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<https://doi.org/10.1057/s41599-024-03126-x>

OPEN

The role of leisure activities in enhancing well-being in Saudi's retired community: a mixed methods study

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This mixed-methods study delves into the impact of leisure activities on the well-being of retirees in Saudi Arabia, focusing on health, emotional balance, social integration, and self-fulfillment. In the quantitative phase, 545 retirees were selected through a snowball sampling, providing a diverse sample of age, gender, socio-economic status, and educational background. Data were collected using a structured questionnaire and analyzed using SPSS. The qualitative phase involved randomly selecting 23 participants from the initial cohort for semi-structured interviews, with the data subjected to thematic analysis for deeper insights. Findings revealed a moderate overall enhancement in well-being attributed to leisure activities, with health benefits being most significantly improved. Emotional and social well-being showed moderate enhancements, while self-fulfillment benefits were less pronounced. Demographic variations were evident, with gender, socio-economic status, and education level influencing the perceived benefits. Qualitatively, the importance of cultural alignment in leisure activities was highlighted, underscoring their role in social connectivity and personal development. The study underscores the need for culturally sensitive and accessible leisure programs tailored to the varied needs of the retired population in Saudi Arabia. It provides crucial insights for policymakers and community planners, emphasizing the importance of demographic considerations in leisure interventions to improve retirees' quality of life. This research contributes significantly to understanding leisure's role in enhancing post-retirement well-being, offering a comprehensive perspective for future leisure-related initiatives and policies.

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Introduction

The transition to retirement is a significant event that impacts individuals' daily lives, social dynamics, and personal aspirations. This topic acquires added importance in the Kingdom of Saudi Arabia due to the country's unique socioeconomic changes and demographic trends toward an ageing population. Leisure activities are crucial for enhancing retirees' well-being, addressing physical health, and self-actualization needs (Bashatah et al. 2023; Morse et al. 2021). This research is essential for scholars, policymakers, and practitioners focused on ageing, well-being, and cultural specificity in retirement planning.

Research has increasingly recognized the value of leisure activities in promoting retirees' health, emotional balance, and social integration (Han et al. 2021; Lee et al. 2023; Michèle et al. 2019; Nielsen et al. 2021; Wheatley and Bickerton 2022). However, existing studies predominantly reflect Western contexts, leaving a noticeable gap in our understanding of retirement within the socio-cultural landscape of the Middle East, particularly Saudi Arabia. This gap is significant because cultural norms and societal changes profoundly influence retirement experiences, suggesting that findings from Western studies may not fully translate to the Saudi context. The absence of culturally tailored research highlights a critical need for empirical studies to inform culturally appropriate interventions and policies for enhancing retiree well-being in Saudi Arabia.

This study aims to fill the existing gap by examining the impact of leisure activities on the well-being of Saudi retirees through a mixed-methods approach. It will quantify the benefits of leisure activities across different well-being dimensions and explore how these perceptions vary across demographic groups within the retired population. Additionally, it will provide in-depth insights into retirees' experiences and perceptions regarding leisure activities. This research seeks to fundamentally enhance our understanding of retiree well-being in the Saudi context by offering new theoretical perspectives and empirical evidence. The findings promise to challenge existing paradigms by incorporating the cultural subtleties of the Middle Eastern retirement experience, thus advancing the field and guiding the development of targeted culturally sensitive well-being interventions. Given this, the following questions are put under the lens:

- (1) What is the overall level of well-being enhancement attributed to leisure activity engagement among retirees in Saudi Arabia, as measured by comprehensive scores on the Leisure Benefits Scale?
- (2) Which domains, among health, emotional well-being, social integration, and self-fulfillment, are most significantly enhanced by leisure activities, according to the retired population in Saudi Arabia?
- (3) Are there identifiable differences in the perceived benefits of leisure activities across various demographic groups (age, gender, socio-economic status and educational level) within the retired population of Saudi Arabia?
- (4) How do retirees in Saudi Arabia perceive the role of leisure activities in enhancing their well-being, particularly in terms of health, emotional balance, social integration, and self-fulfillment, post-retirement?

Literature review

This literature review serves as the foundational piece of this research undertaking, thoroughly analyzing the intricate relationship between recreational activities and the welfare of the retired population. Amidst a period marked by significant demographic changes, including a growing elderly population, the welfare of retirees has emerged as a central topic of academic

investigation and public interest. This academic article systematically examines the various complex aspects of recreational activities and their simultaneous effects on the health of retired individuals, emphasizing the importance of conducting this research in the unique sociocultural context of Saudi Arabia. This section explores the theoretical and empirical aspects of the relationship between leisure and well-being.

Theoretical framework. This study's underpinning is rooted in an integrated theoretical framework synthesizing insights from Activity Theory, Socioemotional Selectivity Theory, Self-Determination Theory, and cultural adaptation theories. This amalgamation offers a sophisticated lens through which the dynamics of leisure activities and their consequential impact on retirees' well-being in Saudi Arabia can be examined. The ensuing discourse delineates the contribution of each theoretical perspective to comprehending the relationship between leisure pursuits and the multifaceted construct of well-being in the context of retirement.

Activity theory asserts the imperative of active engagement across various physical, social, and cognitive dimensions for sustaining and augmenting well-being in later life stages (Teles and Ribeiro 2019). It posits that a retiree's involvement in diverse leisure activities is pivotal for achieving enhanced health, life satisfaction, and purpose (Winstead et al. 2014). Within the Saudi Arabian milieu, this theory underscores the investigation into how a spectrum of leisure engagements contributes to retirees' overall well-being, advocating for a proactive and enriched lifestyle during retirement.

Socioemotional selectivity theory, propounded by Carstensen, elucidates the evolution of social motivations and preferences toward emotionally meaningful engagements as one advances in age (Carstensen 2021). This theoretical approach illuminates the predilections of the Saudi retiree population toward leisure activities that fulfill emotional needs, foster social connections, and enhance a sense of community belonging—critical aspects of well-being in the autumn years of life.

Self-determination theory emphasizes the centrality of satisfying fundamental psychological needs—autonomy, competence, and relatedness—for optimal well-being. It is proposed that leisure activities, which resonate with retirees' intrinsic motivations and facilitate psychological need satisfaction, significantly uplift their life quality (Ryan and Vansteenkiste 2023). This study utilizes SDT to probe into how leisure engagements underpin the psychological well-being of the Saudi retired populace, aligning leisure pursuits with their inherent motivations and the broader social fabric.

Incorporating cultural adaptation theory allows for accommodating Saudi Arabia's distinct sociocultural nuances. This theory aids in deciphering how cultural values, norms, and the transformative socio-economic landscape shape leisure preferences and practices among retirees (Elliott 2020). It facilitates exploring the interaction between traditional and contemporary leisure activities and their role in satisfying psychological needs and enhancing well-being against the backdrop of Saudi Arabia's evolving society.

Grounded in Activity Theory, Socioemotional Selectivity Theory, Self-Determination Theory, and cultural adaptation insights, this framework lays a solid foundation for exploring how leisure activities influence well-being among Saudi retirees. Considering Saudi Arabia's unique cultural context, these theoretical constructs collectively provide a nuanced approach to understanding the role of leisure in promoting well-being.

The Importance of well-being in retirement. The concept of “well-being” has been the subject of extensive scholarly discussion, giving rise to many definitions that span various fields of study and paradigms. Fundamentally, well-being encompasses balanced health, contentment, and affluence as an intermediary between the subjective perceptions and the objective facts of human life (Carruthers and Hood 2004). In retirement, well-being transforms, assuming a multifaceted nature that interweaves human existence’s material, mental, and interpersonal aspects (Trenberth 2005). Beyond the absence of illness or disability, it embodies favorable qualities, including a deep-seated sense of direction, independence, and proactive involvement with the fabric of existence (Morse et al. 2021).

The significance of well-being is particularly pronounced in retirement, a phase of life characterized by substantial changes. When individuals are no longer employed, they encounter changes in their daily routines, social responsibilities, and sense of self, making maintaining their health and wellness a critical concern (Michèle et al. 2019). There is empirical support for retirees who report greater well-being, are more inclined to lead physically active and satisfying lives and demonstrate superior health outcomes (Mansfield et al. 2020).

Well-being among retired individuals is a complex and multifaceted phenomenon. Life satisfaction, the preponderance of positive emotions, and the reduction of negative affective states are all indicators of psychological well-being (Nielsen et al. 2021). Social well-being is characterized by strong social networks, enduring support systems, and an ingrained sense of inclusion within the fabric of the community (George 2010). Physical well-being’s foundation is preserving health, capability, and independence (Capio et al. 2014). Each of these dimensions exerts an intricate influence on the others and is reciprocally impacted by them, creating an intricate mosaic of interdependencies (Anglim et al. 2020).

Leisure activities and well-being. Leisure activities—elective, intrinsically motivated engagements conducted during discretionary periods—are critical in enhancing well-being in the retirement landscape (Morse et al. 2021). These activities, which range from cultural immersion and artistic endeavors to physical activities and social engagements, provide a respite from necessary work and a setting for self-discovery and personal evolution (Kuykendall et al. 2020). The significance of leisure in the post-career phase is multifaceted; it serves as a critical tool for acclimating to the post-occupational epoch, encouraging continuous intellectual stimulation, experiential exploration, and the cultivation of both new and existing social connections (Michèle et al. 2019; Verma 2017).

Academic discourses advocate leisure as an essential component of a more prosperous existence, especially during the golden years of retirement. Individuals frequently confront an abundance of temporal resources at this juncture, which is juxtaposed with the task of infusing this time with activities that resonate with their transforming identities and proficiencies (Li et al. 2019; Wang 2023). In this sense, leisure activities provide a conduit for retirees to re-calibrate their sense of purpose and contact with their surroundings. They make it easier to pursue dormant hobbies, rekindle old passions, and learn new skills and avocations (Hakman et al. 2019).

Furthermore, leisure activities help to maintain physical and cognitive vigor, reducing the potential attrition associated with the ageing process. They also act as a hub for social integration, allowing retirees to form new associations, strengthen existing relationships, and contribute to their societal spheres (Chul-Ho et al. 2020). Fundamentally, leisure is necessary in the alchemy of

a satisfying and vibrant retirement, endowing it with exhilaration, intentionality, and a deep sense of community.

Leisure benefits. The variety of benefits derived from leisure activities generates a complex mosaic that significantly impacts several well-being elements. Engaging in such activities offers retirees more than just a diversion; it serves as a springboard for all-encompassing personal growth and renewal. Empirical evidence suggests that retirees who are heavily involved in leisure activities generally experience significant increases in their physical endurance, mental clarity, emotional equilibrium, and social involvement (Eskiler et al. 2019). Trekking and swimming workouts improve cardiac health and muscle strength, and intellectually stimulating activities like strategic games and artistic creativity sharpen mental abilities and help prevent cognitive decline (Lee et al. 2023). On the emotional front, recreational activities provide a therapeutic refuge from daily tensions, generating a sense of peace and well-being (Ertekin 2021). Furthermore, these activities frequently serve as focal areas for social interaction, fostering strong and long-lasting bonds within social circles and communities. These aspects of leisure activity work together to improve seniors’ physical strength, cognitive capacities, emotional resilience, and social fiber, thus improving their overall quality of life.

Health benefits. Leisure activities provide many health advantages, from soothing, meditative practices to more active and demanding workouts. Tranquil exercises, such as tai chi and strolling, have various health benefits, including lower blood pressure, increased joint mobility, and improved mental tranquillity (Fancourt et al. 2021). Aerobics and trekking, on the other hand, not only energize the body but also provide considerable health benefits. These exercises have been linked to improved cardiovascular health, musculoskeletal strength, and metabolic efficiency (Han et al. 2021; Peel et al. 2021; Šabić et al. 2020). These physical activities have been scientifically linked to lowering the risk factors associated with numerous chronic ailments, potentially delaying the onset of age-related diseases, and even playing a role in life extension (Lackey et al. 2021). Furthermore, a regular schedule of various physical leisure activities fosters improved agility and balance, which is essential for fall prevention in older persons. Furthermore, such activities boost total functional fitness, providing retirees with the physical capability and autonomy required to tackle the numerous obstacles of everyday living with greater ease and self-sufficiency (Fancourt and Steptoe 2021).

Emotional benefits. Leisure activities go beyond ordinary recreation to become significant emotional repair and wellness conduits. These activities provide a break from the unrelenting pace of daily life, raising spirits and acting as bulwarks against the tides of stress, worry, and sadness (Chen et al. 2022). The creative process, whether represented in the deft strokes of a painting, the fluidity of dance, or the painstaking building of a handcrafted product, is a type of emotional release (Eskiler et al. 2019). Such activities assist people in negotiating their emotions, allowing them to relieve internal tensions and cultivate a state of conscious presence (Wheatley and Bickerton 2022). The calm gained from leisure activities such as gardening, or yoga has a contemplative character, grounding the individual in the present and reducing concerns. More energetic occupations, such as team sports or the performing arts, on the other hand, can induce a state of “flow”, a profound immersion in which the outer world recedes, leaving a potent sensation of fulfillment and elation (Brymer et al. 2021). These leisure activities, taken together, function as wellsprings of emotional fortitude, replenishing emotional reserves, cultivating

resilience, and instilling a profound sense of inner tranquility and balance (Mansfield et al. 2020).

Social benefits. Leisure activities are not only diversions from a social standpoint; they are fundamental to the fabric of community dynamics, interweaving individuals in a network of social cohesion and shared enjoyment (Li et al. 2021). These activities go beyond ordinary pastimes for retirees, serving as vital channels for connection and active social engagement. They promote meaningful contact with peers, encourage involvement in community events, and provide the framework for developing long-lasting friendships (Poscia et al. 2018). Structured group activities, such as intellectually challenging book clubs, harmonic dance classes, and collaborative gardening projects, provide common areas for interchange and connection. These connections can exchange wisdom, share life stories, and form profound bonds (Brajša-Žganec et al. 2011). The effects of these events frequently extend far beyond the activities themselves, spawning subsequent social meetings such as coffee conversations, cultural trips, and various communal participation. Such lively exchanges do more than enliven retirees' social lives; they also strengthen their sense of belonging and identification within the more extraordinary communal fabric (Adams et al. 2010; Lindsay Smith et al. 2017). Finally, leisure activities work as a catalyst for weaving a tapestry of social connections, promoting a sense of communal belonging essential to a fulfilling and full retirement life.

Self-fulfillment interests. In the golden years of retirement, leisure activities emerge as powerful catalysts for self-discovery and personal growth. These endeavors allow retirees to delve deeply into long-held hobbies or start on new adventurous excursions, creating a sense of competence and self-assurance (Stebbins 2017). Mastering a musical instrument, for example, is cognitively engaging and a source of tremendous personal joy. Painting and writing, for example, become channels for introspection and creativity, providing a sense of success and personal pride (Li et al. 2021). Similarly, learning a new language improves communication abilities and broadens one's perspective by embracing various cultures and beliefs. Such interactions frequently induce a state of "flow", an immersive experience in which profound focus and satisfaction coincide, providing great intrinsic pleasure (Stebbins 2013). Beyond personal fulfillment, these activities pave the path for social appreciation and active participation, enhancing retirees' self-worth and maintaining their identity. Finally, leisure interests in the fabric of retirement go beyond mere hobbies; they are critical in filling life with significance, vigor, and an enduring enthusiasm for learning and self-development (Shutenko 2015).

Primarily, the domain of leisure activities is a complete cornerstone underpinning retirement well-being. These hobbies, which span life's physical, cognitive, emotional, and social components, create a tapestry that enriches and elevates the whole fabric of retired living (Adams et al. 2010). With a more nuanced understanding of leisure's various benefits, the emphasis shifts to the subtle interplay between cultural and demographic influences and leisure pastimes. The following part will explore the complexity of how cultural contexts and demographic nuances impact the character and outcomes of leisure activities, influencing retiree well-being.

Cultural and demographic influences on leisure and well-being. Leisure preferences are delicately woven into the tapestry of a person's cultural milieu. The complex web of cultural conventions, values, and collective ideas defines the leisure landscape, sketching what is acceptable or desirable. Hofstede's foundational

work on cultural factors, according to Roy (2020), elucidates the significant influence of conceptions such as individualism and collectivism on leisure behaviors. Collectivist societies often highly value leisure activities that strengthen community solidarity and familial bonds. On the other hand, leisure activities tend to emphasize personal expression and the attainment of individual accomplishments in societies that trend toward individualism (Newman et al. 2014). Cultural heritage threads are similarly important, weaving traditional pleasures and customs into leisure participation (Brajša-Žganec et al. 2011).

Demographic factors intimately intertwine within the sphere of leisure, with each strand considerably impacting the mosaic of activities that people participate in. Age is a significant predictor, significantly impacting leisure preferences (Adams et al. 2010). Younger retirees may seek out physically exciting pursuits, but their elderly counterparts may seek refuge in milder yet equally gratifying activities (Agahi et al. 2011). Gender, a critical demographic factor, also impacts leisure decisions, frequently repeating deeply ingrained societal roles and expectations. As a result, the leisure sector reveals distinct gender-based patterns shaped by past access inequities and established norms (Fernandez 2023).

Socioeconomic position is a double-edged sword in leisure, enabling and restricting. Affluence opens up many leisure possibilities; however, financial constraints can narrow the range of available activities (Beenackers et al. 2012). Furthermore, educational background has a subtle but considerable influence on leisure participation. Higher education degrees extend one's perspectives, encouraging interest in intellectually enriching or culturally sophisticated leisure activities. Thus, educational achievements gently pervade leisure preferences, shaping them to reflect an individual's intellectual breadth and cultural depth (Stalsbergm and Pedersen 2010).

The leisure world is painted with the twin hues of cherished traditions and emerging modernity within Saudi Arabia's vivid cultural mosaic (Amin et al. 2012). This juxtaposition creates a captivating story of continuity and change, uniquely molding the leisure domain. At its core, the Kingdom's rich cultural past casts a long shadow on retiree leisure habits. Time-honored practices like falconry, woven into the fabric of history and social prestige, continue to maintain weight, as do poetic gatherings that connect with the nation's historic literary past, anchoring retirees to their cultural roots (Al-Otaibi 2013). At the same time, the Kingdom is on the verge of revolution, pushed by the ambitious Vision 2030. This roadmap for socioeconomic transformation is altering the leisure paradigm by presenting a diverse range of contemporary leisure expressions (Alkhalaf and Orams 2021). As Saudi Arabia moves closer to its vision of the future, retirees are navigating a rising leisure revolution. New types of leisure are gaining traction, ranging from digital entertainment and adventure sports to the appeal of international travel. This fusion of the ancestral and the avant-garde creates a new language of leisure in the Saudi narrative, blurring the distinctions between tradition and innovation (Al-Otaibi 2013).

The relationship between cultural context and demographic characteristics is complex and multi-layered, altering the landscape of leisure and its impact on well-being significantly. The mosaic of leisure is a reflection not just of cultural heritage but also of the several demographic threads—age, gender, socioeconomic level—that intertwine to produce a great diversity of leisure experiences (Iwasaki et al. 2014). This dynamic is fundamental in the Kingdom of Saudi Arabia, as the country is undergoing tremendous socioeconomic and cultural developments. The developing societal fabric, supported by programs such as Vision 2030, sheds a dynamic light on the intersectionality of culture and demographics, substantially altering leisure

interests and their implications for well-being (Bashatah et al. 2023).

Finally, the interaction of cultural and demographic variables significantly impacts leisure pursuits and, as a result, the well-being of retirees. This interdependence is remarkable in the Saudi environment, characterized by rapid and dramatic transitions. The following section outlines the methodological framework used to investigate and understand these factors in the Saudi context.

Previous studies. The relationship between leisure activities and well-being has been the focus of scholarly investigation across various cultural terrains. A strong relationship between leisure activity and improved well-being in the retired population stands out in the corpus of Western academic studies. Amin et al. (2012) conducted a seminal study highlighting the significant importance of leisure activities to increase life satisfaction and psychological well-being among the elderly. This idea is supported by Poscia et al.'s (2018) research, which emphasizes the crucial function of leisure in catalyzing social connections and alleviating feelings of loneliness among the elderly. To support these findings, Li et al. (2021) outline the various benefits of leisure activities, which include physical health, cognitive agility, emotional stability, and social connectedness.

Stebbins (2017) investigated the idea of severe leisure and its implications for self-fulfillment and identity reformation in the retirement phase, broadening the investigational purview of the European environment. Zwart and Hines' (2022) study emphasizes the social benefits of outdoor adventure recreation, which reflect the broader social and communal benefits of leisure activities. Their findings, which emphasize shared experiences and social participation, are consistent with the function that leisure plays in building social bonds and well-being, highlighting the importance of leisure in fostering community and interpersonal connections.

Regarding the Middle Eastern story, particularly within Saudi Arabia, the scholarly terrain looks relatively unexplored. Human resources, societal culture, facilities, financing, instruments, programs, and policies, according to Sayyid and Abuhassna (2023), are the seven significant variables promoting leisure-time physical activity among Saudi male university students. The study highlights the value of integrated sports facilities, financial incentives, and customized programs in boosting public health through leisure-time physical exercise. According to a study by Bashatah et al. (2023), many adults in Riyadh, Saudi Arabia, maintain sedentary lifestyles with little involvement in leisure and exercise activities. Nearly half reported exercising only 1–2 days per week, with a sizable proportion never exercising. Despite being aware of the health concerns, sedentary behavior during leisure time persists. The study implies that governmental measures are needed to encourage more active leisure lifestyles among Saudi citizens. These recent studies critically investigated evolving leisure preferences against Saudi Arabia's socioeconomic transformations, as spurred by projects like Vision 2030. Although these studies shed light on the general leisure habits of the Kingdom, they fall short of offering a granular insight into the retired demographic's unique experiences.

A significant study vacuum concerning the retired community in Saudi Arabia exists in gerontology and leisure studies. The Kingdom's distinct socio-cultural and economic fabric, particularly in the middle of revolutionary programs such as Vision 2030, warrants an in-depth investigation of how leisure activities influence retirees' well-being in this specific setting. Existing studies primarily employed either quantitative or qualitative approaches, frequently delving into isolated aspects of well-being

and ignoring seniors' multidimensional experiences. However, this study uses a mixed-methods approach to overcome this gap, capturing the intricate interplay between health, emotional well-being, social integration, and self-fulfillment among Saudi retirees. The research attempts to improve worldwide understanding of leisure and well-being through this holistic lens, customizing its discoveries to the particular Saudi cultural and socioeconomic environment.

Research method

Research design. This study adopts a mixed-method research design, combining quantitative and qualitative methodologies to capitalize on each offer's distinct advantages. Grounded in the comprehensive framework proposed by Guetterman et al. (2019), this methodological synergy is strategically chosen to encompass the breadth and depth required to explore the intricate dynamics between leisure activities and well-being among the retired population.

Quantitative methodologies are employed to systematically quantify the correlations between leisure engagements and well-being metrics, facilitating an empirical assessment of prevalent trends and patterns within this demographic. This aspect is informed by prior empirical research that has elucidated quantifiable aspects of retiree well-being, thus providing a solid benchmark for evaluating the impact of leisure activities (Bashatah et al. 2023; Li et al. 2021; Zwart and Hines 2022).

Conversely, the qualitative facet of this research delves into retirees' narratives, perceptions, and lived experiences, offering a rich, contextual understanding of the statistical patterns observed. This approach is inspired by foundational qualitative studies in the field (Amin et al. 2012; Fancourt et al. 2021; Stebbins 2017; Verma 2017), highlighting the critical importance of capturing the subjective interpretations and meanings that retirees attribute to their leisure activities and their consequent influence on their well-being.

This dual approach ensures that the findings are statistically validated and deeply rooted in the authentic experiences of the study population, providing a comprehensive and nuanced view of the leisure-well-being nexus among retirees in Saudi Arabia. The selection of a mixed-methods design is a deliberate strategic choice aimed at producing findings that are empirically robust, contextually rich, and practically relevant for enhancing the well-being of retirees.

Participants. The study engaged 545 retirees for its quantitative analysis, comprising 268 women and 277 men. These individuals, now distanced from their roles in various public and private sector jobs, were selected through a snowball sampling method to ensure a diverse representation across socioeconomic, educational, and cultural backgrounds. Snowball sampling was employed due to its capacity to penetrate diverse retiree networks, ensuring a varied representation across socioeconomic and cultural strata, which is vital for examining the study's questions. This technique complements our theoretical framework, enabling a comprehensive analysis of the relationship between leisure activities and well-being (Parker et al. 2019). The age range of these participants spanned from 55 years to those above 65 years of age, aiming to capture a broad spectrum of post-retirement experiences. In the subsequent qualitative phase of the research, a focused group of 23 retirees was strategically chosen from the initial quantitative pool. This selection was tailored to gain deeper insights and reflect the larger group's heterogeneity. The qualitative interviews aimed to elaborate on themes and patterns that emerged from the quantitative data (Roulston and Choi 2018). Detailed demographic and background information for both

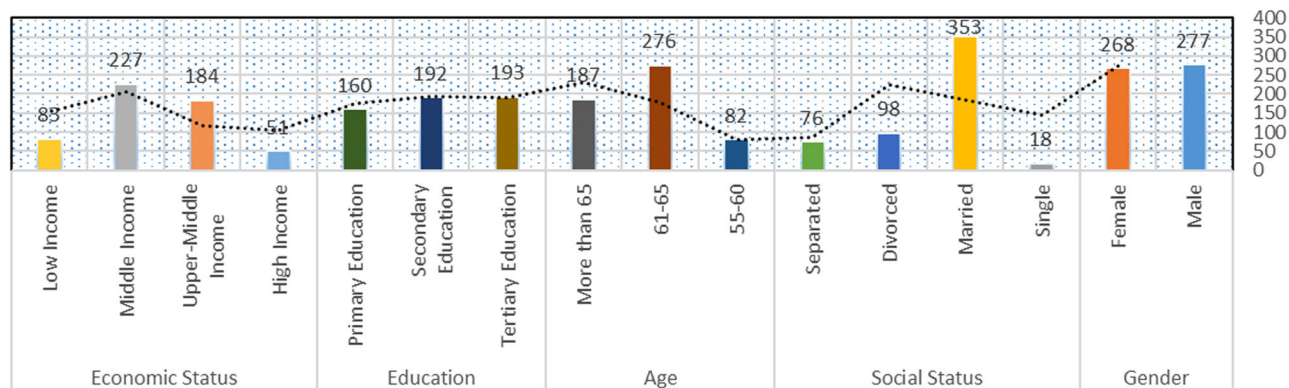


Fig. 1 Demographic distribution of the sample population. This figure presents a composite bar and line graph detailing the sample population's demographics. The bars show the distribution of individuals across various economic statuses (low income to high income) and education levels (primary to tertiary education), while the line graph indicates the age distribution within the sample. Social status categories are separated into divorced, separated, married, and single. The final bars compare the number of males to females. Each bar is labeled with the number of respondents in that category.

segments of the study population are methodically outlined in Fig. 1.

In the demographic section of the survey, the income categories were delineated as follows: Earnings below 5000 Saudi Riyals are classified as “low income”; those between 5000 and 7999 Riyals are categorized as “middle income”; incomes ranging from 8000 to 10,999 Riyals are defined as “upper-middle income”; and a monthly income of 11,000 Riyals or more is designated as “high income”. This stratification facilitates a nuanced understanding of respondents’ economic statuses.

Instruments. To collect the quantitative data, the “Leisure Benefits Scale” by Li et al. (2021) was used to measure this research, assessing the multifaceted advantages of leisure pursuits among retirees. This scale has been widely used by several studies (Ertekin 2021; Geng et al. 2023; Li et al. 2021), underscoring its validity and reliability in measuring the constructs of interest across diverse contexts. It consists of four constructs, each focusing on the dimensions of leisure benefits. The scale includes four items dedicated to evaluating the health benefits and assessing the impact of leisure activities on physical well-being. Another four items explore the emotional benefits, identifying the psychological and emotional uplift that leisure can provide. The social benefits construct, also with four items, measures the extent of social engagement and community connection derived from leisure activities. Lastly, the construct of self-fulfillment interests comprises five items, which delve into the personal development and sense of achievement that retirees gain from their leisure pursuits. Each construct collectively contributes to a comprehensive assessment of the positive effects of leisure activities on retirees’ overall quality of life. Each item was evaluated using a five-point Likert scale, ranging from 1, denoting “strongly disagree”, to 5, signifying “strongly agree”. This scaling method was chosen to provide a nuanced measure of the respondents’ levels of agreement or disagreement with each statement. The selection of health, emotional, social, and self-fulfillment benefits constructs, as well as the utilization of a five-point Likert scale, are informed by prior literature emphasizing their relevance to retirees’ well-being (e.g., Mansfield et al. 2020; Geng et al. 2023; Li et al. 2021). This approach ensures the study’s methodological design is grounded in empirically validated concepts, offering a detailed examination of how leisure activities enhance life quality.

To gather the qualitative data, a set of three semi-structured, open-ended interview questions was formulated. These questions were strategically designed to prompt detailed responses and discussions, enabling participants to articulate their experiences

and perspectives on how leisure activities have influenced their well-being. The flexibility of the semi-structured format allowed for a conversational depth that facilitated the emergence of rich, narrative data, capturing the complex and personal dimensions of leisure that quantitative measures might overlook (Roulston and Choi 2018). This approach complements the empirical data, providing a more textured understanding of the retirees’ engagement with leisure activities.

Instrumentation’s validity. A two-pronged approach was adopted to ensure the validity of the questionnaire employed in this study, encompassing both expert evaluation and empirical testing for internal consistency. Initially, the questionnaire underwent rigorous assessment through the jury panel method. The expert panel method was chosen for its effectiveness in leveraging specialized knowledge to enhance the validity and reliability of the assessment process (Almanasreh et al. 2019). The assessment process involved a thorough evaluation by a panel of eight esteemed experts, each with specialized recreation and leisure management expertise. Their insightful feedback and recommendations were incorporated to enhance the questionnaire’s relevance and accuracy. Subsequently, to further reinforce the questionnaire’s validity, a pilot study was conducted involving 41 participants. This research phase involved a quantitative evaluation of the questionnaire’s internal consistency. Advanced statistical methods were employed to calculate the correlation coefficients for each item concerning the total score of its respective dimension. This comprehensive process ensured that the questionnaire was theoretically sound, as vetted by experts, and empirically robust, meeting the standards of internal consistency. Table 1 provides a detailed depiction of these correlation coefficients, showcasing the relationship between each item’s score and the overall score of its corresponding dimension within the questionnaire.

Table 1 presents a comprehensive analysis of correlation coefficients across four critical dimensions in a survey: Health Benefits, Emotional Benefits, Social Benefits, and Self-fulfillment Interests. Each dimension undergoes a thorough evaluation for internal consistency, as indicated by the Dimension Correlation, and its congruence with the overarching framework of the questionnaire, denoted by the Overall Correlation. The coefficients, consistently marked with double asterisks to denote statistical significance, exhibit a spectrum from moderate to high across these dimensions. This trend evidences a robust internal coherence within each dimension and underscores their substantial congruity with the global objectives of the

Table 1 Correlation of item scores with dimensional and overall questionnaire scores.

Health benefit			Emotional benefits			Social benefits			Self-fulfillment interests		
No.	Dimension	Overall	No.	Dimension	Overall	No.	Dimension	Overall	No.	Dimension	Overall
1	0.799**	0.781**	1	0.485**	0.664**	1	0.601**	0.561**	1	0.717**	0.706**
2	0.453**	0.379**	2	0.296*	0.574**	2	0.559**	0.523**	2	0.454**	0.423**
3	0.722**	0.548**	3	400**	0.605**	3	0.589**	0.501**	3	0.620**	0.546**
4	0.706**	0.534**	4	0.552**	0.415**	4	0.477**	0.451**	4	0.692**	0.639**
-									5	0.433**	0.405**

Note: * indicates $p < 0.05$; ** indicates $p < 0.01$, signifying the levels of statistical significance.

Table 2 Results of the factor analysis.

Factors	Rotation sums of squared loadings		
	Total	% of Variance	Cumulative %
Health benefits	3.075	18.090	18.090
Emotional benefits	2.809	16.524	34.615
Social benefits	2.725	16.029	50.644
Self-fulfillment interests	2.676	15.743	66.387

questionnaire. The persistent presence of the double asterisks (**) underscores the statistical robustness of these correlations, bolstering the reliability of the findings. These outcomes collectively attest to the questionnaire’s efficacy in precisely capturing the targeted constructs within each dimension, thereby ensuring that each query contributes effectively to the broader research objectives.

Factorial validity. Exploratory factor analysis (EFA) was conducted using the principal components method, where orthogonal rotation via the Varimax technique was applied. This was done to extract factors by selecting the items most heavily loaded on each factor after rotation, as demonstrated in Table 2.

An examination of Table 2 reveals the presence of four distinct factors, onto which a total of seventeen items are substantially loaded. Cumulatively, these factors account for 66.387% of the total variance. In detail, the first factor encompasses four items and has an eigenvalue of 3.075, contributing to 18.09% of the total variance. Similarly, the second factor includes four items and possesses an eigenvalue of 2.809, explaining 16.524% of the total variance. The third factor, comprising four items, has an eigenvalue of 2.725, accounting for 16.029% of the total variance. The fourth factor, consisting of five items, has an eigenvalue of 2.676, representing 15.743% of the total variance. To corroborate the proposed item-factor alignments, Confirmatory Factor Analysis (CFA) was employed using the Maximum Likelihood Method, facilitated by the LISREL software. Figure 2 depicts the resultant factor structure, confirming the factor structure hypothesized for the scale.

The analysis revealed that the path coefficients for the items on the scale ranged from 0.52 to 0.89, all achieving statistical significance at a threshold of $p \leq 0.01$. The Chi-square (χ^2) statistic was calculated to be 561.18, with 168 degrees of freedom and a highly significant level of $p \leq 0.001$. This resulted in a (χ^2/df) ratio of 3.34, indicative of a favorable model fit to the data. Moreover, the indices assessing the model’s goodness-of-fit, including RMSEA, GFI, AGFI, and NFI, all fell within their respective optimal ranges. These findings collectively underscore the factorial validity of the scale, confirming its robustness and appropriateness for the study.

Instrumentation’s reliability. The questionnaire’s reliability was assessed by the computation of Cronbach’s alpha (α) coefficient. The outcomes of this assessment are systematically presented in Table 3.

The analysis of Table 3 reveals that the questionnaire possesses a robust overall reliability coefficient, quantified at 0.85. The dimension-specific reliability indices, evaluated using Cronbach’s alpha for assessing internal consistency, vary between 0.75 and 0.81. Each of these indices surpasses the established minimum reliability threshold of 0.6, indicating a commendable level of consistency across the questionnaire’s dimensions. These findings collectively affirm the questionnaire’s high reliability, validating its appropriateness for implementation within the study’s sample.

Data collection. Data collection was an integral component of this research, aiming to capture a comprehensive snapshot of the leisure pursuits among retirees. The data collection process for this study was conducted methodically over a 3-month period, from the beginning of May to the end of July 2023, allowing for extensive participation and detailed data accumulation. The process began with identifying retiree groups active on social media platforms like WhatsApp, capitalizing on the widespread use of such networks for enhanced reach and engagement. Subsequent efforts to expand the participant base employed a snowball sampling technique, which effectively utilized existing study participants to recommend additional retirees, thus facilitating the inclusion of diverse individuals across varying demographics. The survey distribution was substantial, reaching out to 1243 retirees, a number designed to ensure a wide berth of data for robust analysis. This outreach garnered a substantial response, with 545 retirees contributing their insights.

To enrich the quantitative findings with qualitative depth, the study extended invitations to 35 retirees from the initial pool of 545 respondents for personal interviews. The selection criteria prioritized diversity in leisure activities and engagement levels with the preliminary survey. This targeted approach was designed to capture a broad spectrum of experiences, ensuring that the qualitative interviews offer a detailed and representative view of the leisure phenomenon among retirees. Of those invited, 23 retirees accepted, demonstrating interest and readiness to provide more granular insights into their leisure pursuits. This positive response underscored the value retirees placed on discussing their leisure experiences and the potential impact on their well-being. The interviews were set to provide a layered understanding of leisure activities, bringing to light the individual stories behind the data and offering a comprehensive view of the retirees’ lived experiences.

Data analysis. To analyze the quantitative data, a comprehensive statistical approach was adopted to ascertain the psychometric robustness of the study instrument. Pearson correlation

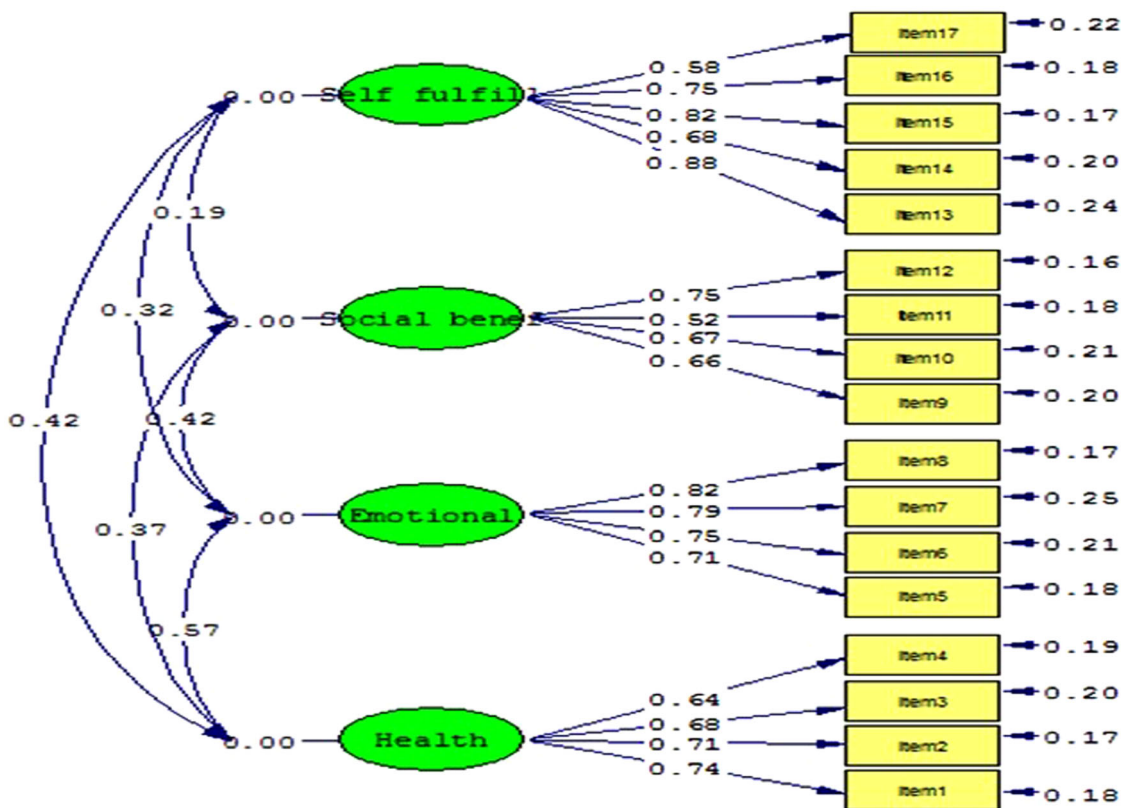


Fig. 2 The confirmatory factor structure of the scale. This figure illustrates the confirmatory factor analysis of the scale’s factor structure. The diagram presents the path coefficients for the scale items, which range from 0.52 to 0.89, signifying statistical significance at $p \leq 0.01$. The Chi-square statistic (χ^2) is 561.18 with 168 degrees of freedom, corresponding to a χ^2/df ratio of 3.34, indicating a good model fit. Goodness-of-fit indices including RMSEA, GFI, AGFI, and NFI are within optimal ranges, thereby affirming the factorial validity of the scale and its suitability for this study.

Table 3 Reliability coefficients for questionnaire dimensions.

Factors	Number of items	Cronbach’s alpha
Health benefit	4	0.78
Emotional benefits	4	0.75
Social benefits	4	0.80
Self-fulfillment interests	5	0.81
Total	17	0.85

coefficients and Cronbach’s alpha formula were employed to validate the tool’s reliability and consistency. Furthermore, the study incorporated both exploratory and confirmatory factor analysis methodologies to assess the structure of the data. Quantitative measures such as frequencies, percentages, arithmetic means, and standard deviations were calculated for detailed data analysis. Comparative statistical techniques, including the Independent sample *T*-test for contrasting two independent means and one-way ANOVA for variance analysis, were utilized. These were augmented with Scheffe’s method for conducting multiple comparison tests. The statistical analyses were methodically executed using advanced statistical software, namely SPSS and LISREL, ensuring precision and reliability in the results.

To analyze the qualitative phase of data from semi-structured interviews, thematic analysis was utilized, enabling the identification and interpretation of emergent themes within participant narratives. Thematic analysis stands out for its ability to delve into human experiences’ particulars, offering invaluable depth to qualitative investigations. Identifying and analyzing themes significantly enriches the understanding of complex phenomena,

aligning closely with the nuanced objectives of behavioral and psychological research (Castleberry and Nolen 2018). This approach was selected for its proficiency in capturing the experiences of retirees engaging in leisure activities. Supplementing the quantitative findings, this method facilitates a detailed exploration of how leisure activities influence well-being, with themes meticulously correlated to the research aims.

Ethical considerations. The study was designed with transparent communication of its purpose and objectives. On the first page of the questionnaire, a clear statement outlined the study’s primary goal, which served as an implicit agreement and permission from participants who proceeded with the questionnaire. This upfront disclosure ensured that participants were fully informed about the nature and intentions of the research before contributing their data. This practice not only adhered to ethical standards of informed consent but also fostered trust between the researchers and participants, which is fundamental to the integrity of the research process.

Findings

The findings section of this study is structured into two segments: an initial analysis of the quantitative data, followed by a detailed examination of the qualitative data, providing a comprehensive view of the research outcomes.

Quantitative findings. To effectively respond to the research question regarding the overall level of well-being enhancement attributed to leisure activity participation among Saudi retirees, an analytical approach was employed. This involved calculating the

Table 4 Statistical analysis of perceived benefits of leisure activities per item.

No	Items	Mean	Std. deviation	Rank	Level
9	Leisure activities can strengthen the connection between my friends and me.	3.79	0.91	1	High
11	Participating in leisure activities helps establish interpersonal relationships.	3.58	0.96	2	High
12	Participating in leisure activities can increase connections with others.	3.39	0.71	3	Moderate
4	leisure activities can eliminate fatigue and restore physical strength.	3.29	0.85	4	Moderate
2	Leisure activities can help improve healthy physical fitness.	3.23	0.85	5	Moderate
10	Leisure activities help to meet new friends.	3.23	0.96	6	Moderate
6	Participating in leisure activities can enhance psychological satisfaction.	3.07	0.99	7	Moderate
5	Participating in leisure activities can relax tense emotions.	3.06	0.80	8	Moderate
7	Leisure activities can ease the pace of life.	3.06	0.99	9	Moderate
3	leisure activities can prevent or control diseases.	3.01	0.70	10	Moderate
1	Leisure activities can increase physical strength and exercise physical fitness.	2.88	0.81	11	Moderate
8	Leisure activities can dispel life boredom.	2.85	0.98	12	Moderate
16	Participating in leisure activities helps to improve an individual's self-confidence.	2.70	0.80	13	Moderate
17	Participating in leisure activities can give a sense of accomplishment or self-challenge enjoyment.	2.67	0.87	14	Moderate
13	Engaging in leisure activities helps to train life problem-solving skills of an individual.	2.48	0.79	15	Low
14	Participating in leisure activities helps to stimulate an individual's potential.	2.05	0.89	16	Low
15	The sense of accomplishment given by leisure activities can relatively boost the sense of life achievement.	2.02	0.95	17	Low
	Total	2.96	0.28		Moderate

Table 5 Statistical analysis of perceived benefits of leisure activities per factor.

Factors	Male		Female		Total		Rank	Level
	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev		
Health benefits	3.54	0.63	3.45	0.37	3.50	0.52	1	High
Emotional benefits	3.11	0.48	3.09	0.25	3.10	0.38	2	Moderate
Social benefits	3.08	0.47	2.93	0.27	3.01	0.39	3	Moderate
Self-fulfillment interests	2.52	0.63	2.24	0.43	2.38	0.55	4	Low

arithmetic means and standard deviations for each item on the questionnaire. The results of these calculations are systematically presented in Table 4. The focus of this analysis is to ascertain the aggregate scores on the Leisure Benefits Scale, thereby providing a quantified measure of the impact of leisure activities on the well-being of the retired population in Saudi Arabia.

The table analysis reveals that the perceived impact of leisure activities on the well-being of the Saudi retiree community is moderately significant. This observation is supported by an arithmetic mean of 2.96 and a notably low standard deviation of 0.28, under one. Such a minimal standard deviation indicates a remarkable consistency in the perceptions of the study's participants regarding the contribution of leisure activities to the well-being of retirees in Saudi Arabia. This uniformity underscores a collective agreement among the sample population on the moderate yet noteworthy role of leisure activities in enhancing retirees' quality of life.

To answer the second question, which aims to identify which among health, emotional well-being, social integration, and self-fulfillment are most substantially enhanced by leisure activities among Saudi Arabia's retired population, a methodical approach was taken. This involved calculating the arithmetic means and standard deviations for each dimension within the questionnaire. The results of these calculations, essential for providing a clear understanding of the relative impact of leisure activities in these specific domains, are methodically presented in the subsequent Table 5. This detailed analysis is instrumental in discerning the most positively affected domain among the retired demographic in the context of leisure activities.

The table's analysis provides a clear ranking of the impact of leisure activities on various well-being dimensions among retirees

Table 6 Gender-based differences.

Variable	Mean	Std. deviation	df	T	Sig.
Female	3.03	0.33	543	5.951	0.000
Male	2.89	0.19			

in Saudi Arabia. It shows that Health Benefits is the most positively impacted domain, with a high average mean score of 3.50. Afterwards, Emotional Benefits rank second with a moderate average mean of 3.10. Social Benefits are also moderately enhanced, coming in third with an average score of 3.01. Lastly, despite being beneficial, Self-fulfillment Interests are less influenced by leisure activities compared to the other domains, as indicated by its lower average mean of 2.38, placing it in the fourth position. This hierarchy reflects the varying degrees to which different aspects of well-being are affected by leisure activities among the retired population.

In addressing the third research question, which aims to uncover potential disparities in how leisure activities are perceived to benefit various demographic groups (including gender, age, socio-economic status, and educational level) within Saudi Arabia's retired community, the initial focus is on the gender demographic. This phase of the analysis entailed a comprehensive computation of arithmetic means and standard deviations for the responses of the study's sample, segregated by gender. The independent sample *T*-test was applied to ascertain the statistical significance of the observed differences in these means. The findings of this rigorous analysis, which are systematically outlined in Table 6, provide critical insights into

Table 7 Age-based differences.

Source	Sum of squares	df	Mean square	F	Sig.
Between groups	0.436	2	0.218	2.794	0.053
Within groups	42.514	542	0.078		
Total	43.004	544			

Table 8 Social status-based differences.

Source	Sum of squares	df	Mean square	F	Sig.
Between groups	2.608	3	0.869	11.642	0.000
Within groups	40.396	541	0.075		
Total	43.004	544			

the existence and extent of gender-specific differences in the perception of the benefits of leisure activities. This strategic approach offers a refined understanding of the influence of gender on the valuation of leisure benefits among the Saudi retired populace.

Analysis of the data presented in the table indicates the presence of statistically significant disparities, noted at the $\alpha \leq 0.05$ significance level, in the study participants' average responses when segmented by gender. Notably, these differences are in favor of female respondents. This finding highlights a gender-specific variation in the perception or experience of the studied phenomena, underscoring the nuanced impact of gender on the research outcomes.

Moving on to examine another critical demographic variable, Table 7 provides the outcomes of the one-way ANOVA test. This analysis was conducted to discern any statistically significant differences in the average responses of the study's participants, explicitly focusing on the age variable. The results are systematically organized and presented to offer a clear understanding of how age influences the perceptions within the study's scope.

The statistical analysis of age-based variations in the perception of leisure benefits among Saudi retirees, as reflected in Table 7, reveals a tendency toward differences across age cohorts. However, these differences did not achieve statistical significance ($F = 2.794, p = 0.053$). This outcome implies that, although there might be slight variations in the valuation of leisure activities among different age groups within the retired population, such differences are not markedly significant within this study's dataset. Consequently, this analysis suggests a uniform perception of the benefits of leisure activities across the age spectrum among retirees in Saudi Arabia.

Table 8 presents the findings from the one-way analysis of variance (ANOVA) test, which was executed to ascertain any statistical disparities in the mean responses of the study's sample population based on the variable of Social Status.

The analysis of Table 8, detailing Social Status-based differences in leisure benefits among Saudi retirees, reveals significant statistical disparities ($F = 11.642, p = 0.000$). This significant variation indicates that retirees' social status notably influences their perception of leisure benefits, suggesting that access and attitudes toward leisure activities vary across different social strata within the retired population in Saudi Arabia. To determine the direction of the differences, the post hoc Scheffe test was used; Table 9 below illustrates the direction of these differences.

Table 9 Multiple comparisons (Scheffe) based on social status.

Social status	Mean	Single	Married	Divorced	Separated
Single	2.95	-	-0.05879	0.12298	0.01350
Married	3.01		-	0.18177*	0.07229
Divorced	2.82			-	-0.10948
Separated	2.93				-

Note: * indicates statistical significance at $p < 0.05$.

Table 10 Economic status-based differences.

Source	Sum of squares	df	Mean square	F	Sig.
Between groups	22.932	3	7.644	206.038	0.000
Within groups	20.071	541	0.037		
Total	43.004	544			

Table 9, focusing on social status, reveals differences in how leisure activities' benefits are perceived among Saudi retirees. Married individuals show a significant variation in their perception compared to divorced retirees, as indicated by the mean scores. This suggests that marital status, including being single, married, divorced, or separated, plays a role in shaping perceptions of leisure's impact on well-being, with marital status particularly influencing these viewpoints.

Table 10 presents the outcomes from a one-way analysis of variance (ANOVA) conducted to ascertain the presence of statistical differences in the average responses of participants in the study. This analysis specifically focuses on understanding how perceptions of the role of leisure activities in enhancing well-being in Saudi's retired community vary concerning the economic status of the respondents.

Table 10, which focuses on the differences based on economic status, reveals pronounced statistical variations in how leisure activities are perceived to enhance well-being among Saudi retirees. The considerable F -statistic of 206.038 and a p value of 0.000 robustly indicate marked disparities in perceptions across varying economic groups. This significant variance underscores the pivotal influence of economic status in molding retirees' perspectives regarding the benefits of leisure activities, highlighting economic factors as critical determinants in shaping the perceived efficacy of leisure in enhancing well-being. To determine the direction of these differences, the Scheffe post hoc test was utilized; Table 11 illustrates the direction of these differences.

Table 11 reveals notable disparities in the perception of leisure benefits across different economic statuses among Saudi retirees. High-income individuals perceive significantly more benefits from leisure activities than upper-middle, middle, and low-income groups. These findings suggest a clear relationship between economic status and the perceived impact of leisure on well-being, with higher income correlating with a greater appreciation of leisure benefits. This highlights the influence of economic factors on the perceived quality and effectiveness of leisure activities in enhancing well-being.

Table 12 features the one-way ANOVA results, evaluating statistical differences in how participants, segmented by educational background, perceive leisure activities' impact on well-being among retired individuals in Saudi Arabia.

Table 12 demonstrates statistically significant variances in the perceptions of leisure activities' role in enhancing well-being

Table 11 Multiple comparisons (Scheffe) based on economic status.

Economic status	Mean	Low income	Middle income	Upper-middle income	High income
Low income	2.7505	-	-0.19168*	-0.16283*	-0.81694*
Middle income	2.9422		-	0.2885	-0.62526*
Upper-middle income	2.9134			-	-0.65411*
High income	3.5675				

Note: * indicates statistical significance at $p < 0.05$.

Table 12 Educational level-based differences.

Source	Sum of squares	df	Mean square	F	Sig.
Between groups	1.573	2	0.786	10.289	0.000
Within groups	41.431	542	0.076		
Total	43.004	544			

correlated with the educational levels of Saudi retirees. The pronounced *F*-value of 10.289 and the definitive *p* value of 0.000 prove that a retiree’s educational background markedly influences their perception of leisure benefits. This finding implies that the educational level is a crucial factor in forming retirees’ perspectives and experiences related to leisure, significantly affecting its perceived value and impact on overall well-being during retirement. To determine the direction of the differences, the Scheffe post hoc test was utilized. Table 13 illustrates the direction of these differences.

Table 13, showcasing the results from the Scheffe post hoc analysis, indicates significant differences in perceptions of leisure benefits among Saudi retirees according to their educational levels. It highlights that retirees with tertiary education have markedly different perceptions than those with primary or secondary education, as evident in the distinct mean scores. This finding suggests a correlation between higher educational attainment and a unique understanding of leisure activities’ contribution to well-being in retirement.

Qualitative findings. This section outlines the qualitative findings, where the thematic analysis identified three main themes that reflect the retirees’ experiences and perspectives on leisure activities and their impact on well-being.

Holistic health and emotional well-being. The retirees’ narratives reveal a strong link between leisure activities and improved physical health, a finding particularly relevant in the Saudi context, where traditional lifestyles may have been more sedentary. “Since I began regular evening walks around our neighbourhood parks, I have noticed my blood pressure stabilizing,” one retiree shared, indicating the health benefits of accessible, low-impact physical activities. Another retiree’s experience with a more culturally traditional activity, such as falconry, underscores this, “Falconry is not just a sport for me; it is an engaging way to stay active, which I find beneficial for my health.”

The emotional benefits retirees associate with leisure activities are profound. “In our culture, family and social gatherings are significant. Organizing and participating in these brings me immense joy and a sense of belonging,” a participant noted, reflecting the social aspect of leisure that resonates strongly in the collectivist Saudi culture. Another retiree mentioned, “Pursuing

calligraphy, a cherished art form in our culture, has been incredibly soothing for me.”

The analysis shows that Saudi retirees’ leisure activities are often closely tied to their cultural heritage, enhancing their sense of identity and continuity. Activities such as gardening, calligraphy, or participating in community events offer physical and emotional benefits and help maintain a connection with their cultural roots.

In summary, the qualitative responses from Saudi retirees highlight that leisure activities contribute significantly to their well-being, with the benefits of these activities being amplified by their alignment with cultural practices and values. The findings suggest that integrating culturally relevant leisure activities into the daily routines of retirees could be vital to enhancing their overall health and emotional well-being.

Social integration and self-fulfillment. The qualitative data revealed that leisure activities enhance social integration among Saudi retirees. Participants frequently emphasized how these activities catalyzed social interaction and community bonding. A retiree articulated, “My involvement in a local walking group transcends physical health benefits; it has been instrumental in forging new connections with neighbours and creating a supportive community network.” The significance of participating in culturally resonant events was also noted, with another retiree stating, “My engagement in mosque gatherings and community volunteerism has deepened my sense of belonging and unity within my community.” These narratives highlight the intrinsic value of leisure activities as vehicles for social engagement, which is crucial in a societal context that places high importance on communal relationships and solidarity.

In the domain of self-fulfillment, retirees voiced how leisure pursuits were instrumental in providing a sense of personal achievement and identity. One participant reflected, “Retirement has allowed me to immerse myself in painting, transforming it from a hobby to an integral part of my identity.” Another retiree’s experience acquiring new skills, such as digital photography, was cited as a source of personal accomplishment and cognitive stimulation. These insights underscore the significant role of leisure activities in promoting self-worth and ongoing personal development, particularly during retirement, which often prompts a reevaluation of personal identity and aspirations.

Within the Saudi cultural framework, where family and community relationships are central to social life, the dual aspects of social integration and self-fulfillment acquire heightened significance. Leisure activities provide a harmonious blend of traditional communal engagement and individual self-expression, reinforcing personal identities in the post-retirement phase.

In summary, the qualitative findings indicate that leisure activities in Saudi Arabia are far more than mere pastimes. They are integral to fostering meaningful social connections and achieving personal fulfillment. This dual role is especially pertinent in the Saudi context, where leisure bridges traditional communal values and the pursuit of individual interests, thereby enhancing retirees’ overall quality of life.

Table 13 Multiple comparisons (Scheffe) based on educational level.

Education	Mean	Primary education	Secondary education	Tertiary education
Primary education	2.91	-	-0.01593	-0.12023*
Secondary education	2.93		-	-0.10430*
Tertiary education	3.03			-

Note: * indicates statistical significance at $p < 0.05$.

Cultural influence and barriers to leisure. The qualitative findings underscored the significant role of cultural ethos in shaping leisure activities among Saudi retirees. Participants frequently discussed how entrenched cultural norms and traditions underpin their approach to leisure. One retiree illustrated this: “*Our leisure practices are deeply rooted in cultural values; they extend beyond personal amusement to embrace family traditions and communal gatherings.*” Another participant elaborated, “*Leisure choices in our Saudi society are invariably intertwined with our cultural and religious principles, guiding us towards socially appropriate and personally enriching activities.*” These reflections reveal that in the Saudi context, leisure is not solely an individual pursuit but is inextricably linked to cultural identity, often reflecting collective values and societal expectations.

Several impediments to leisure engagement for Saudi retirees were reported. Recurring discussions centered on the inadequacy of leisure infrastructure and opportunities that cater to older adults’ needs and preferences. “*Navigating the limited options for age-appropriate and accessible leisure activities presents a significant challenge,*” expressed a respondent. Economic factors also emerged as substantial barriers, with a participant noting, “*Economic constraints at times limit our participation in diverse leisure pursuits, particularly those requiring financial investment or travel.*” Also, prevalent societal perceptions of ageing and activity levels were highlighted as deterrents. A retiree voiced, “*There exists a societal notion that retirement should be a period of reduced activity, which can be disheartening for those of us eager to explore and engage more actively.*” These barriers underscore the necessity for developing more inclusive leisure strategies and advocating a paradigm shift in societal attitudes toward aging to optimize the role of leisure in enhancing retirees’ well-being and life satisfaction.

Discussion

To address the first research question concerning the extent to which leisure activity engagement enhances well-being among retirees in Saudi Arabia, this study revealed a moderate level of enhancement in well-being, as quantified by the scores on the Leisure Benefits Scale. The observed moderate enhancement in retirees’ well-being can be understood through unique Saudi cultural and socio-economic contexts. Predominantly, cultural norms in Saudi society, which prioritize family and communal activities over individual leisure pursuits, might have tempered the impact of leisure on individual well-being. Moreover, this cultural inclination toward communal leisure could suggest a detailed pathway through which leisure activities contribute to well-being, potentially emphasizing the value of social cohesion and familial bonds. Furthermore, the accessibility and diversity of leisure activities available to retirees are likely influenced by the country’s ongoing socio-economic changes, particularly those associated with the Vision 2030 reform plan. These reforms, aiming to diversify entertainment and leisure opportunities, may gradually alter the landscape of leisure activities available to retirees, influencing future well-being outcomes.

The study’s outcomes resonate with the observations made by Adams et al. (2010), who acknowledged the complexities inherent in correlating leisure activities with well-being enhancement in later life, particularly under varying contextual influences. Similarly, Agahi et al. (2011) underscore the importance of sustained engagement in leisure activities for augmented well-being, suggesting that the intensity and nature of leisure activities pursued by Saudi retirees might be pivotal in understanding the observed moderate enhancement. This emphasis on sustained engagement aligns with the notion that not just any leisure activity but those consistently engaged in and meaningful to the individual are likely to have the most significant impact on well-being.

Conversely, the findings slightly contradict Brajša-Zganec et al. (2011), who reported a more pronounced link between leisure activities and subjective well-being. This discrepancy might stem from the distinct socio-cultural milieu of Saudi Arabia, which potentially modulates retirees’ perceptions and participation in leisure activities. The cultural specificity of Saudi Arabia, including its values and norms, plays a critical role in shaping how leisure activities are perceived and engaged in, thereby influencing their impact on well-being. Furthermore, this research aligns with Li et al. (2021), who discuss the differential impacts of leisure activities across various dimensions of well-being in older adults. Therefore, the moderate enhancement observed in the Saudi context might reflect a variation in how leisure activities align with the retirees’ specific well-being needs and expectations. This suggests that the leisure activities most beneficial for well-being in Saudi Arabia may differ from those in cultures with different norms and values regarding leisure and retirement. The study reinforces that, as recognized globally, leisure activities are vital in enhancing retirees’ well-being. However, the specific context of Saudi Arabia, marked by its unique cultural and socio-economic landscape, significantly shapes the extent of this enhancement, highlighting the importance of contextual factors in designing and implementing policies and programs aimed at promoting retiree well-being through leisure.

Concerning the second research question regarding the domains most significantly enhanced by leisure activities among the retired population in Saudi Arabia, the study pinpointed health benefits as the foremost area of improvement. This prioritization of physical health mirrors broader global trends underscoring the critical role of physical well-being in later life. Within Saudi Arabia, such emphasis likely reflects a cultural and societal evolution toward valuing physical health during retirement, perhaps spurred by recent public health initiatives and a movement toward more active living.

The study also found moderate emotional and social well-being enhancements through leisure activities. These enhancements, while noteworthy, highlight a differential impact of leisure across well-being domains, with physical health seeing the most substantial benefits. This could be attributed to the cultural norms in Saudi Arabia, where leisure may often be experienced in communal settings, intertwining emotional and social benefits. Indeed, the communal nature of leisure in Saudi society may

inherently bolster emotional and social well-being, yet distinguishing these effects from the broader context of health benefits presents an intriguing area for further investigation. Such a pattern indicates that emotional well-being and social integration through leisure are fostered within community and family-oriented activities, a characteristic feature of Saudi society. However, the area of self-fulfillment through leisure showed relatively lower enhancement. This observation suggests a potential area for policy intervention, aiming to broaden the scope and perception of leisure's role in supporting comprehensive well-being, including personal growth.

Comparing these findings with existing literature, the emphasis on health benefits is consistent with the research of Lee et al. (2023), who highlighted the relationship between leisure activities and physical well-being in older adults. The moderate impact on emotional well-being parallels Chen et al. (2022), indicating that the influence of leisure on emotional health is subject to individual and contextual factors. For social benefits, the study's findings align with Lindsay Smith et al. (2017), though the impact in Saudi Arabia may be nuanced by the society's existing solid communal ties. In contrast, the lower emphasis on self-fulfillment aligns less with the observations of Ertekin (2021), who found a significant impact of leisure on personal growth among younger demographics, underscoring a potential generational divide in leisure's contributions to well-being. Overall, the study affirms the beneficial role of leisure in enhancing various aspects of well-being among Saudi retirees. However, the variations in the degree of enhancement across different domains highlight the importance of cultural and societal factors in shaping retirees' leisure experiences and their perceived benefits, pointing to the nuanced role leisure plays in the fabric of retirees' lives, influenced by both individual preferences and the prevailing cultural ethos.

In exploring the third research question, which investigates the presence of demographic differences in how leisure activities are perceived to benefit retirees in Saudi Arabia, the study unveils distinct variations across gender, age, socio-economic status, and educational level. The research found that female retirees perceive a more significant benefit from leisure activities compared to their male counterparts. This difference underlines the impact of societal roles and cultural expectations on leisure engagement and its perceived value, suggesting that leisure activities offer a unique avenue for social and emotional fulfillment for women. This could be attributed to gender-specific roles and cultural norms, where women might find more value or solace in leisure activities, particularly those that foster social interaction or creativity. Moreover, these findings align with the broader discourse on gender and leisure, highlighting the need to consider gender dynamics when designing and promoting leisure activities for retirees. This gender distinction in leisure perception may also reflect broader societal dynamics, where leisure serves different psychosocial functions for men and women.

While initial data suggested variations in leisure benefits perceptions across age groups, these differences were not statistically significant. This lack of significant variation highlights a universal appreciation for leisure across the retirement spectrum, suggesting that leisure's role in enhancing well-being is broadly recognized among the elderly in Saudi Arabia. This implies a consistency in the value placed on leisure activities among the elderly, regardless of age. Such findings challenge the notion that leisure's importance diminishes with advancing age, reinforcing that leisure activities remain a crucial component of well-being for retirees. It indicates that, despite physiological and lifestyle changes that come with different stages of ageing, the perceived importance and benefits of leisure remain relatively stable among Saudi retirees.

The analysis highlights socio-economic and marital status as critical determinants in shaping retirees' perceptions of leisure benefits. It was observed that retirees belonging to higher income groups reported a heightened perception of the benefits derived from leisure activities. This association points to the critical role of financial stability in enhancing leisure experiences, where economic resources expand access to diverse and potentially more fulfilling leisure options. This trend suggests that more significant economic resources, which enable access to a broader spectrum of leisure opportunities, significantly contribute to an enhanced sense of well-being from these activities. Concurrently, marital status emerged as a pivotal factor, with married retirees consistently reporting more favorable perceptions of leisure benefits than their unmarried peers. This finding highlights the importance of companionship and shared experiences in magnifying the positive impacts of leisure on well-being, suggesting that social connections are integral to the leisure experience. This variation can likely be ascribed to the added social and emotional support provided by marital relationships, which may amplify the enjoyment and overall satisfaction derived from leisure pursuits. Furthermore, the significant influence of educational level on leisure perceptions emphasizes the link between education and leisure engagement, where higher education fosters an enriched understanding and valuation of leisure's benefits. These findings underscore the multifaceted nature of leisure benefits and their dependency on individual socio-economic and relational contexts. Ultimately, these insights call for a nuanced approach to promoting leisure among retirees, considering how socio-economic status, marital status, and education level influence leisure's perceived value and impact on well-being.

These findings align with various strands of existing research. The gender-based differences affirm the nuanced view of leisure engagement across genders, with women potentially valuing leisure differently due to societal roles and cultural expectations. The gender-based differences resonate with Fernandez's (2023) exploration of gender dynamics in leisure activities. In contrast, the age-related findings present a different narrative from studies like Nielsen et al. (2021), which observed more pronounced age-based variations in leisure engagement. This discrepancy suggests that cultural and societal contexts, such as those in Saudi Arabia, may be crucial in moderating the relationship between age and leisure engagement. The impact of socio-economic status on leisure perceptions finds support in Beenackers et al. (2012), highlighting the role of economic factors in leisure activity participation. This emphasizes the importance of accessibility and the ability to engage in preferred leisure activities as key factors influencing well-being. Lastly, the influence of education aligns with Li et al. (2021), emphasizing the role of educational background in shaping leisure experiences and benefits. Educational attainment not only influences the types of leisure activities pursued but also affects the depth of engagement and the derived psychological benefits. These findings underscore the need for a nuanced understanding of leisure engagement among retirees, considering the diverse backgrounds and life experiences within this demographic. Such insights are vital for developing targeted interventions and policies that cater to retirees' specific needs and preferences, ensuring leisure activities are accessible and meaningful across different segments of the retired population.

Regarding the fourth research question dealing with how retirees in Saudi Arabia perceive the role of leisure activities in enhancing their well-being, particularly in terms of health, emotional balance, social integration, and self-fulfillment, post-retirement, the qualitative findings provide in-depth insights. Interviews revealed that retirees associate significant health benefits with regular engagement in leisure activities, highlighting a shift from potentially sedentary lifestyles to more active pursuits.

The study reveals a profound link between leisure activities and physical health improvement among retirees. Participants frequently mentioned activities like evening walks and gardening alongside culturally specific pursuits such as falconry, underscoring their dual benefits for physical health and emotional enrichment.

Retirees emphasize the emotional upliftment of leisure activities, especially those involving family and social interactions. These activities contribute to emotional well-being and echo the collectivist values inherent in Saudi society, reinforcing familial and social bonds. These activities are credited with bringing joy and fostering a deep sense of belonging, reflecting the collectivist nature of Saudi culture. Moreover, the findings indicate that leisure activities are crucial in promoting social integration. Retirees highlighted the role of leisure in expanding their social networks and maintaining active social lives, which is particularly valuable in the context of Saudi Arabia's communal culture. For many retirees, these activities are pivotal in building and maintaining social connections, contributing significantly to their sense of community involvement and social life. Furthermore, participants viewed retirement as a unique opportunity for exploring new hobbies and interests, signifying leisure's critical role in personal development and self-discovery. Retirement is seen as an opportunity for personal growth and identity development. Leisure pursuits are instrumental in this phase, allowing retirees to explore new skills and hobbies, enhancing their self-worth and personal accomplishment.

These qualitative insights corroborate and expand upon existing literature, providing a nuanced understanding of the multifaceted benefits of leisure among Saudi retirees. The study's insights align with existing research in gerontology and leisure studies. The focus on health and emotional well-being through leisure resonates with the findings of Lee et al. (2023), who identified a strong correlation between leisure activities and physical well-being in older adults. Similarly, the emphasis on social integration through leisure activities finds support in the research of Lindsay Smith et al. (2017), who highlighted the importance of social support in leisure activities among older adults. Moreover, the narrative around leisure as a means for self-enhancement and identity reconstruction enriches the discourse on leisure's transformative potential in the post-retirement phase. Besides, the significance of leisure in facilitating personal development and identity reconstruction is consistent with the observations made by Ertekin (2021), emphasizing leisure's role in personal growth.

In summarizing this discourse, it becomes clear that this research not only addresses a significant gap but also advances our understanding of the impact of leisure activities on the well-being of retirees in Saudi Arabia. Through a nuanced examination of the effects across diverse demographic groups, this study unveils previously unrecognized aspects of how leisure contributes to post-retirement life. These insights challenge existing paradigms and enrich the academic dialogue surrounding gerontological well-being. The implications of this research extend beyond academic interest, providing a robust foundation for policy formulations that aim to cultivate a more inclusive and supportive leisure environment for retirees. This study's contributions are mainly distinguished by its methodical analysis and culturally sensitive recommendations, which are pivotal for practitioners aiming to enhance retiree well-being through targeted leisure programs. This research offers a strategic roadmap for implementing culturally attuned leisure initiatives by explicitly detailing how these findings can influence policy and practice. Such contributions are vital for shaping future studies and encouraging the adoption of informed practices that optimize the quality of life for retirees in Saudi Arabia, marking a significant advancement in the field.

Implications

Drawing from this study's key findings, significant theoretical and practical implications emerge, highlighting the multidimensional impact of leisure activities on retirees' well-being.

Theoretical implications. This research substantially enriches the theoretical framework surrounding the impact of leisure activities on the well-being of retirees. It reaffirms the idea that leisure serves as a vital component in enhancing life quality, transcending the traditional view of it as a mere pastime, particularly in the context of retirement. This perspective aligns with the findings of Mansfield et al. (2020), who also emphasized leisure's critical role in retirees' quality of life. By doing so, this study extends beyond conventional leisure theories to highlight the multifaceted role of leisure in promoting comprehensive well-being among retirees, incorporating aspects such as physical health, emotional well-being, social integration, and self-fulfillment. A notable aspect of the study is its emphasis on the role of cultural context in shaping leisure experiences. This introduces a good perspective to leisure theories, suggesting that cultural dimensions are pivotal in influencing how leisure activities impact well-being, thereby calling for a broader, more culturally inclusive framework in future research, as supported by Poscia et al. (2018), who explored the cultural determinants of leisure activity. Furthermore, the study sheds light on the variations in perceived leisure benefits across different demographic segments, including gender, socio-economic status, and educational levels. These findings prompt reevaluating existing assumptions within the academic discourse on leisure and aging, advocating for a refined approach that better accommodates the diversity of retirees' experiences and needs, echoing the work of Li et al. (2021), who highlighted demographic influences on leisure engagement.

Practical implications. Practically, the study offers critical insights for enhancing retirees' well-being through leisure activities. Highlighting the importance of culturally sensitive and accessible leisure programs, it emphasizes the need for initiatives that cater to retirees' physical capabilities and align with their cultural values and social preferences. This approach aligns with the findings of Adams et al. (2010), who demonstrated the positive impact of culturally tailored leisure programs on the well-being of diverse elderly populations. This calls for creating leisure opportunities that are not only physically accessible but also resonate deeply with the cultural and social fabric of the Saudi retired community. Moreover, identifying barriers to leisure engagement underscores the critical need for targeted interventions to remove obstacles related to economic constraints and infrastructural deficiencies. The importance of overcoming these barriers is echoed in the work of Beenackers et al. (2012), who explored the significant role of accessible leisure infrastructure in promoting active aging. The study also highlights the need to address prevalent barriers to leisure engagement, such as economic limitations and inadequate infrastructure. Therefore, policymakers and community developers are urged to prioritize the development of inclusive leisure environments that support the holistic well-being of the retired population. Lastly, the research points to the crucial role of societal perceptions regarding aging and retirement. It advocates for shifting societal narratives toward viewing retirement as a period of continued engagement and fulfillment, leveraging public campaigns and community programs to foster positive attitudes toward aging and active lifestyles among retirees. This recommendation aligns with the conclusions of Li et al. (2021), who highlighted the transformative potential of public narratives in shaping retirement experiences. Facilitating this societal change involves public awareness campaigns and community

initiatives that support and celebrate the active participation of older individuals in diverse leisure and social activities, thereby fostering a more inclusive and supportive environment for retirees.

Limitations and recommendations for further research

This study identifies three primary limitations, each accompanied by a corresponding recommendation. First, the sample's limited diversity may not fully capture the heterogeneity of Saudi Arabia's retired population. To address this, future research should aim for a broader demographic reach, including more varied age groups, socio-economic statuses, and participants from urban and rural areas, ensuring inclusivity of various regions, socio-economic statuses, and cultural backgrounds. Second, the cultural specificity of the study, focused primarily on the Saudi context, limits the generalizability of findings to other cultural environments. It is recommended that subsequent studies incorporate comparative analyses with different cultural groups, such as retirees in Western, Asian, and other Middle Eastern contexts, to enhance the applicability of the research findings. Finally, the study's cross-sectional nature constrains exploring longitudinal changes and causality in leisure activities' impact on well-being. Future research should consider longitudinal designs to assess changes over time and identify causal relationships to observe how retirees' perceptions and benefits of leisure evolve, providing a more dynamic understanding of the role of leisure in retirement life.

Conclusion

In summarizing this research, it is evident that the study significantly advances our understanding of how leisure activities contribute to the well-being of retirees in Saudi Arabia. It comprehensively delineates the multifaceted role of leisure—highlighting its profound influence on physical health, emotional well-being, social connectivity, and the pursuit of self-fulfillment among the elderly. The study elucidates that leisure activities, particularly those resonating with cultural traditions, transcend mere recreation to become pivotal in enhancing the quality of life for retirees. The investigation examines the impact of demographic variables, including gender, age, socio-economic status, and educational level, on how leisure benefits are perceived and experienced. It demonstrates that the positive effects of leisure on well-being are universally acknowledged yet vary in magnitude across different demographic segments. This variation underscores the necessity for customized leisure program designs that accommodate the diverse needs and preferences within the retired community. Beyond leisure and gerontology, the findings offer strategic insights for policymakers, urban planners, and healthcare professionals. The study advocates for establishing inclusive and culturally attuned leisure infrastructures and programs, ensuring broad accessibility for the entire spectrum of the retired population. Ultimately, this research contributes to our comprehension of leisure's role in retirement, promoting its strategic integration into initiatives aimed at augmenting the life quality of the elderly. As Saudi Arabia navigates through ongoing demographic and cultural changes, the pertinence of such research becomes increasingly vital in informing policies and practices that foster a vibrant, engaged, and content retired community.

Data availability

The datasets generated and analyzed during this study are shared in an online Supplementary file with this published article.

Received: 15 December 2023; Accepted: 24 April 2024;

Published online: 10 May 2024

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Acknowledgements

The authors extend their appreciation to the Deanship of Scientific Research at Northern Border University, Arar, KSA for funding this research work through the project number "NBU-FFR-2024-48-02".

Author contributions

As the sole author of this paper, I was responsible for all aspects of the research and manuscript preparation. This included interpreting the results, articulating the study's implications, and drafting the manuscript's key sections, including the "Introduction", "Discussion", and "Conclusion". I also analyzed the statistical data, examining and interpreting the quantitative data collected. This all-encompassing role ensured a thorough and rigorous examination of the research topic.

Competing interests

The author declares no competing interests.

Ethical approval

The study was approved by the Permanent Committee for Research Ethics at Northern Border University (No. 16-7-24).

Informed consent

The study guaranteed participant anonymity and data confidentiality, avoiding the collection of email or IP addresses. The survey's introduction clearly stated the study's purpose and reassured participants about the confidential treatment of their responses. Participation was entirely voluntary, and choosing to participate was considered as giving informed consent.

Additional information

Supplementary information The online version contains supplementary material available at <https://doi.org/10.1057/s41599-024-03126-x>.

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