

## INVESTIGATION OF THE RELATIONSHIP BETWEEN WELL-BEING, BODY AWARENESS AND DEPRESSION PARAMETERS IN HEALTHY ADULTS

### Sağlıklı Bireylerde İyilik Hali, Vücut Farkındalığı ve Depresyon Parametreleri

#### Arasındaki İlişkinin İncelenmesi

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## ABSTRACT

In this study, the relationship between well-being, body awareness and depression in healthy adults has been examined. This study aims to contribute to the existing literature on this topic and provide a better understanding of the interrelationships between these factors and their influence on mental health. In this study, a cross-sectional design was used, and a total of 39 healthy individuals, consisting of 19 men and 20 women, were included. The participants' mean age was found to be 28.1±7.29 years. The Beck Depression Inventory, Body Awareness Questionnaire, and Well-Star Scale were used to assess depression, body awareness, and well-being, respectively. The data were analyzed using SPSSv.21, and Pearson or Spearman correlation analyses were used to determine the relationships between the parameters. The findings of the study revealed a significant positive relationship between well-being, body awareness, and depression parameters. The results indicated that body awareness practices can have a positive impact on emotional regulation and overall well-being. In conclusion, this study supports the hypothesis that body awareness plays a crucial role in mitigating depression in healthy adults. The correlations observed between well-being, body awareness, and depression parameters underscore the significance of body awareness in promoting mental well-being and reducing the risk of depression.

**Keywords:** Body awareness, Depression, Well-being.

## ÖZ

Bu çalışmada sağlıklı yetişkinlerde iyilik, beden farkındalığı ve depresyon arasındaki ilişki incelendi. Bu çalışma, bu konuyla ilgili mevcut literatüre katkıda bulunmayı ve bu faktörler arasındaki ilişkilerin ve bunların ruh sağlığı üzerindeki etkisinin daha iyi anlaşılmasını sağlamayı amaçlamaktadır. Bu çalışmada kesitsel bir tasarım kullanıldı ve çalışmaya 19 erkek ve 20 kadından oluşan toplam 39 sağlıklı birey dahil edildi. Katılımcıların ortalama yaşları 28.1±7.29 olarak bulundu. Depresyon, beden farkındalığı ve iyilik halini değerlendirmek için sırasıyla Beck Depresyon Envanteri, Beden Farkındalığı Anketi ve İyilik Hali Yıldız Modeli kullanıldı. Veriler SPSS v.21 kullanılarak analiz edildi ve parametreler arasındaki ilişkilerin belirlenmesinde Pearson veya Spearman korelasyon analizleri kullanıldı. Araştırmanın bulguları, iyilik hali ile beden farkındalığı ve depresyon parametreleri arasında anlamlı pozitif bir ilişki olduğunu ortaya koydu. Sonuç olarak, bu çalışma, beden farkındalığının sağlıklı yetişkinlerde depresyonu azaltmada önemli bir rol oynadığı hipotezini desteklemektedir. İyilik hali, beden farkındalığı ve depresyon parametreleri arasında gözlemlenen korelasyonlar, beden farkındalığının iyilik halini desteklemede ve depresyon riskini azaltmada önemini vurgulamaktadır.

**Anahtar kelimeler:** Beden farkındalığı, Depresyon, İyilik hali.

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## INTRODUCTION

The concept of emotional well-being encompasses characteristics such as the ability to recognize and control one's emotions, as well as the capacity to view oneself, life situations, and conflicts in a positive and developmental manner. This dimension also includes the ability to ascribe meaning to life and to set and pursue goals. Cognitive well-being is characterized by a preference for intellectual activity and an openness to learning and problem-solving. Social well-being reflects the quality and degree of social interaction an individual has with others, as well as the perceived level of social support from important individuals in their life. Finally, physical well-being involves maintaining a healthy lifestyle through balanced eating habits and regular physical activity, as well as engaging in behaviors that promote physical health. (Korkut-Owen, Doğan, Demirbaş-Çelik & Owen, 2016; Korkut, 2012).

Physical and mental health are vital components of overall well-being and quality of life. Recognizing the relationship between these factors and depression parameters in healthy adults is crucial for promoting holistic health (Naylor et al., 2016). It is important to understand that the health of the body and mind are interconnected, and neglecting one aspect can have a negative impact on the other. By examining the complex relationship between physical health, mental well-being, and depression parameters, valuable insights can be gained into how to promote overall holistic health (Kolappa, Henderson & Kishore, 2013; Ohrnberger, Fichera, & Sutton, 2017). The relationship between well-being and body awareness is also an area of growing interest in scientific research. Studies have explored various aspects of this relationship, including how body awareness practices can influence stress levels, emotional regulation, and overall satisfaction with life. Body awareness training, such as Hatha Yoga and Dance Movement Therapy, has been shown to reduce stress and enhance psychological well-being in university teachers (Rodríguez-Jiménez, Carmona, García-Merino, Díaz-Rivas & Thuissard-Vasallo, 2022). Positive body image, including body appreciation and acceptance, is associated with higher levels of emotional, psychological, and social well-being (WE, 2017). There is a weak positive relationship between conscious awareness, which includes body satisfaction, and well-being, suggesting that body satisfaction can predict conscious awareness to some extent (Swami, Weis, Barron & Furnham, 2018).

The objective of this study is to examine the connection between well-being, body awareness, and depression parameters in healthy adults. The impact of these variables on overall mental health is a subject of significant interest in the field of psychology, and this study aims to contribute to the existing literature by exploring their interrelationships in a healthy

population. This study aims to explore the relationship between these factors and their impact on mental health in greater depth.

## **MATERIAL AND METHOD**

### **Study Design and Participants**

A cross-sectional study design was employed to examine the relationship between well-being, body awareness, and depression parameters in a sample of 39 healthy adults. The sample size was determined using the G-Power 3.1 software (Faul, Erdfelder, Buchner & Lang, 2009). Regarding power analysis, based on a study evaluating the relationship between body awareness and depression, it was calculated that there should be at least 38 people for a power of 0.80 and an alpha of 0.05 (Mehling et al., 2012). Thirty-nine healthy adults, comprising 19 men and 20 women, participated in the study. The mean age of the participants was 28.1 years, with a standard deviation of 7.29 years. Participants were recruited through voluntarily and were required to meet certain inclusion criteria, such as being between the ages of 18 and 45 and having no history of mental health conditions.

### **Beck Depression Inventory**

The questionnaires used in the study were completed face-to-face, and the total time required for all questionnaires ranged between 20 and 30 minutes. The inventory was developed by Aaron T. Beck and her colleagues to assess the level of depression experienced by individuals. The translation into Turkish and validity-reliability study was done by Neşe Hisli (Beck, Ward & Mendelson, 1961; Hisli, 1989). It contains a total of 21 categories, each comprising four distinct evaluation items and scored on a scale of 0 to 3 points. The final score is determined by summing up the points, which range from a minimum of 0 to a maximum of 63. A score above 17 suggests the presence of depression. The scale's interpretation of scores are as follows: 0-9 as "no depression", 10-16 as "mild depression", 17-29 as "moderate depression", 30-63 as "severe depression".

### **Body Awareness Questionnaire**

This is a questionnaire that consists of 18 items and 4 subgroups, and it is designed to assess individuals' awareness of their body's reactions, processes, and sleep-wake cycle, developed by Shelley Shields and colleagues (Shields, Mallory & Simon, 1989). The Turkish validity and reliability study of the Body Awareness Questionnaire (BAQ) was conducted by Seda Karaca and Banu Bayar (Karaca & Bayar, 2021). The survey required respondents to rate 18 statements on a scale from 1 to 7, with 1 indicating "Not at all true of me" and 7 representing

"Very true of me". The maximum possible score from the survey was 126, while the minimum score attainable was 18. A high score on the survey indicates a high level of body awareness. The widespread acceptance of the questionnaire among researchers in the health field can be attributed to its extensive content, ease of application, quick implementation, straightforward language, and holistic approach to evaluating the body. The fact that it does not necessitate any special training for its use and that it employs widely comprehensible expressions has contributed significantly to its popularity.

### **The Well-Star Scale**

The Well-Star Scale, which is one of the models focused on well-being, was developed by Korkut-Owen and Owen (2012). The IHYM model comprises five dimensions, including physical, psychological/emotional, social, intellectual/professional, and spiritual. The scale study created for the model assesses the spiritual dimension, which entails giving meaning to life and being goal-oriented, the intellectual/professional dimension, which involves cognitive abilities, and the emotional dimension, which was previously referred to as the psychological/emotional dimension (Korkut-Owen et al., 2016). This model is a useful tool for evaluating well-being, and its dimensions provide a comprehensive framework for understanding various aspects of an individual's well-being.

### **Statistical Analysis**

The IBM SPSS Statistics for Windows (Version 21.0. Armonk, NY: IBM Corp.) program was used for data analysis. To determine the distribution properties of the data, the Kolmogorov-Smirnov and Shapiro-Wilk tests were employed. The relationships between all parameters were assessed through Pearson or Spearman correlation analyses, depending on the distribution characteristics of the data. A significance level of  $p < 0.05$  was accepted for all analyses.

### **Ethical Approval**

All participants provided written informed consent, adhering to the principles outlined in the Declaration of Helsinki, and the Ethics Committee of Bezmialem Vakif University approved the study (Project No: E-54022451-050.05.04-70623).

## **RESULTS**

All subparameters of the participants' well-being scores and Beck depression and body awareness scores are summarized in Table 1 and correlations are shown in Table 2.

**Table 1.** Well-Being, Depression and Body-Awareness Parameters of Participants

Parameter	mean ±sd
Physical well-being	5.43±2.01
Emotional well-being	7.07±2.04
Social well-being	6.17±2.46
Cognitive well-being	6.1±2.83
Giving meaning to life and being goal-oriented	6.58±2.77
Beck Depression	10.56±7.98
Body Awareness	90.23±20.84

\*sd:standard deviation

**Table 2.** Correlations of Well-Being, Depression and Body-Awareness Parameters of Participants

Parameter	Physical well-being	Emotional well-being	Social well-being	Cognitive well-being	Giving meaning to life goal oriented	Beck Depression	Body Awareness
<b>Physical well-being</b>	-	r:.481** p:0.002	r:.428** p:0.007	r:.318* p:0.049	r:.513** p:0.001	r:-.352* p:0.028	r:.406* p:0.011
<b>Emotional well-being</b>	r:.481** p:0.002	-	r:.245 p:0.132	r:.326* p:0.043	r:.416** p:0.008	r:-.505** p:0.001	r:.419** p:0.009
<b>Social well-being</b>	r:.428** p:0.007	r:.245 p:0.132	-	r:.573** p<0.001	r:.638** p<0.001	r:-.353* p:0.027	r:.330* p:0.043
<b>Cognitive well-being</b>	r:.318* p:0.049	r:.326* p:0.043	r:.573** p<0.001	-	r:.464** p:0.003	r:-.419** p:0.008	r:.075 p:0.653
<b>Giving meaning to life goal oriented</b>	r:.513** p:0.001	r:.416** p:0.008	r:.638** p<0.001	r:.464** p:0.003	-	r:-.378* p:0.018	r:.226 p:0.173
<b>Beck Depression</b>	r:-.352* p:0.028	r:-.505** p:0.001	r:-.353* p:0.027	r:-.419** p:0.008	r:-.378* p:0.018	-	r:-.335* p:0.04
<b>Body Awareness</b>	r:.406* p:0.011	r:.419** p:0.009	r:.330* p:0.043	r:.075 p:0.653	r:.226 p:0.173	r:-.335* p:0.04	-

\*r: correlation coefficient; p, statistical significance

Our study findings indicated a significant relationship between physical well-being and depression, as well as between body awareness and overall well-being scores ( $p<0.05$ ). The study found significant correlations between emotional well-being and all parameters ( $p<0.05$ ), except for social well-being ( $p>0.05$ ). Social well-being was found to be correlated with all parameters ( $p<0.05$ ), with the exception of emotional well-being, cognitive well-being and the giving meaning to life and being goal-oriented were found to exhibit statistically significant relationships with other parameters, with the exception of body awareness ( $p<0.05$ ). The relationship between body awareness and depression was found to be negatively correlated, as evidenced by the statistically significant result ( $p<0.05$ ).

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## DISCUSSION

The findings of this study suggest that body awareness may play an important role in protecting against depression in healthy adults. The significant positive correlation between well-being and body awareness indicates that individuals who report higher levels of well-being also tend to have greater body awareness. Additionally, the significant negative correlation between body awareness and depression parameters suggests that individuals who have a greater sense of body awareness may be less likely to experience symptoms of depression.

The interconnections among physical well-being, depression, and body awareness have been the focus of extensive research in the literature. A randomized controlled study revealed a significant negative correlation between self-reported depression symptoms and physical well-being, suggesting that exercise interventions can enhance physical well-being in healthy individuals (Schitter, Nedeljkovic, Ausfeld-Hafter & Fleckenstein, 2016). Another study delved into the relationship between physical fitness and mental health, examining the connection between physical health and psychological well-being, stress, and depression in Korean adults. This study emphasized the significance of physical fitness in promoting mental well-being (Jeoung, 2020). Researchers devised mediation models to investigate the impact of factors such as depression, social activity, and well-being on the connection between physical performance and frailty in middle-aged and older individuals. These models aim to demonstrate the underlying mechanisms through which these variables influence each other (Tallutondok, Hsieh & Li, 2022). Based on a case study, it was demonstrated that fundamental body awareness interventions are effective in reducing depressive symptoms and improving overall well-being (Khatri & Kubavat, 2013). The study conducted by Rubin and Steinberg (2011) also explored the connection between body awareness and depression. They discovered that individuals' awareness of their body's functionalities affects both body surveillance and the prevalence of depression. According to the study, a connection exists between body satisfaction, well-being, and conscious awareness, suggesting a positive relationship among these factors (Mert & Kahraman, 2019). The correlation between improved body awareness and an improved quality of life is well-documented. Research indicates that people with improved self-consciousness of their physical bodies exhibit reduced incidences of depression and a lower prevalence of mood disorders. Furthermore, consistent engagement in physical activity has been shown to offer a protective effect against depression and can enhance an individual's overall psychological well-being (Fujino, 2016; Piriñçi, Cihan, Ünüvar & Gerçek, 2022).

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## CONCLUSION

The results of various studies highlight the significant influence of physical activity and body awareness on mental health and overall well-being, suggesting that these factors can play a beneficial role in managing depression. Collectively, these studies indicate a strong connection between physical well-being, depression, and body awareness. Enhancing physical fitness, improving body awareness, and fostering body satisfaction can have a positive impact on mental health outcomes, including reducing the symptoms of depression and promoting overall well-being. Our results suggest that body awareness may serve as a protective factor against depression and may have implications for the development of interventions aimed at enhancing mental health and well-being. However, further research is necessary to explore these relationships in more diverse populations and to investigate potential mechanisms underlying these associations.

As a conclusion, this study strongly support the idea that body awareness plays a crucial role in protecting against depression in healthy adults. The correlations between well-being, body awareness, and depression parameters underline the significance of body awareness in promoting mental well-being and reducing the risk of depression. The evidence from various studies consistently emphasizes the positive impact of physical activity, body awareness, and body satisfaction on mental health outcomes.

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