Original Research

Analyzing the Type and Experience of Leisure Participation According to Stress Level in Korean Men during COVID-19 Pandemic

Young-Jae Kim[1] , E-Sack Kim[1],*

[1]Department of Physical Education, Chung-Ang University, 06981 Seoul, Republic of Korea
*Correspondence: dlaehkgg@naver.com (E-Sack Kim)

Abstract

Background: With the coronavirus disease 2019 (COVID-19) pandemic, Korean men are under immense stress as it has become increasingly difficult to support their families due to economic difficulties following the loss of employment, along with the absence of social activities due to lockdowns and restrictions caused by the pandemic. The experience of sociocultural leisure activities, particularly, can have a socially and psychologically positive effect as a means to overcome a difficult situation such as the pandemic scenario. Thus, this study aims to examine the extent the level of stress interferes with leisure activities during the COVID-19 pandemic and to identify how participating in leisure activities can reduce stress. **Material and Methods**: In this study, results were analyzed using descriptive statistics (frequency and mean) and inferential statistics (ANOVA and Chi-square test) using SPSS (Version 25.0, IBM, Armonk, NY, USA) on 942 Korean men. **Results**: When differences in leisure experiences were analyzed according to psychosocial stress, it was found that there was a significant difference in all factors: fun, information, new experience, and art. Furthermore, when the differences in the type of leisure activities and leisure experience were analyzed according to psychosocial stress, variations were found in leisure experience depending on leisure activity type in all groups including the healthy group, potential stress group, and the high-risk group. **Conclusions**: It seems necessary to increase accessibility for participating in leisure activities for men. Increasing accessibility to leisure activities may provide leisure that can be enjoyed throughout life beyond a one-time experience and reduce all aspects of stress and increase psychological and emotional stability during pandemic. Furthermore, the government needs to actively improve youth welfare in such a way that it becomes more future-oriented rather than present-oriented by reducing the level of psychological stress by considering the circumstances specific to Korean men.

Keywords: COVID-19; Korean men; stress level; leisure activities; leisure experience

1. Introduction

The coronavirus disease 2019 (COVID-19) pandemic has dramatically changed the daily life of people around the world, and the impact of such a pandemic has affected different social roles and has imposed risk factors depending on the life cycle perspective [1]. The recent pandemic has caused more psychological anxiety among the older population than other age groups, which has led to a higher-than-usual level of stress resulting in a negative impact on health and quality of life [2]. Such stress also causes negative consequences that interfere with physical and interpersonal relationships [3], and also reduces the quality of life by hampering participation in leisure activities and increasing mental discomfort [4].

According to Jarczok *et al*. [5], continuous stress in a specific situation refers to a wide range of experiences that negatively affect and burden an individual's coping ability, which can worsen into a disease that threatens personal health if the experience is excessive or prolonged. As such, the continuous increase in stress can negatively affect health behaviors including social and psychological health, induce fatigue, and lower quality of life [6]. There is a tendency for Korean men, particularly, to be perceived with a specific gender role of being responsible

for supporting the livelihood of the family while the women are in charge of childrearing and childcare [7]. According to Park and Kim [8], the mental health of Korean men has deteriorated seriously due to severe stress following the loss of employment during the COVID-19 pandemic, leading to economic difficulties and the loss of their gender role as the breadwinner of the family, causing them to become depressed and even suicidal. This problem of stress, however, is not specific to only South Korea. In a survey conducted by Cleveland Clinic [9] using a health-related questionnaire with 1000 men in the USA; it was found that 75% of the respondents experienced increased stress, mostly due to financial situation and the family's welfare more than personal health, although there are other factors such as difficulty in supporting the family due to confusion about traditional family roles, job loss, and reduced income. This kind of high level of stress plays a major role in reducing participation in leisure activities [10].

According to Park *et al*. [11], active lifestyles such as preventive health behaviors, maintenance of daily life, and participation in leisure activities help in improving mental health, especially during the recent pandemic. Leisure, specifically, is pivotal in managing stress and providing physical and psychological support [12]. As such, par-

ticipating in leisure activities is one of the ways of overcoming the stress induced by the pandemic by improving psychological well-being and alleviating symptoms of ailments like anxiety, depression, and improving interpersonal relationships, stress management, and mental and emotional stability when under stress [13]. Specifically, Ateca-Amestoy, Serrano-del-Rosal & Vera-Toscano [14] argued that leisure experience might differ based on individual activities, which means that leisure could vary from person to person. One's labor activity can give a positive joy to other person and leisure depends on individual tastes, techniques, and availability of resources. Therefore, leisure can be an important factor determining personal happiness.

However, the enforcement of social distancing due to COVID-19 has resulted in the closure of local events and leisure cultural facilities where people can gain new experiences every year. This implies that the experience of leisurely activities has decreased significantly compared to the pre-pandemic period [15]. According to the "COVID-19 National Mental Health Survey" conducted by the South Korean Ministry of Health and Welfare (2022), interference was the highest for social/leisure activities (6.2 points) followed by family life (4.5 points) and work (4.3 points) when the extent of interference with daily life due to the COVID-19 pandemic was scored and examined in terms of work disturbance, interference with social/leisure activities, and interferences with family life [16]. In other words, the COVID-19 pandemic has made participating in usual activities more difficult along with participating in personal leisure activities due to restricted social activities such as meeting friends.

According to Anderson [17], leisure experience during the COVID-19 pandemic fulfills the need for social connection and minimizes boredom and anxiety thereby maintaining emotional stability while fostering a sense of community. Furthermore, leisure activities provide leisure and sociocultural experiences that are difficult to experience in normal daily life by providing a socially and psychologically positive effect [18], and people seek and experience leisure based on the reasons they are motivated to perform leisure activities and freedom of choice [19]. However, as different aspects of people's life have changed due to the COVID-19 pandemic, the need for leisure as well as the motivation for leisure activities are also changing [13].

Experience is approached from a psychological point of view as individual subjectivity is emphasized, and by empirical scientific research methods, human behavior becomes an empirical object or human consciousness is interpreted in a relative and causal relationship [20]. By approaching the complex and varied human consciousness and behavior as a frame of "idealized experience" that has already been made simple and fixed, the leisure experience is understood as an abstract space dominated with various "ideals and symbols" [21]. The experience of leisure activities can appear in various ways depending on the social

factors surrounding the individual and the individual's psychological factors [22]. Furthermore, according to Kleiber et al. [19], leisure experience refers to the importance of activity perceived by the participant and an attempt to identify the components of the question, "what constitutes a good leisure experience?". In a rapidly changing society, the experience manifested in leisure activities may also change as existing social psychology and values transform with time and circumstances [23]; thus, examining leisure experience in the present, that is, in the post-COVID-19 era may help identify mid- and long-term change in leisure activities.

According to Barber & Kim [24], the middle-aged population often experiences work-related problems such as working from home, homeschooling children, and loss of employment. The younger generation is more concerned with the COVID-19 pandemic and is more stressed compared to older men [24]. Contrarily, older women reported a lower level of stress compared to men [24]. This indicates that men are under a higher level of stress due to the economic difficulties following the COVID-19 pandemic as they believe they are the breadwinners of their families and are responsible for protecting their families and taking care of their children. Moreover, Bruine de Bruin [25] reported that the risk of death was higher for the older population when infected with COVID-19. The younger population, however, had better mental health and reported higher psychological stability. A study reported that, despite the difference in the perception of risk of COVID-19 and mental health according to age, the correlation between the influence of the degree of perception and psychological action did not change with age [26]. Furthermore, Liu et al. [13] suggested that leisure experiences and stress should be comprehended from various perspectives through research on people of various ethnicities.

Therefore, this study examined the differences in the type of participation in leisure activities depending on the level of stress in Korean men to identify how it affects the sub-factors of leisure experience—fun, art, information, and new experience. The results will be used as foundational data that could help in participating in leisure activities according to the level of stress in the context of a disaster situation by identifying whether the perceived level of stress interferes with the leisure activity experience.

To achieve the study objective, we formulated the following study hypotheses.

Hypothesis 1: Leisure experience will vary depending on the social-psychological stress (Healthy group, Stress group, High-risk group) of Korean men during the COVID-19 pandemic.

Hypothesis 2: The types of leisure activities and leisure experiences will vary among Healthy Korean males during the COVID-19 pandemic.

Hypothesis 3: The types of leisure activities and leisure experiences will vary among Stress Korean males during the COVID-19 pandemic.

Hypothesis 4: The types of leisure activities and leisure experiences will vary among High-risk Korean males during the COVID-19 pandemic.

2. Materials and Methods

This study analyzed the participation type and experience of leisure according to the level of stress in Korean men in the context of the COVID-19 pandemic and the study method used is as follows.

2.1 Study Participants

An online survey was conducted with Korean men aged 19 years or above through a research company, "EM-BRAIN" from March 2020 to May 2020. Participants were included if they are 19 to 65 years who assume specific economic roles The survey excluded women and age groups that are not related to this study. A total of 1690 questionnaires were distributed, and the response rate was 55.64%; thus, a total of 942 questionnaires were used for the research. Informed consent was provided prior to the study and only those who willingly agreed to participate were included in this study The sample size required for this study was based on the formula suggested by Comrey & Lee [27] (100 = poor, 200 = adequate, 300 = good, 500 = very good, 1000 = outstanding). Convenience sampling, which is one of the non-probability sampling methods, was used as the sampling method, and the survey was completed using the self-assessment method. Furthermore, this study was conducted with the review and approval of the Bioethics Committee of Chung-Ang University in accordance with the "Helsinki Declaration" of 1964 (IRB1041078-202010-HRSB-316-01).

2.2 Measurement Tools

2.2.1 Demographic Characteristics and Leisure Activities of Participants

The items listed in the demographic characteristics in the survey consisted of sex, age, marital status, monthly average household income, and occupation based on the content of the questionnaire used in the "2019 National Leisure Activities Survey" conducted by the Ministry of Culture, Sports and Tourism [28].

The types of leisure activities measured in this study were based on the classification of leisure activities in the "2019 National Leisure Activities Survey (Ministry of Culture, Sports and Tourism, 2020)" conducted every two years. Furthermore, to find out leisure activities that participants engaged mostly in during the COVID-19 pandemic, the participants were allowed to select one type of leisure that they mostly engaged in. Leisure activities were classified into eight types: seeing culture and art (exhibitions, music concerts, operas, theater and dance performances, musicals, movies, etc.); participation in culture and art (participation in literary events, writing, reading, discussions, art activities, musical instrument/singing classes, photography, dancing, etc.); watching sports [direct participation (visiting stadiums for sports such as soccer, baseball, basketball, and volleyball)], [indirect participation (TV, DMB), online game viewing, etc.]; participation in sports (badminton, golf, swimming, fitness aerobics, jogging, bowling, table tennis, etc.); tourism (visiting cultural relics, forest bathing, domestic camping, overseas travel, participation in local festivals, amusement parks, etc.); pursuing hobbies and entertainment (collecting activities, cooking, hiking, fishing, game of go, reading, etc.); resting (stroll, walking, bathing, saunas, napping, watching TV, listening to radio, listening to music, reading newspapers/magazines, doing nothing, etc.), and carrying out social activities (social service activities, religious activities, clubbing and night clubs, visiting family and friends, phone calls, meeting friends, etc.).

2.2.2 Psychosocial Stress

The measurement tool for psychosocial stress used in the study was based on the General Health Questionnaire (GHQ-60) developed by Goldberg [29] to measure mental health in the normal population. From the 45 questions in the PWI (Psychosocial Well-being index) adopted by Jang [30], 18 questions were extracted as a short form of PWI (SF-PWI). The SF-PWI comprises four areas: sleep disorders, depression and anxiety, social role performance, and self-confidence. It also comprises general health and vitality. Responses are made on a 4-point scale ranging from 0 to 3, with 11 question items (e.g., do not feel refreshed even after sleeping; can't sleep comfortably due to worries; feel disturbed or uneasy at night; feel nervous or ill-tempered; feel unhappy and depressed; lose trust in me) with positive emotional content, the total score is summed up through inverse conversion to measure the stress level. In this tool, a 4-point Likert scale was used from 0 to 3 points, with higher scores indicating a higher level of psychological stress. With a total of 54 points, scores of 27 points or higher are classified as "high-risk group", scores between 9 and 26 points as "potential stress group", and scores below 8 points as "healthy group". In this study, the Cronbach's α for psychosocial stress was 0.847, confirming the reliability of the instrument.

2.2.3 Leisure Experience

The leisure experience measurement tool used in this study was based on the experiential economy theory of Pine & Gilmore (2011) which was validated among Koreans by Kim and Young-Jae (2021) [23,31]. The scale consists of four sub-factors, with a total of 16 items: four factors for fun, four for information, four for new experiences, and four for art. Responses to the questionnaire items were constructed on a 5-point Likert scale ranging from "not at all (1 point)" to "strongly agree (5 points)." Reliability was confirmed with Cronbach's α of 0.901 for art, 0.881 for fun, 0.869 for information, and 0.840 for a new experience.

Table 1. Result of exploratory factor analysis for leisure experience (n = 942).

Items		1	2	3	4	h2
Art	Q.3 The leisure environment I experienced had a sophisticated feel.	0.843	0.134	0.242	0.160	0.857
	Q.2 The leisure space I experienced gives the impression of being well-designed.	0.840	0.166	0.190	0.138	0.868
	Q.4 The leisure environment I experienced was exotic.	0.800	0.119	0.283	0.163	0.870
	Q.1 The leisure environment I experienced is well-designed down to the smallest detail.	0.755	0.096	0.267	0.231	0.891
Fun	Q.4 The leisure activity that I experienced was fun.	0.118	0.832	0.186	0.136	0.840
	Q.3 The leisure activity that I experienced was very enjoyable.	0.124	0.816	0.166	0.198	0.838
	Q.2 The leisure activity that I experienced had a fun factor.	0.121	0.808	0.166	0.158	0.850
	Q.1 The leisure activity I experienced was pleasurable.	0.106	0.797	0.100	0.183	0.859
Information	Q.2 I acquire various information through the leisure activity I experience.	0.194	0.198	0.847	0.087	0.811
	Q.3 The leisure activity I experience enriches my knowledge.	0.272	0.171	0.841	0.080	0.801
	Q.4 The leisure activity I experience helps me to acquire the skills necessary for life.	0.302	0.072	0.778	0.095	0.847
	Q.1 The leisure activity I experience improves my knowledge.	0.225	0.379	0.624	0.232	0.867
New experience	Q.2 I feel as if I am escaping reality while experiencing leisure activities.	0.130	0.278	0.060	0.812	0.741
	Q.3 I am unaware of how fast time goes by while experiencing leisure activities.	0.402	0.189	0.190	0.694	0.712
	Q.4 I forget about daily life while experiencing leisure activities.	0.521	0.072	0.149	0.623	0.760
	Q.1 I feel as if being in a different world while experiencing leisure activities.	0.075	0.478	0.122	0.606	0.796
Reliability		0.901	0.881	0.869	0.804	
Eigenvalue		3.391	3.279	2.841	2.214	
Eigenvalue (%)		21.194	20.496	17.757	13.835	
Cumulative variance (%)		21.194	41.690	59.447	73.282	

As a result of conducting exploratory factor analysis to understand the validity of the research tool and the normal distribution of the population, Bartlett's test of sphericity for leisure experiences was conducted, which showed 9208.283 KMO standard fit of 0.921, $p < 0.000$, and the total cumulative variance was 73.282. The results of the exploratory factor analysis on leisure experiences are shown in Table 1.

To determine whether the leisure experience scale indicates a factor structure, the confirmatory factor analysis was conducted. We got permissible fits from the Normed Fit Index (NFI), Comparative Fit Index (CFI), Incremental Fit Index (IFI), Tucker-Lewis index (TLI), and Root Mean Square Error of Approximation (RMSEA) ($\chi^2 = 648.669$, df = 98, $p < 0.00$, NFI = 0.930, CFI = 0.940, IFI = 0.940, TLI = 0.926, RMSEA = 0.077).

2.3 Data Processing

All analyses in this study were conducted using SPSS 25.0 (Version 25.0, IBM, Armonk, NY, USA) after undergoing the coding process and data cleaning to fulfill the objective of the study. As a detailed data processing method, first, a frequency analysis was performed to understand the demographic characteristics of the participants. Descriptive statistics were used to determine the frequency, percentage, and mean scores of the participants' demographic characteristics, while Chi-square test was performed to analyze the difference in demographic characteristics according to psychosocial stress Second, descriptive statistical analysis was performed to verify normality, and kurtosis and skew-

ness values were derived based on West *et al.*'s [32] study. In this study, the skewness and kurtosis of psychosocial stress and leisure experience were as follows: skewness = –0.280~–0.135, kurtosis = –0.031~0.787, respectively, indicating normal distribution. Third, a chi-square test was conducted to analyze the differences in demographic characteristics according to the psychosocial stress levels. Fourth, one-way ANOVA was conducted to determine whether there was a difference in leisure experience according to the stress level. One-way ANOVA was performed to determine whether there is a difference in the type of leisure activity and leisure experience according to the psychosocial stress level among the ANOVA was performed to determine the differences in leisure experience sub-factors according to psychosocial stress, as well as to determine the differences in leisure activity types and leisure experiences in the healthy group, stress group and high-risk group.

3. Results

This study aimed to find out whether there is a difference in leisure experience according to the type of leisure activity and the leisure experience according to psychosocial stress.

Table 2 shows the characteristics of the participants in this study using frequency analysis. In terms of age, 215 participants (22.8%) were in their 50s, 215 participants (22.8%) in their 40s, 174 participants (18.5%) in their 30s, 172 participants (18.3%) in their 60s, and 166 participants (17.6%) in their 20s, in the order of decreasing frequency (Fig. 1). In terms of marital status, 582

Table 2. Demographic characteristics of participants (n = 942).

Characteristics	n (%)	Healthy group (n = 62)	Stress group (n = 612)	High risk group (n = 268)	p-value	χ^2
Age, mean (SD)	45.050 (13.734)					
Ages 20 to 29	166 (17.6)	16 (9.6)	108 (65.1)	42 (25.3)		
Ages 30 to 39	174 (18.5)	8 (4.6)	111 (63.8)	55 (31.6)		
Ages 40 to 49	215 (22.8)	8 (3.7)	136 (63.3)	71 (33.0)	0.143	12.181
Ages 50 to 59	215 (22.8)	14 (6.5)	143 (66.5)	58 (27.0)		
Ages 60 to 64	172 (18.3)	16 (9.3)	114 (66.3)	42 (24.4)		
Marital status						
Unmarried	320 (34.0)	21 (6.6)	199 (62.2)	100 (31.3)		
Married	582 (61.8)	38 (6.5)	391 (67.2)	153 (26.3)	0.346	4.475
Widowed or divorced	40 (4.2)	3 (7.5)	22 (55.0)	15 (37.5)		
Occupation						
Manager	66 (7.0)	6 (9.1)	47 (71.2)	13 (19.7)		
Professionals and related workers	144 (15.3)	14 (9.7)	98 (68.1)	32 (22.2)		
Office workers	325 (34.5)	9 (2.8)	210 (64.6)	106 (32.6)		
Service workers	51 (5.4)	7 (13.7)	29 (56.9)	15 (29.4)		
Sales workers	36 (3.8)	3 (8.3)	20 (55.6)	13 (36.1)		
Skilled workers in agriculture, forestry and fishing	7 (0.7)	0 (0.0)	5 (71.4)	2 (28.6)	0.093	28.733
Technicians and related technical workers	42 (4.5)	2 (4.8)	27 (64.3)	13 (31.0)		
Equipment and machinery operation and assembly workers	27 (2.9)	3 (11.1)	14 (51.9)	10 (37.0)		
Labor worker	41 (4.4)	3 (7.3)	24 (58.5)	14 (34.1)		
Soldiers	10 (1.1)	0 (0.0)	8 (80.0)	2 (20.0)		
Unemployed and other	193 (20.5)	15 (7.8)	130 (67.4)	48 (24.9)		
Monthly average income						
Less than ₩ 1,000,000	59 (6.3)	3 (5.1)	35 (59.3)	21 (35.6)		
₩ 1,010,000–2,000,000	96 (10.2)	7 (7.3)	59 (61.5)	30 (31.3)	0.370	6.500
₩ 2,010,000–4,000,000	339 (36.0)	20 (5.9)	213 (62.8)	106 (31.3)		
₩ ≥4,010,000–6,000,000	448 (47.6)	32 (7.1)	305 (68.1)	111 (24.8)		
Type of leisure activity						
Seeing culture and art	137 (14.5)	9 (6.6)	98 (71.5)	30 (21.9)		
Participation in culture and art activities	26 (2.8)	4 (15.4)	17 (65.4)	5 (19.2)		
Watching sports	104 (11.0)	6 (5.8)	60 (57.7)	38 (36.5)		
Participating in sports	100 (10.6)	5 (5.0)	70 (70.0)	25 (25.0)	0.046	23.990
Tourism	78 (8.3)	7 (9.0)	50 (64.1)	21 (26.9)		
Hobbies and entertainment	124 (13.2)	12 (9.7)	71 (57.3)	41 (33.1)		
Resting	327 (34.7)	13 (4.0)	215 (65.7)	99 (30.3)		
Social activities	46 (4.9)	6 (13.0)	31 (67.4)	9 (19.6)		

participants (61.8%) were married while 320 participants (34.0%) were unmarried and 40 participants (4.2%) had other marital status (Fig. 2); as for occupation, 325 participants (34.5%) were office workers; 193 (20.5%) were unemployed or other; 144 participants (15.3%) were professionals and related workers, 66 participants (7.0%) were managers; 51 participants (5.4%) were service workers; 36 (3.8%) were sales workers; 42 (4.5%) were technicians and related technical workers; 27 participants (2.9%) were equipment and machinery operation and assembly workers; 10 (1.1%) were soldiers and seven (0.7%) were skilled workers in agriculture, forestry, and fishing (Fig. 3). Lastly for monthly average income, 448 participants (47.6%) reported ₩ ≥4,010,000–6,000,000; 339 participants (36.0%) reported ₩ 2,010,000–4,000,000; 96 participants (10.2%) reported ₩ 1,010,000–2,000,000; 59 participants (6.3%) reported ₩ 1,000,000 or less (Fig. 4).

chi-square test was performed to analyze the difference in demographic characteristics according to psychosocial stress. As a result, there was a significant difference in the type of leisure activity (χ^2 = 23.990, p = 0.046). No significant difference in all factors including age, marital status, occupation, and average monthly income.

Table 3 shows the results of one-way ANOVA on the differences in leisure experience sub-factors according to psychosocial stress. A closer look at the results showed that fun (F = 31.735, p = 0.000, df = 938), information (F = 11.184, p = 0.000, df = 938), new experiences (F = 11.552,

Table 3. Differences in leisure experience according to psychosocial stress (n = 942).

Category	N	Mean	Standard deviation	Mean squared	F	Significance probability	Post-hoc testing
Fun							
Healthy group	62	4.38	0.620	10.410	31.735	0.000	c < b < a
Stress group	612	3.99	0.574				
High-risk group	268	3.77	0.558				
Information							
Healthy group	62	3.83	0.919	5.980	11.184	0.000	c, b < a
Stress group	612	3.52	0.742				
High-risk group	268	3.37	0.635				
New experience							
Healthy group	62	3.90	0.794	5.174	11.552	0.000	c, b < a
Stress group	612	3.64	0.668				
High-risk group	268	3.48	0.640				
Art							
Healthy group	62	3.47	0.864	3.691	6.055	0.002	c, b < a
Stress group	612	3.20	0.801				
High-risk group	268	3.09	0.708				

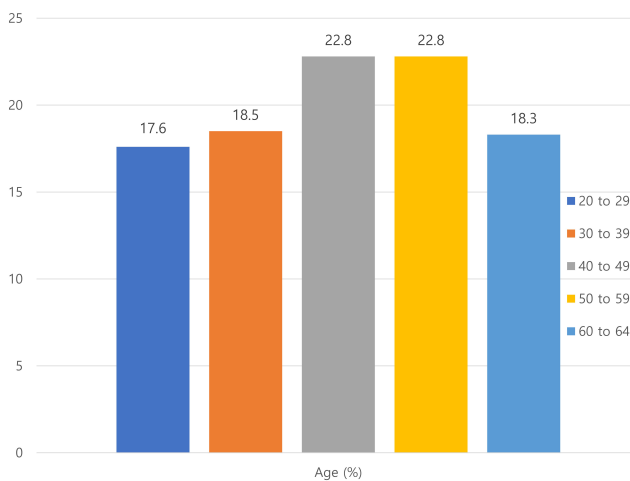The *p* value was analyzed using an independent One-way ANOVA.

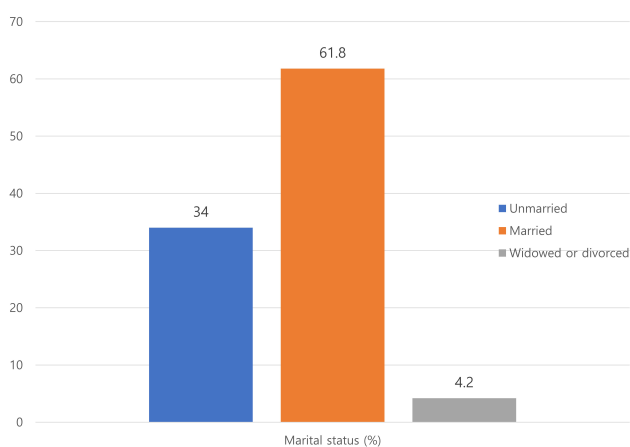Fig. 1. Age of study participants. (%)

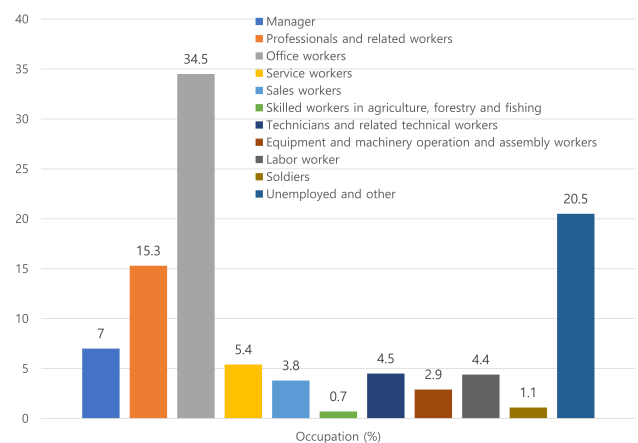Fig. 2. Marital status of study participants. (%)
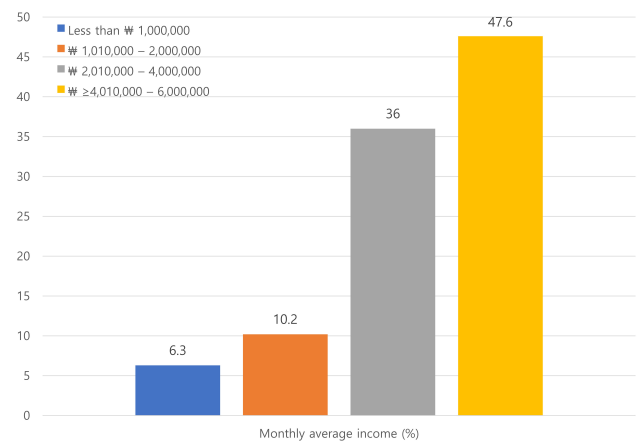

Fig. 3. Occupation of study participants. (%)

Fig. 4. Monthly average income of study participants. (%)

Table 4. Differences in leisure activities for healthy group (n = 62).

Category	N	Mean	Standard deviation	Mean squared	F	Significance probability	Post-hoc testing
Fun							
Seeing culture and art[a]	9	4.41	0.684				
Participation in cultural and art-related activities[b]	4	4.68	0.473				
Watching sports[c]	6	4.58	0.491				
Participating in sports[d]	5	3.95	0.798	0.756	2.248	0.044	n/s
Tourism[e]	7	4.64	0.404				
Hobbies and entertainment[f]	12	4.56	0.512				
Resting[g]	13	3.94	0.605				
Social activities[h]	6	4.62	0.586				
Information							
Participation in cultural and art-related activities[a]	9	4.08	0.800				
Participation in cultural and art-related activities[b]	4	4.18	0.239				
Watching sports[c]	6	3.75	1.332				
Participating in sports[d]	5	3.70	0.974	1.229	1.542	0.173	n/s
Tourism[e]	7	4.10	0.592				
Hobbies and entertainment[f]	12	4.14	0.757				
Resting[g]	13	3.17	0.937				
Social activities[h]	6	3.91	1.103				
New experience							
Participation in cultural and art-related activities[a]	9	4.13	0.771				
Participation in cultural and art-related activities[b]	4	4.18	0.239				
Watching sports[c]	6	4.54	0.400				
Participating in sports[d]	5	3.80	0.693	0.921	1.549	0.171	n/s
Tourism[e]	7	4.03	0.698				
Hobbies and entertainment[f]	12	3.89	0.652				
Resting[g]	13	3.46	1.050				
Social activities[h]	6	3.62	0.847				
Art							
Participation in culture and art activities[a]	9	4.02	0.842				
Participation in culture and art activities[b]	4	3.81	0.375				
Watching sports[c]	6	3.37	1.033				
Participating in sports[d]	5	3.75	0.750	1.255	1.841	0.098	n/s
Tourism[e]	7	3.67	0.702				
Hobbies and entertainment[f]	12	3.43	0.512				
Resting[g]	13	2.86	0.976				
Social activities[h]	6	3.45	1.077				

The p value was analyzed using an independent One-way ANOVA. [a~h] are superscripts that describe differences between groups.

$p = 0.000$, df = 938), and art (F = 6.055, $p = 0.002$, df = 938) all showed a significant difference.

Table 4 shows the results of one-way ANOVA to identify differences in leisure activity types (Fig. 5) and leisure experiences in the healthy group. A closer look at the results revealed that there was a significant difference for fun (F = 2.248, $p = 0.044$) while information (F = 1.542, $p = 0.173$), new experience (F = 1.549, $p = 0.171$), and art (F = 1.841, $p = 0.098$) did not show a significant difference.

Table 5 shows the results of one-way ANOVA to identify differences in leisure activity types (Fig. 5) and leisure experiences in the potential stress group. A closer look at

the results showed that fun (F = 2.668, $p = 0.000$), information (F = 4.824, $p = 0.000$), new experiences (F = 6.472, $p = 0.000$), and art (F = 9.347, $p = 0.000$) all showed a significant difference.

Table 6 shows the results of one-way ANOVA to identify differences in types of leisure activity (Fig. 5) and leisure experiences in the high-risk group. A closer look at the results showed that fun (F = 4.406, $p = 0.000$), information (F = 2.785, $p = 0.008$), new experiences (F = 2.557, $p = 0.015$), and art (F = 3.114, $p = 0.004$) all showed a significant difference.

Category	N	Mean	Standard deviation	Mean squared	F	Significance probability	Post-hoc testing
Fun							
Participation in culture and art activities[a]	98	4.0510	0.46662				
Participation in culture and art activities[b]	17	4.4265	0.47405				
Watching sports[c]	60	4.1042	0.53933				
Participating in sports[d]	70	4.1714	0.70008	2.668	2.668	0.000	g < e < b
Tourism[e]	50	4.2250	0.44392				
Hobbies and entertainment[f]	71	3.9331	0.49091				
Resting[g]	215	3.7884	0.58902				
Social activities[h]	31	4.0806	0.45363				
Information							
Seeing culture and art[a]	98	3.7117	0.63241				
Participation in cultural and art-related activities[b]	17	3.7794	0.70091				
Watching sports[c]	60	3.3708	0.84809				
Participating in sports[d]	70	3.4929	0.75057	2.545	4.824	0.000	n/s
Tourism[e]	50	3.8950	0.44918				
Hobbies and entertainment[f]	71	3.3838	0.69028				
Resting[g]	215	3.4105	0.77630				
Social activities[h]	31	3.6774	0.78579				
New experience							
Seeing culture and art[a]	98	3.8010	0.65798				
Participation in cultural and art-related activities[b]	17	4.1176	0.67960				
Watching sports[c]	60	3.8000	0.66352				
Participating in sports[d]	70	3.6714	0.62777	2.718	6.472	0.000	f < a, e < b
Tourism[e]	50	3.9250	0.56300				
Hobbies and entertainment[f]	71	3.5423	0.59759				
Resting[g]	215	3.4733	0.66508				
Social activities[h]	31	3.5403	0.72772				
Art							
Seeing culture and art[a]	98	3.5510	0.72684				
Participation in cultural and art-related activities[b]	17	3.8235	0.63593				
Watching sports[c]	60	3.2000	0.77405				
Participating in sports[d]	70	3.1571	0.78962	5.483	9.347	0.000	f, g, h < b
Tourism[e]	50	3.5850	0.51163				
Hobbies and entertainment[f]	71	2.9472	0.77565				
Resting[g]	215	3.0116	0.82590				
Social activities[h]	31	3.2177	0.76032				

The p value was analyzed using an independent One-way ANOVA. $^{a\sim h}$ are superscripts that describe differences between groups.

4. Discussion

This study examined the differences in leisure experiences according to the psychosocial stress level (Healthy group, Stress group, High-risk group) in Korean men during the COVID-19 pandemic, and analyzed the differences in the type of leisure activities and leisure experience according to the level of psychosocial stress. The following paragraphs present a detailed discussion of the findings of this study.

First, when differences in leisure experiences were analyzed according to psychosocial stress, it was found that there was a significant difference in all the factors: fun, information, new experience, and art. Among the psychosocial health groups, the healthy group showed a high average in all factors including fun, information, new experience, and art. This indicates that people with low stress have a desire to experience various leisure activities. As explained by Patterson and Coleman [10], the higher the stress level, the lower the participation in leisure activities; similarly, in this study, a higher stress level was associated with a lower level of leisure experience.

Maslow's [33] motivational theory states that people seek unique experiences through their self-fulfillment needs after they have fulfilled their psychological, social, and esteem needs. As such, the desire for achievement through experience can be found in leisure activities as a representative example. According to a study by Kim and Yoon [34], the desire to constantly grow through achievement by engaging in leisure activities increases the necessity and importance of leisure. However, Koreans today are facing dif-

Table 6. Differences in leisure activities for high-risk group (n = 268).

Category	N	Mean	Standard deviation	Mean squared	F	Significance probability	Post-hoc testing
Fun							
Seeing culture and art[a]	30	3.966	0.528				
Participation in cultural and art-related activities[b]	5	3.95	0.325				
Watching sports[c]	38	3.84	0.495				
Participating in sports[d]	25	3.89	0.633	1.261	4.406	0.000	n/s
Tourism[e]	21	4.00	0.586				
Hobbies and entertainment[f]	41	3.92	0.540				
Resting[g]	99	3.54	0.526				
Social activities[h]	9	3.77	0.422				
Information							
Seeing culture and art[a]	30	3.49	0.447				
Participation in cultural and art-related activities[b]	5	3.90	0.379				
Watching sports[c]	38	3.14	0.571				
Participating in sports[d]	25	3.58	0.598	1.075	2.785	0.008	n/s
Tourism[e]	21	3.64	0.521				
Hobbies and entertainment[f]	41	3.39	0.776				
Resting[g]	99	3.26	0.639				
Social activities[h]	9	3.41	0.684				
New experience							
Seeing culture and art[a]	30	3.56	0.520				
Participation in cultural and art-related activities[b]	5	4.30	0.209				
Watching sports[c]	38	3.43	0.588				
Participating in sports[d]	25	3.60	0.653	1.006	2.557	0.015	g, f, c < b
Tourism[e]	21	3.70	0.664				
Hobbies and entertainment[f]	41	3.42	0.769				
Resting[g]	99	3.36	0.617				
Social activities[h]	9	3.72	0.403				
Art							
Seeing culture and art[a]	30	3.40	0.531				
Participation in cultural and art-related[b]	5	3.70	0.817				
Watching sports[c]	38	2.98	0.666				
Participating in sports[d]	25	3.31	0.744	1.481	3.114	0.004	n/s
Tourism[e]	21	3.28	0.571				
Hobbies and entertainment[f]	41	3.00	0.829				
Resting[g]	99	2.94	0.669				
Social activities[h]	9	3.36	0.801				

The p value was analyzed using an independent One-way ANOVA. $^{a\sim h}$ are superscripts that describe differences between groups.

ficulties in fulfilling psychological and social needs in the context of the COVID-19 pandemic due to economic difficulties and the closure of public facilities [35,36]. Therefore, it seems necessary to find a way to allow sufficient leisure activities that can reduce economic loss and reduce frustration due to the closure of recreational facilities to satisfy people's psychosocial needs.

Ateca-Amestoy *et al.* [14] defined leisure experience as producing and consuming pleasurable experiences and satisfying one's needs by classifying the boundaries of leisure according to individual tastes. However, men cannot afford to spend sufficient personal time due to excessive responsibilities at work or home as well as in life in general, which may have led to the high average for all factors of leisure experience in the high-risk group. According to Bae [37], the environment that supports Korean men' leisure experiences has considerably reduced compared to the past due to COVID-19 and their social isolation has increased due to longer home time. This may has led to an increased obesity rate and stress. Therefore, it is necessary to increase accessibility to various leisure activities to lower stress in men. It is determined that increasing accessibility for leisure activities may provide leisure that can be enjoyed throughout life beyond a one-time experience, and also reduce stress to increase psychological and emotional stability.

When the differences in the type of leisure activities and leisure experience were analyzed according to psychosocial stress, differences were found in leisure experience depending on leisure activity type in all groups in-
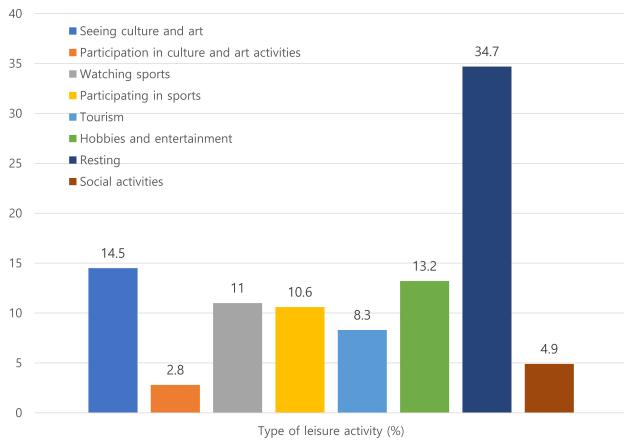
Fig. 5. Type of leisure activity of study participants. (%)

cluding the healthy group, potential stress group, and the high-risk group. According to the "National Quality of Life 2021 Report", a national report conducted by Statistics Korea [38], men reported higher levels of social isolation than women, indicating that they experienced more stress. According to a study by Woo [39], Korean men are characterized as valuing collectivism, emphasizing loyalty among friends, suppressing emotions due to reticent personality and inadequate expression of their opinions, responsibility for a family, high autonomy, adapting to an organizational society and overcoming difficulties, among other values. In other words, Korean men as a group like to interact with others and enjoy group activities. Furthermore, Song [40] reported that Koreans have a strong desire to influence others. As such, it is assumed that they have a high tendency to socialize with others; as such, they felt more isolated in the absence of social life due to the restriction imposed owing to the COVID-19 pandemic. Furthermore, Korean men tend to be inexperienced when it comes to communicating with others. Because of this, they think it is natural to hold things within themselves psychologically or when they are tired of the importance of responsibility placed on them. This may explain the results of this study that found that psychosocial stress was lower in men than in women. Therefore, coming up with measures to resolve this isolation in Korean men would allow them to socially and environmentally overcome the circumstances that have developed recently due to the COVID-19 pandemic.

According to a study by Berg-Weger, & Morley [41], older people were less likely to experience social isolation and loneliness than younger people, therefore, they felt less stress compared to the younger population. The older population feels less stress from COVID-19, as their lifestyles and employment have not changed as much as they did for the younger population [42]. Furthermore, according to a study by Birditt et al. [43], lower level of stress response in the older population can be explained by psychological resilience following the experience of extreme events such as the 9/11 terrorist attack, the assassination of President

John F. Kennedy, and the Vietnam War, while COVID-19 may be the first experience of the global disaster for the younger population, which could have led to a higher stress response.

Similarly in South Korea, it can be assumed that the generation that has already experienced the 1980 Gwangju Uprising [44] the 1994 Seongsu Bridge Collapse, the 1995 Daegu gas explosion, the collapse of the Sampoong Department Store in Seoul, 2003 Daegu subway explosion, etc. [45] may perceive COVID-19 pandemic not as serious as the younger generation may [46].

According to Nam [47], those in their 20s and 30s have the highest level of interaction with family, relatives, and acquaintances, but they experience stress due to social disconnection owing to the influence of the COVID-19 pandemic. They reported high stress due to income support and poor housing support. Furthermore, Kim [48] reported that mental health in the 20s and 30s age groups is generally poor, as they are under a lot of stress from employment amid economic difficulties due to COVID-19, also because of limited opportunities to start a business following economic deterioration due to the pandemic. Therefore, considering the continuous and long-term impact of the COVID-19 epidemic, it seems necessary to prioritize lowering stress in the young population (those in their 20s, 30s, and 40s) by providing psychological support and improving their mental resilience.

According to the study by Lawal et al. [49], people who live alone have difficulties in coping and feel a high level of stress while married people cope well and assess themselves positively as they are psychologically stable. Furthermore, in the study by Hossain and Akhter [50], which reported a significant difference in mental health according to marital status, it was reported that married people experience lower levels of stress as they can discuss their feelings with their spouses while helping each other financially, thereby reducing the burden on responsibilities. As with the previous studies such as above, the results of this study also seem to support the findings as higher stress was observed for those living alone compared to their married counterparts.

In South Korea, the proportion of unmarried men and women is gradually increasing, as it has become difficult to find stable employment due to the COVID-19 pandemic in addition to the rising housing prices, resulting in one out of two men in their 30s reporting that they would not get married [51]. Recently, the younger population, those in their 20s and 30s, who have given up on their hopes and dreams due to COVID-19 is being referred to as the "COVID-19 generation" [52]. It refers to those who have given up on their employment, personal relationships, raising personal funds, future hopes, and buying a house [53].

As such, the younger population in Korea is spending money on luxury goods such as expensive clothes, cars, and watches instead of saving money for their future after

giving up on marriage due to high housing prices [54]. This phenomenon is referred to as "compensatory consumption" or "retaliatory consumption". Compensatory consumption means filling a psychological deficit through the purchase of a specific product while retaliatory consumption refers to the release of repressed desires by consuming luxury goods [55].

Based on the data presented above, it seems that unmarried people feel a higher level of stress as they have given up on marriage due to economic difficulties. Therefore, it is believed that the government needs to actively help youth welfare so that the young people can be more future-oriented rather than focusing on the present. If the improvement in youth welfare is focused on, it is thought that it can help the mental health of the younger population by lowering negative thoughts such as stress as more people would get married.

Although this study used a large sample size, there are still some limitations. First, it was difficult to observe social-psychological stress changes in the COVID-19 situation that changes as time progresses as this is a cross-sectional study. In other words, it was difficult to understand multi-dimensional stress responses such as psychological responses, social responses, and life changes during the time the survey was conducted. We suggest that future studies should measure social-psychological stress in the pandemic situation using a longitudinal study. Second, this study only targeted Korean men. Therefore, the study results may differ depending on the regions and countries. Although COVID-19 pandemic has changed leisure activities globally, the impact on the western society can be different from the Korean society. To address this limitation, conducting future studies that incorporate the characteristics of other regions will increase the understanding of participation in leisure activities during the COVID-19 pandemic. Third, in this study, leisure activity career was not identified. Therefore, identifying careers in participating in leisure activities through future research is necessary. Lastly, this study adopted a validated Korean leisure experience scale developed by Pine & Gilmore. It was hard to discover the leisure studies applying Pine & Gilmore's experience scale, although there are sufficient previous studies about leisure experience. This is why we considered leisure experience and leisure participation related to previous studies. If there is a study using an experience scale based on Pine & Gilmore's experience scale, it will help to understand leisure activities from more diverse perspectives.

5. Conclusions

In this study, frequency analysis, descriptive statistical analysis, chi-square test, and one-way ANOVA were conducted to investigate the relationship between leisure experiences according to social and psychological health in Korean men. As per the findings of the study, when dif-

ferences in leisure experiences were analyzed according to psychosocial stress, it was found that there was a significant difference in all factors: fun, information, new experience, and art. Second, when the differences in the type of leisure activities and leisure experience were analyzed according to psychosocial stress, differences were found in leisure experience depending on leisure activity type in all groups including the healthy group, potential stress group, and the high-risk group. Participating in leisure activities should be encouraged by the government to minimize the stress associated with the pandemic. The findings of this study have the potential to improve the government's active recommendation of leisure activities during pandemic, such as COVID-19, in order to minimize the stress associated with the situation. The results can improve the understanding of the importance of participating in leisure activities and can serve as a tool for conducting future studies on the impact of the coronavirus on people's leisure activities across different contexts and cultures, as well as how to minimize the stress associated with pandemic through different leisure activities.

Author Contributions

Conceptualization—YJK and ESK; methodology—YJK and ESK; validation—YJK and ESK; formal analysis—YJK and ESK; investigation—YJK and ESK; data curation—YJK and ESK; writing - original draft preparation—YJK; writing - proofreading and editing—YJK and ESK. All authors have read and agreed to the published version of the manuscript.

Ethics Approval and Consent to Participate

This study obtained approval of the Chung-Ang University Research Ethics Board, in accordance with the 'Helsinki Declaration' enacted in 1964 (1041078-202010-HRSB-316-01).

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Conflict of Interest

The authors declare no conflict of interest.

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