

Research Paper

A Pilot Study: Comparing Seasonality and Subjective Well-Being in Winter and Summer Conditions in University Students

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ABSTRACT

In this study, the relationship between differences in seasonality and subjective well-being were examined by experimental for the first time in the literature. Considering that seasonality are highly associated with the mood and the seasons are also relate too. A total of 68 students, 58 girls and 10 boys, from psychology department at AbantIzzet Baysal University, participated in this study. In this study, seasonality of university students was measured by Seasonal Pattern Questionnaire (SPAQ) which was developed by Rosenthal et al (1987) and adapted to Turkish by Noyan et al (2000) and the subjective well-being was measured by Subjective Well-Being Scale which was developed by Dost (2005). The findings of this research are consistent with the findings of the literature in the summer condition. Unfortunately, we could find the positive relationship between the seasonality and subjective well-being in winter condition. In this study, the relationship between these variables was considered in the context of the Association Theory and Emotional Instability Theory, because the literature did not include a theory that did reveal the relationship between these variables. For the next researchers, it is suggested to use physiological measurement techniques such as EEG or another methods in measuring the relationship between seasonality and subjective well-being in the laboratory.

Keywords: *Seasonality, Subjective Well-Being, Happiness.*

Seasonality is about all kind of seasonal changes and all people are influenced from weather conditions such as sun or rain (Bjorvatn and Pallesen, 2009; Reinberg and Ashkenazi, 2003). Thus all seasonal changes can affect our mood in a year. Some people have a kind of negative feelings in autumn and winter which is named 'winter depression' and some of them have negative feelings in spring or summer which is called 'summer depression' (Ekinçi et al., 2005; Roecklein and Rohan, 2005; Rosenthal, Sack, Gillin, Lewy, Goodwin, Davenport and Wehr, 1984). Also, other people have positive feelings along the seasonal changes more than

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them, they do not tend to have depressive symptoms or other psychological symptoms too (Methippara, Bashir, Kumar, Alam, Szymusiak and McGinty, 2009).

In DSM-V (2013), Seasonal Affective Disorder (SAD) has a category which has such as feeling negative feelings, alone mostly, not wanting to go home to outside, eating, sexual, and sleep problems. And, they also tend to have these kind of symptoms in autumn or winter than in spring or summer.

The subjective well-being, happiness, is a kind of feeling which has positive feelings more than negatives and the people who are happy feel higher life satisfaction than others. Recently, people have more difficult life situation and to be tough to the stress factors and happy is so hard (Diener, Suh ve Oishi, 1997; Ryan ve Deci, 2001). It is a kind of difficult life circle to be happy for someone who has these kind of feelings is so hard, they can lose their live energy, life satisfaction and not want to be with other people to who they love. In the past years, subjective well-being is a famous topic in the psychology literature and more researchers have interested who are happy, why they are happy and the causes of the happiness (Diener ve Seligman, 2002). Unfortunately, to find a article which is about the relationship between the seasonality and well-being is so difficult.

In this study, we examined the relationship between differences in seasonality and well-being by experimental in university students. Some of students participated to the summer condition and some of them participated to the winter condition. Considering that seasonal changes are highly influential in the psychological states, the effects of seasonality or changes in weather conditions on positive and negative emotions are the main focus of researchers. Many research findings have also shown that there is a significant high negative relationship between seasonality and subjective well-being, that is, happiness.

METHOD

The population of this study consisted of university students who enrolled in Psychology at AbantIzzet Baysal University. A total of 68 students, 58 girls and 10 boys, participated in this study. All data were analyzed by a means of the SPSS 20.0 version In this study, seasonality of university students was measured by the Seasonal Pattern Questionary (SPAQ) which was developed by Rosenthal et al (1987) and adapted to Turkish by Noyan et al (2000) and subjective well - being was measured by the Subjective Well - Being Scale developed by Dost (2005).

Before starting to the experiment, it was asked to the experts when they are in a room how they can feel in summer or winter. In consideration of the opinions of experts, we designed the experiment. All participants were randomly assigned to either the summer or winter condition. All participation group are 5 people and when they enter to the experiment room, the room was so cold because there was opened the windows before they come in. There was also closed the curtains and underexposed to feel when they are in their home in winter. In other condition, summer condition, the room was so hot because there was closed the

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windows before they come in. There was also opened the curtains, shining the light and radiator warmed up. When they were filling the Seasonal Pattern Questionary and the Subjective Well-Being Scale in their condition, there was shown to them 10 seasonal pattern images for which the experts decided in the correct season. In these conditions, they filled all of the scales and were exposed to the picture slides. Following they finished to fill the scales, the researcher got to the participants the feedback and asked them if they have any disturbing situations. She talked about what the participants think about the research, what they feel and if they want to add any advise what they are. After all the sections and brief, the searcher finished the group work.

RESULTS

In the analysis of the data correlation and t test were used. The findings were evaluated at .05 significant levels. The findings of the study can be summarized as follows; there was positive and high relationship between the seasonality and subjective well-being ($r=.26$, $p<.05$).

Table 1. The correlation table of the seasonality and subjective well-being

	Subjective well-being
Seasonality	.256*

* $p<.05$

The participants in the winter condition ($X=12.52$, $SD=4.39$) had higher seasonal changes scores than those in the summer condition ($X=9.21$, $SD=5.48$), ($t=2.73$, $p<.01$). Concerning well-being scores, there was no significant difference between summer and winter condition ($t=-.29$, $p>.05$).

Table 2. T Test of the seasonality and experiment conditions

Condition	Mean	Std
Winter	12.52	4.39
Summer	9.21	5.48

* $p<.05$

The findings of the covariance analysis can show that summarized as follows; there was positive and high relationship between the seasonality and subjective well-being

As a result of the covariance analysis, the seasonal conditional variable was kept constant and the effect of seasonality on subjective well-being was examined and found to be significantly differentiated ($F=2.08$, $p<.05$, $n^2=.498$).

According to many research findings in the literature, there is significant negative correlation between seasonality and subjective well-being scores. However, findings from this study show that seasonal changes do not affect participants' mental health negatively, where as fact

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or such as the decrease in air temperature during the seasonal changes and the increase and decrease in daylight cause participants to feel happier.

As a result of the covariance analysis, the seasonal condition variable was kept constant and the effect of seasonality on subjective well-being was investigated and found to be significantly differentiated.

DISCUSSION

According to the many studies that investigate the relationship between seasonality and subjective well-being, these changes due to seasonal weather changes can affect people's mental health and well-being negatively. Many research findings in the literature have also shown that individuals have difficulty keeping up with these changes and have more depression and anxiety symptoms, especially in the autumn and winter.

As a result of these research findings, it is noted that individuals feel happier in parallel with seasonal changes. In this region, which is located in the Black Sea Region and is very short in summer months and lasts very long in winter months, due to the selection of the participants who live in the region for 2 or 3 years in parallel with the climate conditions of the region in which the research is conducted and the climate change in that region, the participants are accustomed to life, And in the winter months nutrition or other needs were not adversely affected, they did not feel blocked to participate in activities outside, and they saw themselves as happy and satisfied individuals in their lives.

Winter and summer conditions, which were two experimental conditions examined, were found to have significant effect on scores of the seasonal changes. In other words, the participants in the winter season were found to be more influenced by weather conditions and other seasonal changes than participants in the summer, consistent with research findings in the literature. Seasonal mood disturbance, a category in DSM-V, and many research findings show that people are more or less affected by these seasonal changes, especially in the autumn and winter months. In summer, the factors such as school termination, hot weather and holiday decrease the level of positive or negative changes especially for the students.

The findings of this study show that depending on the weather conditions of the region, individuals may feel happier during the winter months, positive relationships between the seasonal changes and subjective well-being levels can be found. In addition, individuals are more likely to be affected by seasonal changes in the winter months than in the summer months. In the light of this information, the experimental pilot study makes new findings in the name of relevance of subjective seasonality and subjective well-being.

CONCLUSION

When the studies in the literature are examined, it is seen that the number of researches that investigate the relationship between seasonal changes and subjective well-being, happiness, is seen to be very small. In order to shed light on future research, the relationship between

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seasonal changes and subjective well-being has been examined in the experimental setting. The findings of this pilot study will provide a great source of information to address the shortcomings of both national and international research. In future studies, it is suggested to use physiological measurement techniques such as EEG in measuring the relationship between seasonality and subjective well-being.

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