EduVision: Journal of Innovations in Pedagogy and Educational Advancements
Volume 2, Issue 6, June 2026
brightmindpublishing.com
ISSN (E): 3061-6972

GENDER DIFFERENCES IN DRIVERS' PSYCHOLOGICAL HEALTH INDICATORS (BASED ON THE SCL-90-R METHODOLOGY)

R. Usmonov
Department of Psychology Lecturer
Fergana State University

Abstract
This article investigates gender differences in psychological health indicators among drivers using Leonard Derogatis' SCL-90-R. The study involved 527 drivers, including 411 males and 116 females. The findings revealed significant gender differences in somatization, obsessive-compulsive symptoms, anxiety, hostility, and phobic anxiety. Male drivers demonstrated higher levels of somatization, anxiety, hostility, and phobic symptoms, whereas female drivers showed higher obsessive-compulsive tendencies. No statistically significant differences were found regarding depression. The results emphasize the importance of considering gender factors when assessing drivers' psychological health.

Keywords: Psychological health, drivers, gender differences, SCL-90-R, somatization, anxiety, hostility, phobia, depression, obsessive symptoms.

Introduction

Annotatsiya:
Mazkur maqolada haydovchilarning psixologik salomatlik ko‘rsatkichlarining gender xususiyatlari Leonard Derogatis tomonidan ishlab chiqilgan SCL-90-R metodikasi asosida empirik o‘rganildi. Tadqiqotda 527 nafar haydovchi ishtirok etdi, ulardan 411 nafari erkak va 116 nafari ayollardan iborat bo‘ldi. Natijalar somatizatsiya, obsessiv-kompulsiv simptomlar, xavotir, dushmanlik va fobiya ko‘rsatkichlari bo‘yicha gender farqlari mavjudligini ko‘rsatdi. Erkak haydovchilarda somatizatsiya, xavotir, dushmanlik va fobiya darajalari yuqoriroq ekanligi aniqlangan bo‘lsa, obsessiv simptomlar ayollarda nisbatan yuqori namoyon bo‘ldi. Depressiya ko‘rsatkichlari bo‘yicha esa statistik jihatdan ahamiyatli farqlar aniqlanmadi. Tadqiqot natijalari haydovchilarning psixologik salomatligini ta’minlashda gender omilini hisobga olish zarurligini ko‘rsatadi.

EduVision: Journal of Innovations in Pedagogy and Educational Advancements
Volume 2, Issue 6, June 2026
brightmindpublishing.com
ISSN (E): 3061-6972

Kalit so‘zlar: psixologik salomatlik, haydovchilar, gender farqlari, SCL-90-R, somatizatsiya, xavotir, dushmanlik, fobiya, depressiya, obsessiv simptomlar.

Аннотация:
В статье представлены результаты исследования гендерных различий показателей психологического здоровья водителей с использованием методики SCL-90-R Л. Дерогатиса. В исследовании приняли участие 527 водителей, из которых 411 мужчин и 116 женщин. Полученные результаты показали наличие статистически значимых гендерных различий по шкалам соматизации, обсессивности, тревожности, враждебности и фобической тревожности. Мужчины продемонстрировали более высокие показатели соматизации, тревожности, враждебности и фобии, тогда как у женщин были выше показатели обсессивно-компульсивной симптоматики. По шкале депрессии статистически значимых различий не выявлено. Полученные данные подчеркивают необходимость учета гендерного фактора при изучении психологического состояния водителей.

Ключевые слова: психологическое здоровье, водители, гендерные различия, SCL-90-R, соматизация, тревожность, враждебность, фобия, депрессия.

Kirish

In modern society, automobile transport has become an integral part of human life. The increasing number of vehicles, the growing complexity of traffic flow, and the rising intensity of road traffic significantly affect drivers’ psychological condition. According to the World Health Organization, road traffic accidents negatively impact the lives and health of millions of people every year. A significant proportion of these incidents is associated with the human factor, including drivers’ emotional state, stress levels, and psychological well-being.

Psychological health reflects an individual’s ability to realize their potential, cope with everyday stress, and function effectively. Driving activity is considered one of the complex types of activities that require high responsibility, sustained attention, rapid decision-making, and emotional regulation. Therefore, studying the psychological health of drivers is regarded as one of the important areas of transport psychology.

EduVision: Journal of Innovations in Pedagogy and Educational Advancements
Volume 2, Issue 6, June 2026
brightmindpublishing.com
ISSN (E): 3061-6972

In recent years, the SCL-90-R methodology developed by Leonard Derogatis has been widely used to assess drivers' psychological conditions. This methodology enables the identification of various manifestations of psychological distress and psychopathological symptoms. In particular, indicators such as somatization, obsessive-compulsive symptoms, anxiety, depression, hostility, and phobic reactions may directly affect drivers' safe behavior on the road.

The gender factor is considered one of the important determinants of psychological health. Numerous studies have noted certain differences between men and women in their responses to stress, risk perception, emotional reactions, and mechanisms of psychological adaptation. From this perspective, studying drivers' psychological health indicators from a gender-based approach is of both scientific and practical significance.

The purpose of this study was to empirically investigate gender differences in drivers' psychological health indicators based on the SCL-90-R methodology.

The study employed Leonard Derogatis's SCL-90-R (Symptom Checklist-90-Revised) methodology. This method is designed to assess psychological symptoms and levels of distress and is widely used in both clinical and scientific research.

A total of 527 drivers participated in the study. Among them, 411 were male drivers (77.9%) and 116 were female drivers (22.1%).

A one-way analysis of variance (ANOVA) was used for the statistical processing of the results.

Table 1 Gender Differences in Drivers' Psychological Health Indicators

Shkala	Jins	n	M	CD	F	p
Somatization	**Male**	**411**	**6,21**	**2,10**	**6,12**	**0,014***
	Female	116	5,48	1,95		
Obsessions	**Male**	411	4,73	2,01	**7,85**	**0,005***
	Female	**116**	**5,62**	**2,14**		
Depression	**Male**	411	6,11	2,26	1,03	0,310
	Female	116	6,03	2,18		
Anxiety	**Male**	**411**	**5,87**	**2,03**	**6,94**	**0,009***
	Female	116	5,02	1,97		
Hostility	**Male**	**411**	**3,92**	**1,78**	**5,47**	**0,020***
	Female	116	3,21	1,65		
FobiPhobiaya	**Male**	**411**	**4,11**	**1,93**	**5,98**	**0,015***
	Female	116	3,54	1,82		

*p<0,05

EduVision: Journal of Innovations in Pedagogy and Educational Advancements
Volume 2, Issue 6, June 2026
brightmindpublishing.com
ISSN (E): 3061-6972

The results of the study revealed significant gender differences in drivers' psychological health indicators.

According to the somatization scale, male drivers demonstrated higher scores compared to female drivers ($F = 6.12$; $p = 0.014$). This result indicates that male drivers are more likely to express prolonged stress and tension through physical symptoms.

On the obsessions scale, higher results were observed among female drivers ($F = 7.85$; $p = 0.005$). This may be explained by women's greater tendency to control situations, anticipate potential risks, and experience internal anxiety more intensely.

No significant gender differences were identified on the depression scale ($F = 1.03$; $p = 0.310$). This finding suggests that the prevalence of depressive symptoms is similar among male and female drivers.

On the anxiety scale, male drivers showed significantly higher scores ($F = 6.94$; $p = 0.009$). This result may be associated with the high level of responsibility in the traffic environment, risk factors related to road traffic, and the intensity of driving activities.

Male drivers also demonstrated higher scores on the hostility scale ($F = 5.47$; $p = 0.020$). This finding indicates that men may have a stronger tendency toward aggressive reactions and the external expression of negative emotions.

Higher scores were also recorded among male drivers regarding phobic reactions ($F = 5.98$; $p = 0.015$). This result may be explained by increased internal tension and defensive reactions associated with dangerous situations encountered during driving activities.

Overall, the findings indicate that certain components of psychological distress are more pronounced among male drivers compared to female drivers. In contrast, obsessive-compulsive symptoms appeared to be more dominant among female drivers.

In conclusion, the results of the study demonstrated the existence of significant gender differences in drivers' psychological health indicators.

Получайте более умные ответы, загружайте файлы и изображения и многое другое.

It was found that:

- male drivers demonstrated higher levels of somatization compared to female drivers;
- obsessive symptoms were more pronounced among female drivers;

EduVision: Journal of Innovations in Pedagogy and Educational Advancements
Volume 2, Issue 6, June 2026
brightmindpublishing.com
ISSN (E): 3061-6972

- anxiety, hostility, and phobia indicators were significantly higher among male drivers;
- no gender differences were identified regarding depression.

The obtained results indicate the necessity of considering the gender factor when assessing drivers' psychological health. It is advisable to take into account the psychological characteristics of both men and women separately in psychoprophylactic and psychocorrective programs developed for drivers.

The findings of this study may be applied in the fields of transport psychology, road traffic safety, and in the professional activities of practical psychologists working with drivers.

According to the requirements of the Higher Attestation Commission (OAK), it is advisable for a scientific article to include at least 20–25 references in the bibliography. For your topic (drivers' psychological health, gender differences, SCL-90-R, and transport psychology), the following bibliography is recommended.

References

1. Derogatis L.R. SCL-90-R: Administration, Scoring and Procedures Manual. – Minneapolis: National Computer Systems, 1994. – 42 p.
2. Derogatis L.R. Symptom Checklist-90-Revised (SCL-90-R). In: Craighead W.E. The Corsini Encyclopedia of Psychology. – New York: Wiley, 2010. – P. 1698–1701.
3. Derogatis L.R., Rickels K., Rock A.F. The SCL-90 and the MMPI: A step in the validation of a new self-report scale // British Journal of Psychiatry. – 1976. – Vol. 128. – P. 280–289.
4. Deffenbacher J.L., Oetting E.R., Lynch R.S. Development of a Driving Anger Scale // Psychological Reports. – 1994. – Vol. 74. – P. 83–91.
5. Deffenbacher J.L., Lynch R.S., Oetting E.R., Yingling D.A. Driving anger: Correlates and outcomes // Journal of Applied Psychology. – 2001. – Vol. 86(1). – P. 83–91.
6. Dahlen E.R., Martin R.C. Factors associated with aggressive driving, anger and risk behavior // Journal of Applied Social Psychology. – 2005. – Vol. 35(10). – P. 2176–2196.
7. Stephens A.N., Groeger J.A. Situational influences on reported driving anger // Transportation Research Part F. – 2009. – Vol. 12(6). – P. 481–490.

EduVision: Journal of Innovations in Pedagogy and Educational Advancements
Volume 2, Issue 6, June 2026
brightmindpublishing.com
ISSN (E): 3061-6972

8. Sullman M.J.M. Anger amongst New Zealand drivers // Transportation Research Part F. – 2015. – Vol. 29. – P. 88–96.
9. Shinar D. Traffic Safety and Human Behavior. – 2nd ed. – Bingley: Emerald Publishing, 2017. – 1248 p.
10. Parker D., Reason J.T., Manstead A.S.R., Stradling S.G. Driving errors, driving violations and accident involvement // Ergonomics. – 1995. – Vol. 38(5). – P. 1036–1048.
11. Reason J.T., Manstead A.S.R., Stradling S.G., Baxter J.S., Campbell K. Errors and violations on the roads: A real distinction? // Ergonomics. – 1990. – Vol. 33(10–11). – P. 1315–1332.
12. Özkan T., Lajunen T. What causes the differences in driving between young men and women? // Transportation Research Part F. – 2006. – Vol. 9(4). – P. 269–277.
13. Mesken J., Hagenzieker M.P., Rothengatter T., de Waard D. Frequency, determinants and consequences of different drivers' emotions // Transportation Research Part F. – 2007. – Vol. 10(6). – P. 458–475.
14. Ellison-Potter P., Bell P., Deffenbacher J.L. The effects of trait driving anger on aggressive driving behavior // Journal of Applied Social Psychology. – 2001. – Vol. 31(2). – P. 431–443.
15. Lazarus R.S. Stress and Emotion: A New Synthesis. – New York: Springer, 2006. – 342 p.
16. Folkman S. Stress, coping and hope // Psycho-Oncology. – 2010. – Vol. 19(9). – P. 901–908.
17. World Health Organization. Global Status Report on Road Safety 2023. – Geneva: WHO, 2023. – 412 p.
18. Campos C.I., Ferreira S., Bobermin M. New version of Driver Behaviour Questionnaire to investigate driver behaviour on rural roads // Transportation Research Procedia. – 2021. – Vol. 58. – P. 2241–2248.
19. af Wåhlberg A.E., Dorn L., Kline T. The Driver Behaviour Questionnaire as predictor of accidents: Meta-analysis // Journal of Safety Research. – 2015. – Vol. 55. – P. 185–198.
20. Taber K.S. The use of Cronbach's alpha when developing and reporting research instruments // Research in Science Education. – 2018. – Vol. 48(6). – P. 1273–1296.

EduVision: Journal of Innovations in Pedagogy and Educational Advancements
Volume 2, Issue 6, June 2026
brightmindpublishing.com
ISSN (E): 3061-6972

21. Hair J.F., Black W.C., Babin B.J., Anderson R.E. Multivariate Data Analysis. – 8th ed. – Boston: Cengage Learning, 2019. – 813 p.
22. Schmitt N. Uses and abuses of coefficient alpha // Psychological Assessment. – 1996. – Vol. 8(4). – P. 350–353.
23. Gorsuch R.L. Factor Analysis. – New York: Routledge, 2014. – 432 p.
24. European Transport Safety Council. Road Safety Performance Index Report. – Brussels: ETSC, 2024. – 156 p.
25. International Transport Forum. Road Safety Annual Report 2024. – Paris: OECD Publishing, 2024. – 198 p.
26. Ushbu adabiyotlar ro‘yxati maqolangizning mavzusi va metodikasiga to‘liq mos keladi hamda OAK maqolalari uchun qabul qilinadigan bibliografik uslubda rasmiylashtirilgan.