

## Research Article

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# Leisure Attitude, Anxiety, and Mental Well-Being in Turkey: The Case of COVID-19

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**Abstract:** Evidence suggests that individuals' leisure attitudes affect mental well-being positively and their anxiety negatively. In addition, there is no evidence of which of the dimensions of leisure attitude is more instrumental for mental well-being. A structural model is proposed to examine the effects of individuals' leisure attitude and anxiety on mental well-being in the COVID-19 process. Data were randomly collected from people staying at home due to the curfew during the COVID-19 process. Model results showed that leisure attitude has a significant positive effect on mental well-being. The behavioural component of leisure attitude dimensions is relatively more effective in affecting well-being than others. Furthermore, anxiety negatively affects mental well-being. The obtained results provided important data regarding the effect of individuals' leisure time and perception of anxiety on their mental well-being, especially during the pandemic period. In the light of the findings, the limitations and results of the research are discussed.

**Keywords:** Leisure attitude; Anxiety; Mental well-being; Turkey; COVID-19

## 1 Introduction

The COVID-19 pandemic, which changed the normal living conditions of individuals and caused many negative psychological consequences, started to appear in Wuhan, Hubei, China, on December 31, 2019. As a result of the pandemic, it caused great economic and social damage in many regions of the world (WHO, 2020). In order to slow and prevent the spread of the pandemic, the World Health

Organization has reported the need to apply physical and social isolation measures (WHO, 2020).

COVID-19 signs were identified for the first time in Turkey on March 10, 2020 (Republic of Turkey Ministry, 2020). Shortly after the detection of COVID-19 provincial cases, theatres, cinemas, show centers, concert halls, engagement / wedding halls, restaurants / cafés with music, casinos, pubs, taverns, coffeehouses, cafés, cafeterias, country gardens, hookah cafes, the activities of internet cafes, all kinds of game halls, all kinds of indoor playgrounds, tea gardens, local clubs, amusement parks, swimming pools, Turkish baths, saunas, hot springs, massage parlors, spas and sports centers have been temporarily closed by the Turkish Ministry of Interior (2020). Quarantines for individual protection have been implemented, as well as business constraints. Although the rates of socioeconomic consequences of these sudden changes at individual and social levels have been determined in research, individual psychological effects in the short and long term have yet to be determined.

In addition to the physiological effects (breathlessness, cough, fatigue, malaise, sore throat, etc.) of the virus, it is spread among individuals especially through coughing and sneezing (Hafeez, Shmmon, Sameera, Mumtaz & Shruti, 2020). Studies related to the COVID-19 virus reveal that it causes damage to the central nervous system by developing neurological symptoms (Mao & Jin, 2020). The outbreak of COVID-19 has caused challenging socioeconomic consequences, not only in the underdeveloped societies of the world, but also in its developed societies (Buheji, Cunha, Beka, Mavrić, Souza, Silva, Hanafi, & Yein, 2020). Despite the economic and physiologically observable results of the pandemic, detecting the change of psychological effects in the short and long term, taking protective measures, and determining their results will require a very difficult process.

Well-being, which is expressed as the best goal in life for individuals, is under the influence of many factors (Dodge, Daly, Huyton, & Sanders, 2012; Roger, 2017). Participation in recreational activities primarily activates the individual's hedonic affect (Tütüncü, 2012). The leisure attitude, first proposed by Ragheb and Beard (1982),

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expresses the knowledge, belief, emotion and behavior patterns for participation in leisure activities. Individuals' realising recreational activities with their own will and free choice and transforming them into lifestyles contributes to their long-term happiness (Yurcu, 2019a). Haworth and Lewis (2005) demonstrated the benefits of leisure attitudes and leisure satisfaction for adolescents' welfare levels and overall life satisfaction. However, as the COVID-19 process increases negative emotions such as anxiety, fear, loneliness and depression in individuals, it causes a decrease in their well-being (Zender & Olshansky, 2009). Schimmenti, Billieux and Starcevic (2020) and Huremović (2019) emphasise the importance of culture and emotional management in maintaining mental well-being during the outbreak.

The psychological problems that occur with the changes brought by COVID-19 have significantly affected the mental well-being and anxiety levels of individuals. Anxiety is an indispensable feeling in the life of an individual: the normal anxiety response, called 'fight or flight', is what makes a person willing to fight or escape from danger. Whenever the fight or flight response is activated, with either real or imaginary danger, it causes cognitive, physical and behavioral changes in the body (Rector, Bourdeau, Kitchen & Massiah, 2008). Moghanibashi-Mansourieh (2020), Wang, Pan, Wan, Tan, Xu, Ho and Ho (2020), as well as Orgiles, Morales, Delveccio, Mazzeschi and Espada (2020), have found significant increases in anxiety levels during the pandemic. Studies of the psychological effects of COVID-19 reveal that citizens of different countries have increased anxiety levels and their well-being is affected negatively in this process (Wang et al., 2020; Orgiles et al., 2020; Brooks, Webster, Smith, Woodland, Wessely, Greenberg, & Rubin, 2020; Schimmenti et al., 2020; Moghanibashi-Mansourieh, 2020). Satici, Saricali, Satici and Griffiths (2020) revealed that the mental well-being of the Turks was significantly affected. Schimmenti et al. (2020) and Huremović (2019) emphasise the importance of culture and emotional management in maintaining mental well-being in the pandemic process.

Quarantines applied during the COVID-19 pandemic increased the leisure time of individuals. Leisure attitudes of individuals have become an important element of how they will go through this process. Yeh (1993) expresses leisure time as an area where the individual maintains a good life and happiness, which are the most basic human concerns. In addition, he states that the importance of leisure time increases when the basic and most urgent needs of individuals are met (Liu, Yeh, Chick & Zinn, 2008). In addition to meeting the basic needs of individu-

als in this process, all efforts to minimise the effects of the virus will contribute to improving their well-being. Activities such as individuals doing physical activities at home, eating a balanced and regular diet, fulfilling disinfection and sanitation conditions, paying attention to social distance, indulging in recreational activities, will contribute to avoiding infection or mitigating the effects of the virus. Gümüşgöl and Aydoğan (2020) emphasise the importance of planning the leisure activities of individuals in the quarantine process. Therefore, individuals' leisure attitudes will significantly affect their mental well-being during this pandemic, which was unexpected and whose end we cannot predict. Such planning can reshape living conditions and increase leisure time.

Therefore, in this study, the aim is to investigate the effects of leisure attitudes and anxiety perceptions on the mental well-being of individuals involved in the COVID pandemic while living in Turkey. The first part of the paper will be devoted to the presentation of relevant literature on leisure attitudes, anxiety, and mental well-being. After deriving a research hypothesis and model, the article will continue with the detailed presentation of the methodological steps of the study: sample selection, data collection and data analysis. These will be followed by a presentation and discussion of the results, and the article will conclude with an evaluation of theoretical and managerial implications of the current study.

## 2 Literature Review

The COVID-19 pandemic causes changes in social and cultural living conditions, and especially in the economy, at the global level. Quarantine, social isolation and social distancing practised during the pandemic significantly increased individuals' leisure time. The necessity of fulfilling healthy living conditions (compliance with hygiene rules, healthy eating, maintaining well-being, active and regular exercise, etc.) emerged. Leisure attitudes of individuals will play an important role in fulfilling these conditions and increasing their well-being. However, it is necessary to demonstrate how negative psychological problems that emerge in individuals during the pandemic change their leisure attitudes, and to what extent their anxiety and mental well-being are affected. In this study, leisure attitude and anxiety were used as an independent mental well-being dependent variables.

## 2.1 Well-being and Determinants

Well-being, also known as wellness, means what is inherently good for someone. A person's well-being is what is ultimately *good for* this person, what is in the self-interest of this person (Dodge et al., 2012; Roger, 2017). The number of models developed for the concept is quite high, as well-being expresses not a single state but a complex situation consisting of overlapping health levels (Dunn, 1959). Although there is much interest in well-being in the relevant literature, a common definition cannot encompass it, as it originates from different perspectives (Roscoe, 2009). In one definition of well-being, the concept of health was described as the absence of any disease; with the redefinition of health, psychological and sociological health were also mentioned. *Well-being* refers to optimal health rather than disease-free health (Rančić, Popov-Raljić, & Pavić, 2013). Egbert (1980) summarised the focus areas of healthy life as integrated personality with a clear sense of identity, a perspective towards reality, and a clear meaning and purpose in life. Travis and Ryan (1988) conceptualised healthy living as individual responsibility and love. Witmer and Sweeney (1992) and later Myers, Sweeney and Witmer (2000) described a holistic wellness concept consisting of spirituality, self-control, work, friendship, and love (Roscoe, 2009). The Wheel of Wellness (WOW) developed by Myers, Luecht and Sweeney (2004) is based on Adler's theory of individual psychology and includes the most important vital tasks of the individual, namely, work, friendship and love (Korkut-Owen & Owen, 2012). In the Well-Being Wheel Model, spirituality is specified as the central feature. In addition, 12 tasks that provide self-orientation, functioning similarly to spokes on a wheel, are conceptualised (essence of emotion, sense of control, realistic beliefs, emotional awareness and management, problem solving and creativity, sense of humor, nutrition, exercise, self-care, stress management, gender, cultural identity). The WOW model is united in a contextual framework that defines global influencing forces (family, society, government, media, business, industry, education, religion) and many interactions in society and the environment that can affect the holistic functioning of the individual (Myers et al., 2004).

The well-being of individuals is nowadays examined using a holistic approach, and is not just the absence of disease. Physiological, psychological, sociological, mental, environmental, climatic, occupational, socio-demographic and other factors are taken into consideration when conceptualising the well-being of individuals (Roscoe, 2009; Yurcu, 2019a). Ryan and Deci (2001) express well-being as optimal psychological functioning.

Factors affecting individuals' well-being negatively are stress, pessimism, negative mood, depression, anxiety, loneliness, and more; some positively affecting factors are life satisfaction, self-efficacy, quality of life, optimism, satisfaction (Karademas, 2007; Mansfield, Daykin & Kay, 2020).

Sociodemographic characteristics (age, gender, education, marital status, job status) are an important determinant affecting the well-being of individuals. Minucciani and Onay (2020) reveal that young, middle and advanced ages should be evaluated separately due to different developmental and periodic factors in the differences in perception of well-being according to age in individuals. Ahrens and Ryff (2006) and Xu, Sun, Zhu, Bai, Yu, Duan, Kou and Li (2019) state that when education and job status increase, well-being also increases. Barnett and Hyde (2001) show that men and women who fulfill more than one role report low levels of mental and physical health problems and higher levels of subjective well-being. Mookherjee (1997) states that marriage increases the perception of well-being for both men and women, and married women are more satisfied than men. Burchell (2011) states that there is an increase in negative psychological symptoms of individuals in cases of job insecurity and unemployment, and their well-being continues to deteriorate for at least one year. Keyes, Shmotkin and Ryff (2002) concluded that as age, education, extroversion and conscientiousness increase, well-being increases and neuroticism decreases.

Individuals' good evaluation of their leisure time is a factor that positively affects their well-being (Mansfield et al., 2020). Karaküçük (2001) states that the need for leisure activities, personally, to create physical health development; to gain mental health; to socialise people; to improve creativity, personal skills and abilities; to achieve work success, work efficiency, and economic mobility; to make people happy, socially, ensures social solidarity and integration and creates a democratic society.

## 2.2 Leisure Attitude

Ragheb and Beard (1982) stated that leisure time attitudes of individuals are one of the important factors in determining their willingness and tendency to participate in activities. Ragheb and Beard's (1982) leisure time attitude model consists of cognitive, affective and behavioral components. The cognitive component is 'general knowledge and beliefs about leisure time, its characteristics and how it relates to the quality of life of the individual', the affective component includes 'feelings about leisure time, the

degree of loving or dislike of the individual's leisure activities and experiences', and the behavioral component is expressed as 'past, present and intended actions related to leisure activities and experiences' (Ragheb & Beard, 1982). The relationship between leisure attitude and leisure participation is positive (Ragheb & Tate, 1993). It is stated that individuals with high perception of leisure attitude will increase in the state of well-being, as a result of increasing levels of participation in leisure activities (Chodzko-Zajko, Proctor, Singh, Minson, Nigg, Salem & Skinner, 2009; Chang, Wray & Lin, 2014; Belo, Pocinho & Navarro-Pardo, 2017). According to Ajzen's (1991) Planned Behavior Theory, it is stated that the individual's realisation of a behavior depends on the intention to perform that behavior and that the intention in question is a function of the person's attitude towards that behavior and his subjective norm. Attitudes and subjective norms shape a person's intention to display a behavior, and this intention determines whether the person will perform the desired behavior or not. In this context, the leisure attitudes of individuals will enable them to develop leisure time behavior, thus increasing the level of mental well-being.

Leisure attitudes of individuals vary depending on many factors (motivation, demographic features, lack of interest, social, economic) (Jackson, 1988; Henderson, Stalnaker, & Taylor, 1988; Crawford, Edgar & Godbey, 1991). Pandemics that occur at unexpected times, such as COVID-19, are an important factor causing individuals to change or rearrange their leisure attitudes. During the SARS pandemic, Marafa and Fung (2004) found that the people of Hong Kong avoided crowded places and preferred outdoor recreational activities instead of shopping, dining, and shopping malls, which are normal leisure activities. Similarly, Wen, Huimin and Kavanaugh (2005) found that Chinese tourists' tendency to travel, leisure travel preferences and public hygiene concerns changed in this process. In Chuo's (2006) study for Taiwan theme park participants during the SARS pandemic, she found that although young and more frequent visitors were more likely to visit during the epidemic, their contagious risk perceptions also increased. Schimmenti et al. (2020) state that community flexibility, levels of anxiety and methods of coping with fear are important in pandemic processes. In this context, individuals' perception of their leisure time in this process will contribute significantly to their mental well-being. Gümüşgöl and Aydoğan (2020) stated that individuals may need guidance in leisure time use during the COVID-19 process and may experience deficiencies in producing relaxing, entertaining and developmental activities. Determining how leisure attitudes are influenced in line with the 'new normal life' criteria as a result

of the increase of individuals' time at home due to COVID-19 will be an important determinant of their well-being.

### 2.3 Anxiety

Anxiety, one of the existential affects in individuals' lives, is short-term and harmless in normal processes. However, when the state of anxiety is long-term and severe, it affects many things in individuals' daily lives (socialisation, physical and psychological well-being, and more) (Rector et al., 2008). The COVID-19 pandemic has become a major cause of anxiety, as it increases the level of uncertainty in individuals' lives. This situation, which caused the living conditions of individuals to change abruptly, also had negative effects on their individual and social well-being. Taylor, Agho, Stevens and Raphael (2008) and Tucci, Moukaddam, Meadows, Shah, Galwankar and Kapur (2017) reveal that individuals experienced emotions such as psychosis, anxiety, suicidal thoughts, trauma and panic symptoms in previous pandemic processes (influenza, Zika, Ebola). Similarly, Moghanibashi-Mansourieh (2020) found that the COVID-19 pandemic significantly increased the anxiety level of Iranian citizens, especially women. The causes of symptoms such as stress, confusion and anger, which occur after the pandemic processes and negatively affect the well-being of individuals, are expressed as long quarantine periods, fear of infection, frustration, boredom, insufficient material, insufficient information, financial loss and stigmatisation (Brooks et al., 2020). Therefore, pandemics that cause an increase in the level of anxiety in individuals negatively affect their mental well-being.

### 2.4 Mental well-being

Mental well-being is defined by the World Health Organization (WHO, 2004) as 'a state of well-being in which the individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community'. Mental well-being is accepted as an indication that individuals' psychological, physiological well-being and quality of life are better (Keyes, 2002; Keyes, Dhingra & Simoes, 2010). Mental well-being is defined as a state of well-being where individuals realise their own abilities, cope with life, work productively and effectively, and contribute to the society they live in (WHO, 2004). Lyubomirsky, King and Diener (2005) found that individuals with high mental well-being have a healthy immune system,

establish good relationships with other individuals, have a long life span and are more effective in their work. The optimal level of mental well-being is a psychological, physiological and sociological protective factor against the negativities caused by individuals' living conditions (Siahpush, Spittal & Singh, 2008; Diener & Chan, 2011). In this context, negative emotions such as uncertainty, fear, stress, anxiety and social isolation caused by the COVID-19 pandemic will negatively affect the mental well-being of individuals. Especially, anxiety is one of the important factors that negatively affect mental well-being (Zender & Olshansky, 2009). Satici et al. (2020) found that Turkish citizens' uncertainty intolerances have a significant direct effect on their mental well-being in the COVID-19 process. In addition, they have demonstrated that fear of COVID-19 and rumination has a mediating role in the relationship between intolerance of uncertainty and mental well-being. Schimmenti et al. (2020) emphasise the importance of good emotional management in taking care of mental well-being in pandemic processes, and Huremović (2019) describe this as playing an important role in cultures.

## 2.5 Research model and hypothesis development

Active participation of individuals in leisure time activities in line with their own wishes will positively affect their well-being. However, sociodemographic characteristics and readiness levels cause differences in leisure time attitudes (Yurcu, 2019b). Karaca and Lapa (2016) found that while psychological well-being of women was higher than that of men, their leisure time exercise participation was lower than men. Garatachea, Molinero, Martínez-García, Jiménez-Jiménez, González-Gallego and Márquez (2009) stated that physical function and physical activities are related to the well-being of elderly people and that the elderly individuals' adding movement to their lives instead of a sedentary lifestyle will positively affect their well-being. Kim and Cho (2020) found that during the COVID-19 process, those who participated in leisure activities for more than five years and with their families increased preventative health behaviors and decreased in those participating with opposite-sex friends. Thus, hypothesis 1 was formulated as:

Hypothesis 1: There is a significant difference between the sociodemographic characteristics and leisure attitudes of the participants.

Individuals with positive leisure time attitudes will be away from all negative affects while they are in a certain flow in their activity participation. When individuals are in a certain flow with their leisure activities (Csikszentmihalyi, 1990) they feel happier and more free in their behavior (Kim & McKenzie, 2014), they can use their free will in their choices. It is generally accepted that leisure time is important in increasing the quality of mental well-being of individuals (Silverstein & Parker, 2002). Previous studies have shown that leisure attitude (leisure activities) positively affect individuals' well-being. For the elderly, who are most affected by the COVID-19 pandemic process, leisure attitude is also important in raising mental well-being (Dupuis & Smale, 1995; Lampinen, Heikkinen, Kauppinen & Heikkinen, 2006; Reynolds, 2010; Kekäläinen, Freund, Sipilä & Kokko, 2020). Pandemic studies, especially studies related to the COVID-19 process, revealed the change in individuals' perceptions of leisure time (Marafa & Fung, 2004; Wen et al., 2005; Chuo, 2006; Schimmenti et al., 2020; Gümüşgöl & Aydoğan, 2020), but the effect of leisure attitude on mental well-being has not been adequately researched. Thus, hypothesis 2 was formulated as:

Hypothesis2: Participants' leisure attitudes can affect mental well-being positively.

Hypothesis2a: Participants' cognitive components can affect mental well-being positively.

Hypothesis 2b: Participants' affective components can affect mental well-being positively.

Hypothesis 2c: Participants' behavioural components can affect mental well-being positively.

Research has revealed that pandemic processes and later negative psychological problems (such as anxiety, fear, stress, anger, depression) increase (Mihashi, Otsubo, Yinjuan, Nagatomi, Hoshiko & Ishitake, 2009; Yip, Cheung, Chau & Law, 2010; Jose, Alison, Holman & Silver, 2017; Wang et al., 2020; Brooks et al., 2020). Wang et al. (2020) found that the vast majority of participants living in China spent almost the entire day at home and showed moderate to severe anxiety and depressive symptoms during initial phase of the COVID-19 pandemic. In addition, research results revealed that women, students, people with specific physical symptoms, and those with poor health are significantly associated with higher levels of stress, anxiety, and depression. Beyond that, they found that individuals who had accurate health information and specific vital measures related to the pandemic had sig-

nificantly lower stress and lower anxiety levels. Mattioli, Puviani, Nasi and Farinetti (2020) stated that as a result of quarantine applied due to COVID-19 pandemics, cardiovascular diseases and anxiety increased due to decreased physical activity and unhealthy diet. Similarly, Orgiles et al. (2020) found that in the pandemic process, psychological problems increased in Italian and Spanish individuals and these problems negatively affected mental well-being. Therefore, hypothesis 3 was formulated as:

Hypothesis 3: Participants' anxiety affects mental well-being negatively.

Research model of the study can be shown in Figure 1.

## 3 Methodology

### 3.1 Sample and data collection

Research data were collected from individuals living in Turkey. The COVID-19 pandemic had a negative impact on Turkey as well as all over the world. In addition to many negative economic and social effects of the pandemic, it caused damage in the mental well-being of individuals. Measuring the effects of leisure attitudes and anxiety levels on mental well-being in the lives of individuals who changed with the advent of COVID-19 is important because the results of the pandemic are Figure 1: Research Model used and 507 participants living in cities were reached at 95% confidence level. The data required for the research was collected during Turkey's COVID-19 pandemic because of the curfew applied during 15.04.2020–23.04.2020. Participants were reached online using this URL: [https://docs.google.com/forms/d/e/1FAIpQLScX-UchC\\_IA4Kp\\_yTf0Ut7WJrSGWYtHzffHxPyI1JBVR5zMHjQ/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLScX-UchC_IA4Kp_yTf0Ut7WJrSGWYtHzffHxPyI1JBVR5zMHjQ/viewform?usp=sf_link). The reason for choosing these

dates was to measure the effects of individuals' feelings upon staying at home, to serve the above research purposes.

Questionnaires were used to collect data. The questionnaire created to collect the research data comprised four sections, which consisted of sociodemographic variables, leisure attitude scale, anxiety scale and mental well-being scale. Each completed questionnaire was screened to remove copies with serious data omissions and straight-lining patterns.

Participants were generally between the ages of 18-38 (66.1%), had a high education level (undergraduate 44.8%), and a monthly income below 2500 TL. The single and married ratio is almost the same and female (64.5%) participants are dominant in the sample. In addition, while 79.9% of the participants did some activities during their stay at home, it was determined that 20.1% did not perform any activities. The main activities that participants participated in during their stay at home were reading books (f=124), sports (f=111), TV (f=110), housework (f=90), taking care of children (f=44), computer (f=36), music (f=33), handicraft (f=26), painting (f=23), studying (f=20), working from home (f=19), educational games (f=19), gardening (f=16), family time (f=10), worship (f=6), atypical recreational activities (f=3). The reasons for the participants to choose these activities are primarily to feel well psychologically (68.6%), secondly to feel good sociologically (15.8%), and finally physiologically (15.6%).

### 3.2 Analysis

SPSS v.23 and AMOS v.21 were used for the analyses and testing the hypotheses. The constructs used in the proposed model were first examined for the whole data set (N=507). After the model was validated, data on personal information was evaluated using descriptive statistics. Cronbach Alpha reliability analysis was used to measure the reliability of the scales used in the research. In multivariate analysis, the Kolmogorov-Smirnov test was performed to determine whether the data was normally distributed; it was seen that the data had a normal distribution. Pearson correlation analysis was used to determine the relationship between research variables. Structural equation modelling (SEM) was used in testing the research model.

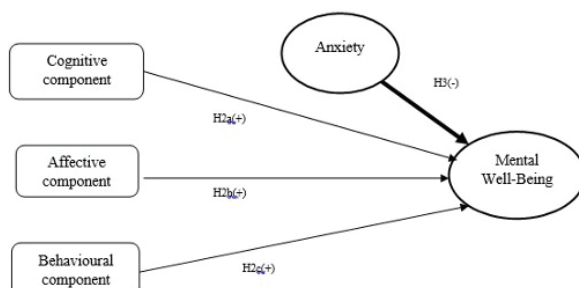


Figure 1: Research Model

### 3.3 Measures

The study instruments were developed from prior studies that used well-established scales. *The Leisure Attitude Scale* was developed by Teixeira and Freire (2013). Each construct was measured with multiple items and on a five-point Likert scale that ranges from (1) strongly disagree to (5) strongly agree. To ensure internal consistency of measurement, Cronbach's alpha reliability coefficient was calculated for each scale.

*Warwick-Edinburgh Mental Well-Being Scale (WEMWÖB)* was developed by Tennant, Hiller, Fishwick, Platt, Joseph, Weich, Parkinson, Secker and Stewart-Brown (2007) and its Turkish validity-reliability study was performed by Keldal (2015). The scale consists of 14 items and measures the positive mental health of individuals, including psychological well-being and subjective well-being. The scale is a 5-point Likert type, and the scale is scored ((1) disagree at all, (2) disagree, (3) somewhat agree, (4) agree, (5) totally agree).

*Common Anxiety Disorder-7 (GAD-7) Scale* was developed by Spitzer, Kroenke, Williams and Löwe (2006) and the Turkish validity-reliability study was conducted by Konkan, Şenormanci, Aydin and Sungur (2013). The scale measures common anxiety disorder according to DSM-IV-TR criteria. GAD-7 is a self-assessment scale. It is a Likert type scale with four (0-3) points: (0) none, (1) many days, (2) more than half the days, (3) almost every day.

## 4 Results

### 4.1 Validity and reliability results

The alpha ( $\alpha$ ) model was applied, which is used in the reliability analyses of the scales. The Cronbach's alpha coefficient was found to be 0.90 in the general validity and reliability analysis of the scales; Cronbach's structures alpha values are 0.92 for leisure attitude scale, 0.86 for the anxiety scale and 0.91 for mental well-being scale.

### 4.2 Factor analyses

The measurement model was evaluated by ensuring the criteria of reliability, convergent validity, and discriminant validity. Leisure attitude constructs were estimated with confirmatory factor analyses (CFA). Regarding the model fit indices, the chi-square test of the measurement model was statistically significant ( $\chi^2 = 740.464$ ,  $p = .000$ ),

meaning that the model has a good fit. High factor loadings of the items in proposed constructs show high internal consistency (Fornell and Larcker, 1981) (Table 1). Convergent validity is measured using AVE (average variance extracted). The values for all constructs are greater than 0.50, indicating that the construct explains more than half of the variance of its indicators (Hair, Matthews, Matthews & Sarstedt, 2017). Composite reliability coefficient is 0.91, 0.86, 0.85, 0.81, 0.76 which ensures the internal consistency reliability of the structures (Hair et al., 2017) (Table 1).

### 4.3 Difference in leisure attitude based on demographic factors

In Table 2, it is observed that participants' gender reflected the average leisure attitude: female ( $x = 3.9202$ ) and male ( $x = 3.8071$ ). The t-test regarding the differences in perception of leisure attitude of the participants did not differ significantly ( $t = 1.577$ ,  $p > 0.05$ ).

When Table 3 is analysed, it is seen that the leisure attitudes differ based on age ( $F_{(3,502)} = 3.319$ ,  $p < 0.05$ ) and education ( $F_{(5,500)} = 4.307$ ,  $p < 0.05$ ), but didn't differ based on marital status ( $F_{(2,500)} = 2.085$ ,  $p > 0.05$ ). According to Table 4, it is seen that participants age 60 years old and above, and those with a master's degree education, have a higher perception of leisure attitude.

### 4.4 Relationship between leisure attitude anxiety and mental well-being

The mean scores, standard deviations, and correlation values between the variables are presented in Table 5. Relationships between leisure attitude, anxiety, and mental well-being were examined by Pearson's correlation coefficient technique. There was a significant negative correlation between leisure attitude and anxiety ( $r = -0.155$ ,  $p < .01$ ). A significant positive correlation between leisure attitude and mental well-being ( $r = 0.416$ ,  $p < .01$ ) and a significant negative correlation between anxiety and mental well-being ( $r = -0.437$ ,  $p < .01$ ).

### 4.5 Structural Model

To test hypotheses, a research structural model was estimated using maximum likelihood for the whole sample ( $N = 507$ ). The measurement model proved that the model can be tested in order for it to specify the causal rela-

**Table 1:** Confirmatory factor analysis, CR and AVE

Construct	Items	Std.Factor Loadings	C.R.	AVE	Cronbach's $\alpha$
Cognitive component	Engaging in leisure activities is a wise use of time.	0.750	0.91	0.63	0.92
	Leisure activities are beneficial to individuals and society.	0.802			
	Leisure activities contribute to one's health.	0.837			
	Leisure activities increase one's happiness.	0.813			
	Leisure activities help to renew one's energy.	0.831			
	Leisure activities help individuals to relax.	0.774			
Affective component	My leisure activities give me pleasure.	0.838	0.86	0.65	0.89
	I feel that leisure is good for me.	0.869			
	I like to take my time while I am engaged in leisure activities.	0.695			
	My leisure activities are refreshing.	0.569			
	I feel that the time I spend on leisure is not wasted.	0.619			
	I like my leisure activities.	0.662			
Behavioural component	I spend considerable time and effort to be more competent in my leisure activities.	0.640	0.85	0.52	0.85
	I would attend a seminar or a class to be able to do leisure activities better.	0.758			
	I support the idea of increasing my free time to engage in leisure activities.	0.566			
	I engage in leisure activities even when I am busy.	0.758			
	I would spend time in education and preparation for leisure activities.	0.785			
	I give my leisure high priority among other activities.	0.721			
Mental Well-Being	I've been feeling useful.	0.570	0.81	0.60	0.89
	I've been feeling relaxed.	0.518			
	I've had energy to spare.	0.557			
	I've been dealing with problems well.	0.645			
	I've been thinking clearly.	0.620			
	I've been feeling good about myself.	0.663			
	I've been feeling confident.	0.561			
	I've been feeling cheerful.	0.619			
Anxiety	Feeling nervous, anxious or on edge	0.655	0.76	0.55	0.85
	Not being able to stop or control worrying	0.688			
	Worrying too much about different things	0.646			
	Becoming easily annoyed or irritable	0.558			
	Feeling afraid as if something awful might happen	0.598			

**Table 2:** Difference of leisure attitude perception according to gender of the participants

		N	x	SD	t	p
Gender	Female	327	3.9202	.77835	1.577	.115
	Male	180	3.8071	.75811		

tionships among the constructs. In the proposed model, leisure attitude dimensions and anxiety affect mental well-being. The structural model was analysed based on the maximum likelihood analysis of the covariance matrices. The model fit indices indicate a satisfactory model fit ( $\chi^2 = 12.972$ ,  $df = 6$  ( $p=0.043$ ),  $\chi^2/df = 2.162$ ,  $NFI=0.937$ ;  $RFI=0.841$ ;  $TLI=0.908$ ;  $CFI= 0.963$ ;  $AGFI=0.965$ ;  $RMSEA= 0.050$ ).

As reported in Figure 2, standardised path coefficients between cognitive component and mental well-being (path coefficient=0.23,  $p<0.000$ ), affective component and mental well-being (path coefficient= 0.15,  $p<0.000$ ), behavioural component and mental well-being (path coefficient= 0.24,  $p<0.000$ ) were found to be significant and positive. On the other hand, anxiety and mental



**Table 3:** Difference of leisure attitude perception according to age, marital status and education of the participants

		Sum of Squares	df	Mean Square	f	p
Age	Between Groups	5.860	3	1.953	3.319	.020
	Within Groups	295.424	502	.588		
	Total	301.283	505			
Marital Status	Between Groups	2.477	2	1.238	2.085	.125
	Within Groups	296.980	500	.594		
	Total	299.456	502			
Education	Between Groups	12.441	5	2.488	4.307	.001
	Within Groups	288.842	500	.578		
	Total	301.283	505			

**Table 4:** The distribution of leisure attitude score based on age, education.

		N	X	SD	SE	Min.	Max.
Age	under 18 years old	33	3.8131	.85772	.14931	1.56	5.00
	18-38	334	3.8237	.80375	.04398	1.00	5.00
	39-59	130	4.0050	.64935	.05695	2.33	5.00
	60 years old and above	9	4.4198	.54370	.18123	3.39	5.00
	Total	506	3.8802	.77240	.03434	1.00	5.00
Education	Primary education	26	3.8739	.61394	.12040	2.78	5.00
	High school	107	3.6950	.84648	.08183	1.00	5.00
	Associate (2 years)	82	3.6719	.82364	.09096	1.06	5.00
	Undergraduate (4 years)	226	3.9971	.74762	.04973	1.00	5.00
	Master	39	4.1068	.60957	.09761	2.50	5.00
	Doctorate	26	3.9483	.58780	.11528	2.67	5.00
	Total	506	3.8802	.77240	.03434	1.00	5.00

**Table 5:** Correlation matrix.

	N	Mean	SD	1	2	3
1. Leisure Attitude	506	3.8802	.77240	1		
2. Anxiety	505	1.8326	.66634	-.155** .000	1	
3. Mental Well-being	505	3.9536	.74228	.416** .000	-.437** .000	1

well-being (path coefficient= -0.39, p<0.000) was found to be significant and negative.

## 5 Discussion

Researching what affects individuals' mental well-being in the process of COVID-19 will make important contribu-

tions not only to the individual but also to social well-being at the global level. Individuals with high mental well-being are seen as the cornerstone of happy societies. In this way, this study aims to contribute to the literature on possible individual mental well-being, leisure attitude and anxiety during the pandemic process.

Leisure attitudes of individuals may have different characteristics and importance according to their demo-

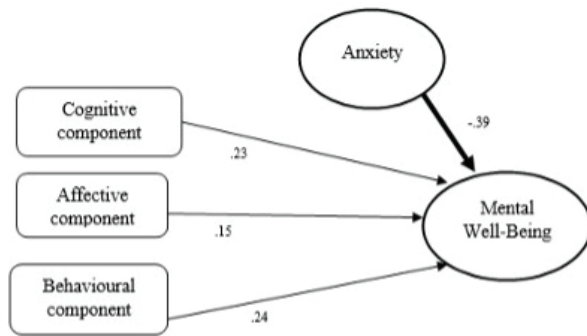


Figure 2: The Results of the Conceptual Model from the SEM (N =507) \* $p < .000$ .

graphic characteristics. Individual readiness level, perspective on life, differences in perception of events cause changes in the interpersonal importance of leisure attitude (Yurcu, 2019a). Individuals' leisure attitude perceptions differ according to age, gender, and education level, but do not differ according to marital status. The findings obtained support the relevant literature. The So-Young, Sook-Jae and Soo-Hyun (2005) study finds no difference in leisure attitude perception among individuals according to marital status. Belo, Navarro-Pardo, Pocinho, Carrana and Margarido (2020) state that better leisure attitude perceptions among elderly individuals contribute positively to their well-being, and aid them in perceiving themselves as useful. In addition, it is stated that individuals with high educational status have higher leisure attitude perceptions.

The results of the research support other studies that conclude that psychological problems emerging during the pandemic process negatively affect mental well-being (Satici et al., 2020; Schimmenti et al., 2020). It was found that anxiety levels of individuals were beginning to rise, and mental well-being was negatively affected during the pandemic process. The results of the study showing that the pandemic increases the anxiety levels of the individuals support the results of this research (Wang et al., 2020; Mattioli et al., 2020; Orgiles et al., 2020). It is thought that the uncertainties about how long the pandemic process will continue and the increase of the second wave indicators increase the anxiety levels of individuals, due to the financial, environmental and psychological factors in this process.

## 6 Conclusions

### 6.1 Theoretical Implications

This study contributes to the literature on the relationship between leisure attitude, anxiety and mental well-being. The model proposed in this research was analysed with statistical methods and the model was approved. Results show that leisure time attitudes of individuals affect mental well-being positively and anxiety negatively during the pandemic process.

Explaining the new living conditions that arise due to the pandemic to individuals, improving their level of consciousness, and developing guidance services on activities they can do at home, will increase individual and social benefits regarding leisure attitude. In addition, encouraging individuals to take part in fun, relaxing emotional support activities will increase the duration of their stay at home, perhaps an effective measure to prevent the coronavirus from spreading. In this case hypotheses 2 and 3 were accepted.

According to the results of research applications of the pandemic start time in Turkey, it is important that low anxiety levels of individuals and mental well-being is at average levels. In cases where the progress of the pandemic is likely, it is recommended to re-examine the research variables.

### 6.2 Managerial Implications

Overall, the present study provides basic information on understanding individual leisure attitudes, anxiety, and mental well-being that are likely to change as a result of the devastating effects of the COVID-19 pandemic, with a nationwide sample of participants. This study also presents the relationships between important variables for detecting psychological changes in individuals for recreation marketing and management in the COVID-19 process. Determining the level of the effect of leisure time attitude and anxiety levels on mental well-being during the pandemic process will provide managers with concrete information for individuals to understand their leisure time intentions. However, it should be taken into consideration that perceptions of leisure attitude, anxiety and mental well-being may differ from person to person. In this process, while some individuals perceive COVID-19 practices as a necessity and feel themselves restricted, some individuals exhibit willingness to take the necessary measures voluntarily. It is thought that individuals who

feel restricted will exhibit negative behaviors in performing leisure activities. One of the most important elements of leisure time is the ability of individuals to feel free (Harper, 1986).

It is indicated that the main activities performed by the participants during their stay at home are reading books, sports, TV, housework, caring for children, computers, music, handicraft, painting, studying, working from home, educational games, gardening, family time, worship, and atypical recreational activities. This result reveals the need for a professional recreation specialist to evaluate the leisure time of individuals during the pandemic process. In the early stages of the pandemic, individuals need support for the effective and efficient use of time beyond just distracting themselves. The long duration of the pandemic and the increase in quarantines will negatively affect the mental well-being of individuals in the process of searching for what to do. Therefore, there is a need for social and state support that will enable individuals, who form the basis of social well-being, to make the best use of the leisure time that results from this process. The results of this study show that the leisure attitudes of the individuals during the COVID-19 process will increase their mental well-being and their anxiety levels will decrease. In line with these findings, it would be helpful to develop online programs to positively affect the leisure attitudes of individuals and turn them into behavior. Individual guidance and support can be provided with audio and visual materials that can set an example for the globally beneficial use of technology. In addition, accurate scientific information can be shared with individuals through communication channels to reduce the level of anxiety caused by unscientific information resulting from COVID-19.

### 6.3 Limitations and future research

This study has some limitations. The implementation of the research was carried out within a week of the first curfew. In further studies, measurements in different periods can be repeated comparatively. In addition, the research can be repeated in comparison with the citizens of different countries. In this study, mental well-being was used as the dependent variable, and it can be used as a mediator variable in determining leisure attitude. Determining the impact of COVID-19 on individuals' leisure attitudes through multidisciplinary research will strengthen the relevant literature. In future studies, individuals' leisure attitudes should be examined in depth with studies using qualitative and multiple research methods.

## Bionotes

**Gülseren Yurcu** has a PhD in Tourism Management. Her research interests include leisure, recreation, social psychology, social and humanities and wellness and SPA. She has several published international refereed articles and conference papers about tourism management. Presently, she is an associate professor in the department of recreation management in the Tourism Faculty of the University of Akdeniz in Turkey.

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