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The Effect of Participation in Leisure Time Activities on Quality of Life (QOL) During the COVID-19

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Abstract

During the COVID-19 pandemic, significant changes in people's lives that they had not experienced before were seen, and quarantines and restrictions imposed by countries have negatively affected individuals' physical and mental health. People initially stayed home to protect themselves from the virus, but as normalization began, they turned to outdoor activities to socialize while maintaining social distancing. In this context, this study's purpose is to investigate the level of participation of people in leisure activities due to lockdown practices and restrictions during the COVID-19 pandemic and the impact of this participation on the quality of life. For this purpose, a survey form was developed to determine the effect of participation in leisure activities during the COVID-19 period on the quality of life of individuals living in Turkey was applied to 547 people. To ensure the reliability and validity of our measurement model, we conducted a confirmatory factor analysis (CFA) using AMOS 24.0. To test the hypotheses, we employed structural equation modeling (SEM). As a result of the research indicates that behavioral leisure attitudes were negatively associated with life quality ($\beta = -0.31$, $p < 0.01$). Still, no direct statistical association was found between affective or cognitive leisure attitudes and life quality. The research findings provide empirical evidence that behavioral aspects of leisure engagement play a more direct role in shaping individuals' perceptions of quality of life compared to affective or cognitive leisure attitudes.

Keywords: COVID-19, Leisure, Leisure Time Activities, Pandemic, Quality of Life.

Introduction

The COVID-19 pandemic profoundly disrupted everyday life across the globe, particularly affecting how individuals accessed and engaged in leisure. As governments imposed lockdowns, curfews, and mobility restrictions to curb the spread of the virus, structured leisure activities—such as visiting gyms, theaters, parks, and community centers—became inaccessible (1, 2). These disruptions were especially acute in densely populated urban environments, where limited private space intensified the effects of confinement, and where leisure became paradoxically both vital for mental health and largely unavailable.

In response to these constraints, individuals shifted from structured leisure toward informal, self-directed activities such as digital entertainment, home-based hobbies, and solitary outdoor recreation (3). While these adaptive strategies offered short-term relief, the extent to which they preserved or undermined the psychological benefits of leisure remains unclear. This question is particularly urgent given that leisure is empirically linked to well-being, stress reduction, and life satisfaction (4, 5).

Although prior research has explored lifestyle changes and psychological outcomes during the pandemic, there remains a critical gap concerning how leisure participation—particularly in urban settings—functioned as a coping mechanism. Existing studies often treat leisure participation as a binary variable (i.e., present or absent) and rarely examine how individuals adapted their leisure practices under constrained conditions, nor how these adaptations shaped their perceived quality of life.

This study addresses this gap by investigating how individuals in Turkey's three biggest city—Istanbul, Ankara, and Izmir—navigated leisure constraints during COVID-19 and how these engagements impacted their well-being. These urban centers represent a relevant and underexplored context characterized by strict lockdowns, high population density, and heavy reliance on public leisure infrastructure (6, 7).

Theoretically, this research draws on Self-Determination Theory (SDT) and Leisure Constraints Theory (LCT) to examine the

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mechanisms through which leisure behavior influences well-being under crisis. SDT posits that autonomy, competence, and relatedness are foundational psychological needs. Pandemic-related restrictions threatened all three dimensions (8). Meanwhile, LCT categorizes barriers to leisure as structural, intrapersonal, and interpersonal—each of which was intensified during the crisis (9). The integration of these frameworks provides a nuanced understanding of how urban leisure behaviours were reconfigured and the consequences this had for well-being.

Building on this, the present study also engages three complementary theoretical perspectives that clarify how and for whom leisure may protect well-being under crisis. First, stress-buffering theory proposes that psychosocial resources—most notably social support—attenuate the negative impact of stressors on health and psychological outcomes (10). Within this framework, leisure activities can be understood as vehicles through which individuals access emotional support, companionship, and a sense of control, thereby buffering the detrimental effects of pandemic-related uncertainty, isolation, and role strain. Even when face-to-face contact is restricted, digitally mediated or home-based leisure may still provide perceived support and coping resources that soften the link between COVID-19 stressors and reduced quality of life.

Second, Self-Determination Theory (SDT) highlights that sustained well-being depends on the fulfillment of three basic psychological needs: autonomy, competence, and relatedness (8). Leisure is a prototypical domain in which these needs can be satisfied, because it often involves self-chosen activities (autonomy), opportunities for skill development and mastery (competence), and shared experiences with significant others (relatedness). Pandemic restrictions, however, curtailed many of the structured leisure contexts in which these needs are typically met. From an SDT perspective, the critical question is whether individuals were able to reconfigure their leisure repertoire—through informal, digital, or solitary activities—in ways that continued to support need satisfaction despite severe environmental constraints. Differences in autonomy over leisure choices, perceived competence in adopting new forms of leisure (e.g., online exercise, creative hobbies), and the capacity to maintain relatedness through virtual or household-based activities are therefore likely to be central mechanisms linking leisure participation to quality of life during COVID-19.

Third, although originally formulated within gerontology, the activity theory of aging offers an additional lens for understanding the protective role of leisure. Activity theory posits that successful aging is associated with the maintenance of socially meaningful roles and engagement in diverse activities, with more active older adults reporting higher levels of life satisfaction (11, 12). Subsequent work has emphasized that participation in voluntary, social, and leisure organizations helps individuals adjust to role loss and life changes by preserving a sense of usefulness, identity continuity, and social embeddedness across later life (12, 13). Although our sample is not restricted to older adults, the core assumption of activity theory—that ongoing involvement in valued activities and roles supports subjective well-being—can be generalized to adults of different ages living through a large-scale disruption such as the COVID-19 pandemic. In dense urban settings, where public leisure infrastructure is central to everyday routines, the abrupt withdrawal or adaptation of these activities is therefore expected to have pronounced implications for perceived quality of life.

Taken together, stress-buffering theory, SDT, and activity theory converge on the idea that leisure participation during COVID-19 is more than a discretionary pastime: it functions as a coping resource, a context for basic psychological need satisfaction, and a means of maintaining meaningful roles and activities under conditions of systemic constraint. This integrated perspective informs our expectations about how changes in leisure engagement—both in level and in form—are linked to quality-of-life outcomes among urban residents in Turkey's largest cities.

To capture these dynamics, an online survey was conducted among individuals who were actively engaged in leisure activities prior to the pandemic. The findings contribute to both theory and practice by revealing how leisure can serve as a form of psychological resilience under systemic constraints. The study further informs urban policy, public health, and leisure planning in post-pandemic recovery efforts.

Leisure Time

Time, a fundamental and finite resource for human beings, can be broadly categorized into working and non-working hours. The latter, typically described as "free time" or "leisure time," encompasses activities chosen freely by individuals for enjoyment, relaxation, or personal enrichment (14-17). Leisure, inherently tied to intrinsic motivation, commitment, and personal satisfaction, involves self-directed engagement in activities outside professional, familial, or social obligations (18).

Participation of individuals in leisure activities increases their physical, psychological and spiritual well-being by encouraging the quality use of their free time (19). Research consistently supports leisure activities' positive influence on mood, stress management, life satisfaction, and overall well-being (5, 20). Furthermore, leisure pursuits play a significant role in reducing negative health conditions, increasing personal satisfaction, and fostering joyful experiences (21, 22). Consequently, leisure activities allow individuals to recuperate physically and mentally, creating conditions for enhanced happiness, peace, and improved overall health.

Although historically viewed as non-essential, leisure has gained recognition for its role in personal development, cultural enrichment, and social communication (23, 24). Contemporary leisure options are diverse, including musical, artistic, sporting, skill-based, nature-oriented, and cultural activities (25). In a previous study, leisure was reported to occupy approximately 16% of an individual's daily time, underscoring its substantial role in everyday life (26).

The COVID-19 pandemic significantly reshaped leisure dynamics globally. Lockdown measures and social distancing protocols severely limited traditional leisure activities, thereby prompting shifts toward digital and home-based activities. People increasingly engaged in sedentary activities, notably increased screen time, while physical leisure activities drastically declined. Notably, the average daily time adults spent online rose significantly during lockdowns (6). Pandemic conditions also triggered heightened demand for outdoor recreation activities such as walking and cycling, emphasizing their importance as safe and socially distanced leisure options (3). Local public parks, in particular, gained prominence as accessible recreation venues during restrictive periods (7).

Outdoor recreation, defined as leisure activities fostering direct interactions between participants and nature, aligns closely with personal health, social engagement, and emotional well-being (27, 28). Empirical studies have confirmed nature-based recreation's substantial benefits, including improvements in mental health outcomes such as resilience, cognition, and reductions in anxiety, stress, and depression (29, 30). The increased emphasis on outdoor recreation during the pandemic underscores its role in sustaining mental, physical, and social health amid restricted lifestyles (31).

Quality of Life

Quality of life is defined as individuals' subjective perceptions of their living conditions within the context of their cultural and value systems, encompassing physical health, psychological well-being, independence, social relationships, and environmental interactions. Historically linked to happiness and personal fulfillment, QOL integrates objective (income, health, employment) and subjective (life satisfaction, emotional well-being) dimensions (32, 33). Research consistently highlights a robust relationship between leisure participation and QOL. Participation in leisure activities significantly contributes to improved social relations, emotional positivity, skill development, and overall life satisfaction (34). Nevertheless, findings are mixed, with some studies identifying negative or insignificant relationships, highlighting complexities in leisure's influence on QOL (35, 36).

The Effect of Participation in Leisure Activities on QOL

The pandemic context provided unique insights into leisure and QOL relationships. Restricted physical activities and increased sedentary behaviors negatively impacted individuals' psychological well-being and perceived life quality, emphasizing the significance of leisure activities as mechanisms for coping and resilience during stressful periods (37, 38). It has also been observed that individuals who previously engaged in a wide range of recreational activities were unable to maintain these routines during the COVID-19 outbreak, leading to a heightened sense of deprivation regarding recreational opportunities and access to green spaces during lockdown

measures (39). Sedentary act states to actions that do not enhancement energy expense essentially above the resting level. Such actions encompass a range of activities, including sleep, sedentary behaviour such as sitting, reclining, and TV and other screen-based media (40). Leisure activities during the pandemic were categorized into sedentary and physical leisure activities, with sedentary activities dominating during lockdown periods (41).

Affectively, leisure activities elicit positive emotions, significantly improving overall life satisfaction. Leisure satisfaction strongly facilitates happiness, enhancing emotional well-being (42). Building on this, recent research emphasizes that regular leisure participation boosts health-related QOL, particularly in older adults (43).

Cognitively, leisure activities engage mental faculties, enhancing life quality. Prior research indicates that cognitive engagement through leisure is crucial for mental health and satisfaction among elderly populations. Activities such as reading or engaging in intellectual discussions enhance cognitive functioning and emotional resilience (44, 45). Further evidence supports that thoughtful engagement in leisure yields significant cognitive and psychological benefits (46).

Behaviorally, leisure activities foster social interaction crucial for relationships and community ties. Participation in social leisure activities reduces loneliness and enhances feelings of belonging, thereby positively influencing quality of life (47, 48). Moreover, leisure activities that involve physical engagement further contribute to improved quality of life through enhanced physical health (49). Based on these theoretical considerations, the proposed research model is presented in Figure 1.

In line with these theoretical considerations, it is proposed that participation in leisure activities during the COVID-19 period positively influences quality of life (H1). More specifically, it is hypothesized that affective leisure participation enhances quality of life (H1a), that cognitive leisure participation similarly contributes to improved quality of life (H1b), and that behavioral leisure participation also exerts a positive effect on overall quality of life (H1c).

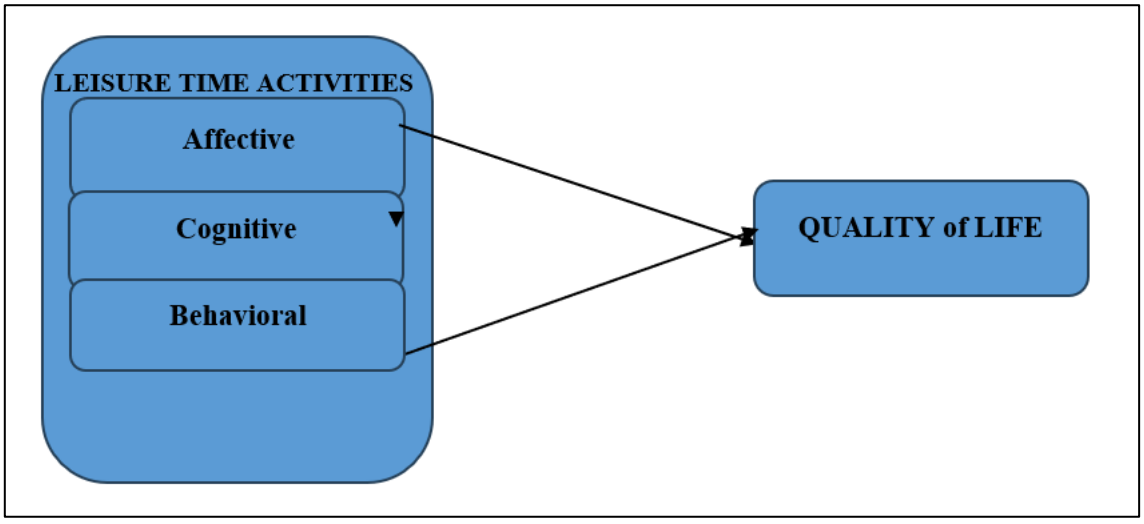

Figure 1: Research model

Methodology

Measures

In order to empirically test the hypotheses in the study, multi-item scales adapted from previously validated instruments were employed to measure the key constructs. The assessment of all variables was conducted utilising 5-point Likert-type scales, ranging from 'strongly disagree' (1) to 'strongly agree' (5). A summary of the measurement instruments is outlined below.

Leisure attitude was measured using a 24-item scale that was originally developed as a 36-item instrument and later adapted and validated in a shortened 24-item form for use with Turkish samples (50, 51). The scale captures leisure attitudes across three dimensions: cognitive, affective, and behavioral. Sample items include: “Engaging in leisure activities is a wise use of time”

(cognitive), "My leisure activities give me pleasure" (affective), and "I do leisure activities frequently" (behavioral). The scale is designed to provide a comprehensive assessment of individuals' general disposition toward leisure in terms of beliefs, feelings, and actions.

Perceived quality of life during the COVID-19 pandemic was assessed using the COVID-19 Impact on Quality of Life Scale (COV19-QoL) (52). This six-item scale evaluates the psychological and physical consequences of the pandemic on individuals' well-being. Example items include: "I think my quality of life is lower than before," "I feel more depressed than before," and "I feel that my personal safety is at risk." This instrument offers a concise yet robust measure of how individuals subjectively perceive the effect of the COVID-19 on their daily lives and overall QOL.

Sampling

This study employed a convenience sampling method targeting individuals enrolled in structured recreational and social programs in Turkey's three most populous and biggest city: Istanbul, Ankara, and Izmir. These cities were selected due to their high population density, socio-demographic diversity, and the substantial impact of COVID-19-related restrictions on urban lifestyles and recreational opportunities. Given the widespread lockdown measures and restricted access to public leisure spaces during the pandemic, residents of these metropolitan areas experienced elevated levels of social isolation and disruption to their recreational routines, making them a relevant population for looking the corelation among leisure participation and perceived QOL.

To ensure the inclusion of individuals actively engaged in leisure and recreational activities, participants were recruited through three municipal organizations offering structured programs and community-based services: Istanbul Metropolitan Municipality Sports and Recreation Centers, Ankara City Council Volunteers, Izmir Metropolitan Municipality Social Projects Office.

These organizations provide a wide range of leisure, sports, and community engagement activities, attracting participants from varied age groups and socioeconomic backgrounds. Consequently, the sample reflects urban residents with a predisposition toward leisure involvement, thus making them appropriate subjects for examining pandemic-related changes in leisure behavior and their implications for quality of life.

Data were collected between June and September 2021 through an online survey administered to 1,000 individuals registered with the aforementioned organizations. The survey was programmed such that all items were mandatory, thereby preventing missing responses. A total of 547 people answered the survey, which means that 54% of people answered. The use of an online survey method allowed for safe and efficient data collection during the pandemic, while also facilitating access to a large urban population. Participants ranged in age from 18 to over 62, ensuring representation across different life stages and enabling the investigation of potential age-related differences in leisure participation and subjective well-being.

Table 1: Identifying İnformation About Research Participants

	Groups	N	%		Groups	N	%
Gender	Women	293	53.6		Educator (Academic/High School Teacher)	157	28.7
	Men	254	46.4		Retired	47	8.6
	Total	**547**	**100**		Soldier (Military/ Police/ Security	45	8.2
Marital Status	Married	392	71.7		Architect/Engineer	32	5.9
	Single	155	28.3	**Occupation**	Student	84	15.4
	Total	**547**	**100**		Officer (Public/ Administrative)	24	4.4
Age	18-28	86	15.7		Freelance Worker	42	7.7
	29-39	78	14.3		Tourism & Hospitality Staff	25	4.6
	40-50	129	23.6		Housewife	10	1.8
	51-61	239	43.7		Healthcare Worker (Doctor/Nurse)	20	3.6
	62+	15	2.7		Other	61	11.1

	Toplam	**547**	**100**		**Total**	**547**	**100**
Education	Primary school	3	,.5	**Adequacy of weekly leisure time**	Definitely not enough	77	14.1
	High school	39	7.1		Not enough	134	24.5
	University	355	64.9		Normal	142	26.0
	Postgraduate	150	27.4		Enough	138	25.2
	Total	**547**	**100**		Definitely enough	56	10.2
Monthly Income	Minumum wage	68	12.4		**Total**	**547**	**100**
	Min.wage-30000TL	54	9.9	**Leisure Time Companions**	Alone	60	11
	30001-50000 TL	189	34.6		With my family	271	49.5
	50001-80000 TL	117	21.4		With my relatives	8	1.5
	800001 TL and above	119	21.8		With my friends	205	37.5
					Other	3	.5
	Total	**547**	**100**		**Total**	**547**	**100**

Results

To examine the demographic characteristics of the sample, frequency analyses were conducted using SPSS 22.0. As presented in Table 1, the final sample made of 547 participants, of whom 53.6% were women and 46.4% were men. The most of the people were married (71.7%), while 28.3% were single. With respect to age, 43.7% of the participants were the ages of 51 and 61, followed by those aged 40–50 (23.6%), 18–28 (15.7%), 29–39 (14.3%), and 62 and above (2.7%).

With respect to educational attainment, 64.9% of the participants held an undergraduate degree, 27.4% had completed postgraduate studies, 7.1% had attained a high school diploma, and 0.5% had completed only primary school. Regarding monthly income, 12.4% of the respondents reported earning the minimum wage, while 9.9% earned between the minimum wage and 30,000 TL. A significant portion of the sample reported higher earnings: 34.6% earned between 30,001 and 50,000 TL, 21.4% between 50,001 and 80,000 TL, and 21.8% reported earnings above 80,000 TL. An analysis of occupational distribution revealed that the most represented professional group was educators—including academicians and high school teachers—comprising 28.7% of the sample. This was followed by retirees (15.4%), military and security personnel (8.6%), architects and engineers (8.2%), and students (7.7%). Other professional categories included public officers (5.9%), freelance workers (4.4%), tourism and hospitality staff (4.6%), housewives (3.6%), and healthcare professionals (1.8%). The remaining 11.1% of participants were categorized under "other" professions.

Participants were also asked to assess the adequacy of their weekly leisure time. While 26.0% described their leisure time as "normal," 25.2% found it "enough," and 10.2% considered it "definitely enough." In contrast, 24.5% reported it as "not enough," and 14.1% indicated it was "definitely not enough." In terms of preferred leisure companionship, 49.5% of respondents reported a preference for spending their free time with family members, 37.5% with friends, 11.0% alone, and 1.5% with relatives. Only 0.5% selected "other" options.

Measure Validity and Reliability

To ensure the reliability and validity of the measurement model, a confirmatory factor analysis (CFA) was conducted using AMOS 24.0, following established methodological recommendations in the related literature (53, 54). The analysis incorporated four latent constructs, measured by a total of 30 items, across all survey responses (N = 547).

During the initial CFA, two items from the affective leisure attitude scale and one item from both the cognitive and behavioral leisure attitude scales exhibited cross-loadings on multiple factors. Given that their removal did not compromise the content validity of the respective constructs, these items were excluded from the final model. The revised CFA demonstrated an acceptable model fit, with the following indices: $\chi^2(547) = 940.56$, CFI = 0.92, NFI = 0.88, IFI = 0.92, TLI = 0.91, $\chi^2/df = 3.22$, and RMSEA = 0.06. Additionally, the parsimonious normed fit index (PNFI) = 0.79, exceeding the recommended threshold of 0.70, indicating an overall satisfactory model fit. To assess convergent

validity, we applied the criterion suggesting that t-values for item loadings exceeding |2.0| indicate statistical significance at the 0.05 level (55). As reported in Table 2, all factor loadings met this criterion, confirming adequate convergent validity.

Table 2: Measurement Model and Confirmatory Factor Analysis

Construct	Parameter[a]	Standardized coefficient	z-score[b]
Affective leisureleisure	*l* AL2	.75	Scaling
	kAL3	.80	13.19
	kAL5	.76	15.49
	kAL6	.76	15.56
	kAL7	.63	16.26
	Kal8	.66	15.43
Cognitive leisure	*l* CL1	.76	Scaling
	kCL2	.75	14.04
	kCL3	.72	13.83
	kCL4	.76	14.10
	kCL5	.74	13.57
	kCL7	.75	14.05
	kCL8	.60	14.07
Behavioral leisure	*l* BL1	.60	Scaling
	kBL2	.66	16.20
	kBL3	.72	16.70
	kBL4	.67	14.52
	kBL5	.77	15.60
	kBL7	.75	14.30
	kBL8	.71	13.18
Life quality	*l* LQ1	.71	Scaling
	kLQ2	.79	15.77
	kLQ3	.77	16.64
	kLQ4	.76	16.69
	kLQ5	.72	17.01
	kLQ6	.73	15.64

Notes: x 2(322) = 461.827, CFI = 0.94, IFI = 0.94, TLI = 0.93 and RMSEA = 0.07;. ; al parameters indicate paths from measurement items to first-order constructs; bscaling denotes l value of indicator set to one to enable latent factor identification.

As shown in Table 3, we examined discriminant validity alongside the inter-construct correlations, average variance extracted (AVE), Cronbach's alpha, and composite reliability (CR) values. The relatively high correlation between affective and cognitive leisure attitudes (r = 0.67) was expected, given that cognitive evaluations are closely grounded in affective experiences. Nevertheless, the CFA results and the discriminant validity analysis confirmed that these are statistically distinct constructs. Furthermore, all Cronbach's alpha coefficients, AVE scores, and composite reliability indices exceeded or closely approximated the recommended thresholds (54, 56). In Table 3, the square roots of the AVE values are also presented on the diagonal. As an additional check of discriminant validity, the square root of the AVE for each construct exceeded its correlations with all other constructs. Taken together, these results indicate that the measurement model demonstrates satisfactory reliability, convergent validity, and discriminant validity.

Finally, as shown in Table 4, the leisure attitude constructs were freely estimated and found to be statistically significant, underscoring that the leisure attitude dimensions operate concurrently and mutually influencefas one another.

Testing Hypotheses

To test the aforementioned hypotheses, structural equation modeling (SEM) was conducted using AMOS 22.0. The structural portion of the model can be expressed as equation [1]:

$$QOL = \beta_0 + \beta_1 \cdot AFF + \beta_2 \cdot COG + \beta_3 \cdot BEH + \varepsilon \quad [1]$$

where QOL denotes perceived quality of life, AFF, COG, and BEH represent affective, cognitive, and behavioral leisure attitudes, respectively, and ε is the disturbance term. All three leisure attitude constructs were specified as exogenous latent variables and were allowed to covary.

Consistent with contemporary methodological guidance on the use of covariates in regression and SEM models, we deliberately chose not to include additional demographic or background variables (e.g., age, gender, education, income, occupation) as covariates in the structural model. Our theorizing specifies a focused attitudinal process linking affective, cognitive, and behavioral leisure attitudes to perceived quality of life, and we found no compelling conceptual rationale to treat these demographic characteristics as core confounds of the hypothesized relationships. Moreover, recent work cautions against the routine, ad hoc inclusion of "kitchen-sink" control variables, as doing so can distort the model by introducing bias, suppressor effects, multicollinearity, and reduced statistical power, thereby obscuring the interpretation of the focal paths (57-59). In line with this guidance, we prioritized a parsimonious, theory-driven specification that isolates the attitudinal mechanisms of interest, and we view demographic factors as contextual descriptors of the sample rather than primary causal determinants in this model. We therefore report results for this focal model and encourage future research to examine context-specific covariates when strong, construct-level theoretical justifications can be clearly articulated.

Path results, presented in Table 5, indicate that behavioral leisure attitudes were negatively associated with life quality ($\beta = -0.31$, $p < 0.01$), supporting H3. However, no direct statistical association was found between affective or cognitive leisure attitudes and life quality. This does not suggest the absence of an effect but rather implies that these dimensions influence life quality indirectly via behavioral leisure, given the significant interrelationships among leisure attitude constructs.

Additionally, the model accounts for 14% of the variance in life quality ($R^2 = 0.14$), suggesting a moderate explanatory power. These findings provide empirical evidence that behavioral aspects of leisure engagement play a more direct role in shaping individuals' perceptions of quality of life compared to affective or cognitive leisure attitudes.

Table 3: Correlations and Descriptive Statistics

Variables	1	2	3	4
Life quality	(0.80)			
Affective leisure	0.10	(0.77)		
Cognitive leisure	0.08	0.67**	(0.76)	
Behavioral leisure	0.21**	0.38**	0.50**	(0.74)
Composite reliability	0.91	0.90	0.91	0.89
Average variance extracted	0.64	0.60	0.58	0.55
Cronbach's α	0.89	0.87	0.88	0.87

*p < .05, **p < .01

Table 4: Covariances among Leisure Attitudes

Path	Path Value
Affective leisure↔ Cognitive leisure	0.22**
Affective leisure↔ Behavioral leisure	0.13**
Cognitive leisure↔ Behavioral leisure	0.19**

*p < .05, **p < .01

Table 5: Path Model

Model 1	
Path	**Path Value**
Affective leisure → Life quality	0.20
Cognitive leisure → Life quality	0.14
Behavioral leisure → Life quality	-0.31**
Fit Indices: CFI= .92, IFI= .92 , NFI=. .88, RMSEA= .06, χ^2/df= 3.22	

*p < .05, **p < .01

Discussion

Lockdown rules introduced to stop the spread of the virus had a pronounced impact on people's exercise habits and everyday movement patterns. In line with earlier work, sedentary behaviors such as sitting and lying down increased substantially in free time, while energy-consuming recreational activities decreased, and these changes in turn undermined psychological well-being and perceived quality of life (QOL) (37). Against this backdrop, the present study examined how participation in leisure-time activities related to QOL among adults living in Türkiye during the COVID-19 outbreak, using data from 547 individuals and structural equation modeling to test the proposed relationships. In the model, covariances between leisure attitude constructs were freely estimated and found to be statistically significant, indicating that cognitive, affective, and behavioral leisure attitudes operate as an interconnected system rather than as isolated dimensions.

Leisure attitude is conceptualized as comprising three components: cognitive, affective, and behavioral. The behavioral dimension reflects the individual's past, present, and intended actions regarding leisure activities and experiences and therefore represents the most concrete expression of leisure engagement (50). In this study, behavioral leisure attitudes were negatively related to QOL (β = -0.31, $p < 0.01$). At first glance, this finding appears counterintuitive, especially in light of the common assumption that more active involvement in leisure should enhance life quality. Yet, it resonates with evidence showing that barriers to participation, or certain forms of leisure involvement, may undermine well-being. Previous research has reported that athletes' barriers to participation in recreational activities negatively affect life satisfaction, and that working individuals' leisure attitudes may have detrimental effects on their QOL (60, 61). It has also been observed that higher behavioural commitment to leisure (β = −0.134) is associated with lower perceived QOL, and these findings align with earlier work (62-64). Taken together, these studies and the present results suggest that behavioral engagement in leisure, especially under constrained conditions, may sometimes reflect compensatory or strained patterns of participation that do not translate into higher life quality.

By contrast, cognitive and affective leisure attitudes—representing, respectively, individuals' knowledge and beliefs about leisure and their feelings and evaluations regarding leisure time and activities did not show a direct statistical relationship with QOL in our SEM analysis (50). This means that simply knowing the benefits of leisure or holding favorable feelings toward it was not, in itself, sufficient to produce higher QOL during the pandemic. This pattern is consistent with the idea that cognitive and affective dimensions may influence life quality indirectly through their effects on behavioral engagement, especially given the significant interrelationships among the three attitude components. It has similarly been argued that the absence of a direct link between leisure participation and QOL in elderly individuals may reflect the presence of indirect pathways (65). In this sense, the present findings support the view that the paths from leisure attitudes to QOL are more complex than a straightforward, linear effect. At the same time, the results diverge from studies reporting a positive direct effect of leisure engagement or satisfaction on QOL. Previous findings indicate that individuals' leisure time satisfaction has a statistically positive and significant effect on QOL, and that leisure time participation exerts a direct positive effect on QOL (66, 67) ($c\beta$ = 1.533; SHc = 0.127; $p < 0.001$).

The discrepancy between these studies and our findings may stem from differences in how leisure is operationalized (e.g., frequency vs. satisfaction vs. attitudes), the types of activities captured (structured vs. unstructured, social vs. solitary), and, crucially, the pandemic context. Under normal circumstances, more frequent or more satisfying

participation may align with richer social contact, greater autonomy, and better physical health. Under lockdown, however, behavioral involvement may instead capture time-filling, screen-based, or constrained activities that are less capable of delivering the psychological and social benefits typically associated with leisure.

From a quantitative standpoint, the research model explained 14% of the variance in QOL (R^2 = 0.14), indicating a moderate level of explanatory power. In correlation terms, this aligns with previous work reporting moderate associations between leisure participation and QOL (68). Simple correlation analysis (r) is useful for understanding the strength and direction of bivariate relationships as values approach -1 or +1; however, the present structural model highlights that, once cognitive and affective attitudes are considered simultaneously with behavioral attitudes, the unique contribution of the behavioral component emerges as negative (57). This reinforces the idea that the quality, context, and constraints of leisure engagement are at least as important as its quantity when assessing its impact on QOL.

The demographic profile of the sample provides additional insight into how leisure and QOL intersected during the COVID-19 period. Previous reviews have highlighted the absence of a universal system of QOL indicators and proposed that demographic variables such as age, gender, marital status, social support, residence, health, education, and income level are central determinants (33).

In our sample, 71.7% of participants were married and 28.3% were single, suggesting a high prevalence of primary, continuous social support within the household. During home quarantine, when opportunities to socialize outside the home were sharply limited, this family-based support system likely played a protective role by mitigating loneliness and economic vulnerability. Age distribution is also noteworthy: 46.4% of participants were over 51 years old, 23.6% were between 40–50 years, and 30% were between 18–39 years. Given that older adults were at greater medical risk during COVID-19, approximately 70% of the sample can be considered part of the risk group, which may have heightened anxiety and shaped their perceptions of QOL.

Education and income levels further characterize the sample. A large majority (93.4%) held a university or higher degree, 7.1% had completed high school, and only 0.5% had primary school education. Income data showed that 12.4% earned the minimum wage, 44.5% earned between the minimum wage and 50,000 TL, and 42.2% had incomes above 50,000 TL. These patterns are consistent with the observation that higher education tends to co-occur with higher income, more qualified jobs, and better access to social opportunities, all of which typically contribute to higher QOL. Conversely, lower levels of education and income are associated with unemployment, poor working conditions, low wages, economic deprivation, and limited access to social opportunities, which can depress QOL through chronic financial, social, and psychological stress and even malnutrition (33). In the specific context of COVID-19, the relatively advantaged educational and income profile of this sample likely provided additional resources—such as access to digital tools, preventive health measures, and paid leisure options—that may have buffered some of the negative effects of the pandemic on QOL, even as leisure attitudes exhibited the patterns described above.

Free time is considered a critical indicator of quality of life. It has been estimated that free time accounts for approximately 16% of an individual's daily time (26). Prior studies in Türkiye have shown that adolescents tend to spend more of this free time on computers and the internet and the least on reading books, whereas older adults enhance their QOL through activities such as watching TV, listening to the radio, reading, using the internet, engaging in hobbies, gardening, traveling, doing sports, visiting acquaintances, and attending cinemas, theatres, museums, and concerts (33). In the present study, conducted during the COVID-19 period, 35.4% of participants reported that their free time was sufficient, 26.0% considered it normal, and 38.6% judged it insufficient. When asked with whom they preferred to spend their free time, 49.5% chose family members, 37.5% friends, 11.0% alone, and 1.5% relatives. These figures indicate that the majority of participants both had more free time and preferred to use it in the company of close social ties, primarily family and friends (88.5%), with only a minority preferring solitary leisure. It

is reasonable to infer that these social patterns reflect an attempt to cope with COVID-19-related anxiety and indoor stress in low-risk, familiar environments.

Finally, the findings can be situated within the broader literature on leisure as a coping and resilience resource. Prior work has highlighted that crises can make the role of leisure in coping with traumatic events highly visible (2). It has also been reported that participation in free-time activities tends to increase satisfaction with free time, happiness, and well-being, and that such activities can ameliorate negative health conditions and support stress management (5). Other studies have emphasized that leisure participation contributes to physical development, improves mental health, facilitates socialization, and nurtures skills and creativity (67). At the same time, attention has been drawn to the risks of inactivity, with evidence showing that different levels of physical activity affect the psychological domain of QOL, and that those who exercise regularly— even indoors when outdoor activity is not possible—experience better psychological health (68). Additional research has shown that young people adopted more sedentary lifestyles during quarantine, leading to increased depression and lower QOL (37). Finally, some authors have posed the critical question of whether the pandemic might become a turning point, prompting a shift away from consumption-oriented leisure toward finding joy in simpler, more accessible activities such as playing cards, sitting together on porches, or dancing at home (2). The present study adds to this body of work by showing that, under the specific constraints of COVID-19 in Türkiye, the behavioral component of leisure attitudes can be negatively linked to QOL, even in a relatively advantaged, highly educated urban sample. This underlines that the impact of leisure on QOL cannot be reduced to "more" or "less" participation; context, constraints, and the social and psychological content of activities are decisive.

Theoretical Implications

The pattern of results has several implications for theories that seek to explain how leisure contributes to well-being, particularly under conditions of structural constraint such as a pandemic. From a stress-buffering perspective, leisure is typically regarded as a domain through which individuals access psychosocial resources—emotional support, companionship, and a sense of control—that weaken the impact of stressors on mental health. The negative association between behavioral leisure attitudes and QOL observed in this study suggests that, under lockdown, behavioral engagement may not automatically translate into effective buffering. Instead, it may capture forms of leisure that are fragmented, screen-based, or constrained to the home, providing limited opportunities for genuine social support or restorative experiences. Theoretically, this indicates that the stress-buffering capacity of leisure is contingent on the social form and perceived quality of activities, not merely their frequency or intensity. In other words, during a crisis, some patterns of "high" leisure behavior may be symptomatic of stress and coping efforts rather than reliable indicators of enhanced well-being.

The findings also refine how Self-Determination Theory can be applied to leisure in crisis contexts. SDT posits that well-being is supported when autonomy, competence, and relatedness needs are satisfied, and leisure is often assumed to be a fertile ground for such need satisfaction. However, the absence of direct effects of cognitive and affective leisure attitudes on QOL, combined with the negative behavioral effect, implies a possible decoupling between valuing leisure and actually benefiting from it. Individuals may retain positive beliefs and feelings about leisure and still experience low QOL if their concrete leisure practices occur in environments that do not allow them to feel genuinely autonomous, competent, or connected. For example, activities undertaken simply to pass time, or chosen from a narrow set of options available in lockdown, may not support autonomy; low-skill, passive, or repetitive activities may not foster competence; and solitary or superficially social digital interactions may not fulfill deeper relatedness needs. Theoretically, this underscores the need for SDT-based leisure research to move beyond broad measures of participation or attitudinal valence and focus explicitly on the extent to which specific leisure contexts and practices enable basic psychological need satisfaction, especially during large-scale disruptions.

In addition, the results offer a nuanced perspective on the activity theory of aging. Activity theory

holds that maintaining engagement in meaningful roles and activities promotes life satisfaction, particularly among older adults. In this study, a substantial share of participants were over 50 and thus more medically vulnerable, yet higher behavioral leisure attitudes corresponded to lower QOL. Rather than contradicting activity theory, this suggests that the theory's core assumption—activity as a pathway to successful aging—must be interpreted in light of the structural and situational constraints that define which activities are possible. When lockdowns limit access to public spaces, social organizations, and community-based programs, "staying active" may be confined to a narrow set of home-based routines that do not carry the same identity, status, or social embeddedness that activity theory emphasizes. Under such conditions, the mere presence of activity is not sufficient to secure the benefits traditionally associated with active aging; what matters is whether the activities available still function as meaningful roles that preserve a sense of usefulness and connection.

Finally, integrating these perspectives with Leisure Constraints Theory can help explain why the behavioral dimension of leisure attitudes is negatively related to QOL in this context. Structural constraints (e.g., lockdowns, closure of facilities), interpersonal constraints (e.g., reduced in-person contact, health concerns about meeting others), and intrapersonal constraints (e.g., anxiety, fear of infection) were all heightened during COVID-19. These constraints may have forced individuals to rely on a relatively limited range of activities that, although frequent, were not optimally aligned with their preferences or psychological needs. The present study suggests that under high constraint, behavioral engagement may reflect constrained, compensatory, or even stress-driven activity patterns that do not function as genuine resources for need satisfaction, stress buffering, or successful aging. Future theoretical work should therefore treat leisure not as a uniform "dose" that can be increased or decreased, but as a portfolio of practices whose meanings, affordances, and constraints differ across social groups, life stages, and crisis conditions.

Practical Contributions

The findings carry several practical implications for policymakers, urban planners, leisure service providers, and public health authorities who seek to protect and improve quality of life under crisis conditions. First, the negative association between behavioral leisure attitudes and QOL in this study suggests that simply increasing the volume of leisure participation is not a sufficient policy goal. Instead, interventions should prioritize the design of leisure opportunities that are both accessible under restrictions and capable of delivering meaningful psychological benefits. This means shifting the focus from counting activities to cultivating experiences that provide genuine restoration, social connection, and a sense of agency—especially when movement and contact are constrained.

Second, the results indicate that the structure and context of leisure matter at least as much as the activity category itself. For municipalities and leisure providers, this implies the need to strategically expand low-cost, locally available, and flexible options that can be sustained during periods of heightened risk. Examples include small-scale, neighborhood-based outdoor spaces that allow physical distancing; digital platforms that facilitate group-based exercise, hobby clubs, or cultural participation; and hybrid formats that can quickly transition from face-to-face to online delivery. In practice, program design should be guided by the question: "Does this activity remain meaningful, safe, and need-supportive if conditions tighten again?" rather than assuming stable, pre-pandemic conditions.

Third, the demographic profile of the sample points to the importance of tailoring interventions to specific population groups. A large proportion of participants were older and at higher medical risk, yet also relatively well educated and economically advantaged (33, 37). For such groups, policies might focus on enabling safe, structured opportunities to remain active and socially engaged without exposing them to unnecessary health risks—through time-bounded access to public spaces, age-friendly scheduling of leisure programs, and targeted communication that promotes safe forms of physical activity. At the same time, individuals with lower education and income, who typically face more constraints and lower baseline QOL, will require additional support, such as subsidized access to digital tools, free or low-cost community programs, and partnerships with NGOs to reduce both structural and financial barriers to participation (33).

Fourth, the prominent role of family-based and close-tie leisure in this study suggests that interventions should recognize and leverage the household as a key setting for maintaining QOL during crises. Public health messaging, municipal campaigns, and leisure programming can explicitly frame family and small-group activities—such as shared exercise routines, home-based games, cultural activities, or structured "screen-free" times—as legitimate and valuable forms of leisure, not merely as informal or secondary options. By providing ready-to-use activity kits, online guidance, or simple planning tools for families, institutions can help transform unstructured free time into more purposeful and restorative experiences that support both mental health and social cohesion.

Fifth, the results imply that workplaces and educational institutions also have an important role in shaping leisure-related QOL. Employers can support employees by offering flexible working arrangements that protect free time, promoting evidence-based physical activity and recreation programs, and integrating leisure education into broader well-being initiatives. Universities and schools can incorporate time management and leisure literacy into their curricula, helping individuals to recognize the difference between passive, stress-driven time use and leisure that genuinely contributes to health and satisfaction. In both settings, monitoring changes in leisure attitudes and QOL over time can serve as an early warning system for rising stress and declining well-being.

Finally, the study underscores the need for more refined monitoring and evaluation tools in leisure and public health policy. Practitioners should avoid treating leisure as a binary variable and instead track cognitive, affective, and behavioral dimensions separately, alongside QOL indicators and key demographic factors. Doing so would allow decision-makers to detect when behavioral engagement is increasing while QOL is stagnant or declining—a signal that available leisure options may be compensatory rather than genuinely supportive. In practical terms, integrating brief leisure attitude and QOL modules into municipal surveys, community health assessments, and program evaluations would provide a more sensitive basis for adjusting interventions, particularly in anticipation of future crises similar to COVID-19.

Limitations and Future Research

This study has several limitations that should be taken into account when interpreting its findings. First, the research was conducted solely in the three largest and most populous metropolitan areas of Türkiye—İstanbul, Ankara, and İzmir—during the COVID-19 pandemic. As such, the results primarily reflect the experiences of urban residents living under stringent lockdowns and may not generalize to smaller cities, rural areas, or non-pandemic conditions. Second, data were collected through a self-administered online survey distributed via Google Forms to 1,000 individuals registered with İstanbul Metropolitan Municipality Sports and Recreation Centers (İBB Spor A.Ş.), Ankara City Council Volunteers, and İzmir Metropolitan Municipality Social Projects Office. This sampling strategy, while appropriate under pandemic restrictions, inevitably limits participation to individuals who have internet access, are connected to these networks, and are willing to respond online, which may introduce selection bias.

Third, the questionnaire was restricted to a set of demographic variables (age, gender, education level, marital status, occupation, income) and two main constructs: leisure attitudes and quality of life. Other potentially relevant psychosocial and contextual factors—such as perceived stress, social support, time pressure, occupational demands, or health status—were not measured and therefore could not be incorporated into the structural model. Fourth, the study focused on adults between 18 and 62 years of age. While this range captures a large portion of the working-age population, it excludes both younger adolescents and older adults beyond 62, groups for whom leisure patterns and COVID-19 risk profiles may differ markedly. Finally, the cross-sectional and self-report nature of the data limits causal inference. Although structural equation modeling was used to test theoretically informed relationships, the design does not allow firm conclusions about directionality, and common method variance cannot be ruled out.

Building on these limitations, several avenues for future research emerge. First, there is a clear need to replicate and extend this work in different geographical and cultural contexts, including

smaller cities, rural areas, and countries with different leisure infrastructures and policy responses to crises. Comparative studies that contrast pandemic and non-pandemic periods would be particularly valuable for disentangling which patterns are specific to extraordinary circumstances and which are stable features of leisure–QOL relationships. Longitudinal designs that follow individuals over time, from crisis to recovery, would help clarify how changes in leisure attitudes and behaviors relate to trajectories of quality of life.

Second, future studies should broaden the set of psychological variables considered alongside leisure attitudes and QOL. Constructs such as life satisfaction, subjective vitality, subjective well-being, and psychological resilience could be examined as mediating or moderating mechanisms that explain how and for whom leisure participation shapes QOL. In addition, integrating variables such as quality of work life, work–life balance, intrinsic motivation, and work–family conflict would allow researchers to explore how effective and efficient use of leisure time interacts with workplace demands and resources. Third, expanding the age range to include both adolescents and older adults beyond 62 would provide a more comprehensive understanding of how different life stages shape the meaning and impact of leisure under constraint. Finally, future research could combine self-report measures with more objective indicators—such as physical activity tracking, digital behavior logs, or ecological momentary assessments—to capture not only what people say they do in their leisure time, but what they actually do, and how these patterns relate to daily fluctuations in quality of life.

Conclusion

This study examined how leisure attitudes relate to quality of life among 547 adults living in the three largest metropolitan areas of Türkiye during the COVID-19 pandemic, a period characterized by strict lockdowns and heightened uncertainty. The findings show that the behavioral component of leisure attitudes is negatively associated with quality of life, while cognitive and affective components do not exhibit a direct effect, and the overall model explains a modest but meaningful share of variance in QOL. Taken together, these results suggest that under severe structural and interpersonal constraints, "more" behavioral engagement in leisure does not automatically translate into better lives; the quality, context, and function of leisure activities are decisive. In a relatively advantaged, urban sample with high levels of education and income, leisure appears to have operated as both a potential resource and a potential pressure point, depending on how it was organized and experienced. The study thus reinforces the view that leisure cannot be treated as a uniform good, but as a complex, context-dependent domain that can either support or undermine well-being during crises.

Abbreviations

AMOS: Analysis of Moment Structures, AVE: Average Variance Extracted, CFA: Confirmatory Factor Analysis, CR: Composite Reliability, LCT: Leisure Constraints Theory, SDT: Self-Determination Theory, SEM: Structural Equation Modeling, QOL: Quality of Life, UNWTO: United Nations World Tourism Organization, WHO: World Health Organization.

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Author Contributions

All authors contributed equally to all aspects of the paper.

Conflict of Interest

The authors declare that they have no conflicting interests that might have biased the work reported in this paper.

Declaration of Artificial Intelligence (AI) Assistance

In the preparation of this manuscript, the authors employed ChatGPT-4 to ensure proper grammar, spelling, and linguistic clarity, while iThenticate was used to evaluate similarity and verify originality. The manuscript has been carefully examined and approved by all authors, who assume full responsibility for its content.

Ethics Approval

This research was conducted online during the COVID-19 pandemic, and the participants were human subjects interviewed as part of this non-interventional study. The study was carried out in accordance with the ethical standards governing

research in the field, andthe required approval was obtained from the Kocaeli University Social Sciences Ethics Committee (Decision No. 2021/08, dated May 27, 2021). In addition, informed consent for participation was obtained from all individuals involved in the study.

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References

1. Lashua B, Corey WJ, Parry DC. Leisure in the time of coronavirus: A rapid response special issue. Leisure Sciences. 2021;43(1–2):6–11. doi:10.1080/01490400.2020.1774827
2. Stodolska M. #QuarantineChallenge2k20: Leisure in the time of the pandemic. Leisure Sciences. 2022;43(1–2):232–239. doi:10.1080/01490400.2020.1774007
3. Erdoğanaras F, Çamur KC, Tamer, NG, Mercan K. COVID-19, neighborhood, commons, urban life and public health. Turkish Geographical Review. 2020;76:115–128. doi:10.17211/tcd.816835
4. Iwasaki Y, MacKay K, Mactavish J. Gender-based analogues of coping with stress among professional managers: Leisure coping and non-leisure coping. Journal of Leisure Research. 2005;37(1):1–28. doi:10.1080/00222216.2005.11950038
5. Nawijn J, Veenhoven R. The effect of leisure activities on life satisfaction: The importance of holiday trips. In: The human pursuit of well-being: A cultural approach. Dordrecht: Springer; 2011. doi:10.1007/978-94-007-1375-8_4
6. Roberts K. Locked down leisure in Britain. Leisure Studies. 2020; 39(5): 617–628. doi:10.1080/02614367.2020.1791937
7. Perry EE, Coleman KJ, Iretskaia TA, Baer JM, Magnus LF, Pettengill PR. COVID-19 messaging in U.S. state parks. Journal of Outdoor Recreation and Tourism. 2021;36:100449. doi:10.1016/j.jort.2021.100449
8. Deci EL, Ryan RM. Intrinsic motivation and self-determination in human behavior. New York: Springer; 2013. https://books.google.com/books?id=M3CpBgAAQBAJ
9. Godbey G, Crawford DW, Shen XS. Assessing hierarchical leisure constraints theory after two decades. Journal of Leisure Research. 2010;42(1): 111–134. doi:10.1080/00222216.2010.11950197
10. Cohen S, Wills TA. Stress, social support, and the buffering hypothesis. Psychological Bulletin. 1985;98:310–357. https://psycnet.apa.org/journals/bul/98/2/310/
11. Havighurst RJ, Albrecht R. Older people. New York: Longmans, Green; 1953. https://babel.hathitrust.org/cgi/pt?id=uva.x000469348&seq=14
12. Lemon BW, Bengtson VL, Peterson JA. An exploration of the activity theory of aging. Journal of Gerontology. 1972;27(4):511–523. doi:10.1093/geronj/27.4.511
13. Havighurst RJ. Successful aging. The Gerontologist. 1961;1(1):8–13. doi:10.1093/geront/1.1.8
14. Dumazedier J. Toward a society of leisure. New York: Free Press: 1967. doi: 10.2307/2574914
15. Shores KA, West TS. Pursuing leisure during leisure-time physical activity. Journal of Physical Activity and Health. 2010;7:685–694. doi:10.1123/jpah.7.5.685
16. Tribe J. The economics of recreation, leisure and tourism. Oxford: Butterworth-Heinemann; 2011. doi.org: 10.4324/9780080890517
17. Özşaker M. Reasons why young people cannot participate in free time activities. Selçuk University Journal of Physical Education and Sports. 2012;14(1):126–131. https://dergipark.org.tr/tr/pub/bsd/article/711988
18. Chen YC, Li RH, Chen SH. Relationships among adolescents' leisure motivation, leisure involvement, and leisure satisfaction. Social Indicators Research. 2013;110:1187–1199. doi:10.1007/s11205-011-9979-2
19. Maltby J, Day L. The relationship between exercise motives and psychological well-being. Journal of Psychology. 2001;135(6):651–660. doi: 10.1080/00223980109603726
20. Endler NS, Parker JDA. Coping inventory for stressful situations: Manual. Toronto: Multi-Health Systems; 1990. doi: 10.1037/t02138-000
21. Özdemir AS. Determination of underground mine workers' leisure time habits in the Turkey Hard Coal Institution General Headquarters. Master's thesis] Ankara: Gazi University, Institute of Educational Sciences; 2006. https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp
22. Leversen I, Danielsen AG, Birkeland MS, Samdal O. Basic psychological need satisfaction in leisure activities and adolescents' life satisfaction. Journal of Youth and Adolescence. 2012; 41(12): 1588–1599. doi:10.1007/s10964-012-9776-5
23. Patterson I. Tourism and leisure behaviour in an ageing world. Oxfordshire: CABI; 2017. https://www.cabidigitallibrary.org/doi/book/10.1079/9781786390943.0000

24. Parr MG, Lashua BD. What is leisure? The perceptions of recreation practitioners and others. Leisure Sciences. 2004; 26(1): 1-17. doi:10.1080/01490400490272512
25. Getz G. Event tourism: definition, evolution, and research. Tourism Management. 2008; 29(3): 403–428. doi: 10.1016/j.tourman.2007.07.017
26. Page SJ, Connell J. Leisure: an introduction. Harlow, England: Prentice Hall, Pearson Education Limited, 2010. doi: 10.1016/j.tourman.2011.02.019
27. Ibrahim H, Cordes KA. Outdoor recreation: enrichment for a lifetime. 2nd ed. Champaign (IL): Sagamore Publishing; 2002. https://books.google.com/books?id=CLksAQAAMAAJ
28. Harris B, Rigolon A, Fernandez M. Hiking during the COVID-19 pandemic: demographic and visitor group factors associated with public health compliance. Journal of Leisure Research. 2021;53(3):331–339. doi: 10.1080/00222216.2021.1916797
29. Lackey NQ, Tysor DA, McNay GD, Joyner, L., Baker, K. H., & Hodge, C. Mental health benefits of nature-based recreation: a systematic review. Annals of Leisure Research. 2021;24(3):379-93. doi: 10.1080/11745398.2019.1655459
30. Black Reed K, Hanna S, Bai S, Agans JP. Outdoor recreation as an asset for youth development in the context of the COVID-19 pandemic. Journal of Outdoor Recreation, Education, and Leadership. 2022; 14(1): 62–77. doi: 10.18666/JOREL-2022-V14-I1-11167
31. Ugolini F, Massetti L, Calaza-Martínez P, Carinanos P, Dobbs C, Krajter Ostoic S, Marin AM, Pearlmutter D, Saaroni H, Sauliene I, Simoneti M, Verlic A, Vuletic D, Sanesi G. Effects of the COVID-19 pandemic on the use and perceptions of urban green space: an international exploratory study. Urban For Urban Green. 2020;56:1-9. doi: 10.1016/j.ufug.2020.126888
32. WHOQOL User Manual. Division of Mental Health and Prevention of Substance Abuse world Health Organization; 2012. https://iris.who.int/bitstream/handle/10665/77932/WHO_HIS_HSI_Rev.2012.03_eng.pdf
33. Aydıner Boylu A, Paçacıoğlu B. Quality of life and indicators. Journal of Academic Research and Studies. 2016;8(15):137-50. doi: 10.20990/kilisiibfakademik.266011
34. Çetiner H, Yayla Ö. The effect of activity commitment on life satisfaction and quality of life: a study on cyclists. Pamukkale University Journal Of Social Sciences Institute. 2021;42:209-22. doi: 10.30794/pausbed.746900
35. Allen L. Benefits of leisure services to community satisfaction. In: Benefits of Leisure. State College (PA): Venture Publishing Inc; 1991;332-50. https://archive.org/details/benefitsofleisur0000unse/page/n503/mode/2up
36. Baker DA, Palmer RJ. Examining the effects of perceptions of community and recreation participation on quality of life. Social Indicators Research. 2006;75:395–418. doi: 10.1007/s11205-004-5298-1
37. Cihan E, Şahbaz Pirinççi C. Life quality relationship of young population with physical activity level and depression level in COVID-19 pandemic period. Journal of Selçuk Health (COVID-19 Special Issue). 2020; 41-53. https://dergipark.org.tr/tr/download/article-file/1180905
38. Demirel M, Kaya A, Budak D, Bozoğlu MS, Er Y. Effect of COVID-19 pandemic on recreational awareness and quality of life. Turkish Journal of Sport and Exercise. 2021; 23(2): 197-207. doi: 10.15314/tsed.947795
39. Güngör S, Öner B. The change in recreational activity usage in the normalization process after covid-19 and ındividuals' cravings for urban green areas. Turkish Journal of Agriculture-Food Science and Technology. 2020; 8(1): 8-12. doi:10.24925/turjaf.v8isp1.8-12.3889
40. Pate RR, O'Neill JR, Lobelo F. The evolving definition of "Sedentary". Exercise and Sport Sciences Reviews. 2008;36(4):173-178. doi:10.1097/JES.0b013e3181877d1a
41. Yan Y, Wang X, Zhang R, Zhang Y. The Relationship between leisure activities and the mental health of college students during the COVID-19 pandemic. World Leisure Journal. 2023; 65(1): 119-42. doi:10.1080/16078055.2022.2158924
42. Spiers A, Walker GJ. The effects of ethnicity and leisure satisfaction on happiness, peacefulness, and quality of life. Leisure Sciences. 2009; 31(1): 84-99. doi: 10.1080/01490400802558277
43. Kim KW, Hwang HS. A Study on the influence factors of happiness in single-person elderly households by age group of the elderly. Korean Journal of Gerontological Social Welfare. 2021;76(1):45–70. doi:10.21194/kjgsw.76.1.202103.45
44. Jeong EH, Park JH. The relationship among leisure activities, depression, and quality of life in community-dwelling elderly koreans. Gerontology and Geriatric Medicine. 2020;6:1-7. doi:10.1177/2333721420923449
45. Sewo Sampaio PY, Ito E. Activities with higher influence on quality of life in older adults in Japan. Occupational Therapy International. 2013;20(1):1–10. doi:10.1002/oti.1333
46. Wheatley D, Bickerton C. Time-use and well-being ımpacts of travel-to-work and travel-for-work. New

Technology, Work And Employment. 2016;31(3): 238–54.
doi:10.1111/ntwe.12074
47. Lee, J H, Lee JH, Park SH. Leisure activity participation as predictor of quality of life in Korean urban-dwelling elderly. Occupational Therapy International. 2014;21(3):124–32.
doi: 10.1002/oti.1371
48. Toepoel V. Ageing, leisure, and social connectedness: how could leisure help reduce social isolation of older people? Social Indicators Research. 2013;113(1):355–72.
doi:10.1007/s11205-012-0097-6
49. Wang M, Wong MCS. Happiness and leisure across countries: evidence from ınternational survey data. Journal of Happiness Studies. 2014;15(1):85–118.
doi:10.1007/s10902-013-9417-z
50. Ragheb MG, Beard JG. Measuring leisure attitude. Journal of Leisure Research. 1982;14(2):155-167.
doi:10.1080/00222216.1982.11969512
51. Akgül BM, Gürbüz B. Leisure attitude scale: the study of reliability and validity. Gazi Journal of Physical Education and Sport Sciences. 2011;15(1):37-43.
https://dergipark.org.tr/en/pub/gbesbd/article/305073
52. Repišti S, Jovanović N, Kuzman MR, Medved S, Jerotić S, Ribić E, Majstorović T, Simoska SM, Novotni L, Milutinović M, Stoilkovska BB, Radojičić T, Ristić I, Zebić M, Pemovska T, Russo M. How to measure the ımpact of the COVID-19 pandemic on quality of life: COV19-QOL–the development, reliability and validity of a new scale. Global Psychiatry. 2020;3(2):1-10.
53. doi:10.52095/gpa.2020.1377
54. Anderson JC, Gerbing DW. Structural equation modeling in practice: a review and recommended two-step approach. Psychological Bulletin. 1988;103:411-423.
doi:10.1037/0033-2909.103.3.411
55. Fornell C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research. 1981;18:39-51.
doi:10.2307/3151312
56. Segars A. Assessing the unidimensionality of measurement: a paradigm and ıllustration within the context of ınformation systems research. Omega-International Journal of Management Science. 1997;25:107-121.
https://www.sciencedirect.com/science/article/pii/S0305048396000515
57. Nunnally JC. Psychometric theory. New York: McGraw-Hill; 1978.
https://www.scirp.org/reference/ReferencesPapers?ReferenceID=1867797
58. Becker TE, Atinc G, Breaugh JA, Carlson KD, Edwards JR, Spector PE. Statistical control in correlational studies: 10 essential recommendations for organizational researchers. Journal of Organizational Behavior. 2016;37(2):157–67.
doi: 10.1002/job.2053
59. Bernerth JB, Aguinis H. A Critical review and best-practice recommendations for control variable usage. Personnel Psychology. 2016; 69(1): 229–283.
doi:10.1111/peps.12103
60. Spector PE, Brannick MT. Methodological urban legends: the misuse of statistical control variables. Organizational Research Methods. 2011;14(2):287–305.
doi:10.1177/1094428110369842
61. Ayhan C. Investigation of the effects of constraints to be occurred in active athletes' participation to the recreative activities on life satisfaction and quality. Master's Thesis, Sakarya University; 2017.
https://files.eric.ed.gov/fulltext/EJ1199810.pdf
62. Soydan A. Examination of the relationship between recreational activity, healthy life behaviors, work and life quality and academic balance in working ındividuals. Master's Thesis, İstanbul Atlas University; 2024.
https://acikerisim.atlas.edu.tr/xmlui/handle/20.500.12900/511.
63. Lloyd KM, Auld CJ. The role of leisure in determining quality of life: ıssues of content and measurement source. Social Indicators Research. 2002;57(1):43-71.
https://link.springer.com/article/10.1023/A:1013879518210.
64. McCormick B, McGuire F. Leisure in community life of older rural residents. Leisure Sciences. 1996;18:77-93.
doi:10.1080/01490409609513273
65. Ragheb MG. Leisure and perceived wellness: a field investigation. Leisure Sciences. 1993;15(1):13–24.
doi:10.1080/01490409309513183.
66. Sevil T. The effect of therapeutic recreational activity participation on elders' to perceived leisure satisfaction, life satisfaction and quality of life. PhD Thesis, Anadolu University; 2015.
https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=viVLKnV69ZwS7es0OuBuXA&no=4k-ebHUL4jeB6cq8BDFfew.
67. Temur E. Investigation of the free time satisfaction and life quality levels of students at the faculty of sports sciences. Master Thesis, Selcuk University; 2021.
https://openaccess.selcuk.edu.tr/items/da03f12e-7b87-46dc-9c55-2deac7329562
68. Aydın İ, Yavuz E. The mediating role of job satisfaction in the effect of leisure participation on quality of life. Journal of Sport and Recreation Researches. 2024;6(2):71-88.
doi: 10.52272/srad.1590849

69. Kaya Ciddi P, Yazgan E. The effect of physical activity status on quality of life during social ısolation in COVID-19 epidemic. Istanbul Commerce University Journal of Social Sciences. 2020;19(37):262-279. https://dergipark.org.tr/en/pub/iticusbe/article/754235.

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Appendix

Leisure Attitude Scale

From the scale originally developed as a 36-item instrument by Ragheb and Beard (1982) and subsequently adapted and validated in a 24-item form for Turkish samples by Akgül and Gürbüz (2011).

Cognitive

Engaging in leisure activities is a wise use of time.
Leisure activities are beneficial to individuals and society.
People often develop friendships in their leisure.
Leisure activities contribute to one's health.
Leisure activities increase one's happiness.
Leisure activities help to renew one's energy.
Leisure activities can be a means for self-improvement.
Leisure activities help individuals to relax.

Affective

When I am engaged in leisure activities, the time flies.
My leisure activities give me pleasure.
I value my leisure activities.
I feel that leisure is good for me.
I like to take my time while I am engaged in leisure activities.
My leisure activities are refreshing.
I consider it appropriate to engage in leisure activities frequently.
I like my leisure activities.
I do leisure activities frequently.

Behavioral

I do leisure activities frequently.
Given a choice I would increase the amount of time I spend in leisure activities.
I buy goods and equipment to use in my leisure activities as my income allows.
I would do more leisure activities if I could afford the time and money.
I do some leisure activities even when they have not been planned.
I would attend a seminar or a class to be able to do leisure activities better.
I support the idea of increasing my free time to engage in leisure activities.
I give my leisure high priority among other activities.

Quality of Life Scale

Repišti S, Pemovska T, Zebić M, Ristić I, Radojičić T, Stoilkovska BB, Milutinović M, Novotni L, Simoska SM, Majstorović T, Ribić E. How to measure the impact of the COVID-19 pandemic on quality of life: COV19-QoL–the development, reliability and validity of a new scale. Global psychiatry archives. 2020 Jul 4;3(02):201-10. https://doi.org/10.2478/gp-2020-0016

Due to the spread of the coronavirus,
... I think my quality of life is lower than before
... I think my mental health has deteriorated
... I think my physical health may deteriorate
... I feel more tense than before
... I feel more depressed than before
... I feel that my personal safety is at risk