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ARAŞTIRMA MAKALESİ / RESEARCH ARTICLE

EXAMINING THE SPIRITUAL WELL-BEING, POST-TRAUMATIC GROWTH, AND QUALITY OF LIFE OF PATIENTS FOLLOWING MYOCARDIAL INFARCTION*

MİYOKARD İNFARKTÜSÜ SONRASI HASTALARDA SPİRİTÜEL İYİ OLUŞUN, TRAVMA SONRASI BÜYÜMENİN VE YAŞAM KALİTESİNİN İNCELENMESİ

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ABSTRACT

This study aims to examine the psychological well-being, post-traumatic growth and quality of life in patients with myocardial infarction. This study had a descriptive and cross-sectional design of 120 patients who presented themselves at training, and research hospitals in Istanbul. Data collection tools include patient form information, Spiritual Well-Being Scale, Post-Traumatic Growth Inventory, and Heart Quality of Life Scale. The patients' Meaning is 9.77 ± 2.96, Peace is 8.63 ± 3.41, Faith is 12.52 ± 3.5, Spiritual Well-being Scale is 30.92 ± 7.69, Change in Self-Perception is 17 ± 16.48, Change in Life Philosophy is 6.91 ± 7.71, Change in Relationships with Others is 7.09 ± 7.54, Post-Traumatic Growth Inventory is 31 ± 30.33, Physical Characteristics is 1.19 ± 0.88, Emotional Characteristics is 1 ± 1.02, Heart Quality of Life Scale is 1.42 ± 0.79. There is a positive and significant relationship between spiritual well-being and quality of life ($r = 0.338$, $p < 0.01$) and a negative and significant relationship between post-traumatic growth and quality of life ($r = -0.270$, $p < 0.01$). Patients appeared to have a moderate spiritual well-being level, a low level of Post-Traumatic Growth, and a low level of Heart Quality of Life. It was found that as heart quality of life increased, post-traumatic growth decreased, and spiritual well-being increased.

Keywords: Nursing, Myocardial Infarction, Post-Traumatic Growth, Quality of Life

JEL Classification Codes: I10, I12, I19, I31.

ÖZ

Bu çalışma, miyokard infarktüsü geçirmiş olan hastalarda spiritüel iyi oluşu, travma sonrası büyümeyi ve yaşam kalitesini incelenmek amacıyla gerçekleştirilmiştir. İstanbul'da bulunan bir eğitim ve araştırma hastanesinde tedavi edilen 120 hastalar ile gerçekleştirilen kesitsel ve tanımlayıcı çalışmadır. Araştırmada Hasta Bilgi Formu, Manevi İyi Oluş Ölçeği, Travma Sonrası Büyüme Envanteri ve Kalp Yaşam Kalitesi Ölçeği kullanılmıştır. Hastaların ölçeklerden alınan puan ortalamaları; Anlam 9,77 ± 2,96, Barış 8,63 ± 3,41, İnanç 12,52±3,5, Manevi İyi Oluş Ölçeği 30,92 ± 7,69'dur. Benlik Algısında Değişim 17±16,48, Yaşam Felsefesinde Değişim 6,91 ±7 ,71, Başkalarıyla İlişkilerde Değişim 7,09 ± 7,54, Travma Sonrası Büyüme Envanteri 31±30,33, Fiziksel Özellikler 1,19 ± 0,88, Emosyonel Özellikler 1 ± 1,02, Kalp Yaşam Kalitesi Ölçeği 1,42 ± 0,79'dur. Manevi iyi oluş ile yaşam kalitesi ($r = 0,338$, $p < 0,01$) arasında pozitif, travma sonrası büyüme ile yaşam kalitesi ($r = -0,270$, $p < 0,01$) arasında negatif yönlü anlamlı bir ilişki vardır. Hastaların orta düzeyde bir manevi iyi oluşa, düşük bir travma sonrası büyüme düzeyine, düşük seviyede kalp yaşam kalitesine sahip oldukları görülmektedir. Kalp yaşam kalitesi arttığında travma sonrası büyümenin azaldığı, manevi iyi oluşun ise arttığı görülmüştür.

Anahtar Kelimeler: Hemşirelik, Miyokardiyal Infarktüs, Travma Sonrası Büyüme, Yaşam Kalitesi.

JEL Sınıflandırma Kodları: I10, I12, I19, I31.

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GENİŞLETİLMİŞ ÖZET

Amaç ve Kapsam:

Koroner arter hastalıkları (KAH), yaşam boyunca sinsi ilerleyen ve semptomlar ortaya çıktığında genellikle ileri aşamaya ulaşan kronik hastalıklardır. KAH içinde yer alan miyokard infarktüsü (MI), yüksek mortalite, ciddi komplikasyonlar ve tekrarlama riski nedeniyle önemli bir sağlık sorunudur. MI hastalarca ani gelişen, yaşamı tehdit eden ve stres düzeyini artıran bir durum olarak algılanmaktadır. Psikososyal sorunlar tedaviye uyumu, yaşam kalitesini, prognozu ve mortaliteyi olumsuz etkileyebilir. MI şiddeti ve sayısının artması yaşam kalitesini düşürür. Spiritüelite, sağlık sonuçları ve yaşam kalitesinin önemli belirleyicisidir ve hastaların inançları başa çıkma stratejilerini etkilemektedir. Spiritüelitenin uyumu kolaylaştırdığı ve sağlık üzerinde olumlu etkileri olduğu belirtilmektedir. Travma sonrası büyüme, travma sonrası eski duruma dönmekten öte, yaşam alanlarında olumlu gelişim deneyimlemektir. Negatif değişimlerin yanı sıra pozitif değişimlerin de değerlendirilmesi gerekir. Literatürde MI sonrası spiritüel iyi oluş, travma sonrası büyüme ve yaşam kalitesi ilişkisini inceleyen ampirik çalışma bulunmamaktadır. Bu çalışma, bu eksikliği gidermek ve söz konusu değişkenler arasındaki ilişkileri incelemek amacıyla yapılmıştır. Bu çalışma, miyokard infarktüsü geçirmiş olan hastalarda spiritüel iyi oluşun, travma sonrası büyümenin ve yaşam kalitesinin incelenmesi amacıyla yapılmıştır.

Yöntem:

Tanımlayıcı ve kesitsel nitelikteki bu araştırma İstanbul'da bulunan bir Eğitim ve Araştırma Hastanesinde 25.09.2023-20.04.2024 tarihleri arasında kardiyoloji polikliniğine başvuran ve kardiyoloji servislerinde yatmakta olan 120 hasta üzerinde yapılmıştır. Araştırmada Hasta Bilgi Formu, Manevi İyi Oluş Ölçeği (MİOÖ), Travma Sonrası Büyüme Envanteri (TSBE) ve Kalp Yaşam Kalitesi Ölçeği (KYKÖ) kullanılmıştır.

Bulgular:

Hastaların yaş ortalaması 61,29±11,27 yıl, EF (%) ortalaması 51,53±9,96, BKİ ortalaması 28,56±4,69, %78,3'ü erkek, %93,3'ü evli, %49,2'si ilkokul, %46,7'si emekli, %64,2'si çalışmıyor, %52,5'i gelir gidere eşit, %83,3'ü çekirdek aile, %85'i eş ve çocuklar, %92,5'i ilde yaşıyor, %67,5'i sigara kullanmıyor, %90'ı alkol kullanmıyor, %76,7'si fiziksel aktivite yapmıyor ve %39,3'ü ara sıra fiziksel aktivite yapıyor olduğunu belirtmiştir. Hastaların %74,2'si kronik hastalığı bulunmakta, %76,7'si 1 kez kalp krizi geçirmiş, %78,3'ü 0-6 ay öncesinde kalp krizi geçirmiş, %54,2'si ailede kalp krizi geçirenin yok, %91,7'si manevi destek almadığını, %76,7'si diyet yapmadığını, %86,7'si ilaç tedavisine iyi uyum sağladığını ve %71,9'u ek kronik hastalık olarak hipertansiyon olduğunu belirtmiştir. Hastaların Anlam ortalaması 9,77±2,96, Barış ortalaması 8,63±3,41, İnanç 12,52±3,5, MİOÖ ortalaması 30,92±7,69'dur. Benlik Algısında Değişim ortalaması 17±16,48, Yaşam Felsefesinde Değişim ortalaması 6,91±7,71, Başkalarıyla İlişkilerde Değişim ortalaması 7,09±7,54, TSBE ortalaması 31±30,33, Fiziksel Özellikler ortalaması 1,19±0,88, Emosyonel Özellikler ortalaması 1±1,02, KYKÖ ortalaması 1,42±0,79'dur. MİOÖ ile KYKÖ ($r=,338$, $p<0,01$) arasında pozitif yönlü, TSBE ile KYKÖ ($r=-,270$, $p<0,01$) arasında negatif yönlü anlamlı bir ilişki vardır.

Sonuç ve Tartışma:

Hastaların orta düzeyde bir manevi iyi oluşa, düşük bir travma sonrası büyüme düzeyine, düşük seviyede kalp yaşam kalitesine sahip oldukları görülmektedir. Kalp yaşam kalitesi arttığında travma sonrası büyümenin azaldığı, manevi iyi oluşun ise arttığı görülmüştür. Bulgular, MI hastalarında fiziksel, psikososyal ve spiritüel boyutların birbiriyle karmaşık bir şekilde ilişkili olduğunu göstermektedir. MI hastalarında manevi iyi oluşun orta seviyede olması, bu bireylerin hastalık sürecinde inanç veya anlam arayışını kısmen koruduğunu, ancak bunun yeterince yüksek olmadığını gösterir. Bu durum, hastalığın getirdiği fiziksel ve psikososyal yüklerin manevi güçlenmeyi sınırladığını; aynı zamanda bazı hastalarda inanç ve değerler üzerinden destek arayışının sürdüğünü düşündürür. Klinik açıdan, spiritüel destek müdahaleleriyle bu seviyenin yükseltilmesi hem ruhsal iyilik hem de tedavi uyumu açısından yararlı olabilir. MI genellikle beklenmedik, ani ve hayatı tehdit eden bir durum olduğu için başlangıçta daha çok kayıp, korku ve stres odaklı tepkiler ortaya çıkmaktadır. Düşük travma sonrası büyüme, hastaların henüz yaşadıkları deneyimi anlamlandırma, ders çıkarma veya kişisel gelişim fırsatına dönüştürme aşamasına ulaşamadıklarını göstermektedir. Travma sonrası büyüme zaman içinde, psikososyal destek ve rehabilitasyonla artabilir. Düşük seviyede kalp yaşam kalitesine hem fiziksel kısıtlılıkların hem de psikolojik yüklerin hastaların günlük yaşamını ciddi ölçüde etkilediğini göstermektedir. Travma sonrası büyüme, çoğu zaman yaşanan zorluklarla başa çıkma sürecinde tetiklenir. Fiziksel yaşam kalitesi iyileştikçe "büyüme ihtiyacı" veya "zorluklardan anlam çıkarma" motivasyonu azalabilir. Daha iyi yaşam kalitesine sahip olanlar, yaşadıkları olayı travmatik bir dönüm noktası olarak görmeyebilir; bu da büyüme puanlarını düşürebilir. Literatürde, travma sonrası büyümenin her zaman mutluluk veya rahatlama ile değil, bazen zorlukla mücadele sürecinde geliştiği vurgulanmaktadır. Daha iyi fiziksel sağlık, bireyin manevi yönünü keşfetmeye veya yaşadığı olayla anlamlı bir bağ kurmaya daha fazla alan tanıyabilmektedir. İyileşen fiziksel durum, umudu, şükran duygusunu ve yaşamın anlamına dair farkındalığı artırabilir. Travma sonrası büyümenin düşük çıkması, özellikle erken dönem hastalarda normal olabilir; ancak zaman içinde destekleyici müdahalelerle artabilir. Manevi iyi oluşun artırılması hem yaşam kalitesini hem de psikososyal uyumu destekleyebilir. Klinik yaklaşımlarda, yalnızca tıbbi tedavi değil; psikososyal destek, spiritüel bakım ve anlam merkezli danışmanlık da planlanmalıdır.

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1. INTRODUCTION

Based on the latest data from the World Health Organization (WHO), 17.9 million people lost their lives because of CVD in 2019, which accounts for 37 % of all deaths worldwide (WHO, 2023). In our country, when deaths are examined according to causes in light of the data from the Turkish Statistical Institute (TÜİK), circulatory system diseases maintain their first place with 33.4 % in 2023 (TÜİK, 2023). When deaths resulting from diseases of the circulatory system are examined according to the secondary causes of death, ischemic heart diseases constitute 16 % of all deaths in the world (WHO, 2023). In Turkiye, ischemic heart diseases constitute 42.4 %, other heart diseases constitute 24.1 %, and cerebrovascular diseases constitute 18.6 % (TÜİK, 2023).

Leading among cardiovascular diseases, Ischemic Heart Diseases are also defined as Coronary Artery Disease (CAD). CAD occurs because of the obstruction of some or all of the blood flow as a result of narrowing or blockage in the coronary arteries that feed the heart muscle. CAD, which is among the leading causes of morbidity and mortality in the world, has an increasing prevalence in developed and developing countries (WHO, 2023). Myocardial Infarction (MI) is a condition characterized by tissue death in the myocardium because of long-term ischemia and has a very high mortality rate. Patients who have had an MI experience fear of death because of symptoms such as chest pain, palpitations, shortness of breath, etc., which negatively affects them both cognitively and socially in the later stages of their lives (ESC, 2021). Often neither spirituality nor religion enters people's consciousness until there is a major event in their lives that causes them to reflect. The disease is often a time of reflection when lives are disrupted by significant difficulties (Lepherd, 2015).

Although spirituality is considered to be a religious concept, it has a deeper scope (Ekşi and Kardaş, 2017). Spirituality covers the process of discovering and understanding a person's relationship with their inner world, soul, the population, or a transcendent being. This concept is generally associated with issues such as self-development, spiritual search, inner peace, and meaning. Spirituality can be associated with religious Faiths, or it can be a completely personal and non-religious spiritual experience or search (Lepherd, 2015). Spiritual well-being can be expressed as a concept that includes a person's self-perception, making sense of their life, and believing in a spiritual power. Spirituality, which is closely associated with trauma, is quite impactive in the positive or negative reactions an individual will give after trauma (Ekşi and Kardaş, 2017; Uğurluoğlu and Erdem, 2019).

Natural disasters, fatal diseases such as heart attacks, wars, loss of loved ones, and life events such as job loss are devastating events that affect participants' lives (Leung et al., 2010). All of the good responses that an individual has after experiencing a traumatic incident are collectively referred to as post-traumatic development. In addition to being referred to as "perceived benefits" or stress-related growth, the term "post-traumatic growth" describes a wide range of beneficial changes that individuals report experiencing after enduring a traumatic experience or a test of their physical or mental resilience. (Lee, Park and Laflash, 2022). Such a positive change might occur in various ways, including a greater life appreciation, meaningful interpersonal relations, increased personal power sense, altered priorities, and enhanced existential-spiritual life (Duman, 2019; Gökmen and Deniz, 2020).

Positive or negative reactions to traumas affect the quality of life directly while shaping the individual's lifestyle. Although basic needs may seem the same, each individual has different expectations from their own life. They are happy in different situations and feel satisfied in different subjects. For this reason, quality of life varies from individual to individual (Kaya Yıldırım and Dirik, 2022). MI is perceived by patients as a condition that develops suddenly, threatens life at an advanced level, and significantly increases stress levels (Turan Kavradım et al., 2022). Patients who have had MI are at many psychosocial risks and it has been reported that only 21.4 % of patients have a good level of psychosocial adaptation (Önal, Arabacı and Mutlu, 2019). Developing psychosocial or behavioral problems might negatively affect patients' compliance with treatment, care, quality of life, duration of treatment, prognosis, mortality, and morbidity (Turan Kavradım et al., 2022). It is essential to place an emphasis on post-traumatic growth in cardiac patients since many survivors come to the hospital with a "teaching moment" or an opportunity to make adjustments to the way they will live in the future (Tofler et al., 2015). To assess traumas, positive changes must be evaluated as well as negative changes after traumas (Bilge and Bilge, 2021). Increasing MI severity and the number of MIs lead to a decreased quality of life. Early intervention for psychosocial problems that may arise in patients will both increase physical and mental well-being and contribute to an increase in quality of life (Demirbaş and Kaya, 2022).

Not only does the World Health Organization (WHO) define health as the absence of sickness and infirmity, but it also involves a condition of complete physical, social, and spiritual well-being. The WHO also places an emphasis on the significance of spiritual health. In a similar manner, Florence Nightingale, who emphasized the significance of spirituality by stating that the requirements of one's spiritual health are the same as those of the

physical organs that comprise the body, brought attention to the subject (Çelik İnce and Utaş Akhan, 2016). In general, a higher or increasing level of spiritual well-being is connected with a greater level of post-traumatic growth. This suggests that more research is required to better understand the ways in which spiritual well-being interacts with post-traumatic growth in the context of life-threatening cardiac illnesses and events (Lee et al., 2022). No empirical study has been found in the literature review on the examination of spiritual well-being, Post-Traumatic Growth, and quality of life of patients after MI. At this point, the purpose was to contribute to the elimination of this deficiency in the literature and to investigate whether spiritual well-being, Post-Traumatic Growth, and quality of life are associated with each other.

Research Questions:

- What is the level of spiritual well-being in patients after myocardial infarction?
- What is the level of post-traumatic growth in patients after myocardial infarction?
- What is the level of quality of life in patients after myocardial infarction?
- Is there a relationship between spiritual well-being, post-traumatic growth, and quality of life in patients after myocardial infarction?

2. METHODOLOGY

Type of Study

In order to investigate the spiritual well-being, post-traumatic growth, and quality of life of patients who had suffered a myocardial infarction, the research was carried out in a descriptive and cross-sectional manner.

Population and Sample of the Study

Patients who presented themselves to the Cardiology Outpatient Clinic and were hospitalized in the cardiology wards at a Chest, Cardiovascular Surgery Training and Study Hospital in Istanbul between the dates of September 25, 2023 and April 20, 2024 were included in the study. These patients were required to have a history of myocardial infarction (MI) ranging from 0 to 24 months, have the cognitive ability to answer questions, and have no communication issues. The analysis that was carried out with the help of the G-POWER software revealed that the sample size of the study was 120, and the impact size was found to be 0.3. Additionally, the power was found to be 90%, and the margin of error was found to be 0.05.

Data Collection Tools

The Patient Information Form, Spiritual Well-Being Scale, Post-Traumatic Growth Inventory, and Heart Quality of Life Scale were employed to collect data.

Patient Information Form: The researcher created the form which had 24 questions on patient's demographic information and clinical characteristics.

Spiritual Well-Being Scale (SWBS): The scale was developed by Peterman, Fitchett, Brady, Hernandez, and Cella (2002) with the intention of determining the spiritual well-being of chronic patients. Akturk, Erci, and Araz (2017) were responsible for adapting the scale to Turkish standards in terms of its validity and reliability. In all, there were twelve questions on the Likert-type scale, which had three dimensions: the Meaning sub-dimension, the Peace dimension, and the Faith dimension. On the scale, each item is given a score between 0 and 4, and a total of 0 to 48 points can be earned. Scores that are higher indicate that the level of spiritual well-being is higher, while scores that are lower indicate that the degree of spiritual well-being is lower because of the reduction. According to the Turkish adaption of the scale, the Cronbach's Alpha value was 0.87 (Akturk et al., 2017). In the study, the value of Cronbach's Alpha was found to be 0.77.

Post-Traumatic Growth Inventory (PTGI): Tedeschi and Calhoun (1996) developed the scale with the intention of gaining an understanding of how effective people make it through traumatic experiences and how their perceptions on themselves, others, and the Meaning Sub-dimension of life shift over time. Kağan, Güleç, Boysan, and Çavuş (2012) were the researchers who carried out the study on the validity and reliability of the Turkish study. The scale has three sub-dimensions and 21 things that are scored on a scale from 1 to 6. Changes in self-perception, changes in relationships with other people, and transitions in one's philosophy of life are the sub-dimensions that are included on the scale. You can give the measure a score between 0 and 105. The higher the score, the more the individual has developed as a result of the traumatic experience. In the study conducted by Kağan et al. (2012), the whole scale and its sub-dimensions exhibited Cronbach's Alpha values ranging from 0.77 to 0.92. In the study, the value of Cronbach's Alpha was evaluated to be 0.97.

Heart Quality of Life Scale: Oldridge et al. (2014) created the Heart Quality of Life Scale (HeartQoL) with the purpose of assessing the quality of life of patients. Duğan and Bektaş (2020) did a study to determine the validity and reliability of the HeartQoL in Turkey. The scale is comprised of fourteen elements, with two sub-dimensions:

physical features, which are ten things, and emotional traits, which are four items. In HeartQoL, each item can be given a number between 0 and 3. A score of 3 means "no discomfort" and a score of 0 means "very discomfort." The scale says that the possible numbers are between 0 and 42. If the scale score goes up, it means there is no dysfunction and a good quality of life. If the scale score goes down, it means there is a lot of dysfunction and a low health level. All together, the scale had a Cronbach's Alpha reliability score of 0.88 (Duğan and Bektaş, 2020). An alpha value of 0.90 was found for this work.

Evaluation of Data

During the course of the analysis, the SPSS 25.0 program was utilized. In this presentation, descriptive data, numerical data, and percentage calculations were provided. Spearman's test was used to look at how the factors were related to each other. At a 95% CI and 5% significance level, the data were looked at.

Ethic Statement

The University Ethics Committee (dated May 31, 2023, and numbered 2023/05) and the Provincial Health Directorate (dated September 25, 2023 and numbered 225194260) both gave their approval for the study before it began. Patients who agreed to take part were told about the study ahead of time, and they gave their written permission.

3. RESULS

The average age was 61.29 ± 11.27 years, mean EF (%) was 51.53 ± 9.96, mean BMI was 28.56 ± 4.69, 78.3 % were male, 93.3 % were married, 49.2 % were primary school graduates, 46.7 % were retired, 64.2 % were unemployed, 52.5 % had equal income and expenses, 83.3 % were nuclear families, 85 % were spouses and children, 92.5 % lived in the city, 67.5 % did not smoke, 90 % did not drink alcohol, 76.7 % did not do physical activity, and 39.3 % did physical activity occasionally (Table 1).

Table 1. Sociodemographic Characteristics of Participants (n:120)

		Mean±SD	Min-Max (Median)
Age		61.29±11.27	32-89 (63)
EF (%)		51.53±9.96	25-68 (55)
Body Mass Index		28.56±4.69	18.8-43 (27.7)
		n	**%**
Sex	**Female**	26	21.7
	Male	94	78.3
Marital status	**Single**	8	6.7
	Married	112	93.3
Educational Status	**Literate**	8	6.7
	Primary school	59	49.2
	Moderate school	21	17.5
	High school	20	16.7
	University	12	10.0
Job	**Officer**	5	4.2
	Retired	56	46.7
	Employee	7	5.8
	Freelance	28	23.3
	Unemployed	24	20.0
Working Status	**All Day**	35	29.2
	Part-time	8	6.7
	Not working	77	64.2
Income Status	**Income is less than expenses**	45	37.5
	Income equals expense	63	52.5
	Income is more than expense	12	10.0
Family Structure	**Living alone**	4	3.3

	Nuclear family	100	83.3
	Extended Family	16	13.3
Person Living With	**Spouse and Children**	102	85.0
	Relatives	14	11.7
	Living alone	4	3.3
Residence	**Province**	111	92.5
	District and village	9	7.5
Smoking Status	**Yes**	39	32.5
	No	81	67.5
Alcohol Use Status	**Yes**	12	10.0
	No	108	90.0
Physical Activity Status	**Yes**	28	23.3
	No	92	76.7
Physical Activity Frequency	**Every day**	9	32.1
	1-2 days a week	6	21.4
	3-4 days a week	2	7.1
	Now and again	11	39.3

†EF: Ejection Fraction; ‡SD: Standard Deviation; §Min: Minimum; ||Max: Maximum

Among the patients, 74.2 % had a chronic disease, 76.7 % had a heart attack once, 78.3 % had a heart attack 0-6 months ago, 54.2 % had no family history of heart attack, 91.7 % did not receive moral support, 76.7 % did not diet, 86.7 % complied well with drug treatment, and 71.9 % had hypertension (Table 2).

Table 2. Disease-Related Characteristics of Participants

		n	**%**
Chronic Disease Status	**Yes**	89	74.2
	No	31	25.8
Number of Heart Attacks	**1 Time**	92	76.7
	2 Times	17	14.2
	3 Times and More	11	9.2
Time to Have a Last Heart Attack	**0-6 Months**	94	78.3
	6-12 Months	5	4.2
	12-24 Months	21	17.5
Family History of Heart Attack	**Yes**	55	45.8
	No	65	54.2
Status of Receiving Moral Support	**Yes**	10	8.3
	No	110	91.7
Diet Status	**Yes**	28	23.3
	No	92	76.7
Compliance with the Diet Program	**Good**	14	50.0
	Moderate	9	32.1
	Bad	5	17.9
Compliance with Medication	**Good**	104	86.7
	Moderate	12	10.0
	Bad	4	3.3

The patients' mean score in the Meaning sub-dimension was 9.77 ± 2.96, the mean score for Peace Sub-dimension was 8.63 ± 3.41, the mean score for Faith Sub-dimension was 12.52 ± 3.5, and the mean score for SWBS was

30.92 ± 7.69. The mean score for Change in Self-Perception was 17 ± 16.48, the mean score for Change in Life Philosophy was 6.91 ± 7.71, the mean score for Change in Relationships with Others was 7.09 ± 7.54, the mean score for PTGI was 31 ± 30.33, the mean score for Physical Characteristics was 1.19 ± 0.88, the mean score for Emotional Characteristics was 1 ± 1.02, and the mean score for HeartQoL was 1.42 ± 0.79 (Table 3).

Table 3. Spiritual Well Being Scale, Post-Traumatic Growth Inventory, Heart Quality of Life Scale Evaluations

		Mean±SD	Min-Max (Median)
Spiritual Well-Being Sub-Dimensions	Meaning	9.77±2.96	0-16 (10)
	Peace	8.63±3.41	0-16 (9)
	Faith	12.52±3.5	0-16 (12)
Spiritual Well-Being Scale		30.92±7.69	0-48 (32)
Post-Traumatic Growth Inventory Sub-Dimensions	Change in Self-Perception	17±16.48	0-50 (16)
	Change in Life Philosophy	6.91±7.71	0-30 (4)
	Change in Relationships with Others	7.09±7.54	0-25 (5)
Post-Traumatic Growth Inventory		31±30.33	0-101 (25)
Heart Quality of Life Sub-dimensions	Physical Characteristics	1.19±0.88	0-3 (1)
	Emotional Characteristics	2±1.02	0-3 (2.25)
Heart Quality of Life Scale		1.42±0.79	1.42±0.79

†SD: Standard Deviation; ‡Min: Minimum; §Max: Maximum

Some of the things that were correlated positively and significantly were Changes in Meaning and Philosophy of Life (r = 0.319), Changes in Relationships with Others (r = 0.181), PTGI (r = 0.239), Physical Characteristics (r = 0.238), and HeartQoL (r = 0.229). Peace and Physical Characteristics (r = 0.180), Emotional Characteristics (r = 0.389), and HeartQoL (r = 0.287) were all found to have a good and significant link. It was found that Faith and Emotional Characteristics (r = 0.208) and HeartQoL (r = 0.192) are positively and significantly related. It was found that SWBS was positively and significantly related to Physical Characteristics (r = 0.254), Emotional Characteristics (r = 0.347) and HeartQoL (r = 0.338). Change in Self-Perception and Emotional Characteristics (r = -0.526) and HeartQoL (r = -0.267) were found to be negatively and significantly linked. There was a strong, negative link between Change in Life Philosophy and Emotional Characteristics (r = -0.505) and HeartQoL (r = -0.251). There was a strong negative link found between Changes in Relationships with Others and Emotional Characteristics (r = -0.550) and HeartQoL (r = -0.294). There was a strong negative link between PTGI and both HeartQoL (r = -0.270) and mental traits (r = -0.546) ($p<0.05$) (Table 4).

Table 4. Spiritual Well-Being Scale, Post-Traumatic Growth Inventory, Heart Quality of Life Scale Correlation Analysis

		1	2	3	4	5	6	7	8	9	10	11
1. Meaning	r	1,000										
	p	.										
2. Peace	r	.428	1									
	p	.000*	.									
3. Faith	r	.305	.273	1								
	p	.001*	.003*	.								
4. Spiritual Well-Being Scale	r	.678	.748	.730	1,000							
	p	.000*	.000*	.000*	.							
5. Change in Self-Perception	r	0.17	0.056	.028	0.058	1						
	p	.063	.543	.760	.526	.						
6. Change in Life Philosophy	r	.319	0.088	0.025	0.129	.879	1.000					

	p	.000*	.340	.782	.160	.000*	.					
7. Change in Relationships with Others	r	.181	0.032	0.038	0.058	.919	.849	1.000				
	p	.048*	.725	.681	.529	.000*	.000*	.				
8. Post-Traumatic Growth Inventory	r	.239	0.062	0.026	0.087	.983	.934	.942	1			
	p	0.008*	.503	.782	.343	.000*	.000*	.000*	.			
9. Physical Characteristics	r	.238	.180	0.137	.254	-0.07	-0.06	-0.10	-0.06	1,000		
	p	.009*	0.049*	.135	.005**	.476	.535	.266	.484	.		
10. Emotional Characteristics	r	0.083	.389	.208	.347	-.526	-.505	-.550	-.546	.371	1	
	p	.369	.000*	0.022*	.000*	.000*	.000*	.000*	.000*	.000*	.	
11. Heart Quality of Life Scale	r	.229*	.287	.192	.338	-.267	-.251	-.294	-.270	.916	.690	1
	p	.012*	.001*	.035*	.000*	.003*	.006*	.001*	.003*	.000*	.000*	.

*Spearman's; *p<0.05*

4. DISCUSSION

Myocardial Infarction is perceived as a trauma in the individual's life because it develops suddenly and unexpectedly and can have fatal consequences. This negatively affects the individual psychologically and causes positive or negative reactions depending on the individual's personality, environment, perception, and way of thinking. The purpose of the current study was to determine whether or not there is a connection between spiritual well-being, post-traumatic growth, and quality of life in patients who have had a myocardial infarction. The findings of the study are described in this part together with the data from the previous research.

In the SWBS, the mean score was 30.92 ± 7.69 In its sub-dimensions, the mean significance was 9.77 ± 2.96, the mean Peace Sub-dimension was 8.63 ± 3.41, and the mean Faith was 12.52 ± 3.5. It was found that the patients had a moderate level of spiritual well-being. The concept of spirituality, which has maintained its existence from the moment humans came into being until today, has positively affected the well-being of humans in every aspect associated with humans. It has been observed that a high spiritual level of a person increases the rate of participation in treatment for the disease and the rate of recovery by increasing hope (Uğurluoğlu and Erdem, 2019; Aşiret and Okatan, 2019). As part of their investigation of the spiritual well-being and quality of life of patients getting treatment in the cancer unit, Dalcalı, Durgun, and Can (2021) discovered that the mean SWBS was discovered to be 30.53. Kretchy, Owusu-Daaku, and Danquah (2013) did a research in which they found that patients had high levels of spiritual and religious faith. The findings of this study were presented. Uğurluoğlu and Erdem (2019) conducted a study that aimed to investigate the influence of the spiritual well-being of traumatized individuals on their Post-Traumatic Growth. The findings of their investigation revealed that the participants exhibited a greater degree of development in spiritual issues compared to other issues following the traumatic experience they had undergone (Uğurluoğlu and Erdem, 2019). In another study, Abel and Greer (2017) determined that the level of prayer, which is one of the behaviors that increase spiritual well-being, is high (Abel and Greer, 2017). Aşiret and Okatan (2019) conducted a study in which they measured the levels of spiritual well-being using a different scale. The purpose of their study was to determine the relationship between the levels of medication compliance and spiritual well-being in hypertension patients. The researchers discovered that the individuals who participated in the study had a high level of spiritual well-being (Aşiret and Okatan, 2019). Çiçekli and Çalışkan (2022) conducted a research in which they measured the levels of spiritual well-being of patients using a different scale. The results of their study revealed that the patients exhibited a high degree of spiritual development (Çiçekli and Çalışkan, 2022).

The average PTGI score was 31 ± 30.33, and when we look at its sub-dimensions, the mean change in self-perception was 17 ± 16.48, the mean change in philosophy of life was 6.91 ± 7.71, and the mean change in relations with others was 7.09 ± 7.54. In this respect, it can be seen that the patients participating in the study have a low level of Growth After a Trauma. When the literature was reviewed, there were many studies in the literature on positive changes in the lives of participants after myocardial infarction. Traumatic events, which we can call having a fatal disease, natural disasters such as flood, fire, earthquake, abuse during childhood, sexual abuse, accidents, losing a loved one, or coming face to face with death can lead to positive changes in the individual, defined as

Growth After a Trauma (Ford, Grasso, Elhai and Courtois, 2015). The fact that myocardial infarction can occur at an unexpected moment in a person's life with fatal consequences shows that myocardial infarction is also a traumatic event, and the fact that the rate of stress after a trauma disorder because of myocardial infarction was 16 % in the study conducted by Roberge, Dupuis and Marchand (2007) proves this situation. Castilla and Vazquez (2011) examined participants who had myocardial infarction in three different periods after MI in a study they conducted. After this examination, they determined that the participants who participated in the study developed more positive emotions (Castilla and Vazquez, 2011). Oginska-Bulik (2014) examined life satisfaction and Growth After a Trauma in a total of 86 participants who had a myocardial infarction and determined that one-fourth of the participants showed a high level of Growth After a Trauma in their study. It was observed that half of these participants received rehabilitation and this contributed to Growth After a Trauma (Oginska-Bulik, 2014). Kaya Yıldırım and Dirik (2022) compiled many studies on the Growth After a Trauma of participants who had a myocardial infarction in their study, and as a result, it was found that there was Growth After a Trauma, at least at an average level (Kaya Yıldırım and Dirik, 2022).

Myocardial Infarction also affects the individual both psychologically (e.g., stress, anxiety, depression) and physically (e.g., fatigue, shortness of breath, insomnia) and negatively affects the individual's quality of life (Semiz et al., 2015). The mean score of the HeartQoL was 1.42 ± 0.79 in the study, while when we look at its sub-dimensions, the mean score of physical characteristics was 1.19 ± 0.88 and the mean score of emotional characteristics was 1 ± 1.02. In this respect, a low level of Heart Quality of life was found in the patients. In the study conducted by Oldridge et al. (2014) on 6384 patients with ischemic heart disease, the scale mean was 2.2 ± 0.5. In these patients who had a diagnosis of MI, the mean was determined to be 2.4± 0.5. It was determined to be 2.2 ± 0.6 in patients with angina and 2.1 ± 0.6 in those with a diagnosis of heart failure (Oldridge et al., 2014). Dural and Çıtlık Sarıtaş (2017) used a different scale in their study examining the quality of life and the affecting factors in patients with acute coronary syndrome and determined a moderate level of quality of life (Dural and Çıtlık Sarıtaş, 2017). Demir and Özer (2014) reported in their study on the evaluation of quality of life in cardiovascular diseases that recent studies have caused irreversible negative impacts on the quality of life of participants with CAD (Demir and Özer, 2014). Atik and Çınar (2014) stated in their study that the signs and symptoms and disease-based restrictions seen in patients with ACS affected the quality of life (Atik and Çınar, 2014).

Increasing spiritual well-being had positive impact on Heart Quality of life and causes it to increase while increasing Heart Quality of life has a negative impact on Growth After a Trauma and causes it to decrease. In the literature, no study has been found that addresses the three of wellbeing on a spiritual level, Post-Traumatic Growth, and quality of life. In the study conducted by Uğurluoğlu and Erdem (2019) examining the impact of the wellbeing on a spiritual level of participants who experienced trauma on their Growth After a Trauma, they showed that participants with high spiritual well-being, which can be explained by the Faith that life has a purpose and the existence of a superior power, also have high Post-Traumatic Growth. However, in our study, no significance was found between wellbeing on a spiritual level and Growth After a Trauma in analyses. Positive, weak and significant relationships were found between wellbeing on a spiritual level and Heart Quality of life. Wellbeing on a spiritual level can improve the quality of life in individuals with heart disease. Previous studies reported that spiritual well-being positively affects mental health and life satisfaction (Abu et al., 2018; Taghavi et al., 2019). Growth After a Trauma is often associated with certain aspects of quality of life, but this relationship may not always be positive. Improved cardiac quality of life may negatively impact Growth After a Trauma. This may be due to the stress and trauma experienced after heart disease complicating the spiritual and psychological healing processes (Barskova and Oesterreich, 2009; Dyball et al., 2024).

Limitations of the Study

The study aimed to contribute to the literature on the examination of wellbeing on a spiritual level, Growth After a Trauma, and quality of life in participants after MI and to investigate whether they are associated with each other. The results of the study are limited to a single hospital in Istanbul. The data collected with scales is based on self-reports, and data security is based solely on patient statements. These issues constitute the limitations of the study.

5. CONCLUSION

There was a low level of post-traumatic growth and a poor level of heart quality of life among the patients. Patients looked to have a moderate degree of spiritual well-being. The reduction of post-traumatic growth and the

enhancement of spiritual well-being are both associated with an increase in heart quality of life. Organization and dissemination of a variety of activities that will promote awareness, as well as providing training to the general public, particularly to individuals who are in the risk category for myocardial infarction, in order to improve the quality of life for cardiac patients. Establishing and spreading rehabilitation programs with the goal of enhancing the quality of life of those who have experienced trauma, developing strategies for coping with trauma, and promoting post-traumatic growth in individuals who have undergone myocardial infarction. When it comes to promoting regular and lasting physical exercise, it is imperative that the essential social changes be planned and executed.

DECLARATION OF THE AUTHORS

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REFERENCES

Abel, W. M., & Greer, D. B. (2017). Spiritual/religious beliefs & medication adherence in black women with hypertension. *Journal of Christian Nursing*, 34(3), 164-169. doi: 10.1097/CNJ.0000000000000333.

Abu, H., Ulbricht, C., Ding, E., Allison, J., Salmoirago-Blotcher, E., Goldberg, R., & Kiefe, C. (2018). Association of religiosity and spirituality with quality of life in patients with cardiovascular disease: a systematic review. *Quality of Life Research*, 27, 2777-2797. doi: 10.1007/s11136-018-1906-4.

Aktürk, Ü., Erci, B., & Araz, M. (2017). Functional evaluation of treatment of chronic disease: validity and reliability of the Turkish version of the spiritual well-being scale. *Palliative And Supportive Care,* 15, 684–692. doi: 10.1017/S1478951517000013.

Aşiret, G.D., & Okatan, C. (2019). Determination of the relationship between drug compliance levels and spiritual well-being of hypertension patients. *Turkish Journal of Cardiovascular Nursing,* 10(23), 122-128. doi: 10.5543/khd.2019.66376.

Atik, D. Ö., & Çınar, S. (2014). Correlation of cardiovascular limitations and symptoms profile with the quality of life, anxiety and depression scales. *Kafkas Journal of Medical Sciences*, (2), 51-56. doi: 10.5505/kjms.2014.28863.

Barskova, T., & Oesterreich, R. (2009). Post-traumatic growth in people living with a serious medical condition and its relations to physical and mental health: A systematic review. *Disability and Rehabilitation*, 31, 1709-1733. doi: 10.1080/09638280902738441.

Bilge, Y., & Bilge, Y. (2021). Travma sonrası büyüme açısından bir risk faktörü olarak psikolojik sağlamlık: Koronavirüs salgını örneği. *Acıbadem Üniversitesi Sağlık Bilimleri Dergisi*, *12*(2), 312-325. doi: 10.31067/acusaglik.852182.

Castilla, C., & Vazquez, C. (2011). Stress-related symptoms and positive emotions after a myocardial infarction: A longitudinal analysis. *European Journal of Psychotraumatology*, 2(1), 8082. doi: 10.3402/ejpt.v2i0.8082.

Çiçekli, N., & Çalişkan, İ. (2022). Açık kalp ameliyatı olacak hastaların spiritüel iyi oluş ve umut düzeylerinin belirlenmesi: Tanımlayıcı araştırma. *Turkiye Klinikleri Cardiovascular Sciences,* 34(1), 17-25. doi: 10.5336/cardiosci.2021-86952.

Çelik İnce, S., & Utaş Akhan, L. (2016). Öğrenci hemşirelerin maneviyat ve manevi bakıma ilişkin algıları. *Hemşirelikte Eğitim ve Araştırma*, 13(3):202-208.

Dalcalı, B. K., Durgun, H., & Can, Ş. (2021). Onkoloji biriminde tedavi alan hastalarin manevi iyi oluşlari ve yaşam kaliteleri. *İnönü Üniversitesi Sağlık Hizmetleri Meslek Yüksek Okulu Dergisi*, 9(2), 536-553. doi: 10.33715/inonusaglik.812182.

Demir, Ş., & Özer, Z. (2014). Kardiyovasküler hastalıklarda yaşam kalitesinin değerlendirilmesi. *MN Kardiyoloji*, 21(3), 182-191.

Demirbaş, E., & Kaya, Y. (2022). Miyokard infarktüsü geçiren hastaların anksiyete, depresyon düzeyleri ve stresle baş etme yöntemleri ile uyku kalitesi arasındaki ilişki. *Black Sea Journal of Health Science*, 1-2. doi: 10.19127/bshealthscience.1089634.

Duğan, Ö., & Bektaş, H. (2020). Turkish Adaptation Study of the Heart Quality of Life Scale in Coronary Artery Patients. *Turk J Cardiovasc Nurs*. 11(25), 71–81. doi: 10.5543/khd.2020.38278.

Duman, N. (2019). Travma Sonrası Büyüme ve Gelişim. *IJAR*, 4(7),178-184.

Dural, G., & Sarıtaş, S. Ç. (2017). Miyokard infarktüsünde ev tabanlı eğitim ve yaşam kalitesi. *Journal of Cardiovascular Nursing*, 8(17), 86-94. doi: 10.5543/khd.2017.04796.

Dyball, D., Bennett, A., Schofield, S., Cullinan, P., Boos, C., Bull, A., Stevelink, S., & Fear, N. (2024). The underlying mechanisms by which Post-Traumatic Growth is associated with cardiovascular health in male UK military personnel: The ADVANCE cohort study.. Journal of Health Psychology, 13591053241240196. doi: 10.1177/13591053241240196.

Ekşi, H., & Kardaş, S. (2017). Spiritual well-being: Scale development and validation. *Spiritual Psychology and Counseling*. 2(1), 73-88. Doi: 10.12738/spc.2017.1.0022.

ESC. (2022). European Society Of Cardiology: Cardiovascular disease statistics 2021. *European Heart Journal*. (43), 716–799. doi: 10.1093/eurheartj/ehab892.

Ford, J. D., Grasso, D. J., Elhai, J. D., & Courtois, C. A. (2015). Social, cultural, and other diversity issues in the traumatic stress field. *Posttraumatic Stress Disorder*, 503–546. doi: 10.1016/B978-0-12-801288-8.00011-X.

Gökmen, G., & Deniz, M. E. (2020). Travma sonrası büyümenin yordayıcıları olarak öz-anlayış ve affetme. *Uluslararası Türk Kültür Coğrafyasında Sosyal Bilimler Dergisi (TURKSOSBİLDER)*. 5(2), 72-93.

Kağan, M., Güleç, M., Boysan, M., & Çavuş, H. (2012). Travma sonrası büyüme envanterinin Türkçe versiyonun normal toplumda hiyerarşik faktör yapısı. *TAF Preventive Medicine Bulletin*. 11(5), 617-624. doi: 10.5455/pmb.1323620200.

Kaya Yıldırım, İ., & Dirik, G. (2022). Kalp krizi sonrası hayata farklı bakmak: Miyokard infarktüsü geçirmiş hastalarda travma sonrası gelişim. *Nesne*. 10(23), 169-188. doi: 10.7816/nesne-10-23-10.

Kretchy, I., Owusu-Daaku, F., & Danquah, S. (2013). Spiritual and religious beliefs: do they matter in the medication adherence behaviour of hypertensive patients?. *BioPsychoSocial Medicine*, *7*, 1-7. doi: 10.1186/1751-0759-7-15.

Lee, S. Y., Park, C. L., & Laflash, S. (2022). Perceived posttraumatic growth in cardiac patients: A systematic scoping review. *Journal of traumatic stress*, *35*(3), 791-803. doi: 10.1002/jts.22799.

Lepherd, L. (2015). Spirituality: Everyone has it, but what is it?. *International Journal of Nursing Practice*, *21*(5), 566-574. doi: 10.1111/ijn.12285.

Leung, Y. W., Gravely-Witte, S., Macpherson, A., Irvine, J., Stewart, D. E., & Grace, S. L. (2010). Post-traumatic growth among cardiac outpatients: Degree comparison with other chronic illness samples and correlates. *Journal of Health Psychology*, 15(7), 1049-1063. doi: 10.1177/1359105309360577.

Ogińska-Bulik, N. (2014). Satisfaction with life and posttraumatic growth in persons after myocardial infarction. *Health Psychology Report*, *2*(2), 105-114.

Oldridge, N., Höfer, S., McGee, H., Conroy, R., Doyle, F., Saner, H., & HeartQoL Project Investigators). (2014). The HeartQoL: part II. Validation of a new core health-related quality of life questionnaire for patients with ischemic heart disease. *European Journal of Preventive Cardiology*, 21(1), 98-106. doi: 10.1177/20474873124505.

Önal, D., Arabacı, L. B., & Mutlu, E. (2019). Miyokart infarktüsü geçiren hastalara bakım verenlerin bakım verme yükü ve psikososyal uyumları arasındaki ilişki. *Turk J Cardiovasc Nurs,* 10(23), 105-113.

Peterman, A. H., Fitchett, G., Brady, M. J., Hernandez, L., & Cella, D. (2002). Measuring spiritual well-being in people with cancer: the functional assessment of chronic illness therapy--Spiritual Well-being Scale (FACIT-Sp). *Annals of Behavioral Medicine : A Publication of The Society of Behavioral Medicine*, 24(1), 49–58. doi: 10.1207/S15324796ABM2401_06.

Roberge, M. A., Dupuis, G., & Marchand, A. (2010). Post-traumatic stress disorder following myocardial infarction: prevalence and risk factors. *The Canadian Journal of Cardiology,* 26(5), e170–e175. doi: 10.1016/s0828-282x(10)70386-x.

Semiz, M., Erdem, F., Erdem, A., Tuman, T.C., Oran Demir, M., Kayka, N., & Yıldırım, O. (2015). Akut miyokard infarktüs geçiren hastalarda travma sonrası stres bozukluğu belirtileri. *Abant Med J*, 4(1), 47-53. doi: 10.5505/abantmedj.2015.78942.

Taghavi, S., Afshar, P., Bagheri, T., Naderi, N., Amin, A., & Khalili, Y. (2019). The relationship between spiritual health and quality of life of heart transplant candidates. *Journal of Religion and Health*, 59, 1652-1665. doi: 10.1007/s10943-019-00950-3.

Tedeschi, R. G., & Calhoun, L. G. (1996). The Posttraumatic Growth Inventory: measuring the positive legacy of trauma. *Journal of Traumatic Stress*, 9(3), 455–471. doi: 10.1007/BF02103658.

Tofler, G. H., May, R., Bartrop, R., Kirkness, A., Glinatsis, H., & de Burgh, S. (2015). Acute coronary syndrome as a teachable moment for smoking cessation. *Journal of Smoking Cessation*, 10(1), 5-11.

Turan Kavradım, S., Sert, M., & Özer, Z. (2022). Miyokard infarktüsü geçiren bireylerin ölüm kaygısı ve başa çıkma tutumlarının belirlenmesi. *Turk J Cardiovasc Nurs*, 13(31), 65-73. doi: 10.5543/khd.2022.214169.

TÜİK, (2023). https://data.tuik.gov.tr/Bulten/Index?p=Olum-ve-Olum-Nedeni-Istatistikleri-2023 (Erişim Tarihi: 15.07.2024)

Uğurluoğlu, D., & Erdem, R. (2019). Travma geçiren bireylerin spiritüel iyi oluşlarının travma sonrası büyümeleri üzerine etkisi. *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 21(3), 833-858. doi: 10.16953/deusosbil.507731.

WHO, (2023). https://www.who.int/health-topics/cardiovascular-diseases#tab=tab_1 (Erişim Tarihi: 15.07.2024