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Development and Validation of the retirement readiness Scale (RRS)

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Abstract in English

This study developed and validated the Retirement Readiness Scale (RRS) to assess somatic, cognitive, emotional, and behavioral aspects of retirement readiness among Iraqi workers. A sample of (510) participated in 2 study. Through rigorous scale development and psychometric analyses, including principal components analysis and confirmatory factor analysis, a four-factor structure emerged: purposefulness, acceptance, hope, and compensation. The RRS demonstrated strong psychometric properties. Importantly, the RRS is the first to comprehensively assess retirement readiness from a symptomatic perspective, highlighting the foundational role of purpose in life. These findings contribute significantly to the literature and have implications for both research and interventions aimed at improving retirement experiences.

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Introduction

For years, retirement perception has dramatically changed, differing with historical, cultural, economic, and social changes. Retirement can then be considered similar to a dramaturgical performance in that it mirrors the greater historical and cultural scripts. This will provide a sophisticated structure regarding the retirement perception and experience within different backgrounds. In most pre-industrial societies, people worked until their bodies were worn out. The introduction of pension plans and social security systems in the 19th and 20th centuries was an eye-opener after the long and historically developed societal phase in which people could now at least visualize, with little support, a phase of leisure and relaxation after the years spent in busy employment. It could be termed the societal meta-narrative in which the later life stages were redefined, creating new roles and demands for elderly people. (Gilleard & Higgs, 2000). The concept of retirement is multifaceted and has been interpreted diversely by scholars across various cultures. It has been conceptualized as a range of activities, a life stage,

or a transitional process (Cornman & Kingston, 1996). Representing the final phase of one's occupational life, retirement marks the period following the cessation of regular employment (Atchley, 1976). Adeloye (1997) defines it as the withdrawal of an employee from active service upon fulfilling the requisite employment tenure to qualify for retirement benefits. Akinboye (1998) further elaborates on retirement as a transition triggered by factors such as aging, ill health, redundancy, or mandatory retirement policies. Olatomide (2016) views retirement as a partial or complete disengagement from one's occupational role due to personal or organizational circumstances, irrespective of benefit entitlement. Retirement can occur voluntarily, involuntarily, or mandatorily, signifying a fundamental life transition in all cases.

Cross-cultural stories of retirement are strikingly different from society to society. In the West, this is the time of 'golden years,' the time for leisure, journey, and personal activities. Public imagery and norms support this perspective and influence conceptions and ideas of one's retirement. Yet, the concept of retirement in many Asian societies relates more to the principles of familial responsibilities and obligations, where the elderly are still considered to be part of family matters and are expected to offer guidance to younger members of their families. (Chen et al., 2015).

Economic Factors

Economic conditions greatly determine the attitude of an individual towards retirement. Individuals can see retirement through the eyes of economic growth as a time of financial security and relaxation. In contrast, economic downturns bring uncertainty and insecurity about financial readiness in preparation for retirement. The above economic narrative marks a pivotal moment in the determination of retirement planning and the retirement experience for people, showcasing impressive differences due to their socio-economic status. (Huo, 2024).

Health and Well-being

Health status is an important part of the story of retirement. Good health allows retirees to engage in many activities, thus supporting a lifestyle that encourages the ideal of "active aging," highly promoted in many Western countries. Poor health, on the other hand, may limit retirees' activities and lead to a passive and more dependent role. This contrast reflects the higher social mores and realities of the aging process (Zorrilla-Muñoz et al., 2022).

Psychological Adaptation

The psychological adaptation to retirement can be understood as the process of revising one's life story. Individuals need to negotiate the transition from their working identity to something else, and this process often poses many challenges and opportunities. Positive adaptation often depends on a person's ability to find new sources of meaning and engagement, illustrating the complex interplay between personal agency and cultural expectations. (Cohen-Callow et al., 2010), One of the remarkable features of published scholarly research is that there are great differences in attitudes toward retirement, whether to ask a man or a woman. Especially women feel more optimistic about longevity but also more anxious about potential future health problems. Women tend to have less anxiety about the sufficiency of their savings but are more likely to

cut back on spending, while men are more likely to work longer in pursuit of their financial goals. (Osman & Awang, 2019).

Intersectionality of age and gender in retirement perspectives

In the 21st century, retirement perspectives are changing. This is because of a combination of reasons, including the aging workforce on a global basis and variations in the retirement circumstances experienced around the world. For example, scholars like Shultz and Henkens (2010) further claim that retirement planning and decision-making are pertinent in consideration of the increasing number of elderly in developed countries. This underpins the need for interdisciplinary research to address the complexities that characterize retirement dynamics. It is also affirmed by Fabisiak & Prokurat (2012) that age management policies play a very important role in the effective management of employees approaching retirement, bearing in mind the demographic challenges facing most economies. Affective implementation of these strategies would help organizations retain a skilled labor force to remain competitive in the changing demographic environment of the labor market. As a result, policymakers and organizations would benefit from inclusive strategies that accommodate the varying needs of each person entering retirement age because one's concept of health and aging is largely influenced by their life experiences. For instance, rural elderly women tend to provide a positive assessment of their health and aging, while their male counterparts tend to link self-rated health with passivity and reminiscence. (Zorrilla-Muñoz et al., 2022). Moreover, the age of the respondents significantly moderated the interaction between perceived stress and work disengagement, as well as organizational dedication and job disengagement. Thus, there is a need for age-tailored interventions when considering strategies for retaining workers and preparing them for retirement. (Cohen-Callow et al., 2010).

Consequently, policymakers and institutions stand to benefit from developing holistic policies that address the diverse needs of individuals approaching retirement age since pre-retirement perceptions and priorities have significant differences amongst genders. Research shows that more men than women rate their health as excellent or very good. In addition, women are more likely to find paid alternative employment after retirement and are highly motivated to work for personal development. (Sen & Kahana, 2020). These discrepancies imply the necessity for customized retirement planning and support mechanisms that cater to the distinct requirements and inclinations of both male and female individuals.

Positive Perspectives of Retirement

Retirement can be viewed as a period of new freedom and opportunity for many people. Positive views of retirement often include the ability to pursue personal hobbies, travel to new places, and spend more time with family and friends. In one study, elective retirements were associated with higher levels of happiness compared to those that were unplanned (Hershey & Henkens, 2014), In this sense, the ability to retire at will and in the way one desires does much to enhance a person's overall well-being. Additionally, retired individuals tend to enjoy mental health and general happiness as they take part in pleasurable activities and find time to rest. The 'vitamin model' for mental health and

happiness, applied to the many life contexts of work, has shown that retirement can boost positive mental health, provide personal fulfillment, and reduce stress. (Warr, 2017).

Negative Perspectives of Retirement

On the contrary, retirement can be associated with a series of negative perceptions, in particular, if it involves a decrease in socialization, an impression of lacking purpose, and financial insecurity. The process of retiring can have negative implications for psychological well-being, with feelings of loneliness or an impression of non-productivity. For example, one of the studies on retirement and successful aging found that retirement is likely to lead to reduced health and social networks, which subsequently will adversely affect mental health. (Lai et al., 2023).

Financial problems are another significant disadvantage of retirement. A significant number of individuals feel anxious that their savings will not be sufficient for the kind of life they want to live in old age, which eventually causes stress and anxiety. The manifest possibility of social disparities in the new places can also enhance these feelings of economic insecurity, as portrayed in a comparative study of new retirees in Shenzhen and Hong Kong. (Lai et al., 2023).

Also, retirement due to health reasons or termination from work may result in minimal personal satisfaction and an increase in symptoms of depression. The effects of job loss and occupational role or status on emotion can have a far-reaching effect on the general well-being of the individual. (Pellerito, 2009).

Factors Influencing readiness for retirement

Several factors contribute to one's perspective on retirement and influence perceptions of and readiness for this most important stage in life. Factors include financial readiness, physical health, social relationships, family bonds, and psychological readiness. Age, gender, and socioeconomic differences can result in major disparities in all these factors.

Financial Preparedness

The financial readiness of a person shapes their attitude toward retirement. Those who feel secure financially have an optimistic attitude toward retirement since they view it as a time to relieve themselves of the complexities and stress regarding employment in life. Literature has shown the level of preparedness for retirement to be directly linked to one's confidence and satisfaction during post-career life. (Akben-Selcuk & Aydin, 2021). There are also significant contributions by gender disparities as women often reflect a lesser degree of fear about financial preparedness but tend to show more will to cut down on spending while men choose prolonged working hours to sustain their retirement confidence. (Osman & Awang, 2019).

Health Status

An individual's health status holds a very crucial position in their perspective of retirement. The healthier state of individuals inclines them more positively toward retirement, regarding it as a phase that offers engagement in active, rewarding activities. In contrast, those who are experiencing health problems might look forward to retirement with some trepidation, fearing how they might deal with health concerns

when the structure and support of work are not there. An example of this includes the optimistic self-assessment of health and aging by rural elderly women, which contradicts that of men, who generally link health with inactivity and nostalgia. (Zorrilla-Muñoz et al., 2022).

Social and Familial Relationships

Quality of interpersonal relationships in the social and family circles will influence feelings toward retirement. If the social groups are powerful and family settings are supportive, then the prospect of retirement may be cherished because individuals gain a lot in terms of both social and emotional support. Moreover, women might find engaging in family and community activities in retirement meaningful for themselves as a source of satisfaction and well-being. (Sen & Kahana, 2020).

The transition to retirement necessitates the cultivation of new social connections to offset the loss of work-based relationships. This underscores the importance of pre-retirement programs designed to equip individuals with the necessary social and interpersonal skills for post-employment life. Moreover, engaging in fulfilling activities is crucial for successful retirement adjustment. Research by Kim and Feldman (2000) and Asebedo and Seay (2014) supports the positive correlation between involvement in volunteer work, paid employment, or personal projects and overall retirement satisfaction. Proactive planning of hobbies, leisure pursuits, and potential post-retirement work can facilitate a smooth transition into this new life phase.

Family support also plays a pivotal role in retirement adjustment. Studies by Sagy (1992), Nuttman-Shwarz (2007), and Asebedo and Seay (2004) have demonstrated a positive association between family support and retirement well-being. Consequently, involving family members in retirement planning can significantly enhance the retiree's overall adjustment.

Psychological Readiness

Psychological readiness contributes highly to the formulation of one's perception of retirement. Diverse factors contributing to this include the level of professional attachment, the extent to which an individual is sociable, and the level of financial independence. High levels of psychological readiness enable a smooth transition into retirement for high levels of satisfaction in the latter part of one's life. (Topa et al., 2009), psychological preparedness is an individual's mental and emotional readiness for retirement. This means the ability to adapt to all changes that retirement brings in life, such as a change in daily routine and missing self-perception about work. Research has shown that work disengagement will be moderated by perceived stress and, in general, according to age. In this vein, retirement is a psychological process of preparation for older people. (Cohen-Callow et al., 2010).

Gender Differences

Gender can determine the perception and experience of retirement. Women in retirement conditions can potentially be harder than men because of a greater life expectancy, and possibly lower pension or savings due to the growing prevalence of career interruptions and part-time employment. This fact is one of the reasons for arguing the gender-based approach for the planning and provision of retirement.

(Calasanti, 2010), Gender-specific factors are a massive determinant of individual attitudes toward retirement. One example of this includes the gender differences in attitude. Women are more hopeful about life expectancy, yet are far more afraid regarding the outcome of disease because of aging. Men may see their health and well-being as generally more positive yet experience less desire to do activities post-retirement compared with women. (Osman & Awang, 2019; Sen & Kahana, 2020).

Socioeconomic Status

Socioeconomic status would define the perception of retirement. Those from better-off backgrounds, for example, would have more resources and better chances for retirement preparedness, which generally creates a positive perception of retirement. On the other hand, individuals from less-privileged backgrounds may view retirement with some anxiety or trepidation, largely due to financial constraints and limited access to important services such as healthcare. (Hershey & Henkens, 2014), The role of SES in shaping retirement views is enormous. It is expected that individuals with a high level of SES are normally better placed to access several important resources that would guarantee their eventual retirement, like pensions, savings, and health. Those from low SES might be disadvantaged when it comes to financial security and health discrepancies, which would ultimately affect their retirement perspective negatively. The differences in consumer views among the members of different socioeconomic classes, about pension insurance products, are a reflection of this fact. (Huo, 2024).

Despite growing interest in understanding the transition to retirement, there is a notable gap in the comprehensive assessment of retirement readiness, particularly in non-Western contexts such as Iraq. Previous studies on retirement preparedness have often focused on singular aspects, such as financial stability or mental health, neglecting a holistic approach that includes somatic, cognitive, emotional, and behavioral dimensions. Furthermore, existing measures predominantly target Western populations, overlooking cultural and contextual differences that might influence retirement readiness in other regions. This lack of a culturally and contextually tailored assessment tool leaves a critical gap in understanding the retirement experiences and needs of Iraqi workers, underscoring the importance of developing a validated scale, such as the Retirement Readiness Scale (RRS), that can offer a nuanced and comprehensive evaluation. This study aims to address this gap by introducing the RRS, the first scale to assess retirement readiness through a multidimensional and symptomatic lens, thus providing insights that can guide both research and targeted interventions.

Methods

Participants

A convenience sample of N = 1,085 individuals affiliated with Kerbala universities was invited to participate. A total of 189 (17.4%) participants completed the questionnaire. The sample consisted of 91 males and 98 females, with a mean age of 45.20 years (SD = 22.06). Educational attainment was primarily at the postgraduate level, comprising

71 PhD holders and 118 individuals with Master's degrees. No specific eligibility criteria were implemented for sample inclusion.

Item Generation of the Pilot Perceived pressure of retirement scale

Item generation for the pilot Retirement Readiness scale involved a four-step process.

Concept definition

Item generation was informed by a comprehensive review of theoretical and empirical research on retirement, pre-retirement emotions, related constructs (e.g., Retirement Anxiety, Pre-Retirement Anxiety, anxiety disorders, Attitudes Toward Retirement, Retirement Adjustment), and existing retirement measures. Recognizing retirement's multifaceted nature, Perceived Perspectives of Retirement encapsulate the diverse viewpoints, attitudes, and expectations shaped by a complex interplay of personal, cultural, socioeconomic, health, and societal influences.

Item generation

A comprehensive review of existing instruments was conducted to identify items aligned with the study's conceptual framework of retirement readiness. This process generated a pool of 41 candidate items for subsequent development.

Table 1. List of scales with Related Components about Retirement.

Scale Name	Measures	Key Domains	Example Study
Retirement Descriptive Index (RDI)	Satisfaction and attitudes towards retirement	Work adjustment, financial security, health status, social support	(Hoppmann & Klumb, 2010)
Retirement Satisfaction Inventory (RSI)	Overall satisfaction with retirement life	Leisure activities, social involvement, psychological adjustment	(Floyd et al., 1992)
Retirement Resource Inventory (RRI)	Availability of resources to support retirement	Financial resources, health resources, social support, personal development	(Kim & Moen, 2002)
Retirement Planning Scale (RPS)	Preparedness and planning activities for retirement	Financial planning, lifestyle planning, psychological planning	(Hershey & Mowen, 2000)
Successful Aging in Retirement Scale (SARS)	Success and quality of life in retirement	Physical health, cognitive function, emotional well-being, social engagement	(Rowe & Kahn, 1997)
Attitudes Toward Retirement Scale (ATRS)	Attitudes and feelings towards retirement	Positive anticipation, anxiety, perceived	(Ekerdt et al., 2000)

		benefits, perceived challenges	
Retirement Adjustment Scale (RAS)	Adjustment and adaptation to retirement life	Emotional adjustment, role transition, social adaptation, lifestyle changes	(Wang & Shultz, 2010)
Retirement Confidence Survey (RCS)	Confidence and expectations regarding retirement	Financial confidence, retirement preparedness, expected standard of living	(EBRI, 2020)

Experts' review of items

A panel of five psychological counseling experts rigorously evaluated potential items based on three criteria: alignment with the theoretical framework of readiness for retirement, content relevance, and item clarity. Experts independently assessed items, with two items removed due to unanimous disapproval. Items deemed unsuitable by at least three experts were also eliminated. Following iterative refinement, six items underwent wording modifications to enhance clarity and precision. The final set of 29 items, reflecting the contemporary experience of retirement readiness, was randomly ordered for the pilot questionnaire.

Creation of the pilot questionnaire

A panel of five psychological counseling experts independently evaluated potential items based on alignment with the theoretical framework, content relevance, and item clarity. Two items were eliminated due to unanimous disapproval, while items deemed unsuitable by at least three experts were discarded. Following iterative refinement, including wording modifications for six items, a final set of 29 items was randomly ordered for the pilot questionnaire.

Procedure

Participants provided written and oral informed consent following a detailed study explanation. They subsequently completed a 29-item pilot questionnaire assessing retirement readiness. Both Study 1 and 2 received ethical approval from the Research Ethics Committee of the Faculty of Education for the Humanities at Kerbala University, Iraq, ensuring adherence to human subject research guidelines.

Data Analysis

Initial item analysis was conducted to scrutinize item-total correlations, resulting in the exclusion of items exhibiting inconsistent relationships with the overall scale. Subsequently, the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity were applied to assess the data's appropriateness for factor analysis. These statistical indices were employed to evaluate the presence of sufficient correlations among the variables and the adequacy of the sample size for factor extraction.

Principal Component Analysis (PCA) was executed using SPSS 27.0 to explore the latent factor structure underlying perceived retirement pressure and to facilitate item

reduction. The Promax rotation method was selected given the anticipated complexity of the factor pattern, as oblique rotations are generally more suitable for exploratory factor analysis when factors are expected to be correlated (Fabrigar et al., 1999). Factors were retained based on the established criteria of a minimum of three items exhibiting factor loadings greater than 0.40 and minimal cross-loadings, ensuring the identification of distinct and meaningful factors (Worthington & Whittaker, 2006).

Results and Discussion

The absence of missing data within the dataset facilitated a comprehensive item analysis. This analysis led to the exclusion of items 13, 28, and 25 due to their negative correlations with the total score ($r = -0.35, -0.12, -0.37$, respectively). Conversely, the remaining 26 items exhibited positive correlations with the total score ($r > 0.23$), indicating their suitability for further analysis. The dataset's appropriateness for factor analysis was confirmed through the application of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (KMO = 0.91) and Bartlett's test of sphericity ($\chi^2 = 2658$, $p < 0.001$). These statistical indices collectively demonstrated the presence of sufficient correlations among the variables and an adequate sample size for the extraction of underlying factors.

Principal Component Analysis (PCA) yielded four factors with eigenvalues exceeding 1, collectively accounting for 64.1% of the total variance. Promax rotation was applied to enhance factor interpretability. Based on factor loadings, items with values below 0.4 or exhibiting cross-loadings onto other factors (loadings > 0.32) were excluded, resulting in a final set of 23 items (Figure 1). The original Arabic items are provided in the Appendix.

TABLE 2. Description of factors for Retirement Readiness scale (RRS)identified in Study 1.

Name of factor	Description	Example item
purposefulness	maintaining a sense of direction, intention, and meaning in one's activities and lifestyle after concluding a professional career. This concept is vital for ensuring a fulfilling and satisfying retirement period.	My job is part of my identity. I really hate losing this
Acceptance	the process of embracing and adapting to the changes and transitions that come with ending one's professional career. It involves recognizing and coming to terms with the new phase of life, including its challenges and opportunities.	Just talking about retirement makes me angry

hope	maintaining a positive outlook and an optimistic attitude about the future during the retirement phase. It involves looking forward to new experiences, possibilities, and opportunities that this stage of life can bring.	I feel that retirement will be the most enjoyable period for me
Compensation	Planning Compensation for life after retirement considering various aspects of life post-career, from financial stability to personal and spiritual fulfillment.	Retirement will give me time to do more spiritual activities

As outlined in Table 2, the four-factor structure of the Retirement Readiness Scale (RRS) comprised purposefulness (M = 2.90, SD = 1.17, skewness = 0.08, kurtosis = -1.16), acceptance (M = 2.06, SD = 1.11, skewness = 0.79, kurtosis = -0.34), hope (M = 3.11, SD = 1.12, skewness = -0.16, kurtosis = -0.75), and compensation (M = 2.46, SD = 1.00, skewness = 0.79, kurtosis = -0.34). These empirically derived factors align with the theoretical framework underpinning the development of the RRS, providing evidence for the scale's construct validity.

To further examine the robustness of the proposed four-factor structure, a confirmatory factor analysis (CFA) using the maximum likelihood method was conducted on the current sample. After removing five items, the model exhibited excellent fit indices (GFI = 0.90, CFI = 0.96, RMSEA = 0.05, SRMR = 0.05, CMIN/DF = 1.626), providing strong support for the hypothesized factor structure.

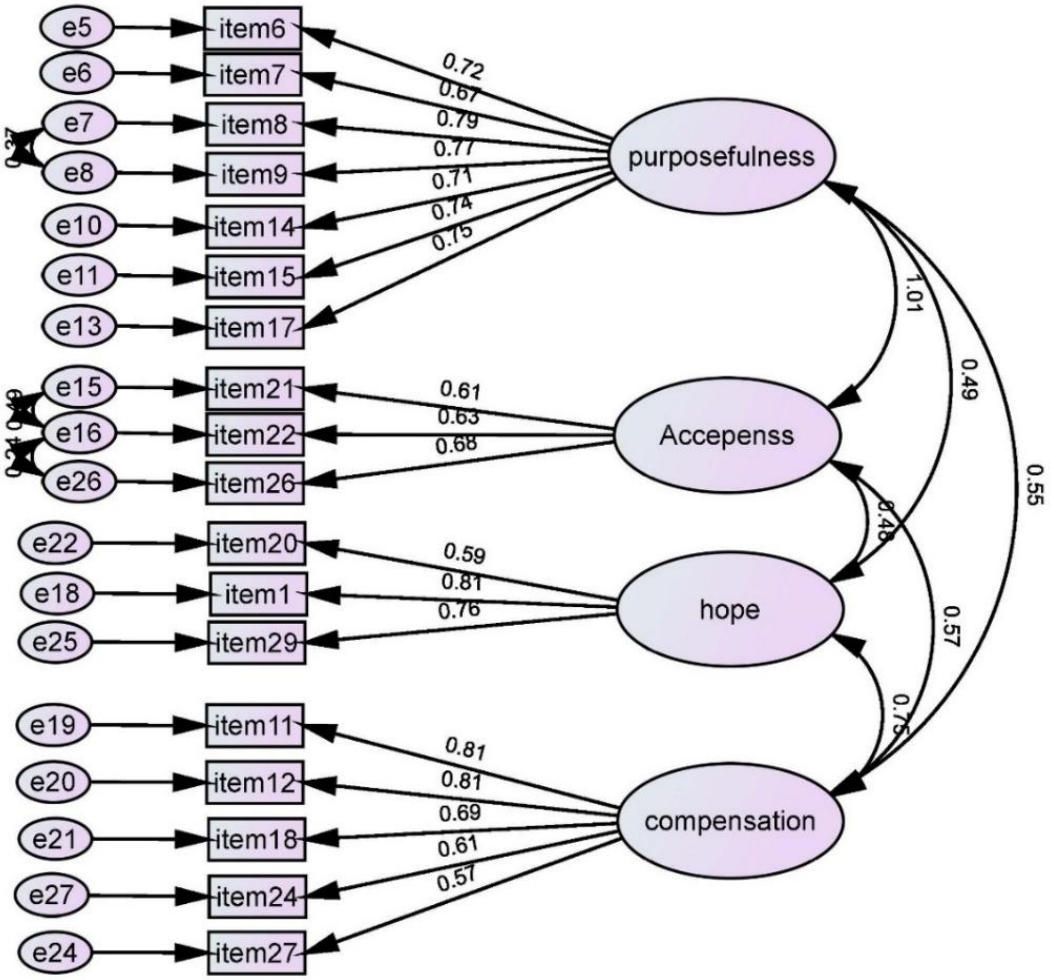

Figure 1 presents the results of confirmatory factor analysis in Study 2 and principal component analysis (with Promax rotation) in Study 1.

Study 1 yielded an 18-item scale with four factors to assess readiness for retirement. Factor distributions were deemed to be approximately normal based on skewness and kurtosis values within the acceptable range of ±3 (D'Agostino et al., 1990). However, given the potential limitations of single-sample factor structures, Study 2 was conducted to replicate and validate the four-factor model in an independent sample.

Study 2: Validation

Study 2 aimed to replicate and extend the findings of Study 1 by validating the four-factor structure of the 18-item Retirement Readiness Scale (RRS) in a new sample. A confirmatory factor analysis was conducted to evaluate the proposed four-factor model of retirement readiness. To assess the criterion-related validity of the RRS, it was correlated with measures of general anxiety (State-Trait Anxiety Inventory - Trait Anxiety Subscale), general depression (Beck Depression Inventory-II), subjective well-being (Subjective Happiness Scale), and life satisfaction (Satisfaction with Life Scale).

These constructs were selected based on their established relationship to retirement experiences.

Materials and Methods

Participants

A total of 210 participants from universities in central Iraq, specifically Kerbala, were included in this study. The sample comprised 119 males and 91 females who completed the study questionnaires. Participant ages ranged from 41 to 75 years, with a median age of 52 (M = 53.4, SD = 4.24). The majority of participants (87.6%, n = 184) were faculty members, while 12.4% (n = 26) were staff members. Educational qualifications within the sample included 110 participants with a PhD, 74 with a Master's degree, and 26 with a Bachelor's degree. A convenience sampling approach was employed for participant recruitment.

The replication sample, drawn from the same geographic region as the initial study but without overlapping participants, comprised 210 individuals. This sample size adheres to recommended guidelines (Bentler & Chou, 1987; Boomsma, 1985), ensuring adequate power for model testing with a subjects-to-parameters ratio of 5.2:1 for the 51-parameter model.

Procedure and Measures

To enhance participant understanding, researchers provided a comprehensive explanation of the study procedures prior to obtaining both written and oral informed consent. To evaluate the criterion validity of the Retirement Readiness Scale (RRS), participants completed additional measures assessing trait anxiety, depression, life satisfaction, and subjective happiness.

Beck Depression Inventory (BDI-II)

Depressive symptoms experienced within the past two weeks were assessed using the Beck Depression Inventory-II (BDI-II). This 21-item self-report measure employs a 4-point Likert scale (0 = I do not feel sad to 3 = I am so sad or unhappy that I can't stand it). Higher scores indicate greater depressive symptomatology. The BDI-II demonstrated excellent internal consistency in the current sample (Cronbach's alpha = .92). It was hypothesized that readiness for retirement would be negatively associated with BDI-II scores.

Trait Anxiety (TA)

Trait anxiety was assessed using a 20-item subscale from the State-Trait Anxiety Inventory – Form Y. Participants rated items on a 4-point Likert scale (1 = Almost never to 4 = Almost always), with sample items including "I am content; I am a steady person" and "I worry too much over something that really doesn't matter." Higher scores indicated greater trait anxiety. The subscale demonstrated adequate reliability in the current sample (Cronbach's alpha = .86). It was hypothesized that a positive relationship would exist between a Negative Perspective of Retirement and trait anxiety.

Subjective Happiness Scale (SHS)

Individual subjective happiness was assessed using a four-item self-report measure adopting a subjectivist approach. Participants rated items on a 7-point Likert scale (1 = not at all to 7 = a great deal). Example items included "In general, I consider myself: 1

= not a very happy person to 7 = a very happy person" and the reverse-coded item "Some people are generally not very happy... To what extent does this characterize you?" Higher scores indicated greater levels of happiness. The scale demonstrated acceptable internal consistency in the current sample (Cronbach's alpha = .72). It was hypothesized that a Readiness for Retirement would be positively correlated with subjective happiness.

Satisfaction With Life Scale (SWLS)

The Satisfaction with Life Scale (SWLS) adopted a subjectivist approach, comprising five self-assessment items. Respondents rated each item on a 7-point Likert scale (1 = Strongly disagree to 7 = Strongly agree), with a representative item being "In most ways, my life is close to ideal." Higher scores indicated greater life satisfaction. The scale demonstrated adequate internal consistency in the current sample (Cronbach's alpha = .86). It was hypothesized that a positive correlation would exist between readiness for retirement and SWLS scores.

Data Analysis

A confirmatory factor analysis (CFA) was conducted on the 18-item Retirement Readiness scale (RRS) using AMOS 28.0 and maximum likelihood estimation. Model fit was evaluated based on the criteria established by Hu and Bentler (1999): a non-significant chi-square statistic ($p > .05$) or, if significant, acceptable values for the comparative fit index (CFI > .90), root-mean-square error of approximation (RMSEA < .08), and standardized root-mean-square residual (SRMR < .08). Descriptive statistics (mean, standard deviation, skewness, and kurtosis) were computed for the four RRS factors.

To assess the criterion-related validity and test-retest reliability of the RRS, Pearson correlation coefficients were calculated using SPSS 28.0. Independent t-tests were employed to examine (gender and profession) differences in RRS scores. The relationship between age, years of service and RRS was explored through correlational analysis.

Results and Discussion

Confirmatory Factor Analysis (CFA)

Data Completeness and Model Confirmation

No missing data were observed in the dataset. To validate the four-factor model established in the first study, a confirmatory factor analysis (CFA) employing the maximum likelihood method was conducted on the Study 2 data. The results indicated a satisfactory model fit, as evidenced by the following fit indices: $\chi^2 = 332$, $\chi^2/df = 2.57$, $p < .001$, CFI = .91, RMSEA = .07, 90% CI SRMR = .058. Standardized path coefficients for each construct are visualized in Figure 1.

Descriptive Analysis of Retirement Readiness scale (RRS)

Descriptive statistics revealed that the distribution of the overall RRS and its constituent components approximated normality (D'Agostino et al., 1990). Specifically, the overall RRS exhibited a mean (M= 2.79 and a standard deviation (SD) of .93, with skewness and kurtosis values of .01 and -.78, respectively. For the four RRS components,

purposefulness demonstrated M = 3.04, SD = 1.23, skewness = -.07, and kurtosis = -1.11; acceptance yielded M = 2.21, SD = 1.17, skewness = .57, and kurtosis = -.79; hope presented (M = 3.17, SD = 1.09, skewness = -.17, and kurtosis = -.62); and compensation showed M = 2.57, SD = 1.04, skewness = .45, and kurtosis = -.29.

Reliability

The internal consistency reliability of the Retirement Readiness Scale (RRS) was assessed using Cronbach's alpha coefficient. The overall alpha coefficient for the RRS was found to be excellent at $\alpha = 0.92$. Additionally, the subscales demonstrated good to excellent internal consistency, with Cronbach's alpha values of 0.90 for purposefulness, 0.79 for acceptance, 0.74 for hope, and 0.85 for compensation. These findings indicate that the items within the RRS and its subscales are highly interrelated and consistently measure the underlying constructs.

Criterion Validation

The relationship between the RRS and other relevant measures was examined using Pearson correlation analysis. Results revealed significant, moderate to low correlations ($r = -0.75$ to 0.54, $p < .001$), supporting the RRS's construct validity as a measure of retirement readiness. As presented in Table 3, the RRS was inversely associated with depression ($r = -.63$) and trait anxiety ($r = -.75$), while positively correlated with subjective happiness ($r = .38$) and life satisfaction ($r = .54$). These findings suggest that the RRS can predict related behavioral and psychological outcomes.

Table 3: Descriptive Statistics and Correlations Among Study Variables

	Depression	Trait Anxiety	Subjective happiness	Satisfaction With Life
Mean	0.52	2.08	5.11	4.74
SD	0.35	0.40	1.17	0.98
R with RRS	-0.63	-0.75	0.38	0.54

Effects of Gender, Age, Years of service and Profession on RRS

Table 4: Showed Effects of Gender, Age, Years of service and Profession on the overall RRS and four factors of RRS, Independent t-tests revealed no difference in the overall RRS and four factors of RRS between males and females, $t(210) < -1.01$, $p > 0.31$; similarly, this was also so of Faculty members and Staff members, $t(210) < -1.95$, $p > 0.05$. In contrast, however, the older participants did report lower total RRS score compared with younger participants, $r = –0.03$, $p = 0.36$, 95% CI = [0.10, –0.16], the older participants felt less purposeful than younger ones, $r = –0.06$, $p = 0.36$. More importantly, multi-group confirmatory factor analyses showed that there is no significant invariance of the parameters of the factor model between gender, Years of service, Profession, and age.

Table 4: Effects of Demographic Variables on Retirement Readiness scale (RRS)

		Overall RRS	**purposefulness**	**acceptance**	**Hope**	**compensation**
Gender						
Male	*Mean*	2.79	3.09	2.14	3.08	2.59
	SD	0.93	1.27	1.23	1.15	1.05
Female	*Mean*	2.79	2.99	2.26	3.24	2.55
	SD	0.94	1.19	1.11	1.04	1.02

t (210)		0.04	0.55	-0.70	-1.01	0.32
p		0.96	0.57	0.48	0.31	0.74
Profession						
Faculty	*Mean*	2.49	2.77	2.00	2.78	2.20
members	*SD*	0.88	1.13	1.05	1.27	1.00
	Mean	2.83	3.07	2.24	3.23	2.62
Staff members	*SD*	0.94	1.23	1.18	1.05	1.03
		-1.76	-1.15	-0.97	-1.95	-1.93
t (210)		0.07	0.24	0.33	0.05	0.05
p						
Age						
r with age		-0.03	-0.06	0.03	-0.01	-0.00
p		0.66	0.36	0.61	0.80	0.92
Years of service						
r with YS		0.03	-0.00	0.04	0.05	0.07
p		0.58	0.91	0.49	0.42	0.31

The 18-item Retirement Readiness Scale (RRS) demonstrated a robust four-factor structure and satisfactory psychometric properties in a second Arabic sample. The scale exhibited strong construct and criterion validity, with the overall RRS and its subscales significantly associated with depression, trait anxiety, subjective happiness, and life satisfaction. Future research should examine the generalizability of the four-factor RRS model across different age groups, particularly focusing on the behavioral component. Preliminary findings suggest a negative relationship between age and retirement readiness.

The RRS was found to be influenced by the perceived effect of gender and religion but did not influence it in a non-significant manner. This result agrees somewhat with earlier research, while more found that gender does not significantly affect retirement readiness among civil servants. Age, education, race, ethnicity, and personality, specifically self-efficacy, had the most significant part. Considering the complicated relationship of Profession influence, we hypothesize a complex and open relationship of Profession and Readiness for retirement; situational factors also might have an influence on this link.

General Discussion

The 18-item RRS effectively measures individual differences in and readiness for retirement. Through rigorous development, a four-factor structure was identified, illuminating key aspects of the retirement experience. The RRS demonstrated robust psychometric properties in Arabic samples, supporting retirement as a multidimensional construct. Notably, the scale highlights the central role of fear of retirement in generating negative retirement-related cognitions. The RRS constitutes a valuable tool for advancing retirement research.

The RRS encompasses both positive and negative perspectives of retirement. Retirement is a unique life event distinct from other stressors or stimuli, characterized by its inevitability and potential challenges in adaptation. Unlike other retirement measures, the RRS assesses: (1) the physical and somatic manifestations of retirement, reflecting its inherent nature; (2) the general emotional and behavioral responses to the

contemplation of personal retirement, excluding specific related contexts; and (3) the intrusive nature of retirement-related thoughts from a symptom-based perspective.

The RRS offers a substantial contribution by not only providing a valuable tool for assessing both positive and negative aspects of retirement but also by adopting a symptom-based approach to pre-retirement experiences. RRS items were developed through a comprehensive review of existing literature and theoretical frameworks of retirement. Additionally, established retirement measures were consulted to inform the selection of items from a symptomatic perspective. The RRS focuses on capturing individual perceptions and feelings about retirement within the past month to avoid conflating pre-retirement concerns with established psychological disorders. As the RRS is designed for academic populations rather than clinical samples, it prioritizes the measurement of perceived positive and negative retirement perspectives within this specific timeframe.

The four distinct dimensions of the RRS accurately capture the multifaceted nature of retirement and directly correlate with the physiological symptoms experienced during pre-retirement contemplation. Principal Component Analysis (PCA) conducted in Study 1 revealed that the 'purposefulness' factor exhibited the highest eigenvalue, indicating its substantial contribution to the overall variance explained by the RRS.

Finally, the RRS assesses intrusive nightmares, imagery, and thoughts connected to personal retirement. Theoretically, the negative aspect of retirement is underpinned by apprehension about one's future. The RRS directly measures an individual's recurrent retirement-related cognitions, which serve as both precursors and outcomes of retirement anxiety. Notably, the RRS is unique in its inclusion of retirement intrusion as a specific construct.

Beyond advancing our comprehension of retirement and serving as a foundation for future research, the RRS holds potential utility in clinical practice. By adopting a symptom-based approach, the RRS can facilitate connections between clinical diagnoses, counseling assessments, and psychological evaluations. Given the established link between retirement and mental health conditions (Bossé et al., 1991), the RRS may aid in the identification and treatment of related psychological disorders.

It is essential to acknowledge that the RRS was developed using a relatively small sample size, raising questions about its generalizability across cultures, time periods, and age groups. To address these limitations, replicating the four-factor structure of the RRS in diverse populations is imperative. Furthermore, extensive investigations into the scale's reliability and validity are warranted to establish its robustness across various cultural, age, and religious contexts.

The present study did not investigate the relationship between retirement readiness and specific psychological disorders, including panic disorder. Given the established link between retirement and certain psychological conditions (Farnsworth, 1972), a negative correlation between retirement readiness and such disorders is hypothesized. Future research should empirically examine this potential association.

A novel Retirement Readiness Scale (RRS) was developed and validated across two Arabic samples. To the best of our knowledge, the RRS is the first instrument to

encompass both positive and negative aspects of retirement within a single measure. The scale demonstrated reliability and validity in the current study, exhibiting a four-factor structure. With its concise 18-item format, the RRS offers a practical and effective tool for assessing retirement readiness. We posit that the RRS is a valuable asset for future research on retirement preparation.

Author Contributions

Marwa conceptualized the study, designed its methodology, and drafted the initial manuscript. Mohammed contributed to data analysis and provided essential revisions to the manuscript. Both authors approved the final version of the manuscript for submission.

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Abstract in Arabic

هدفت هذه الدراسة إلى تطوير وتحقق الصدق والثبات لمقياس الجاهزية للتقاعد (Retirement Readiness Scale - RRS)، من أجل قياس الجوانب الجسمانية والمعرفية والانفعالية والسلوكية المرتبطة بالاستعداد للتقاعد لدى العاملين في العراق. شارك في الدراسة عينة مكونة من (510) أفراد عبر مرحلتين بحثيتين. ومن خلال عملية دقيقة لتطوير المقياس وتحليل خصائصه السيكومترية، بما في ذلك التحليل بالمكونات الرئيسية والتحليل العاملي التأكيدي، تبيّن أن المقياس يتكوّن من أربعة عوامل رئيسية: الشعور بالهدف، التقبّل، الأمل، والتعويض. وقد أظهر المقياس خصائص سيكومترية قوية تدل على صدقه وثباته. ومن الجدير بالذكر أن هذا المقياس يُعد الأول من نوعه الذي يقيس الجاهزية للتقاعد من منظور أعراض متعددة الأبعاد، مما يسلّط الضوء على الدور الأساسي الذي يلعبه الإحساس بالهدف في الحياة. وتسهم هذه النتائج إسهاماً كبيراً في الأدبيات النفسية، كما تفتح المجال أمام مزيد من الأبحاث والتدخلات الهادفة إلى تحسين تجربة التقاعد.