

Original Article,

The correlation between crime and religiosity in forensic psychiatry service patients

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Abstract:

Aim: Religion has been perceived as a means of social control throughout human history, emphasizing the association between religiosity and crime. The present study aimed to investigate the correlation between religious commitment and crime in forensic psychiatry service patients.

Method: The study was conducted on 100 patients hospitalized in the forensic psychiatry service after committing a crime. Sociodemographic and clinical data form, Religiosity Scale (RS), Intrinsic Religious Motivation Scale (IRMS) were administered to the participants.

Results: The mean Intrinsic Religious Motivation Scale, Religiosity Scale and sub-dimension scores of the patients were high. A significant difference was determined between the RS total and sub-dimension scores of the patients who committed murder, and the total score was lower when compared to the patients who were incarcerated for other crimes ($p < 0.05$). The "Religious Knowledge" sub-dimension score of the patients incarcerated for theft was significantly higher ($p < 0.05$). It was observed that there was a moderate and positive correlation between the mean IRMS and RS scores ($r: .468, p < 0.05$).

Conclusion: The study findings demonstrated that the religiosity levels of the forensic psychiatry service patients were high based on the scale scores, and religiosity differed based on the type of crime committed. Further studies are required to investigate the correlation between crime and religion.

Keywords: forensic psychiatry, religion, crime, murder.

Introduction:

Religion is a belief system that provides a sense of commitment to a spiritual power (1). Religiosity is the organization of the life of an individual based on the rules and directives of a religious order. Similar to the impact of the culture of an individual, religion dynamically determines individual's behavior (2). The behavior of individuals who internalize religious values, in other words, those with high internal religious motivation, is determined and controlled by religion (3). Thus, religion and religiosity are significant for the determination of one's personal principles and social relations based on these principles (4).

Attitudes and behavior that cause harm and endanger society in life and sanctioned by law were described as crimes (5). People with criminal behavior could have certain different traits when compared to others, and it was reported that these differences could be associated with criminal behavior (6). Research on the factors that promote or prevent crime demonstrated that commitment of crime was affected by age, race, and gender variables, as well as psychiatric disorders (7,8). It was determined that certain criminal individuals could suffer from psychotic symptoms or mood disorders when they commit a crime (9). Especially violent crimes were associated with schizophrenia (10,11). Another study emphasized the correlation between mental illness and violent

crime and demonstrated that substance use and mental illness comorbidity would significantly increase the risk of criminal behavior (12). Violent crimes are more common in psychiatric disorder patients with psychotic symptoms, while there is a unique and incomprehensible correlation between crime and psychiatric disorders (13,14). Secure forensic psychiatry services have been established to hospitalize individuals with psychiatric disorders for protection and treatment after committing a crime. These services also serve to determine criminal liability of individuals who had committed a crime but never diagnosed with a psychiatric disorder. These services are available in certain provinces in Turkey, including Elazig (15).

Sacred religious teachings have a potential to incite moral behavior (16). In previous studies, the correlation between religiosity and crime aroused a certain curiosity, and it was considered a social control tool, and studies reported that there was an inverse correlation between religiosity and criminal behavior (17,18). Certain studies reported that religiosity could affect the type of crime committed (19). It was reported that religiosity particularly reduced drug use and both violent and non-violent crimes (20). The significance of the religion in crime investigations is undeniable. The above-mentioned fact suggests that religiosity could have an effect on criminal behavior in psychiatric patients. Although most studies argued that religion positively affects mental health, rehabilitates individuals, and is an obstacle to crime, this correlation has always been questioned. These differences of opinion exist; however, the present study aimed to investigate whether religiosity serves as a buffer against crime among forensic psychiatry service patients, and whether it has an effect against on certain crimes categorized in the current study.

Method and Material:

The study was approved by the local ethics committee (Approval No:2023/07-38). The study was conducted in accordance with the ethical standards specified in the Declaration of Helsinki, 1983 revision. The present study was conducted at XXXX Hospital High Security Forensic Psychiatry Service (HSFP) between June 2023 and July 2023. Since women's ward was not active at the time, all participants were male. The study was conducted with patients in remission who were incarcerated in the forensic psychiatry service for observation or treatment after

committing a crime. Structured interviews were conducted with the participants by the psychiatrist based on DSM-5 standards and lasted about 30 minutes. Sociodemographic data form, Intrinsic Religious Motivation Scale, and Religiosity Scale were completed after the patients signed informed consent forms. Individuals who could not answer the interview questions, had a history of neurological disease, auditory or speech disabilities, or a history of alcohol and substance abuse during the last 6 months were excluded from the study. Eight patients refused participation after the interview was initiated, and 14 patients were excluded from the study since they did not respond to all interview questions. Thus, the study sample included 100 male patients. Patients who were not between 18 and 65 years old, were illiterate, with a known metabolic disease, or mental retardation were excluded from the study.

Data Collection Instruments

Sociodemographic Data Form: The form is a semi-structured questionnaire that included questions on demographic data such as age, marital status, education level, place of residence, income, and clinical evaluation questions such as crime committed, history of inpatient treatment in psychiatry service, tobacco and alcohol use.

Religiosity Scale (RS): The scale was initially developed by Yaparel (21). Later, Hünler (22) improved the scale to include 27 items in three sub-dimensions: religious behavior, religious beliefs and emotions, and religious knowledge. The lowest possible scale score is 27 and the highest possible score is 135. The studies conducted in Turkey demonstrated that the religiosity scale was a valid and reliable measurement tool. The Cronbach Alpha value of the scale was calculated as .94 for the religious behavior sub-scale, .92 for the religious beliefs sub-scale, and .94 for the religious knowledge sub-scale in the present study.

Intrinsic Religious Motivation Scale (IRMS): The 10-item scale was developed by Hoge (23) to measure intrinsic religious motivation. The lowest possible scale score is 5 and the highest possible score is 50. The validity and reliability of the Turkish version were determined by Karaca (24). The Cronbach alpha coefficient of the scale was .82 in the present study.

Statistical Analysis

Statistical analysis was conducted on SPSS (Statistical Package for Social Science) 22.0 Windows software. Kolmogorov-Smirnov test was employed to determine normal distribution of the continuous variables. Spearman Correlation analysis was used to determine the correlations between numerical variables, and Independent Samples t-test and One-Way ANOVA were employed to compare the two independent groups. The level of significance was accepted as $p < 0.05$ and 95% confidence interval. The statistics of

continuous scale variables are presented with standard deviations and means, minimum and maximum values of the properties, and categorical variables are described with counts and percentages.

Results:

Most patients were 44 years old or older (29.9%). 56.4% of the participants were married, few were college graduates, 60% were unemployed, 56.4% had middle income, and 70.1% resided in urban centers (Table 1).

Table 1. Patient Demographics

Variable	n=100	%
Age group**		
20-25	16	13.7
26-31	27	23.1
32-37	23	19.7
38-43	16	13.7
≥44	35	29.9
Mean age (min/max)	38.01±12.13 (20/74)	
Marital status		
Married	66	56.4
Single	51	43.6
Education		
Literate	10	8.5
Primary school	32	27.4
Middle school	31	26.5
High school	32	27.4
College	12	10.3
Profession		
Unemployed	71	60.7
Worker	13	11.1
Small business owner	25	21.4
Public servant	8	6.8
Income level		
Low	39	33.3
Middle	66	56.4
High	12	10.3
Place of residence		
Rural	22	18.8
Township	13	11.1
Urban	82	70.1

The mean Intrinsic Religious Motivation Scale, Religiosity Scale and sub-dimension scores of the patients were found high (Table 2).

Table 2. Mean Intrinsic Religious Motivation Scale, Religiosity Scale and sub-dimension scores

IRMS/RS and sub-scale	Mean ± S	Min/Max
IRMS	28.35±4.72	12 / 40
Religiosity Scale	109.60±14.32	28 / 135
Religious Beliefs/Emotions	41.47±6.60	12 / 60
Religious Knowledge	19.11±5.69	6 / 50
Religious Behavior	41.47±6.60	9 / 60

There was a statistically significant difference between the education level of the patients and their "Religious Knowledge" sub-dimension scores. The mean religious knowledge score of the

patients who were college graduates was lower when compared to others ($p < 0.05$). The mean Religious Knowledge sub-dimension score of the patients who used alcohol was higher when

compared to those who did not use alcohol (p<0.05). There was a significant difference between the reasons for being in the service and the mean "Religious Belief" sub-dimension and total Religiosity Scale scores, and it was determined that the scores of the patients hospitalized for observation were lower when compared to the patients hospitalized for protection (p<0.05). There was a significant difference between the Religiosity scale and sub-dimension scores of the patients incarcerated for murder, and the total mean score of those who

committed murder was lower (p<0.05). There was a significant difference between the "Religious Knowledge" sub-dimension scores of the patients incarcerated for theft and others, and the religious knowledge of thieves was higher (p<0.05). No difference was determined between the Intrinsic Religious Motivation Scale, Religiosity Scale and sub-dimension scores based on patient age, marital status, active psychiatric treatment, self-mutilation, suicidal history, insult or sexual crimes (Table 3).

Table 3. Comparison of the mean IRMS, RS, and subdimension scores based on study variables

	Religious Behavior X±SD t/F p	Religious Knowledge X±S.S t/F p	Religious Beliefs/Emotions X±SD t/F p	Religiosity Scale X±SD t/F p	Intrinsic Religious Motivation Scale X±SD t/F p
Age group					
20-25	42.87±2.60	19.25±4.69	49.75±5.25	111.81±8.47	30.37±2.91
26-31	42.70±6.67	19.07±5.14	48.59±7.92	111.03±15.54	28.25±4.42
32-37	40.47±8.10	16.47±5.88	48.21±8.78	105.13±18.96	28.69±6.22
38-43	39.28±5.07	19.57±2.90	46.57±6.22	105.42±12.84	27.92±3.34
≥44	41.40±7.18	20.56±6.73	49.48±7.37	111.97±12.16	27.51±4.89
	.822	1.916	494	1.287	1.087
	0.514	0.113	0.740	0.279	0.367
Marital status					
Married	41.55±6.70	18.39±5.24	47.72±8.50	107.90±16.66	28.16±4.79
Single	41.35±6.53	20.05±6.15	50.00±5.40	111.80±10.28	28.60±4.67
	-168	-1.577	1.665	-1.466	-0.499
	0.867	0.117	0.081	0.123	0.618
Education					
Literate ^a	40.60±5.03	18.30±7.36	48.90±4.97	107.70±14.50	29.20±6.14
Primary school ^b	41.25±4.39	19.71±3.51	49.59±5.49	110.21±10.56	27.25±4.55
Middle school ^c	43.81±4.46	19.15±3.52	48.00±7.62	111.53±11.95	29.00±2.72
High school ^d	39.68±8.35	21.12±7.00	48.62±7.13	110.00±14.81	29.31±4.34
College ^e	41.27±10.80	12.27±5.71	48.36±13.17	102.81±26.16	26.18±8.07
	1.682	5.977	.192	.822	1.607
	0.159	0.000	0.942	0.514	0.178
		e<a.b.c.d			
Active treatment					
Yes	42.07±5.07	19.05±4.79	49.17±6.39	110.55±11.99	28.53±4.38
No	37.94±11.89	19.52±9.63	46.05±11.53	104.05±23.61	27.35±6.47
	2.433	-.319	1.618	1.745	.948
	.017	0.750	0.108	0.84	0.345
Self-mutilation					
Yes	41.00±4.37	17.05±5.87	48.39±4.91	108.33±9.99	28.95±4.89
No	41.57±7.01	19.45±5.64	48.79±7.83	109.88±15.01	28.22±4.70
	-.359	-1.380	-.230	-.444	0.633
	0.729	0.170	0.818	0.655	0.528
Suicidal history					
Yes	40.90±7.64	18.52±5.64	48.33±8.81	108.23±18.65	27.35±4.53
No	41.59±6.39	19.25±5.73	48.80±7.07	109.96±13.21	28.57±4.76
	-.433	-.527	-.263	-.482	-1.047
	0.667	0.599	0.793	0.701	0.288
Alcohol/substance use					
Yes	44.63±5.62	20.36±3.69	52.90±5.46	117.00±12.00	29.00±2.48
No	41.14±6.64	18.99±5.86	48.28±7.43	108.83±14.37	28.29±4.90
	1.663	.759	2.005	1.817	.471
	0.095	0.449	0.022	0.055	0.639
Hospitalization					

reason	39.29±9.69	18.59±7.85	45.40±10.29	104.00±18.96	28.51±5.53
OBERVATION	42.12±5.25	19.27±4.91	49.71±5.97	111.17±12.37	28.31±4.49
Prevention	-1.974	-.546	-2.731	-2.202	.199
	0.051	0.585	0.007	0.030	0.860
Defamation					
Yes	41.03±7.55	21.37±7.30	50.74±4.89	113.18±8.51	28.51±5.28
No	41.60±6.33	18.54±5.02	48.11±7.89	108.53±15.52	28.31±4.58
	-.387	-.832	1.636	1.488	.199
	0.699	0.046	0.040	0.048	0.843
Sexual assault					
Yes	38.80±4.20	18.20±3.11	47.20±4.26	104.00±10.99	28.20±4.08
No	41.59±6.68	19.11±5.79	48.78±7.49	109.85±14.44	28.36±4.77
	-.923	-.367	-.469	-.894	-.076
	0.219	0.714	0.640	0.304	0.939
Murder					
Yes	38.23±4.16	13.30±5.05	44.38±5.31	97.92±8.51	28.30±5.40
No	41.87±6.76	19.84±5.36	49.25±7.44	111.06±14.25	28.36±4.66
	-1.896	-4.167	-2.286	-3.246	-.041
	0.012	0.000	0.024	0.000	0.971
Robbery					
Yes	44.22±3.89	21.11±1.61	51.55±5.29	116.88±7.60	28.33±1.41
No	41.24±6.74	18.95±5.88	48.48±7.49	109.00±14.59	28.36±4.90
	1.305	1.092	1.203	1.598	-.017
	0.195	0.009	0.231	0.113	0.987
Simple laceration					
Yes	42.21±5.97	19.60±4.80	42.21±5.97	111.28±14.02	27.98±4.87
No	40.78±7.11	18.67±6.41	40.78±7.11	108.06±14.52	28.70±4.60
	1.170	.886	1.170	1.218	-.825
	0.245	0.378	0.245	0.226	0.411

A significant positive correlation was determined between the mean Intrinsic Religious Motivation Scale and Religiosity Scale scores of the patients (Table 4).

Table 4. The Correlation between Intrinsic Religious Motivation Scale and Religiosity Scale scores

Scale*	IRMS	RS
Intrinsic Religious Motivation Scale	r:1	r: .468** p:0.00

* Spearman Correlation Test ** p<0.001

Discussion:

The present study demonstrated that religiosity was prevalent among the patients incarcerated in the forensic psychiatry service after committing a crime. Furthermore, it could be suggested that criminal patients hospitalized for preventive treatment were less religious when compared to patients who were hospitalized for observation. Previous studies emphasized that religion aims to prevent crime and delinquent behavior in society, and significantly prevents crime among religious individuals (25). Other studies where the correlation between religiosity and psychiatric disorders was investigated, reported that religious individuals exhibited few psychological symptoms. However, a few studies argued that religious individuals suffered more from psychiatric disorders when compared to non-religious individuals (26). We also determined

that patients' mean IRMS, RS and sub-dimension scores were high, suggesting that religion could not hinder criminality. However, it could be suggested that the spiritual services provided to the patients in our hospital could have played a role in the improvement of the religiosity of the patients. The scale scores demonstrated that the patients hospitalized for observation were less religious when compared to those hospitalized for preventive treatment. The difference could be due to the fact that patients hospitalized for protection and treatment were hospitalized for longer periods when compared to those hospitalized for observation and received treatment and benefited from the spiritual services in the hospital. In the study, a positive correlation was determined between the mean IRMS and RS scores, demonstrating that internally motivated religious individuals considered their beliefs a goal; and

thus, they were sincerely attached to their religion (3). In that sense, the present study was consistent with the literature.

The role of religion in deterring crime was based on the belief in supernatural penalties and rewards (27). Most religions adopted rules to regulate life, and these rules were especially clear in crimes that aim human life, such as murder. When these rules are obeyed, religion could be a deterrent and prevent crime. (28) In the present study, RS and sub-dimension scores of murderers were low. This could be due to the impact on the individual's reasoning skills, especially during the psychiatric attacks since all patients were psychiatric service inpatients. Also, the finding that religious knowledge sub-dimension score of the thieves was high could be explained by the possibility that religious knowledge of the thieves did not prevent them from committing theft. However, it was reported that religiosity in adolescents and young adults protects the individual from crimes such as theft (29).

Drugs and alcohol were prohibited in certain religions, and a meta-analysis reported that religiosity precluded drug use (30); however, in the present study, the religious knowledge sub-dimension scores of the patients who used alcohol was high. Consistent with our findings, Petterson argued that religion was not effective in the prevention of certain behavior such as alcohol use (31).

Although there was no correlation between could not detect a relationship between laceration crime that was also categorized in the study and scale scores, studies reported that religion and religiosity prevented violence (32). Fermender et al. reported that religion could prevent destructive behavior and it could evidently prevent victimless crimes (33). In another study conducted with prisoners, an inverse correlation was determined between religiosity and violence (34).

Since only male patients were accepted in our forensic psychiatry service, the study was conducted with male patients. It was previously reported that psychiatric patients who commit violent crimes were predominantly male (35). The mean age of forensic psychiatric patients who committed a crime was reported about 40 (36), while it was 44 in our study, consistent with the literature. Most delinquent schizophrenia patients were unemployed (75.5%) in the literature (37), and the same rate was 60% in our study. It was reported that single patients committed crimes

more when compared to married patients (37); however, in our study, married patients were the majority. Previous studies reported that the education levels of the criminals were low, albeit a few could have college degrees (38).

Conclusion:

In the present study that aimed to investigate the correlation between criminality and religiosity in forensic psychiatry service patients, it was determined that religiosity level varied based on the crime committed, and murderers were particularly religious. The current study findings could help design and implement preventive strategies to improve public health and prevent crime. Future studies should be conducted with larger samples to investigate the correlation between crime and religiosity, since the findings could change rehabilitative interventions, and the present study findings could shed light on future studies.

Ethics Committee Approval: The present study was approved by XXX University Non-Invasive Clinical Research Ethics Committee (Approval No:2023/07-38).

Conflict of Interest: The authors declare no conflict of interest.

References:

- [1] Demirel FT. Batı Toplulukları Açısından Din Suç İlişkisine Ekolojik Bakış Açısı: Ahlaki Topluluk Tezi. The Journal of International Scientific Researches. 2022;7(1):19-33.
- [2] Rim JI, Ojeda JC, Svob C, Kayser J, Drews E, Kim Y, et al. Current Understanding of Religion, Spirituality, and Their Neurobiological Correlates. Harv Rev Psychiatry. 2019;27(5):303-316.
- [3] Hökelekli H. Psikoloji, Din ve Eğitim Yönüyle İnsanî Değerler. Dem Yayınevi; İstanbul:2013.
- [4] Aydın C. "Dindarlık ile Bilinçli Farkındalık Arasındaki İlişkinin İncelenmesi". Ondokuz Mayıs Üniversitesi İlahiyat Fakültesi Dergisi; 2019:241-269.
- [5] Dolu O. Suç teorileri: Teori. Araştırma ve Uygulamada Kriminoloji. 3. Baskı. Seçkin Yayınevi;Ankara:2011.
- [6] Fırat M. Yoksulluk ve Suç İlişkisinin Sosyolojik Analizi: Bir Referans Çerçevesi (Elazığ Örneği). Birey ve Toplum Sosyal Bilimler Dergisi. 2015;5(1):193-224.

- [7] Ayhan İrem, Çubukçu KM. "Suç ve Kent İlişkisine Ampirik Bakış: Literatür Taraması", Süleyman Demirel Üniversitesi Sosyal Bilimler Enstitüsü Dergisi. 2007;5: 30–55.
- [8] Hunt LL, Hunt MO. Race, Region, and Religious Involvement: A Comparative Study of Whites and African Americans. *Social Forces*. 2001;50:605–631.
- [9] Eastman N, Adshead G, Fox S, Latham R, Whyte S. *Forensic Psychiatry*. Oxford University Press;New York:2012.
- [10] Whiting D, Gulati G, Geddes JR, Fazel S. Association of Schizophrenia Spectrum Disorders and Violence Perpetration in Adults and Adolescents From 15 Countries: A Systematic Review and Meta-analysis. *JAMA Psychiatry*. 2022;79(2):120-132.
- [11] Whiting D, Lichtenstein P, Fazel S. Violence and mental disorders: a structured review of associations by individual diagnoses, risk factors, and risk assessment. *Lancet Psychiatry*. 2021;8(2):150-161.
- [12] Van Dorn R, Volavka J, Johnson N. Mental disorder and violence: is there a relationship beyond substance use. *Soc Psychiatry Psychiatr Epidemiol*. 2012;47(3):487–503.
- [13] Vinkers DJ, de Beurs E, Barendregt M, Rinne T, Hoek HW. The relationship between mental disorders and different types of crime. *Criminal Behaviour and Mental Health*. 2011;21(5):307–320.
- [14] Smith Christian. *Moral, Believing Animals: Human Personhood and Culture*. Oxford University Press; New York: 2003.
- [15] Emir BS, Kazğan A, Kurt O, Yıldız S. Sociodemographic characteristics of persons treated in the high security forensic psychiatry service: a retrospective study. *Medical Records*. 2022; 4(1):73-80.
- [16] Kelly P, Elizabeth JR, Polanin SJJ, Byron RJ. Religion, delinquency, and drug use: A meta-analysis. *Criminal Justice Review* 2015;40: 505–23.
- [17] Adamczyk A, Joshua DF, Chunrye K. Religion and crime: A systematic review. *Sociology of Religion* 2017;78:192–232.
- [18] Johnson BR. "Suç ve Suçluluğa Çözüm Üretmede Dini Kurumların Rolü", (Çev. Halide Aslan) *Din Sosyolojisi: Çağdaş Gelişmeler*. İmge Kitabevi Yayınları;Ankara:2012.
- [19] Kenevir, Fatma. "Suç, Sosyal Sapma Ve Din Suça Karışan Kadınların Dini Bağlılık Düzeyleri Üzerine Bir Araştırma". *Dini Araştırmalar*. 2015;46:233-249.
- [20] Johnson BR, Sung JJ, David BL, De LS. Does Adolescent Religious Commitment Matter?: A Reexamination of the Effects of Religiosity on Delinquency. *Journal of Research in Crime and Delinquency*. 2001;38:22–44.
- [21] Yaparel R. Dindarlık Ölçeği. *Yayımlanmamış Makale*. Dokuz Eylül Üniversitesi; İzmir:1996.
- [22] Hünler OS. The effects of religiousness on marital satisfaction and the mediator role of perceived marital problem solving abilities between religiousness and marital satisfaction relationship. Unpublished Master's Thesis. Middle East Technical University;Ankara:2002.
- [23] Hoge DR. A validated intrinsic religious motivation scale. *Journal for the Scientific Study of Religion*. 1972;11(4):369-376.
- [24] Karaca F. Din psikolojisinde metot sorunu ve bir dindarlık ölçeğinin türk toplumuna standardizasyonu. *EKEV Akademi Dergisi*. 2001;3(1):187-202.
- [25] Azimli E, Coşkun A. Sosyal kontrol ve din: Dinin dindar bireyler üzerindeki kontrol gücü. *Aydın İnsan ve Toplum Dergisi*. 2023;9(1);1-16.
- [26] Koenig HG. Religion and medicine II: religion, mental health, and related behaviors. *International Journal of Psychiatri in Medicine*. 2002; 31(1):97-109.
- [27] Gonçalves JPB, Lucchetti G, Maraldi EO, Fernandez PEL, Menezes PR, Vallada H. The role of religiosity and spirituality in interpersonal violence: a systematic review and meta-analysis. *Braz J Psychiatry*. 2023;45(2):162-181.
- [28] Koenig HG. Religion, spirituality, and health: the research and clinical implications. *ISRN Psychiatry*. 2012;16;278730.
- [29] Khoury-Kassabri M, Khoury N, Ali R. Arab youth involvement in delinquency and political violence and parental control: the mediating role of religiosity. *Am J Orthopsychiatry*. 2015;85:576–85.
- [30] Yeung JW, Chan YC, Lee BL. Youth religiosity and substance use: a meta-analysis from 1995 to 2007. *Psychol Rep*. 2009;105(1):255-66.

- [31] Pettersson T. Religion and criminality: structural relationships between church involvement and crime rates in contemporary Sweden. *J Sci Study Relig* 1991; 30(3):279-291.
- [32] Salas-Wright CP, Vaughn MG, Maynard BR. Buffering Effects of Religiosity on Crime Testing the Invariance Hypothesis Across Gender and Developmental Period. *Crim Justice Behav.* 2014;41(6):673-91.
- [33] Fernander A, Wilson JF, Staton M, Leukefeld C. Exploring the type-of-crime hypothesis, religiosity, and spirituality in an adult male prison population. *Int J Offender Ther Comp Criminol.* 2005; 49(6):682-695.
- [34] Benda BB, Toombs NJ. Religiosity and violence: Are they related after considering the strongest predictors? *J Crim Justice.* 2000;28(6):483-96.
- [35] Ong K, Carroll A, Reid S. Community outcomes of mentally disordered homicide offenders in Victoria. *Aust N Z J Psychiatry.* 2009;43:775-80.
- [36] İnan S, Yıldızhan E, Öncü F. İnsana yönelik ciddi suç işleyen adli psikiyatri olgularının hastalık öyküleri, sosyodemografik ve suç özellikleri. *Turk Psikiyatri Derg.* 2018;29(4): 258-68.
- [37] Belli H, Ozcetin A, Ertem U, Tuyluoğlu E, Namli M, Bayik Y, et al. Perpetrators of homicide with schizophrenia: sociodemographic characteristics and clinical factors in the eastern region of Turkey. *Compr Psychiatry.* 2010;51:135-41.
- [38] Ayar E, Ayar Y. Ruhsal bozukluklarda suçta yönelim: Derleme. *Abant Sağlık Bilimleri Ve Teknolojileri Dergisi.* 2021;1(2):83-91.



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