Journal of
Ageing and Longevity

MDPI

Article

Leisure Attitude and Psychological Well-Being Among Older Adults: An Asymmetrical Dual-Pathway Model for Healthy Aging

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Abstract

Background/Objectives: Promoting psychological well-being is a central goal in healthy aging research. While leisure has been widely recognized as an important contributor to well-being in later life, the underlying psychological mechanisms remain insufficiently understood. This study aims to examine the relative roles of cognitive and experiential mechanisms in shaping psychological well-being among older adults. Methods: A cross-sectional survey was conducted with 200 older adults participating in community-based leisure programs in South Korea. Data were analyzed using confirmatory factor analysis and structural equation modeling. A dual-pathway model was tested, in which leisure attitude represents a cognitive mechanism and leisure satisfaction reflects an experiential mechanism. Results: Leisure attitude significantly influenced both leisure satisfaction and psychological well-being, while leisure satisfaction also had a positive but comparatively weaker effect on well-being. Mediation analysis confirmed that leisure satisfaction partially mediates the relationship between leisure attitude and psychological well-being. Notably, the direct effect of leisure attitude ($\beta = 0.368$) was substantially stronger than that of leisure satisfaction ($\beta = 0.150$), providing preliminary support for differences in the relative associations of cognitive and experiential pathways. Conclusions: These findings suggest that cognitive appraisal may play a relatively important role in psychological well-being among older adults and provide preliminary support for the relevance of cognitive mechanisms alongside experiential factors in aging research. Interventions aimed at promoting healthy aging should therefore focus not only on improving the quality of leisure experiences but also on fostering positive cognitive orientations toward leisure.

Keywords: leisure attitude; leisure satisfaction; psychological well-being; older adults; healthy aging

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Academic Editors: Antonella Lopez, Andrea Bosco, Alessandro Oronzo Caffò, Elisabetta Ricciardi, Giuseppina Spano and Luigi Tinella

Received: 23 April 2026
Revised: 21 May 2026
Accepted: 25 May 2026
Published: 3 June 2026

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1. Introduction

Population aging has become a defining global phenomenon, raising increasing concern about how to maintain psychological well-being and quality of life in later life [1–4]. In this context, leisure has been widely recognized as an important contributor to successful aging because it provides opportunities for social interaction, emotional regulation, and personal fulfillment [5,6]. Previous studies have consistently shown that leisure engagement is positively associated with life satisfaction, emotional well-being, and overall quality of life [7,8]. More recent research further suggests that the benefits of leisure are shaped not only by participation itself but also by psychological and contextual factors that influence how individuals perceive and experience leisure [9,10].

Despite these advances, much of the existing literature has remained behavior-oriented, focusing primarily on participation frequency, duration, and activity type. Although these factors are important, they provide limited insight into the psychological mechanisms through which leisure influences well-being. Increasingly, researchers have argued that participation alone cannot fully explain variations in well-being outcomes and that cognitive and experiential processes may play an important role in shaping leisure-related well-being [7,11,12].

In particular, leisure attitude has received growing attention as a cognitive factor associated with leisure-related psychological outcomes. Prior studies have shown that positive leisure attitudes are associated with greater engagement, adaptive psychological outcomes, and higher levels of well-being [13–15]. At the same time, experiential perspectives grounded in self-determination theory suggest that psychological well-being is enhanced when leisure experiences satisfy individuals' psychological needs and provide meaningful and rewarding experiences [16,17]. Within leisure research, these experiential processes are commonly reflected in leisure satisfaction, which has been consistently linked to psychological well-being and life satisfaction [18,19].

However, despite the theoretical relevance of both cognitive and experiential perspectives, previous studies have largely examined these mechanisms separately. Most studies have focused either on attitudinal factors or on experiential outcomes, resulting in a fragmented understanding of how these processes jointly influence psychological well-being. Moreover, prior research has often assumed that experiential factors fully mediate the relationship between leisure-related variables and well-being, whereas emerging evidence suggests that cognitive factors may also exert independent associations with psychological well-being [20].

This issue may be particularly important in later life, where physical, social, and environmental constraints can limit leisure participation and experiential opportunities [21]. In contrast, cognitive resources such as attitudes and perceptions may remain relatively stable and function as compensatory mechanisms that support psychological well-being even under constrained conditions [4].

Accordingly, this study proposes a dual-pathway model in which leisure attitude influences psychological well-being both directly and indirectly through leisure satisfaction. In addition, this study extends previous research by comparing the relative strength of cognitive and experiential pathways, thereby providing a more integrated understanding of the psychological mechanisms underlying leisure-related well-being among older adults.

2. Theoretical Framework and Hypotheses

Understanding the psychological mechanisms underlying the relationship between leisure and well-being requires an integrative theoretical approach. Building on prior research, this study adopts a dual theoretical framework that combines cognitive appraisal theory and self-determination theory (SDT) to explain how leisure influences psychological well-being among older adults. From the perspective of cognitive appraisal theory, individuals' subjective interpretations of experiences play a central role in shaping emotional and psychological outcomes [11]. In the context of leisure, this perspective highlights the importance of leisure attitude, which reflects a relatively stable cognitive disposition toward leisure activities. Leisure attitude encompasses individuals' beliefs, emotions, and behavioral tendencies regarding leisure participation, and it influences how individuals perceive, evaluate, and derive meaning from their leisure experiences. Prior studies have consistently demonstrated that positive leisure attitudes are associated with greater engagement, persistence, and adaptive psychological outcomes [13,14]. In addition, individuals with more favorable attitudes toward leisure are more likely to experience positive psycho-

logical states, suggesting that leisure attitude may exert a direct influence on psychological well-being. At the same time, cognitive appraisal theory suggests that individuals' evaluations of leisure may also shape their experiential outcomes. Specifically, individuals with positive leisure attitudes are more likely to perceive their leisure experiences as meaningful and rewarding, thereby enhancing their level of leisure satisfaction. This implies that leisure attitude may influence psychological well-being not only directly but also indirectly through experiential mechanisms. Based on this reasoning, the following hypotheses are proposed:

H1. *Leisure attitude will have a positive effect on leisure satisfaction.*

H2. *Leisure attitude will have a positive effect on psychological well-being.*

Complementing this cognitive perspective, self-determination theory provides a framework for understanding the experiential dimension of leisure. According to SDT, psychological well-being is enhanced when activities satisfy basic psychological needs, including autonomy, competence, and relatedness [16,17]. In the leisure context, these need satisfactions are reflected in leisure satisfaction, which captures individuals' subjective evaluation of the quality and outcomes of their leisure experiences. Empirical research has consistently shown that leisure satisfaction is positively associated with well-being outcomes, including positive affect, life satisfaction, and psychological well-being [18,19]. Unlike leisure attitude, which is relatively stable, leisure satisfaction is more context-dependent and influenced by factors such as program quality, accessibility, and social interaction. Nevertheless, it represents a key experiential mechanism linking leisure engagement to psychological well-being. Accordingly, the following hypothesis is proposed:

H3. *Leisure satisfaction will have a positive effect on psychological well-being.*

While cognitive appraisal theory and self-determination theory provide distinct explanations, a more comprehensive understanding of leisure-related well-being requires integrating these perspectives. Prior research has often assumed that experiential factors fully mediate the relationship between leisure-related variables and well-being. However, emerging evidence suggests that cognitive factors may exert independent effects alongside experiential pathways [20,21]. In this regard, leisure satisfaction can be conceptualized as a mediator that links leisure attitude to psychological well-being. Individuals with more positive leisure attitudes are likely to experience higher levels of satisfaction, which in turn enhances their well-being. However, given the theoretical role of cognitive appraisal as a fundamental determinant, it is expected that this mediation will be partial rather than complete. Thus, the following hypothesis is proposed:

H4. *Leisure satisfaction will partially mediate the relationship between leisure attitude and psychological well-being.*

Importantly, this study extends prior research by not only examining mediation but also comparing the relative strength of cognitive and experiential pathways. Cognitive appraisal theory suggests that interpretations of experiences play a more fundamental role than the experiences themselves, whereas self-determination theory emphasizes the importance of experiential quality. Integrating these perspectives leads to the expectation that both pathways will be significant, but not equally influential. Particularly in the context of aging, cognitive resources such as leisure attitude may remain relatively stable even when experiential opportunities are constrained by physical or environmental limitations [4].

This suggests that the cognitive pathway may demonstrate a relatively stronger association with psychological well-being than the experiential pathway. Accordingly, the following hypothesis is proposed:

H5. *The effect of leisure attitude on psychological well-being will be stronger than that of leisure satisfaction.*

3. Materials and Methods

3.1. Participants

This study targeted older adults who were currently participating in leisure programs at senior welfare centers in Seoul, South Korea. Men and women aged 65 years or older who regularly attended programs in the Gangbuk, Gangnam, Gangdong, and Gangseo districts were eligible to participate. A non-probability sampling approach incorporating stratified and quota-based elements was used to recruit participants.

Inclusion criteria were (a) being aged 65 years or older, (b) being enrolled in at least one program operated by a senior welfare center, and (c) having participated in the program for more than six months. Individuals who were unable to provide informed consent or complete the self-administered questionnaire were excluded. A total of 200 participants (79 men and 121 women) met these criteria and were included in the analyses. Age was verified for eligibility ($\geq$65 years); however, detailed age distribution information was not collected in the questionnaire to minimize respondent burden, and this is acknowledged as a limitation.

Participants were recruited from multiple districts to ensure variation in community-based settings. Although quota-based elements were applied to balance representation across sites, the sampling strategy was designed to reflect real-world participation contexts in senior welfare center programs. Given the practical constraints of conducting research with older adults in community settings, this approach enabled efficient data collection while maintaining diversity in participant characteristics. While the use of non-probability sampling may limit generalizability, participants recruited from senior welfare centers may represent relatively active, healthier, and socially engaged older adults compared to the broader aging population. Therefore, the findings should be interpreted within the context of similar community-based older adult populations. Because all eligible participants attending the selected welfare-center programs during the data collection period were invited to participate, the sampling process aimed to maximize coverage within the targeted community settings.

3.2. Measurement

3.2.1. Sociodemographic and Activity-Related Variables

Sex, participation duration, and frequency were included as control variables in the SEM model. In addition, participants reported activity-related characteristics including the type of welfare-center program attended, duration of participation (under 6 months; 6–11 months; 12 months or longer), and participation frequency (times per week). In addition, key sociodemographic characteristics were assessed, including income level, education level, and subjective health status. Income level was measured using monthly income categories, education level was based on the highest level of educational attainment, and subjective health status was assessed using a 3-point Likert scale.

3.2.2. Leisure Attitudes

Leisure attitude was measured using the leisure attitude scale originally developed by Beard and Ragheb [21], with specific items adapted from work conducted in Korean

adult populations by Lee, Kim, & Kim [22]. Participants responded on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale assesses cognitive, emotional, volitional, and behavioral components of leisure attitude. Example items include: "Leisure activities increase happiness" (cognitive), "My leisure activities are valuable" (emotional), "I place a high importance on leisure activities in my daily life" (volitional), and "I would like to spend more time on leisure activities" (behavioral).

3.2.3. Leisure Satisfaction

Leisure satisfaction was assessed using a scale developed for Korean adults by Ahn [23]. Participants responded on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The scale comprises five sub-factors: self-development, stress relief, health promotion, skill development, and interpersonal relationship enhancement. Representative items include "My leisure activities help me have new experiences" (self-development), "My leisure activities are effective in relieving daily stress" (stress relief), "My leisure activities give me confidence" (health promotion), "My leisure activities require appropriate skills" (skill development), and "I like my leisure activities because the participants understand each other" (interpersonal relationships).

3.2.4. Psychological Well-Being

Psychological well-being in this study was operationalized as psychological well-being, based on Ryff's framework, and is referred to as "psychological well-being" to emphasize the positive, flourishing aspect of well-being in later life. Items were adapted for the Korean context following Yang's work [24–26]. Participants responded on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The measure comprises four sub-factors: self-acceptance, positive relations, environmental mastery, and purpose in life. Example items include "I have a positive attitude toward myself" (self-acceptance), "I have warm and trusting relationships with others" (positive relations), "I am able to manage my daily responsibilities well" (environmental mastery), and "I have a sense of direction and meaning in life" (purpose in life).

3.3. Control Variables

To enhance the robustness of the model and reduce potential confounding effects, several sociodemographic variables were included as control variables. Specifically, sex, participation frequency, and participation duration were controlled, along with income level, education level, and subjective health status. Income level was included, as it may influence access to leisure resources and opportunities, while education level is associated with cognitive orientation and attitudes toward leisure. Subjective health status was considered particularly important in the context of older adults, as it directly affects both the ability to participate in leisure activities and overall psychological well-being. By incorporating these control variables, this study aimed to more accurately estimate the unique effects of leisure attitude and leisure satisfaction on psychological well-being.

3.4. Design and Procedure

This study applied a quantitative, cross-sectional research design. Participants were older adults aged 65 years and over who were using senior welfare centers in South Korea. Data were collected from May to August 2025 at senior welfare centers located in the Gangnam, Gangbuk, Gangseo, and Gangdong districts of Seoul. The survey was administered on-site to eligible older adults who agreed to participate and completed the self-report questionnaires.

However, the primary aim of this study was to examine the structural relationships among core psychological constructs rather than to estimate fully adjusted causal effects.

Although several theoretically relevant covariates were included, additional contextual variables may further explain variability in psychological well-being.

3.5. Ethics Statement

All procedures were reviewed and approved by the Institutional Review Board of Hanseo University and were conducted in accordance with the Declaration of Helsinki (HSUIRB-25-03-17). Participants provided written informed consent after being informed about the purpose, procedures, and voluntary nature of the study, including their right to withdraw at any time, and consented to the use of questionnaire data for research purposes only.

3.6. Data Analyses

Statistical analyses were conducted using IBM SPSS Statistics version 21.0 and IBM SPSS AMOS version 18.0 (IBM Corp., Armonk, NY, USA). Descriptive (frequency) analyses were used to summarize participant characteristics and activity-related variables. Confirmatory factor analysis (CFA) was performed to evaluate the construct validity of the leisure attitude, leisure satisfaction, and psychological well-being scales using χ^2/df, CFI, TLI, and RMSEA as model-fit indices. Internal consistency reliability was assessed using Cronbach's α. Pearson's product–moment correlation coefficients were computed to examine bivariate associations among study variables. Finally, structural equation modeling (SEM) was conducted using AMOS. Model fit was evaluated using χ^2/df, CFI, TLI, and RMSEA. To examine the mediating effect of leisure satisfaction, bootstrapping analysis with 5000 resamples was performed. Indirect effects were considered statistically significant when the 95% confidence interval did not include zero. To assess potential common method bias, Harman's single-factor test was conducted. The results indicated that a single factor did not account for the majority of variance, suggesting that common method bias was unlikely to substantially influence the findings.

4. Results

4.1. Characteristics and Activities of Participants

Table 1 presents the demographic and activity-related characteristics of the participants. Among the 200 older adults included in the study, women (60.5%) outnumbered men (39.5%), suggesting relatively higher participation of female older adults in community-based leisure programs. In terms of income level, the largest proportion of participants reported a monthly income between 201 and 300 (37.0%), whereas only 10.5% reported income levels above 400, indicating that the sample primarily represented middle- to lower-middle-income older adults.

Table 1. Characteristics of the participants in this study.

Variable		N	%
Sex	Male	79	39.5
	Female	121	60.5
Income	Under 100	23	11.5
	101–200	39	19.5
	201–300	74	37.0
	301–400	43	21.5
	Over 400	21	10.5

Table 1. *Cont.*

Variable		N	%
Education	High school	85	42.5
	University	94	47.0
	Graduate	21	10.5
Health condition	Healthy	62	31.0
	Average	107	53.5
	Little sick	31	15.5
Program	Liberal arts lectures	35	17.5
	Senior model walking	39	19.5
	Singing	42	21.0
	Healing yoga	40	20.0
	Vitality exercises	44	22.0
Duration of attendance	Under 6 months	43	21.5
	6 months to under 1 year	51	25.5
	1 year or longer	106	53.0
Participation frequency	1 time	49	24.5
	2–3 times	52	26.0
	3 times or more	99	49.5

Regarding educational background, nearly half of the participants had completed university education (47.0%), while 42.5% had completed high school. This distribution suggests that the sample included relatively well-educated older adults who may possess greater awareness of the psychological and social value of leisure participation. In terms of subjective health status, the majority of participants perceived their health as "average" (53.5%), followed by "healthy" (31.0%), indicating that most respondents were physically capable of participating in regular leisure activities.

Program participation was relatively evenly distributed across different leisure activities, including liberal arts lectures, senior model walking, singing, healing yoga, and vitality exercises, suggesting diversity in leisure preferences among older adults. In addition, more than half of the participants (53.0%) had participated in leisure programs for at least one year, and approximately half (49.5%) engaged in programs three or more times per week. These findings indicate that many participants were not occasional attendees but rather actively and continuously engaged in leisure activities, which strengthens the relevance of examining the relationships among leisure attitude, leisure satisfaction, and psychological well-being within this sample.

4.2. Validity and Reliability of the Measurement

Confirmatory factor analysis (CFA) was conducted to evaluate the validity of the measurement models, and reliability was assessed using Cronbach's α. Model fit was evaluated using standard indices, including χ^2/df, CFI, TLI, GFI, and RMSEA [27–30]. The results indicated that all measurement models demonstrated acceptable fit (Table 2). Specifically, the leisure attitude model showed good fit ($\chi^2/df = 2.265$, CFI = 0.960, TLI = 0.948, RMSEA = 0.062), followed by the leisure satisfaction model ($\chi^2/df = 2.851$, CFI = 0.958, TLI = 0.928, RMSEA = 0.075) and the psychological well-being model ($\chi^2/df = 2.154$,

CFI = 0.978, TLI = 0.971, RMSEA = 0.059). These results confirm that the measurement models demonstrate adequate validity and are appropriate for structural analysis.

Table 2. Validity of leisure attitude, leisure satisfaction, and psychological well-being.

	x^2/df	TLI	CFI	RMSEA	AVE	C.R.
Leisure attitude	2.265	0.948	0.960	0.062	0.926	0.994
Leisure satisfaction	2.851	0.928	0.958	0.075	0.931	0.993
Psychological well-being	2.154	0.971	0.978	0.059	0.895	0.994

All standardized factor loadings exceeded 0.70, indicating strong convergent validity. In addition, the square root of AVE for each construct was greater than the inter-construct correlations, supporting discriminant validity. These results confirm that the measurement model demonstrated satisfactory reliability and validity.

Reliability was assessed using Cronbach's α [31]. The overall reliability coefficients were 0.918 for leisure attitude, 0.907 for leisure satisfaction, and 0.950 for psychological well-being (Table 3).

Table 3. Reliability of leisure attitude, leisure satisfaction, and psychological well-being.

Factor	Sub-Factors	Cronbach's α
Leisure attitude	Cognitive	0.871
	Affective	0.878
	Behavioral	0.909
	Social	0.716
		0.918
Leisure satisfaction	Self-development	0.786
	Stress relief	0.835
	Health development	0.822
	Skill development	0.712
	Interpersonal relationship	0.834
		0.907
Psychological well-being	Self-Acceptance	0.912
	Positive Relations	0.920
	Environmental Mastery	0.833
	Purpose in Life	0.777
		0.950

4.3. Correlation Analysis Between Research Variables

Pearson correlation analyses were conducted to examine the associations among leisure attitude, leisure satisfaction, and psychological well-being (Table 4). Leisure attitude exhibited a positive correlation with leisure satisfaction (r = 0.541) and psychological well-being (r = 0.478). Leisure satisfaction was also positively correlated with psychological well-being (r = 0.421). All correlations were statistically significant.

Table 4. Correlation of leisure attitude, satisfaction, and psychological well-being.

	1	2	3
1. Leisure attitude	1		
2. Leisure satisfaction	0.541 ***	1	
3. Psychological well-being	0.478 ***	0.421 ***	1

*** $p < 0.001$.

4.4. Results of the Goodness-of-Fit Verification of the Research Model

To assess the causal links between leisure attitudes, leisure satisfaction, and psychological well-being associated with leisure activities among older adults in this research, the analysis of model fit was performed. The overall fit of the hypothesized structural equation model was then evaluated (Table 5). The model showed acceptable fit to the data, with CFI and TLI values exceeding 0.90 and an RMSEA value below 0.08. The fit indices for the research model were CFI 0.955, TLI 0.930, and RMSEA 0.072, demonstrating that all fit criteria were met, thus supporting further hypothesis testing (Table 5).

Table 5. Result of the model fit verification.

	x^2	x^2/df	TLI	CFI	RMSEA
Model fit	252.442	2.902	0.930	0.955	0.072

4.5. Results of the Study Model

After verifying the model's goodness of fit, the findings regarding the study's hypotheses are presented in Table 6. First, the leisure attitude toward participating in leisure activities among older adults exerted a significant positive influence on leisure satisfaction ($\beta = 0.543$, $t = 10.256$, $p < 0.001$). Second, the leisure attitude of older adults toward engagement in leisure activities was found to have a positive impact on psychological well-being ($\beta = 0.368$, $t = 6.840$, $p < 0.01$). Third, leisure satisfaction achieved through participation in leisure activities among older adults positively influenced psychological well-being ($\beta = 0.150$, $t = 3.785$, $p < 0.05$). Taken together, these findings suggest that older adults with more positive attitudes toward leisure tend to report higher satisfaction with their leisure activities and greater psychological well-being, and that leisure satisfaction plays an important role in linking leisure attitudes to psychological well-being. The results indicate that leisure attitude showed a relatively stronger association with psychological well-being ($\beta = 0.368$) than leisure satisfaction ($\beta = 0.150$), providing preliminary support for the proposed asymmetry between cognitive and experiential pathways.

Table 6. Results of the hypothesis verification.

Hypothesis	Estimate	S.E.	C.R.	
Leisure attitude → Leisure satisfaction	0.543	0.085	10.256 ***	Accept
Leisure attitude → Psychological well-being	0.368	0.070	6.840 **	Accept
Leisure satisfaction → Psychological well-being	0.150	0.106	3.785 *	Accept

Note. S.E. = standard error; C.R. = critical ratio; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

To further examine the mediating role of leisure satisfaction, bootstrapping analysis was conducted using 5000 resamples. The results indicated that the indirect effect of leisure attitude on psychological well-being via leisure satisfaction was statistically significant (indirect effect = 0.081, 95% CI [0.021, 0.145]). Because the confidence interval did not include zero, the mediating effect of leisure satisfaction was supported, thereby supporting H4. These findings confirm that leisure satisfaction partially mediates the relationship between leisure attitude and psychological well-being. Although the effect size of leisure satisfaction on psychological well-being was relatively modest, it remained statistically significant, suggesting that experiential factors contribute to well-being alongside cognitive factors. In addition, the relatively larger standardized effect of leisure attitude compared to

leisure satisfaction provides preliminary evidence suggesting that cognitive and experiential pathways may differ in their relative associations with psychological well-being within the present sample, thereby providing preliminary support for H5. This finding highlights the multifaceted nature of psychological well-being.

5. Discussion

This study contributes to the literature on leisure and psychological well-being by integrating cognitive and experiential perspectives within a unified framework and empirically comparing their relative influence on psychological well-being among older adults. While previous studies have often examined leisure attitude or leisure satisfaction independently, the present findings suggest that these mechanisms operate simultaneously but with differing levels of association. By integrating cognitive appraisal theory and self-determination theory, this study provides a more comprehensive understanding of the psychological processes underlying leisure-related well-being.

First, leisure attitude significantly influenced both leisure satisfaction and psychological well-being. This finding is consistent with prior studies indicating that positive leisure attitudes are associated with greater engagement, adaptive psychological outcomes, and higher levels of well-being [13,14,19]. From the perspective of cognitive appraisal theory, individuals' subjective interpretations and evaluations of leisure experiences may play a central role in shaping emotional and psychological outcomes [11]. The present findings further support previous research suggesting that cognitive orientations toward leisure influence not only experiential evaluations such as satisfaction but also broader psychological functioning [19,32]. Importantly, the direct effect of leisure attitude on psychological well-being remained significant even after accounting for leisure satisfaction and control variables, suggesting that leisure attitude may function as an independent psychological resource in later life.

Second, leisure satisfaction also demonstrated a positive relationship with psychological well-being, supporting previous studies emphasizing the importance of experiential quality in promoting well-being [6,8,10,18]. Consistent with self-determination theory, leisure experiences that satisfy psychological needs may contribute to positive affect, life satisfaction, and psychological adjustment [15–17]. However, the relatively smaller effect size of leisure satisfaction compared to leisure attitude suggests that experiential mechanisms alone may not fully explain variations in psychological well-being among older adults. Rather, the findings indicate that experiential factors should be understood as complementary mechanisms operating alongside cognitive processes.

Third, the mediation analysis demonstrated that leisure satisfaction partially mediates the relationship between leisure attitude and psychological well-being. This finding extends prior studies that identified leisure satisfaction as an important mediating mechanism [32,33]. Unlike previous research that has often assumed full mediation, the present study suggests that cognitive and experiential pathways operate simultaneously rather than sequentially. This interpretation is consistent with mediation frameworks emphasizing the coexistence of direct and indirect effects in complex psychological models [34,35].

Most importantly, this study provides preliminary evidence for an asymmetrical dual-pathway framework by demonstrating that the cognitive pathway showed a relatively stronger association with psychological well-being than the experiential pathway within the present sample. Although previous studies have acknowledged the importance of both attitudinal and experiential factors, few studies have directly compared their relative influence on psychological well-being among older adults. This finding may be particularly meaningful in the context of aging, where physical, social, and environmental constraints can restrict leisure participation and experiential opportunities [21]. In contrast,

cognitive resources such as leisure attitude may remain relatively stable and function as compensatory mechanisms supporting psychological well-being even under constrained conditions [4]. This interpretation is further supported by socioemotional selectivity theory, which suggests that older adults increasingly prioritize emotionally meaningful and cognitively relevant experiences [36].

From a practical perspective, the findings suggest that interventions aimed at promoting well-being among older adults should move beyond simply increasing participation or improving program quality. While experiential quality remains important, greater emphasis may also be needed on fostering positive cognitive orientations toward leisure, including beliefs, meanings, and values associated with leisure participation. Therefore, interventions designed to promote healthy aging may benefit from adopting integrated approaches that simultaneously address both cognitive and experiential dimensions of leisure participation [37].

6. Conclusions

This study provides important insights into the psychological mechanisms underlying leisure-related well-being among older adults by integrating cognitive and experiential perspectives within a unified framework. The findings demonstrate that leisure attitude influences psychological well-being both directly and indirectly through leisure satisfaction, confirming a dual-pathway mechanism. More importantly, the results suggest that the cognitive pathway may demonstrate a relatively stronger association with psychological well-being than the experiential pathway within the present sample. This finding suggests that enhancing the quality of leisure experiences alone may not fully explain variations in psychological well-being among older adults and highlights the potential importance of cognitive appraisal. Theoretically, this study advances the literature by moving beyond traditional mediation models and providing empirical evidence for an asymmetrical dual-pathway framework. Practically, the findings suggest that interventions aimed at promoting well-being in later life should not only focus on increasing participation or improving program quality but also emphasize fostering positive cognitive orientations toward leisure. Overall, this study contributes to the growing literature emphasizing the potential role of cognitive interpretations in leisure-related well-being among older adults.

7. Strengths and Limitations

This study has several strengths. It integrates cognitive appraisal theory and self-determination theory to explain the psychological mechanisms linking leisure and well-being and employs validated measures and structural equation modeling to examine both direct and indirect relationships. In addition, the focus on older adults in community-based leisure programs provides practical relevance for health promotion in aging societies. However, several limitations should be acknowledged. First, the cross-sectional design precludes causal inference, and reverse or bidirectional relationships cannot be ruled out. Future research should employ longitudinal or experimental designs to clarify causal pathways. Second, the sample was drawn from older adults participating in senior welfare center programs, which may limit the generalizability of the findings due to potential selection bias toward relatively active, healthier, and socially engaged individuals. Older adults with lower levels of leisure participation, reduced mobility, or greater social isolation may be underrepresented in the present sample. Therefore, caution is warranted when interpreting the findings across the broader aging population. Future research should employ more diverse and representative samples, including community-dwelling and vulnerable older adults, to enhance external validity. Third, the use of self-report data collected at a single time point raises the possibility of common method bias. Although

Harman's single-factor test suggested that common method variance was unlikely to substantially distort the findings, this approach has recognized methodological limitations and should therefore be interpreted cautiously. In addition, several potentially important variables, including social support, environmental conditions, and more detailed health measures, were not incorporated into the model and may also influence psychological well-being. Future research should employ more rigorous methodological approaches, such as multi-source data collection or temporal separation, while incorporating a broader range of contextual and health-related variables to enhance model comprehensiveness and reduce potential bias. Finally, some observed effects—particularly the relationship between leisure satisfaction and psychological well-being—were relatively modest, suggesting that additional psychological or contextual factors should be explored in future studies. In addition, detailed age subgroup information was not collected, which limits the ability to examine potential differences across stages of older adulthood. Given that aging-related experiences and psychological processes may vary across age groups, future research should incorporate more detailed demographic stratification to better understand age-related variability in leisure-related well-being.

Funding: This work was financially supported by the Hanseo University Research Support Project in 2025.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki and approved by the Institutional Review Board of Hanseo University (HSUIRB-25-03-17).

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

Data Availability Statement: The data that support the findings of this study are available from the corresponding author upon reasonable request.

Conflicts of Interest: The author declares no conflicts of interest.

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