planning is crucial, as retirement savings, pension plans, and other financial resources play a significant role in their overall financial well-being and social life after retirement. This facilitates the retirement transition by addressing concerns about identity, purpose, social connections, and overall life satisfaction (Low et al., 2016).

Psychological retirement planning is a comprehensive and proactive process through which individuals cognitively, emotionally, and behaviorally prepare for life post-retirement by integrating financial security, lifestyle adjustment, health maintenance, and psychological adaptation (Liu et al., 2021). This process extends beyond economic readiness to encompass the development of attitudes, expectations, coping strategies, and identity reconstruction necessary for a satisfying and well-adjusted transition to retirement. From a financial planning perspective, psychological retirement planning includes perceived preparedness and confidence in managing retirement income, savings, and expenditure. Empirical studies indicate that individuals with stronger financial preparedness exhibit lower retirement anxiety and higher life satisfaction (Hershey et al., 2013; Topa et al., 2018) as financial readiness contributes to a sense of control, which is central to psychological well-being during retirement. Lifestyle planning involves anticipating changes in daily routines, social roles, and engagement in meaningful activities, such as volunteering, leisure, or part-time work. Research suggests that individuals who actively plan post-retirement activities experience smoother transitions and reduced role losses (Wang et al., 2011; Yeung & Zhou, 2017). Additionally, health planning before retirement involves preparing for physical and mental well-being in later life, including preventive healthcare, healthy behaviors, and access to medical services. Empirical evidence indicates that individuals who incorporate health expectations into retirement

planning report better adjustment and reduced stress during retirement (Yuan et al., 2025). Psychological planning focuses on emotional readiness, identity continuity, goal setting, and coping with retirement-related changes, such as the loss of work identity. Studies have demonstrated that psychological resources such as self-efficacy, resilience, and future time perspective, significantly predict retirement satisfaction and adjustment (Topa & Valero, 2017; Barbosa et al., 2016). Hence, the integration of these domains facilitates successful retirement, as retirement is not solely determined by financial readiness but also by an individual's ability to adapt psychologically, maintain health, and construct a meaningful post-work life. Thus, psychological retirement planning involves preparing financially, emotionally, and mentally for the transition from professional responsibilities to personal pursuits (Lu et al., 2025). For instance, Carver and Scheier (1998) asserted that psychological retirement planning facilitates a smoother adjustment to retirement by equipping individuals with coping mechanisms to navigate changes effectively. Studying and understanding psychological retirement planning promotes overall well-being in retirement, enhancing quality of life, maintaining positive mental health, and finding fulfillment and satisfaction in post-work years (Fisher et al., 2016). Considering the psychological dimensions of retirement planning can better prepare individuals for the challenges and opportunities during this life phase, leading to a more fulfilling and satisfying retirement experience (Garavaglia et al., 2021), which helps address these unique challenges and supports them in maintaining their overall well-being, finding meaning and purpose in retirement, and successfully navigating the psychological aspects of this life transition (Jiang et al., 2021).

However, the issue of late-career work disengagement has emerged as a significant concern impacting the transition to retirement (Ujoatuonu et al., 2020). Late-career disengagement refers to a gradual reduction in employees' psychological attachment, motivation, and active participation in their professional roles as they approach the latter stages of their careers, often preceding retirement (Damman et al., 2013). This phenomenon is characterized by a decline in work centrality, reduced effort investment, diminished organizational commitment, and a shift in priorities from career advancement to non-work domains (Damman et al., 2013). This shift involves a re-evaluation of goals and resources as individual's age and is perceived as a self-regulatory and adaptive process rather than merely a negative withdrawal. For instance, Wrosch et al. (2003) illustrate that older adults increasingly disengage from unattainable goals, such as career progression, and reallocate effort toward more meaningful or attainable pursuits, a process termed adaptive goal disengagement. Similarly, Wang et al. (2011) provide evidence that as employees near retirement, they often exhibit reduced job involvement and psychological withdrawal, particularly when retirement emerges as a salient and desirable goal. This suggests that disengagement can coexist with well-being when it aligns with individuals' evolving goals and retirement expectations (Rudolph et al., 2018). This indicates that late-career work disengagement represents a critical developmental process through which older employees gradually withdraw psychological investment from work as retirement approaches (Damman et al., 2013). Drawing on life-span development and resource-based perspectives (Baltes & Baltes, 1990), this disengagement reflects an adaptive reallocation of resources toward future life domains, particularly retirement planning. Thus, late-career work disengagement can be meaningfully positioned as a predictor of psychological retirement planning, with retirement anxiety serving as a moderating mechanism. Consequently, fostering a supportive environment that encourages proactive retirement planning helps address retirement anxiety by enhancing individuals' preparedness, confidence, and psychological resources for the

transition into retirement (Ugwu & Idemudia, 2023; Yuan et al., 2025). Furthermore, this relationship is contingent on individuals' emotional responses to retirement. Retirement anxiety represents a multifaceted form of anticipatory stress experienced as individuals approach retirement, driven by uncertainties regarding financial security, health, social identity, and adjustment to post-work life structures (Ugwu et al., 2024; Ujoatuonu et al., 2023). Recent empirical evidence characterizes it as a psychological response to the significant life transition of retirement, which frequently disrupts routines, identity, and goals, thereby eliciting fear and uncertainty concerning post-work adjustment (Ugwu et al., 2024). Studies further indicate that anxiety is particularly associated with concerns about transitioning from a structured, work-oriented life to an unstructured retirement phase, especially when individuals feel unprepared or lack clear retirement goals (Ujoatuonu et al., 2023). This demonstrates that retirement anxiety reflects future-oriented psychological distress shaped by perceived inadequacy of resources and readiness for life after work. Thus, retirement anxiety is expected to moderate the relationship between late-career work disengagement and psychological retirement planning, strengthening the positive association under conditions of high anxiety.

Empirical research increasingly indicates that retirement anxiety positively influences psychological retirement planning. Individuals experiencing heightened concerns about financial security and post-retirement adjustment are more inclined to engage in proactive planning behaviors to mitigate uncertainty and enhance preparedness (Ugwu & Idemudia, 2023; Ugwu et al., 2024; Ren & Lim, 2026). For example, emerging evidence suggests that late-career work disengagement may not only intensify retirement-related anxiety but also stimulate proactive retirement planning behaviors, indicating a dynamic and potentially cyclical relationship that warrants further empirical investigation (Ugwu & Idemudia, 2023; Ugwu et al., 2024; Henning et al., 2024). Recent empirical studies reveal that nurses, due to the physically and psychologically demanding nature of their profession, tend to exhibit elevated levels of retirement anxiety. This heightened anxiety complicates both their disengagement from long-standing work roles and their engagement in structured retirement planning processes (Ujoatuonu et al., 2023; Kim & Jung, 2023; Ugwu et al., 2024). Prior studies (e.g., Lee, 2025; Ujoatuonu et al., 2024; Sun et al., 2025) underscore the importance of integrating emotional dimensions, particularly retirement anxiety, into models of late-career transitions. Such an approach recognizes retirement as a psychologically embedded process and suggests that enhanced organizational, counseling, and planning support can facilitate smoother transitions for nurses while simultaneously contributing to workforce sustainability and healthcare system effectiveness. Understanding the moderating role of retirement anxiety in this context necessitates a multifaceted methodological approach. Quantitative studies, particularly those involving nursing populations, have increasingly captured the complex emotional and psychological dimensions of late-career transitions, demonstrating that retirement anxiety significantly influences decisions regarding work disengagement and engagement in retirement planning behaviors (Ujoatuonu et al., 2023; Ugwu et al., 2024). This alignment underscores the necessity of incorporating psychological frameworks to understand nurses' transitions from work to retirement. Empirical evidence indicates that retirement anxiety can function as a psychological booster, facilitating proactive planning and fostering adjustment processes, thereby highlighting the importance of integrating emotional dimensions into retirement research (Alavi et al., 2023; Ujoatuonu et al., 2023; Ugwu et al., 2024). Despite these emerging insights, significant gaps remain in understanding how retirement anxiety moderates the relationship between late-career work disengagement and psychological preparedness for retirement among nurses. Most existing research has predominantly focused

on the direct implications of disengagement or retirement anxiety in isolation, lacking a comprehensive analysis of their interdependent effects (Field, 2025; Ugwu et al., 2024). Furthermore, there has been limited exploration of the psychological mechanisms linking these constructs, which could inform interventions aimed at supporting late-career nurses. Most of this existing research has primarily focused on the relationships between disengagement and anxiety in isolation, resulting in a lack of comprehensive frameworks that capture their interdependent nature. Additionally, most studies have employed limited methodological approaches, necessitating further exploration through diverse perspectives (Field, 2025; Teques et al., 2025). For instance, there is a paucity of literature on longitudinal designs within the sub-Saharan African context, such as in Nigeria, that can provide insights into the evolution of these dynamics over time. Such studies could elucidate how late-career work disengagement translates into psychological retirement planning, thereby helping to mitigate retirement anxiety in the latter stages of one's career. However, the specific moderating roles of retirement anxiety have not been thoroughly examined longitudinally within the nursing context, indicating a significant opportunity for future research. Investigating the moderating role of retirement anxiety among nurses amid late-career work disengagement and psychological retirement planning has yielded critical insights into an increasingly pressing issue within the healthcare sector. As nurses approach retirement, the cumulative impact of sustained emotional labor and escalating professional responsibilities contributes to increased levels of work disengagement, which are associated with heightened retirement anxiety. Sustained emotional labor has been linked to psychological strain and reduced engagement in nursing, underscoring how chronic occupational stressors can undermine well-being and professional commitment (Teques et al., 2025). Importantly, this dynamic reflects a complex interplay whereby disengagement may exacerbate psychological concerns about retirement; however, when late-career disengagement occurs alongside deliberate and structured retirement planning, it can indicate adaptive transition strategies among employees (Damman et al., 2013). Addressing this oversight is essential, as enhancing the understanding of retirement dynamics can lead to targeted interventions that benefit individual nurses and contribute to the overall stability of the healthcare workforce. Such insights are critical in an aging workforce, affirming the importance of addressing the psychological factors accompanying late-career transitions. Consequently, organizations can better equip their nursing staff to navigate the complexities of retirement, enhancing both individual satisfaction and organizational performance, thereby fostering significant buffers that influence late-career work disengagement and psychological preparation for retirement among nurses.

### **Theoretical Framework and Hypotheses Development**

This study is grounded in the integration of life-span development theory (Baltes & Baltes, 1990), the resource-based dynamic perspective of retirement adjustment (Wang et al., 2011), and stress and coping theory (Lazarus & Folkman, 1984) to elucidate the relationship between late-career work disengagement (LCWD), retirement anxiety, and psychological retirement planning (PRP). From a life-span development perspective, individuals actively regulate their goals, motivations, and resource allocation across various life stages (Baltes & Baltes, 1990). As employees near retirement, they increasingly shift their focus from growth-oriented, work-related goals to maintenance and loss-prevention goals associated with later life. This transition often manifests as late-career work disengagement, characterized by reduced job involvement, declining motivation, and psychological withdrawal from work roles. Empirical evidence suggests that proximity to retirement significantly predicts disengagement, as workers gradually detach from occupational identities in preparation for retirement

(Damman et al., 2013). In this context, LCWD is not inherently maladaptive but reflects an age-related adjustment process that enables individuals to redirect attention toward future life domains, including retirement planning.

Complementing this perspective, the resource-based dynamic perspective (Wang et al., 2011) posits that successful retirement adjustment depends on the accumulation, preservation, and strategic investment of key resources, including financial, social, emotional, and cognitive assets. Within this framework, the LCWD can be conceptualized as a resource reallocation mechanism, whereby individuals conserve diminishing work-related resources and channel them into preparatory activities for retirement. Empirical studies support this proposition, indicating that individuals who engage in anticipatory adjustments, such as reducing work centrality, are more likely to exhibit higher levels of retirement preparedness and planning behaviors (Topa & Valero, 2017; Yeung & Zhou, 2017). Thus, the LCWD is expected to positively influence PRP by facilitating cognitive and emotional readiness for retirement transitions. However, the extent to which disengagement translates into effective planning is contingent on individuals' emotional responses to retirement, particularly retirement anxiety.

Drawing on stress and coping theory (Lazarus & Folkman, 1984), retirement anxiety can be understood as a psychological response to perceived uncertainty, loss of identity, and anticipated challenges associated with retirement. When individuals appraise retirement as a threatening or uncontrollable event, they may experience heightened anxiety, which can impair adaptive coping strategies and reduce proactive planning behaviors.

Empirical research demonstrates that emotional factors, including anxiety and uncertainty, significantly influence retirement-related decision-making and planning engagement (Hershey, Henkens, & van Dalen, 2013). Furthermore, Fasbender et al. (2019) found that future-oriented perceptions and emotional regulation shape how older workers translate late-career experiences into post-retirement preparation. Integrating these perspectives, this study posits that LCWD serves as a developmental and resource-driven process that facilitates PRP, but that this relationship is moderated by retirement anxiety. Specifically, when retirement anxiety is low, disengagement is likely to function adaptively, enhancing individuals' capacity to engage in meaningful planning.

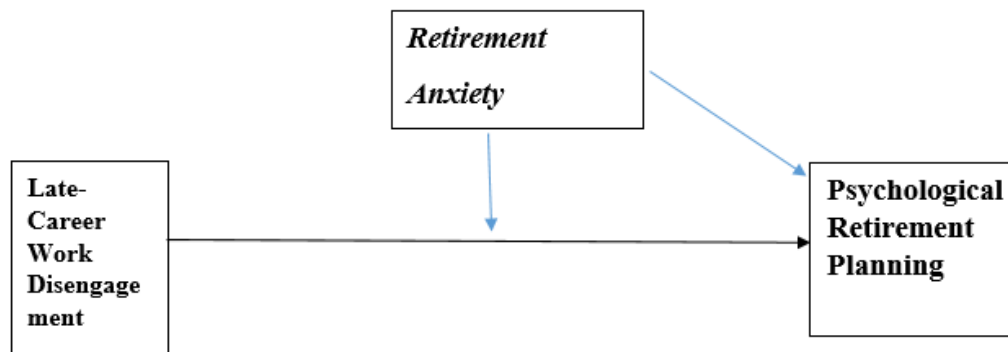
Conversely, when anxiety is high, the beneficial effects of disengagement may be attenuated, as individuals may adopt avoidance-oriented coping strategies that hinder effective preparation. Together, these theories provide a comprehensive theoretical foundation for understanding how late-career disengagement translates into psychological retirement planning under varying levels of psychological anxiety.

Based on this premise, the following hypotheses were postulated:

**Hypothesis 1:** Late-career work disengagement will have a significant positive association with psychological retirement planning among Nigerian nurses.

**Hypothesis 2:** Retirement anxiety will have a significant association with psychological retirement planning among Nigerian nurses.

**Hypothesis 3:** Retirement anxiety moderates the relationship between late-career work disengagement and psychological retirement planning, such that the positive relationship is stronger when retirement anxiety is high and weaker when it is low.



**Figure 1: Hypothetical model of the current study depicting links among the study variables**

## METHODS

### Research Design

This study employed a two-wave design to investigate the moderating role of retirement anxiety in the relationship between late-career work disengagement and psychological retirement planning among nurses. This design mitigates common method variance and enhances temporal precedence, aligning with contemporary methodological recommendations for reducing bias in behavioural research (Nnadozie et al., 2025).

### Participants

This study concentrated on registered nurses employed in federal government hospitals situated in the south-eastern region of Nigeria. Employing purposive sampling, the research exclusively targeted late-career nurses, defined as those aged 50 years and above or possessing a minimum of 20 years of professional experience, due to their proximity to retirement and relevance to the study variables. The sample consisted of 500 registered nurses, comprising 69 males (13.8%) and 431 females (86.2%), with an age range of 50 to 60 years ( $M=53.64$ ;  $SD=3.76$ ). The inclusion criteria were male and female nurses aged 50 years and above, with at least 20 years of work experience in a federal government hospital in southeast Nigeria.

## MEASURES

### Psychological Retirement Planning Scale

The 28-item Psychological Retirement Planning Scale developed by Noone et al. (2010) was used to measure stages of retirement planning process, such as financial planning, lifestyle planning, health planning, and psychosocial planning. The scale is scored on a five-point Likert-scale format ranging from 1 = Strongly Disagree to 5 = Strongly Agree. Sample items include “If I were forced to retire today, I would have enough money to cope well with retirement,” “I try to keep physically active (e.g., by taking regular walks, playing sports, or doing yoga),” and “I am starting to separate myself from my work.” The scores range from 28-140, with higher scores indicating higher psychological retirement planning. Noone et al. (2010) reported total score reliability coefficient of .93 for the composite scale and affirmed that the scale can be used as a single construct as used in the present study. In the present study, the researchers reported a reliability index of .95, indicating that the instrument is reliable. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .73, and Bartlett’s Test of Sphericity

was 363.60 ( $p < .001$ ), indicating that the sample was sufficient to test for the factorial validity of the scale. A one-component factor structure of the scale was perfectly extracted, accounting for 33.2% of the variance. Loadings of the items ranged from .38 to .77.

### **Later Career Work-Disengagement Scale**

Late-career work disengagement scale developed by Damman et al. (2013) was used to assess late-career work disengagement among nurses. It is a 6-item scale that is measured on a five point-Likert scale (1 = completely agree to 5 = disagree entirely). High-scale scores represent high disengagement levels, while low score represents low disengagement level.. The items are directly and inversely scored. Damman et al. (2013) reported a Cronbach's alpha coefficient of 0.69. In the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .78, and Bartlett's Test of Sphericity was 378.60 ( $p < .001$ ), indicating that the sample was sufficient to test for the factorial validity of the scale. Loadings of the items ranged from .48 to .79. The items yielded acceptable internal consistency reliability, with Cronbach's alpha of .71.

### **Retirement Anxiety Scale**

The 23-item Retirement Anxiety Scale developed by Oluseyi and Olufemi (2015) was used to measure retirement worry and apprehension. The scale is scored on a five-point Likert-scale format ranging from 1 = Strongly Disagree to 5 = Strongly Agree. Sample items include "I feel that retirement will be the most dreaded period for me," "Seeing a retiree that I know makes me look forward to my retirement with happiness," and "Retirement thoughts make me feel comfortable and easy." Eleven items were inversely scored while twelve items were positively scored. The scores range from 23-115, with higher scores indicating higher retirement anxiety. Oluseyi and Olufemi (2015) reported a reliability of index of .86.. This implied an overall high-reliability index of all the Retirement Anxiety Scale items. The six components released by the PCA could guide hospitals, organizations, and retirement counsellors in general pre-retirement counselling of nurses and employees.

In the present study, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .85, and Bartlett's Test of Sphericity was 389.60 ( $p < .001$ ), indicating that the sample was sufficient to test for the factorial validity of the scale. There were double or weak loadings for several goods, making using a scale with a four-factor structure impossible. A one-component factor structure of the scale was perfectly extracted, accounting for 45.2% of the variance. Loadings of the items ranged from .80 to .87. The items yielded acceptable internal consistency reliability, with Cronbach's alpha of .86.

### **Sample Size Justification**

An a priori power analysis was conducted using G\*Power 3.1 (Faul et al., 2009) to determine the minimum required sample size. For a medium effect size ( $f^2 = 0.15$ ), a significance level of 0.05, statistical power of 0.95, and two predictors, the analysis indicated a minimum sample size of 107 participants. The final matched sample of 500 respondents substantially exceeds this requirement, thereby ensuring adequate statistical power to detect meaningful effects and enhancing the robustness and generalizability of the findings.

### **Procedure**

The study utilized an online survey to gather data from nurses employed in various federal government-owned hospitals in south-east Nigeria. Data collection was conducted using a structured questionnaire disseminated via email and social media platforms commonly accessed by nurses.

This was executed in a two-wave design with a two-month interval between waves to mitigate common method bias and ensure temporal separation between predictor and outcome variables. Written informed consent was obtained from each participant during the initial assessment (T1). Participants were informed about the longitudinal nature of the study and were asked to provide contact information and their anticipated retirement date if they wished to participate in follow-up assessments. Participants were re-contacted two months later (T2).

Initially, 1,300 employees were invited to participate in the study through an online structured survey distributed via email, WhatsApp, and Instagram. At Time 1, 875 responses were received, resulting in a response rate of 67.3%. At Time 2, 796 employees responded, yielding a response rate of 61.2% based on the original sample. After matching responses across both waves and excluding incomplete or unmatched cases, a final sample of 500 nurses who completed both waves was retained for analysis. This corresponds to a retention rate of 57.1% and a panel attrition rate of 42.9%. To assess potential attrition bias, independent samples t-tests were conducted to compare participants who completed both waves (matched sample) with those who dropped out after Time 1 on key study variables and demographic characteristics.

The results indicated no significant differences ( $p > .05$ ), suggesting that attrition did not systematically bias the findings and that the final sample remained representative of the initial cohort. Participation was voluntary, and respondents provided informed consent, with assurances of confidentiality and anonymity throughout the study.

### **Ethical Considerations**

Ethical approval was obtained from the Ethics Research Committee Board, Department of Management, University of Nigeria, Enugu campus. All procedures adhered to the ethical standards of the responsible committee on human experimentation, both institutional and national, and complied with the Helsinki Declaration of 1975, as amended in 2013. Informed consent was obtained from all participants prior to their participation in the study.

### **Design/Statistics**

This study employed a two-wave design. Pearson's correlation analysis was utilized to examine the bivariate relationships among the study's demographic and other variables, with a specific focus on late-career work disengagement, retirement anxiety, and psychological retirement planning. For hypothesis testing, Model 1 of Hayes' (2018) regression-based PROCESS macro was applied.

This robust macro is particularly suitable for assessing moderation or (interaction) effects by estimating conditional relationships between variables (Hayes, 2018) and is preferred over standard regression analysis in moderation research. PROCESS performs regression-based path analysis and generates product terms for analysis. Hayes' PROCESS is currently regarded as the gold standard for moderation analysis in psychology and management sciences research (Hayes, 2018).

A significant predictor item indicates that the relationship between the predictor variable (e.g., late-career work disengagement) and the outcome variable (psychological retirement planning) is either strengthened or weakened in the presence of the moderator (retirement anxiety), contingent upon the direction of the relationship (Hayes, 2018).

## RESULTS

**Table 1: Correlations of demographic variables and statistics among the study variables**

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	55.64	3.53	-											
2. Gender	-	-	-.05	-										
3. Ethnicity	1.47	1.04	-.16**	.08*	-									
4. No_of_Children	2.48	.98	.03	.08*	-.08*	-								
5. Family size	6.82	1.78	.12**	-.05	-.02	.67**	-							
6. No_of_Dependents	3.17	1.04	-.00	-.05	.01	.09*	.55**	-						
7. Years of Service	3.65	.50	.20**	-.06	-.13**	.06	-.01	-.12**	.07	-				
8. Educational Qualification	5.34	1.36	-.03	.08*	.02	.03	.14**	.17**	.15**	.05	-			
9. Monthly Salary	3.62	.49	.33**	.03	-.16**	.05	.05	-.04	.06	.42**	.21**	-		
10. LateCWD	19.71	5.09	.00	-.06	-.04	-.08*	.01	.09*	.06	.10*	.02	.01	-	
11. RetAnxty	66.69	9.12	.07	-.07	.08*	-.00	.17**	.25**	.15**	.00	-.02	-.02	.18**	-
12. PsyRetPL	95.21	23.16	.01	-.01	.01	-.10*	-.04	-.00	.11**	.11**	.13**	.09*	.22**	.21**

**Note:**  $N = 500$ , \* $p < .05$  (two-tailed), \*\* $p < .01$  (two-tailed). M=Mean, SD=Standard Deviation, LateCWD = Late career work disengagement, Ret Anxty = Retirement anxiety, PsyRetPL = psychological retirement planning

As shown in Table 1, among the control variables, number of children ( $r = -.10$ ,  $p < 0.05$ ), years of service ( $r = .11$ ,  $p < .01$ ), educational qualifications ( $r = .13$ ,  $p < .01$ ), and monthly salary ( $r = .09$ ,  $p < .05$ ) were significantly associated with psychological retirement planning. Notably, late-career work disengagement ( $r = .22$ ,  $p < .01$ ) and retirement anxiety ( $r = .21$ ,  $p < .01$ ) also showed positive correlations with psychological retirement planning.

**Table 2: Hayes PROCESS Macro results for moderating role of retirement anxiety in the relationship between late career work disengagement and psychological retirement planning**

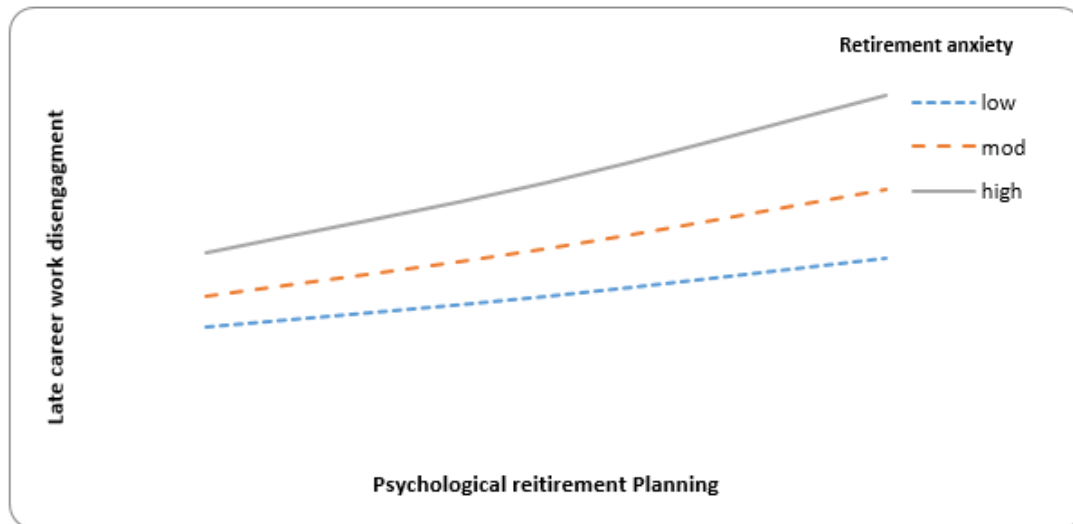
Variables	$\beta$	SE	t	95%CL			
				LLCI	ULCI	$\Delta R^2$	$\Delta F$
Late career work disengagement	.91	.18	5.02**	.55	1.26		
Retirement anxiety (Ret Anxty)	.47	.10	4.70**	.28	.67		
Late career work disengagement X Ret Anxty	.04	.01	2.75*	.01	.07	.10	21.07**

**Note:** \* $p \leq .05$ , \*\* $p \leq .01$ ,  $\beta$  = Regression Coefficient; SE = Standard Error;  $t$  = population  $t$  value;  $p$  = Probability Level; LLCI and ULCI = Lower and Upper Limit Confident Interval;  $\Delta R^2$  Adjusted R square

The regression results, as shown in Table 2, indicate that late-career work disengagement positively predicts psychological retirement planning ( $\beta = .91$ ,  $p < .01$ ), suggesting that a one-unit increase in late-career work disengagement is associated with a .91-unit increase in psychological retirement planning. Similarly, retirement anxiety significantly predicts psychological retirement planning ( $\beta = .47$ ,  $p < .01$ ), indicating that a one-unit increase in retirement anxiety corresponds to a .47-unit increase in psychological retirement planning.

As shown in Figure 2, the interaction between late-career work disengagement and retirement anxiety significantly influenced psychological retirement planning ( $\beta = .04$ ,  $p < .05$ ), indicating that retirement anxiety moderates the relationship between late-career work disengagement and psychological retirement planning. Simple slope analyses revealed that late-career work disengagement was significantly associated with psychological retirement planning at low ( $\beta = -8.67$ ,  $p < .01$ ), moderate ( $\beta = -.67$ ,  $p < 0.01$ ), and high levels of retirement

anxiety ( $\beta = 10.33$ ,  $p < .01$ ). The model explained 10% of the variance in psychological retirement planning ( $R^2 = .10$ ).



**Figure 2: Interaction slope showing moderating role of retirement anxiety in the relationship between late career work disengagement and psychological retirement planning**

## DISCUSSION

The current finding that late-career work disengagement is positively correlated with psychological retirement planning is consistent with emerging theoretical and empirical perspectives that conceptualize disengagement in late career as a future-oriented, adaptive transition process rather than mere withdrawal. This positive correlation is explained by the proximity-to-retirement mechanism, which suggests that employees nearing retirement age increasingly disengage from work roles due to a heightened awareness of the limited time remaining in their careers. For example, Damman et al. (2013) and Khawli et al. (2024) demonstrate that as retirement approaches, work disengagement intensifies as individuals approach their planned retirement age, reflecting a shift in temporal focus from present work demands to anticipate future roles. This future-oriented mindset naturally fosters greater engagement in retirement planning activities, including financial preparation, health considerations, and psychological adjustment, thereby elucidating the observed positive linkage. This finding also supports the argument that late-career disengagement can be functional and beneficial, challenging traditional organizational perspectives that equate disengagement with reduced productivity or negative outcomes. Instead, disengagement may represent a normative developmental transition, facilitating psychological readiness for retirement. Sousa-Ribeiro et al. (2022) assert that as older workers distance themselves from work demands, they increasingly reflect on their future, evaluate life goals, and actively engage in retirement-related decision-making. This reinforces the notion that disengagement and planning are not opposing processes but are interdependent and mutually reinforcing. Furthermore, from a contextual standpoint, particularly in developing economies such as Nigeria, the relationship may be even more pronounced due to uncertainties surrounding pension systems, healthcare access, and post-retirement livelihood. These structural concerns may intensify the need for proactive retirement planning among disengaging late-career

workers, thereby strengthening the observed positive association. This serves as a psychological trigger for retirement preparedness, rather than merely an indicator of declining work motivation.

Theoretically, drawing from the resource-based perspectives of retirement adjustment (Wang et al., 2011), which emphasize that individuals actively accumulate and protect resources (e.g., financial, emotional, social) prior to retirement, as work engagement declines, employees may experience reduced job demands and emotional strain, thereby freeing cognitive and emotional capacity for planning activities (Yeung & Zhou, 2017). Empirical studies (e.g., Kerry, 2018) show that psychological antecedents such as perceived control, future time perspective, and proactive coping significantly predict retirement planning behaviours. Thus, late-career disengagement may therefore act as a catalyst that enhances these psychological resources, enabling more deliberate and comprehensive planning.

Secondly, the study identified a positive correlation between retirement anxiety and psychological retirement planning. This suggests that individuals experiencing heightened fear, apprehension, and uncertainty regarding retirement are more inclined to engage in proactive cognitive, emotional, and behavioural preparations for post-employment life. This finding aligns with contemporary theoretical and empirical perspectives that conceptualize anxiety not merely as a debilitating state but also as a motivational force that stimulates anticipatory coping and future-oriented planning. Furthermore, this positive association aligns with recent empirical research on future time perspective and uncertainty management, which suggests that as individuals become increasingly aware of their limited remaining career time, perceptions of future uncertainty tend to intensify, often manifesting as heightened anxiety. Importantly, rather than resulting in avoidance behaviours, this awareness can stimulate proactive and adaptive engagement in retirement planning activities (e.g., Sousa-Ribeiro et al., 2022; Henning et al., 2024; Wang & Huang, 2024; Ren & Lim, 2026). For instance, Ujoatuonu et al. (2023) indicate that individuals experiencing uncertainty about retirement outcomes are more likely to engage in planning behaviours aimed at reducing ambiguity and enhancing perceived control.

From a contextual perspective, particularly in settings characterized by economic uncertainty and limited social security systems, such as many developing economies (e.g., Nigeria), the motivating role of retirement anxiety may be even more pronounced. Concerns about pension adequacy, healthcare access, and post-retirement livelihood can intensify anxiety, thereby driving individuals to engage more actively in retirement planning. Empirical evidence shows that financial insecurity and institutional uncertainty significantly heighten retirement anxiety and, in turn, stimulate planning behaviours, particularly in African contexts (Ugwu & Idemudia, 2023). This finding can also be explained through the framework of stress and coping theory (Lazarus & Folkman, 1989), which posits that individuals anticipate potential stressors and act in advance to proactively prevent or mitigate their negative impact. Retirement anxiety, as a future-oriented emotional state, may heighten individuals' awareness of the demands and uncertainties associated with retirement and thereby motivate the adoption of adaptive strategies such as goal setting, information seeking, and lifestyle planning (e.g., Ugwu et al., 2024; Sousa-Ribeiro et al., 2022; Ren & Lim, 2026; Wang & Huang, 2024). Empirical studies have indicated that individuals with higher anticipatory concerns about retirement are more likely to engage in comprehensive psychological planning, including envisioning post-retirement roles and maintaining a sense of purpose (Noone et al., 2010; Yeung & Zhou, 2017).

In addition, retirement anxiety significantly moderates the relationship between late-career work disengagement and psychological retirement planning, such that the positive association between disengagement and planning is strengthened under conditions of higher retirement anxiety. This finding advances existing literature by integrating lifespan developmental and resource-based perspectives to explain how emotional factors shape the translation of late-career experiences into retirement preparedness. Previous studies (e.g., Damman et al., 2013; Ujoatuonu et al., 2020) asserts that late-career disengagement reflects a gradual withdrawal of psychological investment from work as individuals approach retirement, often accompanied by increased future orientation. Retirement anxiety operates as a motivational catalyst within a self-regulatory framework, strengthening the translation of disengagement into goal-directed planning behaviour (Ugwu & Idemudia, 2023; Ahamed & Limbu, 2024; Sousa-Ribeiro et al., 2022; Ren & Lim, 2026). This is consistent with empirical findings that moderate levels of anxiety can enhance adaptive functioning by increasing attention to future risks and promoting problem-focused coping (Ugwu et al., 2024; Yeung & Zhou, 2017).

Similarly, Topa and Valero (2017) demonstrated that perceived resource threats closely linked to retirement anxiety, enhance engagement in retirement preparation behaviours, indicating that concern about future insufficiency strengthens planning efforts. Furthermore, the findings align with the resource-based dynamic model of retirement adjustment (Wang et al., 2011), which emphasizes the accumulation and protection of key resources prior to retirement. Disengagement from work may signal a shift away from resource acquisition within the organizational context, while retirement anxiety highlights perceived deficits in future resources (e.g., financial, social, and health-related). The interaction of these two processes creates a compensatory mechanism, whereby individuals who are both disengaged and anxious are particularly motivated to invest in psychological retirement planning to safeguard their well-being, since perceived inadequacy of resources is a strong predictor of planning behaviours (Barbosa et al., 2016). In addition, Lifespan Development Theory (Baltes & Baltes, 1990) add voice by suggesting that retirement involves a process of late-career disengagement conceptualized as a normative developmental shift and retirement anxiety as a regulatory mechanism that intensifies adaptive preparation. The interaction between these processes reflects how individuals actively manage the transition from work to retirement by reallocating resources, adjusting goals, and responding to perceived future challenges. Thus, the moderating role of retirement anxiety underscores the fundamentally adaptive and self-regulatory nature of human development in late adulthood. From the contextual stand of the study domain, environments characterized by economic uncertainty, weak pension systems, and limited institutional support as witnessed in Nigeria, the moderating role of retirement anxiety may be especially pronounced. In such contexts, disengaged late-career workers who experience high levels of anxiety about financial security, healthcare access, and post-retirement identity are more likely to engage in intensive planning efforts and proactive planning behaviours, reinforcing the strength of the moderated relationship (Ugwu & Idemudia, 2023).

### **Implications of the study**

This study have theoretical, empirical and practical implications for practice. The study enhances theoretical understanding by integrating concepts from work disengagement and retirement transition frameworks, emphasizing the role of retirement anxiety as a critical psychological mechanism influencing late-career nurses' adjustment processes. Theoretically, the findings extend retirement planning models by demonstrating that disengagement alone

does not consistently predict planning behaviours; rather, heightened retirement anxiety modifies these relationships, offering nuanced insights into the interplay between affective states and proactive retirement preparation.

Empirically, this research provides robust evidence highlighting that retirement anxiety is not merely an individual concern but a systematic factor affecting late-career work behaviours and planning efficacy. The results also underscore the need for longitudinal and context-specific studies to capture the dynamic nature of psychological disengagement and retirement preparedness.

Practically, these findings have significant implications for healthcare management and policy: interventions aimed at mitigating retirement anxiety such as structured counselling, phased retirement programs, and educational workshops, which could enhance psychological retirement planning and facilitate smoother transitions, thereby supporting workforce sustainability and promoting well-being among aging nursing professionals. By bridging theoretical insights with actionable strategies, this study offers a comprehensive framework for understanding and addressing the complex interdependencies of late-career disengagement, anxiety, and retirement readiness in nursing contexts.

### **Limitations**

Although this study offers valuable insights, it is important to acknowledge several limitations. The two-wave design enhances temporal inference and provides stronger evidence for directional relationships among late-career work disengagement, retirement anxiety, and psychological retirement planning; however, it does not allow for definitive causal conclusions. The reliance on self-reported measures may introduce common-method variance or social desirability bias. Furthermore, the sample was limited to nurses from specific geographic and institutional contexts, which may restrict the generalizability of the findings to other healthcare settings or cultural environments. Additionally, certain pertinent factors, such as organizational support, personal health, and financial literacy, were not assessed and may also impact retirement planning outcomes. Future research utilizing multi-source data and more diverse samples would enhance the robustness and applicability of these findings across broader nursing populations.

### **CONCLUSION**

In conclusion, the study findings highlights the critical influence of retirement anxiety on the relationship between late-career work disengagement and psychological retirement planning among nurses. The findings enhances the understanding of retirement transitions by illustrating that disengagement does not uniformly affect planning behaviours; rather, its impact is dependent on the nurse's anxiety concerning retirement. Furthermore, the findings demonstrate that increased retirement anxiety can either impede or encourage proactive planning, underscoring the complex psychological dynamics that characterize late-career adjustment. These insights underscore the significance of organizational strategies and interventions, such as counselling programs, phased retirement initiatives, and targeted educational support, that address retirement-related concerns and promote effective planning. By integrating these perspectives, this study provides a comprehensive framework for enhancing well-being, optimizing workforce sustainability, and facilitating smoother retirement transitions among aging nursing professionals.

### Authors' contributions

**IJA:** Conceptualization, project administration, resources, validation, software, methodology, writing of the original draft, review and editing. **CCC:** Conceptualization, project administration, review and editing. **OAO:** Supervision, project administration, review and editing. **KIO:** Resource, supervision, project administration, review and editing. **ICE:** Supervision, project administration, review and editing. **OGT:** Resources, supervision, project administration, review and editing.

### Data availability statement

The datasets generated and analysed during the current study will be available from the corresponding author upon reasonable request.

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### Declaration of competing interest

The authors declare no known conflicts of interest.

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### Ethical Approval

The study was approved by the Ethical Review Board, Department of Management, University of Nigeria, Enugu Campus. All procedures followed were under the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2013.

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