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RESEARCH ARTICLE / ARAŞTIRMA MAKALESİ

The Relationship Between Sensation Seeking and Death Anxiety Among Male Motorcycle Riders

Erkek Motosiklet Sürücülerinde Heyecan Arayışı ve Ölüm Kaygısı Arasındaki İlişki

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Abstract:

This study aimed to examine the relationship between sensation-seeking levels and death anxiety among male motorcycle riders. Conducted using a descriptive, cross-sectional design, the study population comprised motorcycle club members in Türkiye. A total of 255 male motorcycle riders who participated online between September 25 and October 20, 2025, were included in the study. Data were collected using the Personal Information Form, the Brief Sensation Seeking Scale, and the Templer Death Anxiety Scale. Descriptive statistics and multiple logistic regression analysis were used, with statistical significance set at $p < .05$. The mean age of the participants was 40.59 ± 9.82 years, with 49.8% aged between 30 and 44 years. The mean scores were 23.45 ± 6.61 for sensation seeking and 5.90 ± 2.59 for death anxiety. High levels of death anxiety were identified in 39.6% of the participants. According to the logistic regression analysis, age, marital status, alcohol use, motorcycle type, and the presence of family members who ride motorcycles were significant predictors of high death anxiety ($p < .05$). Moreover, each one-point increase in sensation seeking was associated with a 17% decrease in the likelihood of experiencing high death anxiety. The findings indicate that male motorcycle riders exhibit moderate to high levels of sensation seeking and that a considerable proportion experience high death anxiety. Sensation seeking may serve as a short-term coping mechanism that alleviates death anxiety; however, in the long term, engagement in risky behaviors may have adverse effects on psychological well-being and overall health. The study highlights the importance of developing psychosocial support programs for male motorcycle riders and strengthening their coping capacities to manage death anxiety.

Keywords: Sensation seeking, Death anxiety, Motorcycle riders, Psychosocial factors.

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Öz:

Bu araştırmanın amacı, motosiklet sürücülerinde heyecan arayışı düzeyi ile ölüm kaygısı arasındaki ilişkiyi incelemektir. Tanımlayıcı ve kesitsel tasarımıyla yürütülen araştırmanın evrenini Türkiye'deki motosiklet kulüplerine üye bireyler oluşturmuştur. Çalışmaya 25 Eylül – 20 Ekim 2025 tarihleri arasında çevrimiçi olarak ulaşılan 255 erkek motosiklet sürücüsü dahil edilmiştir. Veriler: Birey Tanılama Formu, Heyecan Arayışı Ölçeği–Kısa Formu ve Templer Ölüm Kaygısı Ölçeği ile toplanmıştır. İstatistiksel analizlerde tanımlayıcı istatistikler ve çoklu lojistik regresyon analizi kullanılmış; istatistiksel anlamlılık için $p < 0,05$ kabul edilmiştir. Katılımcıların yaş ortalaması $40,59 \pm 9,82$ olup, %49,8'i 30–44 yaş aralığındadır. Ölçek puan ortalamaları, heyecan arayışı için $23,45 \pm 6,61$ ve ölüm kaygısı için $5,90 \pm 2,59$ olarak bulunmuştur. Katılımcıların %39,6'sında yüksek düzeyde ölüm kaygısı saptanmıştır. Lojistik regresyon analizine göre yaş, medeni durum, alkol kullanımı, motosiklet türü ve ailede motosiklet kullanan birey varlığı yüksek ölüm kaygısını anlamlı biçimde yordayan değişkenlerdir ($p < 0,05$). Heyecan arayışındaki her bir birimlik artışın, yüksek ölüm kaygısı yaşama olasılığını %17 azalttığı belirlenmiştir. Bulgular, motosiklet sürücülerinin orta-yüksek düzeyde heyecan arayışı sergilediğini ve önemli bir kısmında yüksek ölüm kaygısı bulunduğunu göstermektedir. Heyecan arayışı, kısa vadede ölüm kaygısını azaltıcı bir baş etme mekanizması olarak işlev görebilmektedir. Ancak uzun vadede riskli davranışların ruhsal denge ve sağlık üzerinde olumsuz sonuçlar doğurabileceği göz ardı edilmemelidir. Bu çalışma, erkek motosiklet sürücülerine yönelik psikososyal destek programlarının geliştirilmesi ve ölüm kaygısıyla baş etme becerilerinin güçlendirilmesinin önemine işaret etmektedir.

Anahtar Kelimeler: Heyecan arayışı, Ölüm anksiyetesi, Motosiklet sürücüler, Psikososyal faktörler.

Introduction

Sensation seeking is a core personality trait reflecting the pursuit of intense, novel, and stimulating experiences. Defined by Zuckerman (1994), it reflects a desire for novelty, variety, and risk-taking. Empirical studies link it to risky behaviors such as speeding, traffic violations, and dangerous maneuvers (Marengo, Settanni, & Vidotto, 2012; Antoniazzi & Klein, 2019). Although it may produce short-term pleasure and freedom, substantial evidence shows that sensation seeking is associated with increased risky driving and adverse outcomes, including accidents and injuries (Romero, de Barros, Belizario & Serafim, 2019; Haque, Chin, & Debnath, 2010; Jonah, 1997; Zhang, Qu, Tao, & Xue, 2019; Wang, Shi, & Schwebel, 2019). Thus, repeated exposure to high-risk situations may lead to cumulative harm and psychological strain. Theoretically, it shapes risk perception and decision-making in life-threatening contexts and is closely associated with existential processes of vulnerability and mortality. In this context, death anxiety becomes salient, as persistent engagement in risky behaviors may heighten mortality awareness and influence individuals' emotional responses to death.

Death anxiety refers to the fear, unease, and uncertainty associated with one's own death or that of others and constitutes a significant source of anxiety influencing behavior. Research indicates that mortality-related anxiety may lead to desensitization or increased engagement in risk-related activities as coping mechanisms (Brymer & Schweitzer, 2012; Goh, Leong, & Cheah, 2020; Tomkins, 2022). Within this framework, sensation seeking may function as a coping strategy by distancing individuals from death-related thoughts through engagement in risky behaviors; however, over time, this may become maladaptive, potentially intensifying anxiety and disrupting psychological well-being (Bharti & Bharti, 2024; Tomkins, 2022).

The relationship between sensation seeking and death anxiety can be explained through several mechanisms. Risk-taking may suppress mortality salience, foster desensitization, and provide meaning-making experiences that enhance identity and perceived control. Accordingly, it may reflect how individuals regulate and interpret mortality concerns rather than directly alleviating death anxiety.

Death anxiety tends to increase with age due to health decline, chronic illness, and loss, negatively affecting well-being, life satisfaction, and social engagement (Zhou, Wu, Su, & Ma, 2024). However, this pattern may vary depending on contextual factors. In high-risk groups such as motorcycle riders, younger individuals may exhibit higher death anxiety due to greater exposure to danger and lower risk perception. Thus, the association between age and death anxiety should be interpreted within the specific context of motorcycling.

The intersection of sensation seeking and death anxiety is particularly evident among motorcycle riders, a high-risk group for whom riding represents both a mode of transportation and a lifestyle linked to risk and thrill. The literature shows strong associations between riders' personality traits, risk perceptions, and driving styles (Alavcı, Gümüş, Tekin, Tekeş, & Üzümcüoğlu, 2021). Social perceptions further reinforce this dynamic, as motorcyclists are often viewed as more risk-prone or aggressive, shaping public attitudes and interactions (Musselwhite, Avineri, Susilo, & Bhattachary, 2012; Robbins, Allen, & Chapman, 2018; Wiley & Hill, 2024). These perceptions extend to broader identity-related assumptions (Wiley & Hill, 2024). Consequently, sensation seeking may influence not only riding behaviors but also how individuals cope with and interpret existential anxiety.

In this context, the aim of the present study was to examine the relationship between sensation seeking and death anxiety among male motorcycle riders.

Research Questions

What is the level of sensation seeking among male motorcycle riders? What is the level of death anxiety among male motorcycle riders? Does sensation seeking predict high death anxiety among male motorcycle riders?

Method

Study Design

This study was conducted as a descriptive, cross-sectional study in accordance with STROBE guidelines.

Population and Sample

The study population consisted of individuals who were members of motorcycle clubs operating in Türkiye. Sample size was calculated using G*Power 3.1.9.2. Based on Güreş's (2022) study, with an effect size (ρ) of 0.200, a Type I error (α) of 0.05, and a statistical power ($1-\beta$) of 0.80, the minimum sample size was determined as 191 participants.

During data collection (September 25–October 20, 2025), 273 male riders accessed the survey. Of these, 7 participants (2.6%) did not provide informed consent, and 11 participants (4.0%) submitted incomplete responses, and these were excluded. Consequently, 255 male participants (93.4%) who met the inclusion criteria were included in the final analysis. Post hoc power analysis indicated that the study had statistical power exceeding 99% ($\rho = 0.434$, $\alpha = 0.05$, $1-\beta > 0.99$). Inclusion criteria were age ≥ 18 years, membership in a motorcycle club in Türkiye, Turkish-language proficiency, and voluntary participation. Participants without consent or with incomplete data were excluded.

Data Collection

Data were collected via Google Forms following Ethics Committee approval. The survey link was distributed to motorcycle clubs across Türkiye via online platforms. The form included study information and an informed consent statement. Completion took 10–15 minutes. Participation was anonymous, with no identifiable data collected. To minimize duplicates, submissions were limited per device and screened during data cleaning. Given the online design, potential biases (e.g., self-selection and response tendencies) should be considered.

Data Collection Tools

Individual Identification Form

The researcher-developed form, based on the literature (Güreş, 2022; Zhou et al., 2024), consisted of 15 items. It included items on sociodemographic characteristics and motorcycle use (e.g., riding duration, frequency, type, accident history, and family motorcycle use).

Brief Sensation Seeking Scale (BSSS-8)

The scale developed by Hoyle, Stephenson, Palmgreen, Lorch, and Donohew (2002) was adapted into Turkish and tested for validity and reliability by Celik and Turan

(2016). It consists of eight items rated on a five-point Likert scale. Total scores range from 8 to 40, with higher scores indicating greater sensation seeking. In the Turkish adaptation study, the scale's reliability coefficient was reported as 0.79 (Celik & Turan, 2016). In the present study, the Cronbach's alpha coefficient was 0.794. The Turkish version demonstrated acceptable reliability and has been used in previous studies.

Templer Death Anxiety Scale

The scale developed by Templer (1970) measures individuals' anxiety and concerns related to death and the dying process.

The Turkish validity and reliability study of the scale was conducted by Akça and Köse (2008). It consists of 15 items, with total scores ranging from 0 to 15; scores ≥ 7 indicate high death anxiety. It uses a True–False response format and has no subdimensions. Items are scored dichotomously, and the total score is obtained by summation (Akça & Köse, 2008). The Cronbach's alpha reliability coefficient for the Turkish version was reported as 0.79 (Akça & Köse, 2008), whereas in the present study it was 0.801. The scale was administered online, and participants responded based on their current perceptions.

Data Analysis

The data obtained from the study were analyzed using the Statistical Package for the Social Sciences (SPSS) version 23.0. Descriptive statistics (frequency, percentage, mean, and standard deviation) were calculated. To examine the factors predicting high death anxiety, a multiple logistic regression analysis (Enter method) was performed. Although death anxiety was measured continuously, binary logistic regression was used based on the validated cut-off of the Turkish version of the scale. Thus, dichotomization was based on an established, clinically meaningful cut-off. A p-value of less than 0.05 was considered statistically significant.

Ethical Principles

The study was conducted in accordance with the Declaration of Helsinki. Following the approval of the Bandırma Onyedi Eylül University Non-Interventional Research Ethics Committee of Health Sciences (Date: September 24, 2025; Decision No: 2025-188), the data collection process was initiated. Informed consent was obtained from all participants, and participation in the study was voluntary.

Results

The study included 255 male motorcycle riders, with a mean age of 40.59 ± 9.82 years (range: 20–64 years). Nearly half of the participants (49.8%) were aged 30–44 years, 63.1% were married, and 58.4% held a bachelor's degree. Among the riders, 87.1% were employed, and 69.8% perceived their income level as moderate or low. Regarding health-related habits, 50.6% reported smoking, while 36.5% indicated occasional alcohol use. Additionally, 85.5% of the participants reported no chronic illnesses.

Table 1. Demographic and Descriptive Characteristics of the Participants (n=255)

Variable	Category	n	%
Age groups	20–29	34	13.3
	30–44	127	49.8
	45–64	94	36.9
Age (years), M ± SD (Min–Max)		40.59 ± 9.82 (20–64)	
Marital status	Married	161	63.1
	Single	70	27.5
	Divorced/Widowed	24	9.4
Education level	High school or lower	64	25.1
	Bachelor's degree	149	58.4
	Master's/PhD	42	16.5
Employment status	Employed	222	87.1
	Unemployed/Retired	33	12.9
Perceived income	Good	77	30.2
	Moderate/Low	178	69.8
Smoking status	Current smoker	129	50.6
	Ex-smoker	21	8.2
	Non-smoker	105	41.2
Alcohol consumption	Non-drinker	78	30.6
	Occasional drinker	93	36.5
	Social drinker	59	23.1
	Regular drinker	25	9.8
Chronic disease	Yes	37	14.5
	No	218	85.5
Years of motorcycle use (years)	1–5	102	40.0
	6–10	61	23.9
	≥11	92	36.1
Years of motorcycle use, M ± SD (Min–Max)		11.28 ± 9.96 (1–45)	
Riding frequency	Daily	122	47.8
	Several times a week	97	38.0
	Occasionally/hobby	36	14.1
Motorcycle type	Sport/speed-oriented	25	9.8
	Adventure/touring	118	46.3
	Comfort/daily use	112	43.9
Accident history	Yes	130	51.0
	No	125	49.0
Family member rides	Yes	73	28.6
	No	182	71.4

M = mean; *SD* = standard deviation.

When the characteristics of motorcycle use were examined, 40.0% of the participants had 1–5 years of riding experience, 47.8% reported daily motorcycle use, and 46.3% stated that they owned a motorcycle primarily associated with adventure or a sense of freedom. Furthermore, 51.0% of the riders had experienced an accident in the past, and 71.4% indicated that no other family members rode motorcycles (Table 1).

The distribution of the participants' scores on the scales is presented in Table 2. According to the analyses, the Brief Sensation Seeking Scale scores ranged from 9 to 39, with a mean score of 23.45 ± 6.61 . The mean score for the Templer Death Anxiety Scale was 5.90 ± 2.59 , and 60.4% of the participants were found to have low levels of death anxiety (Table 2).

Table 2. Distribution of the Participants' Scores on the Scales

Measure	M ± SD (Min–Max)	n	%
Brief Sensation Seeking Scale	23.45 ± 6.61 (9–39)	—	—
Templer Death Anxiety Scale	5.90 ± 2.59 (0–13)	—	—
Death anxiety level			
Low (< 7 points)	—	154	60.4
High (≥ 7 points)	—	101	39.6

M = mean; *SD* = standard deviation.

The results of the logistic regression analysis identifying predictors of high death anxiety among motorcycle riders indicated that the model was statistically significant ($\chi^2 = 74.492$, $df = 23$, $p < .001$). Examination of model fit indices revealed a -2 Log Likelihood value of 267.917 and a Nagelkerke R^2 value of .343, suggesting that approximately 34% of the variance in the dependent variable was explained by the independent variables included in the model. The Hosmer–Lemeshow goodness-of-fit test was significant ($\chi^2 = 15.922$, $df = 8$, $p = .044$), indicating a moderate fit between the observed and expected values. According to the classification table, the model's overall correct classification rate was 69.8%, with 79.9% of individuals with low death anxiety and 54.5% of those with high death anxiety correctly classified.

Age was significantly associated with high death anxiety in the logistic regression model. Compared with riders aged ≥ 45 years, those aged 20–29 years demonstrated markedly higher odds of high death anxiety ($OR = 11.18$; 95% CI [2.59, 48.27]; $p = .001$). Nevertheless, the estimate had a wide confidence interval, indicating limited precision and potential instability due to sparse subgroup data; therefore, the magnitude of this association should be interpreted with caution. Regarding marital status, single participants were significantly less likely to experience high death anxiety than married participants ($OR = 0.34$;

95% CI [0.13, 0.92]; $p = .033$). In terms of alcohol consumption, non-drinkers were less likely to experience high death anxiety compared to regular alcohol users ($OR = 0.29$; 95% CI [0.09, 0.94]; $p = .038$).

Riders using sports or speed-oriented motorcycles were about four times more likely to experience high death anxiety than those using motorcycles for comfort or daily commuting purposes ($OR = 4.22$; 95% CI [1.26, 14.08]; $p = .019$). Additionally, the presence of another motorcycle rider in the family was identified as a risk factor; riders with a family member who also rode a motorcycle were approximately three times more likely to experience high death anxiety compared to those without ($OR = 2.92$; 95% CI [1.32, 6.47]; $p = .008$).

One of the key variables in this study, the total sensation seeking score, was found to significantly reduce death anxiety. Each one-point increase in sensation seeking score decreased the likelihood of experiencing high death anxiety by approximately 17% ($OR = 0.83$; 95% CI [0.78, 0.88]; $p < .001$).

Other variables, including education level, employment status, income level, smoking habits, years of motorcycle use, riding frequency, accident history, and presence of chronic disease, were not found to have a statistically significant effect on high death anxiety ($p > .05$) (Table 3).

Table 3. Logistic Regression Analysis of the Factors Predicting High Death Anxiety Among Participants

Predictors	B	SE	Wald	p	OR	95% CI
Age group (ref: ≥ 45 years)						
20–29 years	2.414	0.746	10.459	.001	11.18	[2.59, 48.27]
30–44 years	0.677	0.379	3.191	.074	1.97	[0.94, 4.14]
Marital status (ref: Married)						
Single	–1.081	0.506	4.563	.033	0.34	[0.13, 0.92]
Divorced/Widowed	–0.341	0.519	0.431	.511	0.71	[0.26, 1.97]
Education (ref: Bachelor's degree)						
High school or lower	0.046	0.504	0.008	.928	1.05	[0.39, 2.81]
Master's/PhD	–0.406	0.433	0.882	.348	0.67	[0.29, 1.56]
Employment (ref: Employed)						
Unemployed/Retired	0.092	0.503	0.033	.855	1.10	[0.41, 2.94]
Income level (ref: Good)						
Moderate/Low	–0.143	0.344	0.174	.677	0.87	[0.44, 1.70]
Smoking status (ref: Current smoker)						
Ex-smoker	–0.287	0.335	0.731	.392	0.75	[0.39, 1.45]
Non-smoker	0.046	0.574	0.006	.937	1.05	[0.34, 3.22]
Alcohol consumption (ref: Regular drinker)						
Non-drinker	–1.240	0.599	4.290	.038	0.29	[0.09, 0.94]
Occasional drinker	–0.802	0.577	1.931	.165	0.45	[0.15, 1.39]
Social drinker	–0.722	0.595	1.471	.225	0.49	[0.15, 1.56]

Chronic disease						
(ref: No)						
Yes	-0.457	0.434	1.107	.293	0.63	[0.27, 1.48]
Years of motorcycle use						
(ref: ≥11 years)						
1–5 years	0.062	0.403	0.023	.879	1.06	[0.48, 2.35]
6–10 years	0.132	0.426	0.097	.756	1.14	[0.49, 2.63]
Riding frequency						
(ref: Daily)						
Occasionally/hobby	0.724	0.475	2.327	.127	2.06	[0.81, 5.28]
Several times/weeks	0.158	0.347	0.207	.649	1.17	[0.59, 2.31]
Motorcycle type						
(ref: Comfort/daily use)						
Sport/speed-oriented	1.440	0.615	5.480	.019	4.22	[1.26, 14.08]
Adventure/touring	0.301	0.344	0.768	.381	1.35	[0.69, 2.65]
Accident history						
(ref: No)						
Yes	0.084	0.330	0.065	.799	1.09	[0.57, 2.08]
Family member rides (ref: No)						
Yes	1.071	0.406	6.945	.008	2.92	[1.32, 6.47]
Sensation seeking (total score)	-0.184	0.031	35.528	<.001	0.83	[0.78, 0.88]
Constant	4.704	0.863	29.721	<.001	110.39	—

Model fit: -2 Log Likelihood = 267.92; Nagelkerke R^2 = .343.

B = regression coefficient; *SE* = standard error; *Wald* = Wald chi-square test statistic; *OR* = odds ratio; *CI* = confidence interval; *ref* = reference group.

Discussion

This study hypothesized that higher sensation seeking would be associated with lower death anxiety among motorcycle riders. The sample consisted entirely of men ($n = 255$), with the majority aged 30–44 years, employed, and with low- to middle-income. The all-male composition reflects the male-dominated nature of motorcycling in Türkiye, which is often associated with risk-taking and independence. For this group, motorcycles may serve both as a means of transportation and as symbols of autonomy and freedom.

Regarding motorcycle use, participants reported frequent riding, moderate experience, and substantial accident exposure. These patterns indicate a high level of exposure to risk. Motorcycling thus functions as both a mode of transportation and a context in which death anxiety is experienced and regulated. The pursuit of thrill may reduce mortality salience and enhance individuals' perceived sense of control.

Two-fifths of participants exhibited high death anxiety, indicating a substantial existential burden. Individuals engaged in risky behaviors may develop distinct coping responses to death-related thoughts. Research suggests suppression or desensitization processes in high-risk contexts (Breton, 2000). However, such suppression may increase, rather than reduce, death anxiety over time (Goh et al., 2020; Waheed Elzohairy, Alsaied Alfayomy, & Hassan, 2022). Conversely, Brymer and Schweitzer (2012) found that extreme sports participants reinterpret fear and death encounters to reduce anxiety. Similarly, Zestcott, Lifshin, Helm, and Greenberg (2016) showed that death awareness may evoke both defensive and

prosocial responses. Identifying predictors of elevated death anxiety may therefore support the development of more adaptive meaning-making processes and healthier coping strategies.

Age, marital status, alcohol use, motorcycle type, family motorcycle use, and sensation seeking explained 34% of the variance in high death anxiety. Riders aged 20–29 were about 11 times more likely to report high death anxiety than those aged 45 and older, suggesting a combination of higher risk-taking tendencies and less developed awareness of mortality. They may experience tension between thrill-seeking and mortality awareness. Single participants reported lower death anxiety, possibly due to lower levels of perceived social responsibility. Alcohol use was associated with lower death anxiety, possibly reflecting differences in coping mechanisms.

Motorcycle type was also found to be a significant factor. Riders using sport or speed-oriented motorcycles were four times more likely to report high death anxiety than those using motorcycles for comfort or commuting, likely due to greater risk exposure. Family motorcycle use was also associated with higher death anxiety, possibly reflecting heightened awareness of risk.

A key finding was the significant inverse relationship between sensation seeking and death anxiety. The mean Brief Sensation Seeking Scale score (23.45 ± 6.61) indicated moderate-to-high levels. Consistent with prior research, motorcycle riders exhibit higher levels of sensation seeking compared to other driver groups (Antoniazzi & Klein, 2019; Alavcı et al., 2021), and high-

risk sport participants demonstrate similar tendencies (Jack & Ronan, 1998; Diehm & Armatas, 2004). Sensation seeking is also linked to performance and life satisfaction (Baretta, Greco & Steca, 2017) and is more pronounced among male athletes (Agilonu, Bastug, Mutlu & Pala, 2017). Studies in Türkiye likewise show strong associations with risky behaviors, especially among young and middle-aged adults (Bahadır, Yoka & Yoka, 2023; Beşikçi & Dinç, 2022; Bilgen & Yüksel, 2021; Gürer, 2022). These findings reinforce the conceptualization of motorcycling as a lifestyle centered on risk and autonomy.

Each one-point increase in sensation seeking was associated with an approximately 17% lower likelihood of high death anxiety, suggesting differences in how individuals cope with and interpret mortality-related concerns. Death anxiety is also linked to social relationships and life satisfaction (Gürer, 2022). Elevated death anxiety may reflect underlying existential tension. While thrill-seeking may temporarily suppress this anxiety, it may ultimately reinforce it and disrupt psychological well-being (Goh et al., 2020; Waheed Elzohairy et al., 2022). Breton (2000) similarly argued that symbolic suppression may increase anxiety over time, whereas Zestcott et al. (2016) highlighted that death awareness can also foster connection and meaning-making, reflecting a complex interplay between fear and psychological growth.

Studies in Türkiye also link sensation seeking to well-being and engagement (Bahadır et al., 2023; Beşikçi & Dinç, 2022; Bilgen & Yüksel, 2021). It is also associated with self-efficacy and a sense of psychological fulfillment (Baretta et al., 2017; Jack & Ronan, 1998; Diehm & Armatas, 2004).

In conclusion, sensation seeking among motorcycle riders operates through a dual mechanism, relating to both risky behaviors and coping with death anxiety. While it may enhance feelings of energy, freedom, and satisfaction, it also shapes how mortality awareness is experienced and managed.

Conclusion

This study highlights the complex interplay between sensation seeking and death anxiety among motorcycle riders. Age, marital status, motorcycle type, alcohol use, and family motorcycle use were identified as significant predictors of death anxiety, explaining approximately one-third of its variance. Higher levels of sensation seeking were associated with lower levels of death anxiety; however, causal interpretations cannot be made due to the cross-sectional design. Although sensation seeking may function as a short-term mechanism that reduces perceived anxiety, it may simultaneously increase engagement in risk-taking behaviors, potentially leading to greater exposure to danger and long-term psychological strain. Overall, the findings reveal an underlying tension between the pursuit of freedom and the experience of existential risk among motorcycle riders. Sensation seeking appears to play a dual role, both as a regulator of death anxiety and as a factor contributing to risky behavior patterns.

Recommendations

Based on the findings, several practical and research-oriented recommendations can be proposed. First, interventions targeting motorcycle riders should incorporate both behavioral and psychological components, including risk perception training, emotional regulation strategies, and adaptive coping mechanisms for managing death anxiety. In particular, structured psychoeducational programs may help individuals develop greater awareness of risk and reduce maladaptive coping responses related to mortality concerns. Second, traffic safety and public health initiatives may benefit from integrating personality-based approaches, especially by addressing sensation-seeking tendencies in risk communication and prevention strategies. Tailoring interventions to high sensation-seeking individuals may enhance their effectiveness. Finally, future research should employ longitudinal and mixed-method designs to better understand the causal and dynamic relationship between sensation seeking and death anxiety. Expanding the sample to include female riders and more diverse populations would also improve the generalizability of the findings.

Limitations

The cross-sectional design precludes causal inference. The all-male sample limits generalizability, and self-report data may be subject to social desirability bias. Recruitment from motorcycle clubs may have introduced selection bias and reduced external validity. Some subgroup estimates showed wide confidence intervals, indicating limited precision. Finally, the absence of qualitative data restricts deeper insight into subjective meanings of death awareness and risk perception. Future research should employ mixed-methods designs with larger, more diverse samples.

Declarations

Ethics Committee Approval

The study was conducted in accordance with the ethical principles of the Declaration of Helsinki. Following the approval of the Bandırma Onyedi Eylül University Non-Interventional Research Ethics Committee of Health Sciences (Date: September 24, 2025; Decision No: 2025-188), the data collection process was initiated.

Consent for Publication

Not applicable.

Availability of Data and Materials

Datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Competing Interests

The authors declare no competing interests.

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Authors' Contributions

M.F.D., Ş.T. and C.B.D. proposed the main idea of the research, while M.F.D. and Ş.T. were involved in reviewing and discussing the literature. M.F.D. and C.B.D. contributed to drafting the paper and reviewing its content. All authors reviewed and approved the final version of the article.

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