

Social Behavior and Personality, Volume 50, Issue 2, e11015 https://doi.org/10.2224/sbp.11015 www.sbp-journal.com

Leisure attitude, stress-related growth, and quality of life during COVID-19-related social distancing

Jee Hoon Han¹, Hye Ji Sa¹

¹Department of Sport Industry Studies, Yonsei University, Republic of Korea

How to cite: Han, J. H., & Sa, H. J. (2022). Leisure attitude, stress-related growth, and quality of life during COVID-19-related social distancing. *Social Behavior and Personality: An international journal*, *50*(2), e11015

The coronavirus disease 2019 (COVID-19) pandemic and related restrictive measures have impacted on leisure activities globally; South Korea is no exception. In this cross-sectional study we identified the need to increase leisure opportunities during social distancing and respond to changes in leisure activities post-COVID-19. The leisure attitude, stress-related growth, and quality of life of 260 participants were examined via an online survey. Data were analyzed through structural equation modeling. Results show that during social distancing, leisure attitude was positively associated with stress-related growth, leisure attitude was positively associated with quality of life. From a long-term perspective, as leisure activities can improve stress-related growth and quality of life, education and related discussions must continue to ensure that people hold a positive attitude toward leisure participation.

Keywords

leisure attitude; stressrelated growth; quality of life; social distancing; COVID-19; coronavirus pandemic

Article Highlights

- During social distancing, leisure attitude was positively associated with stress-related growth.
- Leisure attitude was not significantly associated with quality of life during social distancing.
- Stress-related growth was positively associated with quality of life during social distancing.
- When existing leisure activities are restricted during social distancing, other activities customized to the changed context should be offered, and the development of single-persona ctivities prioritized.

The coronavirus disease 2019 (COVID-19) outbreak has not only caused economic loss but has also halted many activities related to daily life (e.g., education) and expanded noncontact services. In response, field experts and scholars are holding a discourse on the global implications of COVID-19 and presenting related problems and solutions from multiple aspects.

The government in South Korea (hereafter, Korea) has implemented various policies to overcome the COVID-19 crisis, including social distancing, which was mandated on March 22, 2020. Subsequently, owing to the severity of the COVID-19 outbreak, quarantine measures were implemented in three stages, and these were further subdivided into five stages designated as 1, 1.5, 2, 2.5, and 3 by the Central Disaster and Safety

CORRESPONDENCE Hye Ji Sa, Department of Sport Industry Studies, 03722, Yonsei University, 50, Yonsei-ro, Seodamun-gu, Seoul, Republic of Korea. Email: hyeji40@gmail.com



Countermeasures Headquarters. The government also executed an administrative order prohibiting private gatherings of five or more people. Such restrictions on daily activities have induced fatigue in people (H. S. Lim, 2021).

Unlike cases of other infectious diseases, such as Middle East respiratory syndrome and severe acute respiratory syndrome, the COVID-19 pandemic has persisted for a long time. The pandemic has brought about many unprecedented changes, a major one of which relates to leisure activities. To dispel the anxiety and depression arising from fear of the disease as well as the related restrictive measures, it is imperative to promote leisure activities through a strong social support system. Given the infeasibility of direct contact, it is necessary to consider establishing countermeasures such as non-face-to-face leisure programs and customized leisure services through continued and targeted research by region, age, and socioeconomic status. van Leeuwen et al. (2020) explained that stress, anxiety, and confusion have increased because of the COVID-19 outbreak, as daily routines change with people spending increasing amounts of time at home. During lockdowns work and childcare are all performed at home; at the same time, engagement in social-media-related leisure, games, and television (streaming services) have increased. In The Netherlands, more traditional leisure activities were reported, such as gardening, reading, and board games, than those listed above (van Leeuwen et al., 2020). In Korea too, according to Internet search trends (Jung et al., 2020), slight relaxations in social distancing guidelines have greatly increased people's interest in leisure activities, such as traveling and going to restaurants and pubs.

With COVID-19 vaccine rollouts proving a global challenge, leisure activities continue to be performed without face-to-face interaction, whether indoors or outdoors (Y. N. Park, 2020). People's preferences for leisure activities are also changing (J. H. Lee, 2021). In summary, we can speculate that social distancing during the COVID-19 pandemic has had a significant impact on leisure activities and subsequently on leisure attitude (LA), stress-related growth (SRG), and quality of life (QoL). There is an urgent need for researchers to examine leisure from a new perspective, study the role of leisure, and determine whether leisure activities are necessary tools for improving QoL during the COVID-19 pandemic. Therefore, in this study we analyzed the relationships of the LA, SRG, and QoL of people who continually and positively participate in leisure activities while maintaining physical distancing requirements. Further, we explored the increasing participation in leisure activities and their changing paradigms during the COVID-19 pandemic to present a matrix for new leisure activities.

Theoretical Background

Social Distancing

With challenges relating to the global vaccine rollout, the practice of nonpharmaceutical interventions—as opposed to prescription of antibiotics and use of vaccines-can increase the efficiency of quarantine measures to mitigate local virus transmission (Greenstone & Nigam, 2020). Nonpharmaceutical interventions (NPIs) pertain to all behaviors related to disease prevention or health maintenance not only within but also outside the healthcare system (Kirscht, 1983). According to Ferguson et al. (2020), there are three types of NPIs: First, *isolation* prevents the spread of the disease by secluding people with pre-existing or poor health conditions. Second, *quarantine* separates people who may have been exposed to the disease by restricting their movement to within their residence for 14 days. Last, social distancing, synonymous with physical distancing, involves prohibiting large gatherings, avoiding leaving one's residence unnecessarily, and avoiding public facilities (Regmi & Lwin, 2020). Social distancing is a method of minimizing external transmission, such as in the workplace and schools, by limiting the frequency of contact between the infected and those who are vulnerable. The World Health Organization and the U.S. Centers for Disease Control and Prevention have promoted social distancing as the main countermeasure for infectious diseases. Considering that COVID-19 spreads through droplets from infected persons while they are coughing, sneezing, or speaking, or through physical contact, social distancing is reported to be the most effective way to prevent transmission (Greenstone & Nigam, 2020).

Since the first reported case of COVID-19 on January 20, 2020, the Korean government has implemented various measures to effectively prevent and manage the spread of the virus (J. Park et al., 2021). These include special border screening to prevent the influx of infected people from overseas, proactive COVID-19 testing, and providing preventive guidelines for the public, such as mask-wearing and frequent handwashing.

Among the preventive measures, social distancing was first suggested by the Korean Society for Preventive Medicine in late February 2020 and implemented as a domestic policy through the Korea Disease Control and Prevention Agency's recommendation to the people and briefing by the Central Disease Control Headquarters (Koh, 2020). In particular, the Korean government's public health authority is investing all their efforts toward slowing the spread by establishing social distancing measures based on the number of confirmed cases of COVID-19 in specific regions as well as the entire nation (Korea Disease Control and Prevention Agency, 2021). On November 1, 2020, the Korean government announced revised levels of social distancing, which subdivided the previous three stages (preventive measures in day-to-day life, local transmission, and nationwide community transmission) into five stages. On July 1, 2021, these five stages were reduced to four (Level 1: contained and stable, Level 2: local transmission/cap on gathering size, Level 3: regional transmission/ban on gatherings, and Level 4: full-blown nationwide transmission/ban on going out). The proven effectiveness of social distancing has been reported in some previous studies (Prem et al., 2020; Shim et al., 2020). Further, Matrajt and Leung (2020) showed that the implementation of social distancing slowed the increase in the number of confirmed COVID-19 cases. For this reason, efforts are being made to improve the practice of and compliance with social distancing mandates during the COVID-19 pandemic.

Leisure Attitude

Leisure attitude (LA) is the unique way a person thinks, feels, and behaves about elements related to leisure (Burdge, 1961; Neulinger, 1981). Ragheb and Beard (1982) described it as a learned, consistent response, either favorable or unfavorable, to a given situation, based on experience, and they categorized LA into cognitive, affective, and behavioral attitude types. *Cognitive attitude* refers to a person's general knowledge, beliefs, and understanding of leisure activities; *affective attitude* refers to a person's positive or negative emotions based on their past experiences of leisure activities; and *behavioral attitude* refers to a person's positive or negative on experiential knowledge or beliefs about leisure (Beggs & Elkins, 2010; Sheth et al., 1999). In this vein, LA is a key factor in leisure activities, and it can be seen as the basis for subjective judgment regarding leisure activities.

Stress-Related Growth

Stress-related growth (SRG) refers to positive changes and personal growth that can stem from a stressful situation (Tedeschi et al., 1998). Empirical studies that investigated the positive aspects of stress highlight the concept of SRG (C. L. Park et al., 1996). In this regard, SRG can facilitate positive psychological change during difficult times, including major life events and stressors (Boals & Schuler, 2018; Chun et al., 2012; Tedeschi & Calhoun, 2004). In the stressful situation of the global pandemic, various forms of leisure can be helpful by uplifting mood and fostering a positive outlook (Liu et al., 2021). It can be said that leisure activities have a role in managing stress and promoting SRG. In this regard, studies suggest that as well as relieving stress, individual participation in leisure activities provides opportunities for personal growth and life change (Chun et al., 2012).



Quality of Life

Quality of life (QoL), which can be defined as overall satisfaction with one's life based on self-selected criteria (D. C. Shin & Johnson, 1978), is a multidimensional construct that is the composition of everyday conditions that individuals experience (Felce & Perry, 1995). In addition, QoL entails both cognitive judgment and emotional response, taking interest in one's life experience in a positive manner (Diener, 2009). QoL is a positive combination of cognitive, psychological, and physical conditions and comprises happiness and satisfaction in these conditions (Angner, 2010). In terms of QoL, other terms such as well-being, welfare, happiness, bliss, and life satisfaction are used interchangeably (Dupuis & Alzheimer, 2008). Shimp and Sharma (1987) have noted that QoL also refers to a sense of happiness in daily life, besides the physical and emotional aspects.

Leisure Attitude and Stress-Related Growth

Han and Lee (2017) stated that leisure activities through appropriate LA can have a positive psychological effect. Zoellner and Maercker (2006) argued that individuals tend to grow (mature) after stressful life events if they accept that they cannot change past negative life events or circumstances and that they can re-evaluate experiences more positively. According to Chun et al. (2012), participation in civic activities is a statistically significant factor in explaining SRG. In addition, M. S. Lee et al. (2020), who studied active seniors participating in tennis as a leisure activity, verified that LA positively affected SRG. Therefore, we formed the following hypothesis:

Hypothesis 1: Leisure attitude during social distancing will be positively associated with stress-related growth.

Leisure Attitude and Quality of Life

Christensen and Yoesting (1973) suggested that LA has a substantial correlation with leisure activities, and J. S. Lim and Choi (2015) reported that LA has a significant effect on QoL of older adults in Korea. Leisure can be divided into positive and passive types, depending on the degree to which it contributes to the improvement of QoL and enriches life through activity participation (Na, 2004). Therefore, we formed the following hypothesis:

Hypothesis 2: Leisure attitude during social distancing will be positively associated with quality of life.

Stress-Related Growth and Quality of Life

Choi and Lee (2019) found that SRG arising from college students' participation in leisure clubs had a positive effect on their QoL. In addition, it was shown that participating in tennis had a positive effect on seniors' quality of life (M. S. Lee et al., 2020). Therefore, we formed the following hypothesis:

Hypothesis 3: Stress-related growth during social distancing will be positively associated with quality of life.

Research Model

On the theoretical foundations of previous studies related to COVID-19, we established our hypotheses regarding LA, SRG, and QoL during social distancing. The research model of these hypotheses is shown in Figure 1.

🔵 Social Behavior and Personality: an international journal

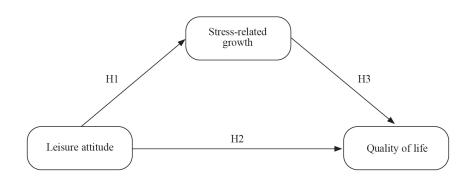


Figure 1. Research Model

Method

Participants

To investigate the relationships of LA, SRG, and QoL during social distancing, the sample size was determined using the A-priori sample size calculator for structural equation models available online (Soper, 2021), which is based on J. Cohen's (1992) suggestion regarding analysis power and sample size. An effect size of .30, a power level of .80, a probability level of .05, and five latent variables yielded a minimum sample size of 150. To ensure ethical sensitivity toward the research participants, both authors received Institutional Review Board training and obtained a certificate.

Procedure

Data for this cross-sectional study were collected through an online survey conducted by online research company EM-Brain in Korea during social distancing level 2.5 (regional transmission/ban on gatherings), from January 28 to February 10, 2021. The survey was conducted with people on the survey company's database after explaining its contents to them and obtaining their consent for participation. The screening question was "Have you enjoyed your leisure activities during COVID-19?" Only those who had engaged in a leisure activity during COVID-19 were asked to commence answering the survey items by clicking on the link included in the email invitation. To increase the response rate, the survey company provided a reward of USD 1.00 per person to all participants who completed the survey. Of the 470 survey forms that were originally sent out, 260 valid responses were used in the analysis. The general characteristics of the sample are shown in Table 1.

Characteristics		п	%
Gender	Men	130	50.0
	Women	130	50.0
Age (in years)	20s	52	20.0
	30s	51	19.6
	40s	53	20.4
	50s	52	20.0
	Over 60	52	20.0
Frequency of leisure activities	Once per month	40	15.4
1 5	Twice per month	69	26.5
	Thrice per month	37	14.2
	Four times per month	52	20.0
	Over five times per month	62	23.8
Monthly income	Less than 999,999 KRW	32	12.3
	1,000,000 KRW-1,999,999 KRW	42	16.2
	2,000,000 KRW-2,999,999 KRW	63	24.2
	3,000,000 KRW-3,999,999 KRW	54	20.8
	4,000,000 KRW-4,999,999 KRW	28	10.8
	Over 5,000,000 KRW	41	15.8
Total		260	100.0

Table 1. Characteristics of Participants

Note. KRW 1,100 = USD 1.00.

Measures

All items in the measures are set out in Table 2. First, to measure LA and fit the Korean situation and help the study participants understand, we modified the survey that Han and Lee (2017) adapted from the Leisure Attitude Scale developed by Ragheb and Beard (1982). The Leisure Attitude Scale comprises 36 items concerning three factors: cognitive, affective, and behavioral LA.

To measure SRG we used the survey that Sa et al. (2018) adapted for the Korean context from L. H. Cohen et al. (1998), C. L. Park et al. (1996), and Chun et al. (2012). The scale consists of 15 items.

As a tool for measuring QoL and to fit the Korean situation and this study, we modified the survey by Han and Lee (2017) based on the Satisfaction with Life Scale developed by Diener et al. (1985), and the scale from Diener's (1994) study and Ryff's (1989) study. The scale consists of five items.

All measures were scored using a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. In addition, to examine the participants' general characteristics, we used four variables: gender, age, frequency of leisure activities, and monthly income.

Factor Analysis and Reliability Verification

To verify the validity of the measurement tools, we tested content validity, construct validity, and goodness of fit. First, to test the internal validity of the content, questionnaires were reviewed by a professor and a researcher in the field of leisure science. To test the validity of the construct and goodness of fit, we performed a confirmatory factor analysis (CFA).

The model fit was assessed using the nonnormed fit index (NNFI), Tucker–Lewis index (TLI), comparative fit index (CFI), and the absolute fit index of root mean square error of approximation (RMSEA). The model

is assessed as having a good fit to the data when TLI and CFI are above .90 and RMSEA is between .08 and .10 (Hu & Bentler, 1999; MacCallum et al., 1996). The CFA results show that the model satisfied the criteria for goodness of fit (see Table 2). In addition, we verified the reliability of the measurement tool using Cronbach's alpha. There were no reliability issues as the alpha values were above .70 (Nunnally & Bernstein, 1994; Van de Ven & Ferry, 1980). Finally, we verified convergent validity by calculating the construct reliability and average variance extracted for all factors. As the construct reliability and average variance extracted values were higher than .60 and .50, respectively, validity was verified (Bagozzi & Yi, 1988).

Data Analysis

The collected data were analyzed using the SPSS WIN program and AMOS. First, we performed a frequency analysis of the participants' general characteristics. To verify the validity and reliability of the research tool, we performed a CFA of each item concerning LA, SRG, and QoL. For the reliability analysis, we calculated Cronbach's alphas. In addition, we performed a correlation analysis to determine the relationships between the variables of LA, SRG, and QoL while maintaining social distancing. Finally, to verify our hypotheses, we performed a path analysis using structural equation modeling.

Results

Analysis of Correlation Among Factors

To determine the associations of LA, SRG, and QoL during social distancing, we conducted a correlation analysis (see Table 3). Pearson's product-moment correlation coefficient showed that there was no problem of multicollinearity because the value of the correlation coefficient between potential variables did not exceed .80.

Goodness of Fit

Using the maximum likelihood method as a parameter, we analyzed the structural model of LA, SRG, and QoL during social distancing. The model satisfied the criteria for goodness of fit, as presented in Table 4.

Hypothesis Testing

To determine the relationships between LA, SRG, and QoL during social distancing, we tested the hypotheses through structural equation modeling. The results are presented in Table 5. As shown in the table, Hypotheses 1 and 3 were supported, but Hypothesis 2 was not.

Table 2. Results of Confirmatory	Factor and Reliability Analyses
----------------------------------	---------------------------------

Factor	Item	Standardized estimate	Error variation		AVE	Cronbach ³ α
Leisure attitude						
Cognitive	Engaging in leisure activities is a wise use of time	.744	.240	.958	.660	.910
	Leisure activities are beneficial to individuals and society	.651	.388			
	People often develop friendships while participating in leisure activities	.673	.362			
	Leisure activities contribute to one's health	.749	.232			
	Leisure activities increase one's happiness	.695	.145			
	Leisure activities increase one's productivity	.769	.207			
	Leisure activities help to renew one's energy	.721	.164			
	Leisure activities can be a means for self-development	.761	.231			
	Leisure activities help individuals to relax	.642	.180			
	People need leisure activities	.548	.222			
	Leisure activities are good opportunities for social contact	.542	.292			
	Leisure activities are important	.622	.199			
Affective	When I am engaged in leisure activities, time flies	.657	.221	.968	.736	.929
	My leisure activities give me pleasure	.768	.135			
	I value my leisure activities	.745	.162			
	I can be myself while participating in leisure activities	.691	.313			
	My leisure activities provide me with delightful experiences	.779	.172			
	I feel that leisure is good for me	.790	.138			
	I like to take my time while I am engaged in leisure activities	.735	.222			
	My leisure activities are refreshing	.770	.183			
	I consider participating in leisure activities frequently	.717	.223			
	Leisure activities are not wasted time	.676	.270			
	I like my leisure activities	.804	.141			
	My leisure activities absorb me or get my full attention	.674	.303			
Behavioral	I participate in leisure activities frequently	.596	.402	.929	.507	.898
	Given a choice, I would increase the amount of time I spend					
	participating in leisure activities	.697	.307			
	I buy goods and equipment to use as my income allows	.540	.390			
	I want more leisure activities if I could afford the time and money	.610	.430			
	I spend considerable time and effort to be more competent	.677	.395			
	Given the choice I would live in an environment or city		2/7			
	that provides for leisure	.665	.267			
	I do some leisure activities even when they have not been planned	.527	.680			
	I would attend a seminar or a class to be able to do better	.518	.641			
	I support the idea of increasing my free time to engage in leisure activit		.242			
	I engage in leisure activities even when I am busy	.637	.512			
	I would spend time in education and preparation for leisure activities	.703	.294			
	I would prioritize leisure activities	.717	.408			
tress-related gro		692	222	064	651	.941
I learned ~)	To be nicer to others	.682	.322	.964	.651	.941
	To feel freer to make my own decisions	.715	.282			
	That I have something of value to teach others in life	.721	.339			
	To be myself and not try to be what others want me to be	.689	.280			
	To work through problems and not just give up	.770	.252			
	That I would find the meaning of my life	.686	.263			
	How to reach out and help others	.834	.201			
	That I should be a confident person	.783	.229			
	To listen more carefully when others talk to me	.793	.217			
	That I need to be open minded to the information and ideas	.771	.219			
	To communicate with other people honestly	.811	.217			
	That I wanted to influence the world	.696	.432			
	That it is good to ask someone else for help	.705	.257			
	To stand up for my personal rights	.725	.305			
	That there are more people who care about me than I thought	.409	.414			
Quality of life	The living conditions of my life are very good	.802	.296	.917	.690	.914
	Overall, my life is closer to what I see as my ideal	.847	.258			
	So far, I have achieved the important things I want in my life	.866	.232			
	I am satisfied with my life	.829	.309			
	Even if I were given a chance to start my life again, I would					
	prefer to live the same	.795	.445			

Note. CR = construct reliability; AVE = average variance extracted; CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean square error of approximation.

Table 3. Correlation Analysis

	М	SD	1	2	3	
 Leisure attitude Stress-related growth Quality of life 	4.024 3.657 3.210	0.457 0.575 0.848	1 .709** .358**	1 .503**	1	

Note. ** *p* < .01.

Table 4. Model Fit Using Maximum Likelihood as a Parameter

Goodness-of-fit criteria	χ^2	df	CFI	TLI	RMSEA	
Fit index	2257.747	1397	.901	.907	.049	

Note. CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean square error of approximation.

Table 5. Path Analysis Results

Hypothesis	Path	Path coefficient	SE	t	95% CI LL UL	Supported/ Not supported
H1	Leisure attitude \rightarrow Stress-related growth	.756	0.106	7.145***	[0.71, 1.17] [-0.43, 0.18] [0.49, 1.14]	Supported
H2	Leisure attitude \rightarrow Quality of life	100	0.124	-0.803		Not supported
H3	Stress-related growth \rightarrow Quality of life	.770	0.128	6.022***		Supported

Note. Maximum likelihood bootstrapping was performed. CI = confidence interval; LL = lower limit; UL = upper limit.

*** *p* < .001.

Discussion

In this study we analyzed the relationships of LA, SRG, and QoL in Korean people who participated in leisure activities while following the social distancing mandate. The results show that LA was statistically significantly associated with SRG, which, in turn, was statistically significantly associated with QoL. However, LA was not statistically significantly associated with QoL. On the basis of these findings, we discuss three central conclusions:

First, LA during social distancing was significantly associated with SRG. People who engaged in leisure activities during social distancing held positive and proactive views about participating in leisure activities, which increased their stress-coping skills. According to Sa et al. (2018), SRG is positively influenced by participation in leisure activities. Other researchers have found that leisure has the potential to promote



personal growth after stressful situations (Kleiber et al., 2002) and that participation in leisure activities is a key factor in increasing SRG (Chun et al., 2012; Kim & Kim, 2014). Scholars have also found that participants in leisure activities gain emotional stability and overcome stress through their leisure experience (Ulrich et al., 1990) and that satisfaction with leisure activities plays a key role in improving SRG (Kim et al., 2015).

In addition, our results show that a positive evaluation of leisure during social distancing was positively associated with growth through stress. This can mean that under numerous restrictions and changing circumstances participation in leisure activities plays a psychologically significant role. During COVID-19, interpersonal restrictions are extremely high. This explains why coping with stress is highly related to attempts to participate in leisure activities, such as searching for a companion with whom to participate (J. S. Lim & Choi, 2021).

Second, regarding the association of participants' LA during social distancing with their QoL, we found no significant correlation. Leitner and Leitner (2004) reported that leisure plays a key role in relieving stress and transforming negative energy. Sports and physical activities, in particular, can help develop a healthy body and mind and improve QoL (Iwasaki, 2006). In addition, scholars have covered various leisure activities aside from physical activities and reported that diverse activities, such as spending time in natural settings in one's free time exerts a positive effect on stress reduction (Çevik et al., 2018).

However, this result is different from previous studies on the relationship between LA and QoL. This indicates the importance of interpretation according to the environment, implying that QoL should be approached comprehensively, as it does not improve simply because a person participates in leisure activities. Siqueland et al. (2015) examined Norwegian adults who experienced the trauma of a tsunami and found that those with higher levels of posttraumatic stress reported lower QoL.

Although we found that the direct association of LA with QoL was not significant, LA did play a role in QoL through SRG. Thus, LA can be thought of as a positive force that facilitates positive change in QoL through SRG in the special circumstances of COVID-19. As such, on the basis of current and previous findings (Corkery, 2011; M. J. Lee, 2012; O. Shin & Kim, 2021), it can be said that the relationship between leisure participation and QoL varies depending on various conditions and the environment. In other words, mere participation in leisure activities does not guarantee a good LA. This is because people's satisfaction and QoL are greatly affected by different circumstantial variables.

Third, SRG during social distancing was significantly associated with QoL. This supports the findings reported in the study by M. S. Lee et al. (2020) on tennis players' SRG positively affecting their QoL. The present findings also support Tedeschi and Calhoun's (2004) conclusion that the effort to overcome stressful situations increases positive emotions about life.

Leisure activities and social distancing can be approached in many ways. During the COVID-19-related restrictions, diverse leisure activities should be offered, with a focus on those that can be offered online/without direct contact and can be engaged in individually. Long term, this implies the need for change in the paradigm of leisure, and for continuing education and discourse for leisure participants to develop an appropriate LA and to cope with changes. Most general leisure activities are no longer an option under social distancing. Further, the impact on social connectivity and loneliness is expected to be significant. In recent research, scholars have emphasized the distinction between social isolation (the absence of or limited social bonding) and loneliness, which is characterized by feelings of being alone and lacking social support, regardless of the number of people in a social network (Melchior, 2020). Our study is significant in that our results empirically and theoretically clarify the role of SRG in the relationship between LA and QoL in relation to the COVID-19 pandemic. Furthermore, the results provide baseline data for improving QoL during the stressful time of the COVID-19 pandemic.

Limitations and Future Research Directions

Despite the significance of the findings, this study has some limitations. First, people who continue to think positively about and participate in leisure activities during COVID-19 were selected as study participants. Therefore, people who initially participated in leisure activities that were suspended because of COVID-19 were not considered. Second, the results apply only to the pandemic situation and cannot be extended to leisure activities in the post-COVID-19 world. Third, specific leisure activities were not considered. Research in which such details are employed could produce more meaningful results. Fourth, our empirical analysis was based on data obtained from a Korean sample, limiting the generalizability of the findings to other contexts. Therefore, we propose the need to conduct comparative studies in other nations to guide practitioners in adjusting leisure policy plans according to different cultural backgrounds. Fifth, we focused on LA, SRG, and QoL in the context of social distancing; however, examining these variables through the lens of existing social psychology theories (e.g., theory of planned behavior, norm activation theory) could also provide significant results. Finally, owing to the cross-sectional research design, we were unable to make causal inferences regarding the relationships among the variables; this can be rectified with longitudinal studies.

We offer two suggestions for future studies: First, COVID-19 is a highly infectious disease and the restrictionrelated frustration and anxiety, constant fear of transmission, and helplessness can limit people's participation in leisure activities, resulting in psychological discomfort. Therefore, variables other than the ones we have considered can play a significant role in the statistical models of future studies. Second, as the objective in qualitative research is seeking to understand the meaning of human experience, there is a need for such studies in the field of leisure science. In these studies, researchers could conduct in-depth investigations of which leisure programs are required in situations such as the COVID-19 pandemic.

Conclusion

We examined whether social distancing policies during the global chaos of COVID-19 worked as a positive factor in the relationship between Koreans' LA, SRG, and QoL. The significance of leisure in this changed environment highlights the necessity of ongoing attention and policy implementation in preparation for the post-COVID-19 scenario and other instances of pandemics. Following the World Health Organization's declaration of the pandemic, the expression "corona blues" was coined, representing a worldwide state of depression in the age of COVID-19. As the infectious disease spread globally, individuals complying with social distancing mandates experienced isolation. As the term indicates, psychological conditions such as depression and lethargy resulting from COVID-19 and related situations sometimes lead to mental shock involving anxiety and fear (Sharma et al., 2020). For this reason, the significance and necessity of leisure while social distancing should be highlighted. Simultaneously, it is crucial to develop new leisure activities in changing global and local environments. Environmental stress significantly lowers QoL, but individuals continue in their efforts to promote health and lower stress even in such an environment. If leisure response beliefs or strategies are established based on social distancing during the COVID-19 pandemic, it will significantly impact on SRG and QoL.

References

Angner, E. (2010). Subjective well-being. *The Journal of Socio-Economics*, *39*(3), 361–368. https://doi.org/10.1016/j.socec.2009.12.001

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, *16*(1), 74–94. https://doi.org/10.1007/BF02723327

Beggs, B. A., & Elkins, D. J. (2010). The influence of leisure motivation on leisure satisfaction. *LARNet–The Cyber Journal of Applied Leisure and Recreation Research, 2010,* Article 36.



Boals, A., & Schuler, K. L. (2018). Reducing reports of illusory posttraumatic growth: A revised version of the Stress-Related Growth Scale (SRGS-R). *Psychological Trauma: Theory, Research, Practice, and Policy, 10*(2), 190–198.

https://doi.org/10.1037/tra0000267

Burdge, R. J. (1961). *The development of a leisure-orientation scale* (Unpublished doctoral dissertation). Ohio State University.

Çevik, H., Özcan, Ö., & Munusturlar, S. (2018). Examining the factor structure of the Leisure Stress Coping Beliefs Scale and the Leisure Stress Coping Strategies Scale for Turkey sample: Validity and reliability study [In Turkish]. *SPORMETRE*, *16*(2), 36–50.

Choi, H.-W., & Lee, M.-S. (2019). Relationship among leisure satisfaction, stress-related growth and quality of life for university students [In Korean]. *The Korean Journal of Physical Education*, *58*(1), 203–215. https://doi.org/10.23949/kjpe.2019.01.58.1.15

Christensen, J. E., & Yoesting, D. R. (1973). Social and attitudinal variants in high and low use of outdoor recreational facilities. *Journal of Leisure Research*, *5*(2), 6–15. https://doi.org/10.1080/00222216.1973.11970123

Chun, S., Lee, Y., Kim, B., & Heo, J. (2012). The contribution of leisure participation and leisure satisfaction to stress-related growth. *Leisure Sciences*, *34*(5), 436–449. https://doi.org/10.1080/01490400.2012.714704

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155–159. https://doi.org/10.1037//0033-2909.112.1.155

Cohen, L. H., Hettler, T. R., & Pane, N. (1998). Assessment of posttraumatic growth. In R. G. Tedeschi, C. L. Park, & L. G. Calhoun (Eds.), *Posttraumatic growth: Positive changes in the aftermath of crisis* (pp. 23–42). Routledge.

Corkery, J. (2011). Dangerous sports and obvious risks - Anyone for cricket? *Sports Law eJournal, 1*(1), Article 12. https://doi.org/10.53300/001c.6397

https://doi.org/10.55500/0010.059/

Diener, E. (1994). Measuring subjective well-being: Progress and opportunities. *Social Indicators Research*, *31*(2), 103–157. https://doi.org/10.1007/BF01207052

Diener, E. (2009). Subjective well-being. In E. Diener (Ed.), *The science of well-being: The collected works of Ed Diener* (pp. 11–58). Springer. https://doi.org/10.1007/978-90-481-2350-6_2

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, *49*(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13

Dupuis, S. L., & Alzheimer, M. (2008). Leisure and ageing well. *World Leisure Journal*, *50*(2), 91–107. https://doi.org/10.1080/04419057.2008.9674538

Felce, D., & Perry, J. (1995). Quality of life: Its definition and measurement. *Research in Developmental Disabilities*, *16*(1), 51–74. https://doi.org/10.1016/0891-4222(94)00028-8

Ferguson, N., Laydon, D., Nedjati-Gilani, G., Imai, N., Ainslie, K., Baguelin, M., ... Imperial College COVID-19 Response Team. (2020). *Report 9: Impact of non-pharmaceutical interventions (NPIs) to reduce COVID-19 mortality and healthcare demand*. Medical Research Council and The Royal Society. https://doi.org/10.25561/77482

© 2022 Scientific Journal Publishers Limited. All Rights Reserved.

Greenstone, M., & Nigam, V. (2020). *Does social distancing matter?* [Working paper 2020-26]. Becker Friedman Institute for Economics, Chicago University. https://doi.org/10.2139/ssrn.3561244

Han, J. H., & Lee, C. W. (2017). Analysis of the relationships between leisure attitudes, performance and quality of life among Korean professional golfers [In Korean]. *The Korean Journal of Physical Education*, *56*(3), 415–425.

https://doi.org/10.23949/kjpe.2017.05.56.3.31

Hu, L.-T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Iwasaki, Y. (2006). Counteracting stress through leisure coping: A prospective health study. *Psychology*,

Health & Medicine, 11(2), 209–220. https://doi.org/10.1080/13548500500155941

Jung, J., Noh, J. Y., Cheong, H. J., Kim, W. J., & Song, J. Y. (2020). Coronavirus disease 2019 outbreak at nightclubs and distribution centers after easing social distancing: Vulnerable points of infection. *Journal of Korean Medical Science*, *35*(27), Article e247. https://doi.org/10.3346/jkms.2020.35.e247

Kim, J., Heo, J., Lee, I. H., & Kim, J. (2015). Predicting personal growth and happiness by using serious leisure model. *Social Indicators Research*, *122*(1), 147–157. https://doi.org/10.1007/s11205-014-0680-0

Kim, J., & Kim, J.-H. (2014). A facilitator of leisure activities for stress-related growth experience among middle-aged Korean women with depression. *Health Care for Women International*, *35*(11–12), 1245–1266. https://doi.org/10.1080/07399332.2014.946508

Kirscht, J. P. (1983). Preventive health behavior: A review of research and issues. *Health Psychology*, 2(3), 277–301.

https://doi.org/10.1037/0278-6133.2.3.277

Kleiber, D. A., Hutchinson, S. L., & Williams, R. (2002). Leisure as a resource in transcending negative life events: Self-protection, self-restoration, and personal transformation. *Leisure Sciences*, *24*(2), 219–235. https://doi.org/10.1080/01490400252900167

Koh, K. (2020). Physical activity guideline for social distancing during COVID-19 [In Korean]. *Korean Journal of Health Education and Promotion*, *37*(1), 109–112. https://doi.org/10.14367/kjhep.2020.37.1.109

Korea Disease Control and Prevention Agency. (2021). *Social distancing levels* [In Korean]. https://bit.ly/3vPTKj6

Lee, J. H. (2021, March 8). Functions more necessary for residential spaces with COVID-19 are hobby, rest, exercise. *ETNEWS*. https://bit.ly/3pGjGwn

Lee, M. J. (2012). Relationship between leisure facilitators and recreation specialization of elementary school teachers [In Korean]. *The Korean Journal of Elementary Physical Education*, 18(2), 187–197. https://bit.ly/3Cj1SuN

Lee, M. S., Kim, M. J., & Lee, C. W. (2020). An analysis of the relationship between leisure attitude and quality of life of active seniors participating in tennis: Focusing on the mediating effect of stress-related growth [In Korean]. *Korean Journal of Leisure, Recreation & Park, 44*(2), 17–29. https://doi.org/10.26446/kjlrp.2020.6.44.2.17



Leitner, M. J., & Leitner, S. F. (2004). Leisure enhancement (3rd ed.). The Haworth Press.

Lim, H. S. (2021, March 26). The current measures for social distancing will be prolonged for two weeks. Yonhap News Agency. https://bit.ly/3nxfyvZ

Lim, J. S., & Choi, A. R. (2021). The relationship between stress coping methods and leisure constraint negotiations among college students in COVID-19 pandemic. The Korean Society of Applied Science and *Technology*, *38*(2), *587–594*.

https://doi.org/10.12925/jkocs.2021.38.2.587

Lim, J. S., & Choi M. H. (2015). The effect of leisure attitude on the health promotion lifestyle behaviors and quality of life among elderly people [In Korean]. Korean Journal of Leisure, Recreation & Park, 39(4), 1-10. https://bit.ly/3Eoe9id

Liu, H.-L., Lavender-Stott, E. S., Carotta, C. L., & Garcia, A. S. (2021). Leisure experience and participation and its contribution to stress-related growth amid COVID-19 pandemic. Leisure Studies. Advance online publication.

https://doi.org/10.1080/02614367.2021.1942526

MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, 1(2), 130–149. https://doi.org/10.1037/1082-989X.1.2.130

Matrajt, L., & Leung, T. (2020). Evaluating the effectiveness of social distancing interventions to delay or flatten the epidemic curve of coronavirus disease. *Emerging Infectious Diseases*, 26(8), 1740–1748. https://doi.org/10.3201/eid2608.201093

Melchior, M. (2020). No child is an island: Sociability in times of social distancing. European Child & Adolescent Psychiatry, 29, 901–902. https://doi.org/10.1007/s00787-020-01572-x

Na, H. J. (2004). A study on the role of leisure of the elderly for upgrading of the quality of life [In Korean]. Journal of the Korea Gerontological Society, 24(1), 53-70. https://bit.ly/3BkOjtr

Neulinger, J. (1981). To leisure: An introduction. Allyn and Bacon.

Nunnally, J. C., & Bernstein, I. H. (1994). Psychometric theory. McGraw Hill.

Park, C. L., Cohen, L. H., & Murch, R. L. (1996). Assessment and prediction of stress-related growth. Journal of Personality, 64(1), 71-105. https://doi.org/10.1111/j.1467-6494.1996.tb00815.x

Park, J., Choi, M., & Kang, J.-Y. (2021). Spatial optimization of indoor sports stadium seats under social distancing practice during the COVID-19 pandemic. Journal of the Korean Geographical Society, 56(1), 53-66.

https://doi.org/10.22776/kgs.2021.56.1.53

Park, Y. N. (2020, December 29). Non-face-to-face leisure activities changed in the corona era in the neighborhood alone [In Korean]. Seoul Daily. https://bit.ly/3nu8m3S

Prem, K., Liu, Y., Russell, T. W., Kucharski, A. J., Eggo, R. M., Davies, N., ... Klepac, P. (2020). The effect of control strategies to reduce social mixing on outcomes of the COVID-19 epidemic in Wuhan, China: A modelling study. The Lancet Public Health, 5(5), e261–e270. https://doi.org/10.1016/S2468-2667(20)30073-6

Ragheb, M. G., & Beard, J. G. (1982). Measuring leisure attitude. Journal of Leisure Research, 14(2), 155-167.

https://doi.org/10.1080/00222216.1982.11969512

Regmi, K., & Lwin, C. M. (2020). Impact of social distancing measures for preventing coronavirus disease 2019 (COVID-19): A systematic review and meta-analysis protocol. medRxiv. https://doi.org/10.1101/2020.06.13.20130294

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological wellbeing. *Journal of Personality and Social Psychology*, *57*(6), 1069–1081. https://doi.org/10.1037/0022-3514.57.6.1069

Sa, H. J., Lee, C. W., & Kim, M. J. (2018). The relationship among leisure satisfaction, stress-related growth and happiness for female active seniors [In Korean]. *The Korean Journal of Physical Education*, 57(1), 369–378.

https://doi.org/10.23949/kjpe.2018.01.57.1.27

Sharma, K., Saji, J., Kumar, R., & Raju, A. (2020). Psychological and anxiety/depression level assessment among quarantine people during Covid19 outbreak. *Journal of Drug Delivery & Therapeutics*, 10(3), 198–201.

https://doi.org/10.22270/jddt.v10i3.4103

Sheth, J. N., Mittal, B., & Newman, B. I. (1999). *Customer behavior: Consumer behavior and beyond*. Dryden Press.

Shim, E., Tariq, A., Choi, W., Lee, Y., & Chowell, G. (2020). Transmission potential and severity of COVID-19 in South Korea. *International Journal of Infectious Diseases*, *93*, 339–344. https://doi.org/10.1016/j.ijid.2020.03.031

Shimp, T. A., & Sharma, S. (1987). Consumer ethnocentrism: Construction and validation of the CETSCALE. *Journal of Marketing Research*, *24*(3), 280–289. https://doi.org/10.2307/3151638

Shin, D. C., & Johnson, D. M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, *5*(1), 475–492. https://doi.org/10.1007/BF00352944

Shin, O., & Kim, Y. (2021). A study on the differences between safety awareness and health behavior of participants in leisure physical activities [In Korean]. *The Korean Journal of Sport*, *19*(1), 313–320. https://doi.org/10.46669/kss.2021.19.1.028

Siqveland, J., Nygaard, E., Hussain, A., Tedeschi, R. G., & Heir, T. (2015). Posttraumatic growth, depression and posttraumatic stress in relation to quality of life in tsunami survivors: A longitudinal study. *Health and Quality of Life Outcomes*, *13*(1), Article 18. https://doi.org/10.1186/s12955-014-0202-4

Soper, D. S. (2021). *A-priori sample size calculator for structural equation models* [Computer software]. https://bit.ly/3FEWBzM

Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, *15*(1), 1–18. https://doi.org/10.1207/s15327965pli1501_01

Tedeschi, R. G., Park, C. L., & Calhoun, L. G. (1998). Posttraumatic growth: Conceptual issues. In R. G. Tedeschi, C. L. Park, & L. G. Calhoun (Eds.), *Posttraumatic growth: Positive changes in the aftermath of crisis* (pp. 1–22). Lawrence Erlbaum Associates. https://doi.org/10.4324/9781410603401

Ulrich, R. S., Dimberg, U., & Driver, B. L. (1990). Psychophysiological indicators of leisure consequences. *Journal of Leisure Research*, *22*(2), 154–166. https://doi.org/10.1080/00222216.1990.11969822

© 2022 Scientific Journal Publishers Limited. All Rights Reserved.



Van de Ven, A. H., & Ferry, D. L. (1980). Measuring and assessing organizations. Wiley.

van Leeuwen, M., Klerks, Y., Bargeman, B., Heslinga, J., & Bastiaansen, M. (2020). Leisure will not be locked down – Insights on leisure and COVID-19 from The Netherlands. *World Leisure Journal, 62*(4), 339–343.

https://doi.org/10.1080/16078055.2020.1825255

Zoellner, T., & Maercker, A. (2006). Posttraumatic growth in clinical psychology — A critical review and introduction of a two component model. *Clinical Psychology Review*, *26*(5), 626–653. https://doi.org/10.1016/j.cpr.2006.01.008