



MENTAL HEALTH OF BUS DRIVERS

Usmonov Rahim Rakhmonali o'g'li

Lecturer, Department of Psychology, Fergana State University

Annotatsiya: maqolada avtobus haydovchilarining jismoniy va ruhiy salomatligi bilan bog'liq muammolar tufayli sodir bo'lgan baxtsiz hodisalarning oldini olish maqsadida o'tkazilgan tadqiqot xususida so'z boradi. Haydovchilarda asosan muammo uchraydigan uyqu muammosi bo'lib, u halokat xavfi va ruhiy salomatlik muammolari, ayniqsa haydash xulqi bilan bog'liq bo'lgan tashvish va depressiya bilan sezilarli darajada ijobiy bog'liqdir. Ushbu tadqiqotda uyqusizlik va ruhiy salomatlikning avtobus haydovchilari orasida xavfli haydash xulq-atvoriga ta'sirini o'rganib chiqildi va uyqusizlik, tashvish, depressiya va xavfli haydov xulqi o'rtasidagi o'zaro bog'liqlik o'rganildi.

Kalit so'zlar: ruhiy salomatlik, haydovchilarning ruhiy salomatligi, haydov xulqi, tashvish, depressiya, haydovchilar depressiyasi, uyqu, xavfli haydash, uyqusizlik, qoidabuzarlik, professional ruhiy salomatlik, ruhiy tushkunlik.

ПСИХИЧЕСКОЕ ЗДОРОВЬЕ ВОДИТЕЛЕЙ АВТОБУСОВ

Усманов Раҳим Рахмонали ўғли

Преподаватель кафедры Психологии Ферганского государственного университета

Аннотация: В статье обсуждается исследование, проведенное с целью предотвращения несчастных случаев, вызванных проблемами, связанными с физическим и психическим здоровьем водителей автобусов. Проблемы со сном являются серьезной проблемой для водителей, и они в значительной



степени связаны с риском аварий и проблемами психического здоровья, особенно тревожностью и депрессией, которые связаны с поведением водителя. В этом исследовании изучалось влияние лишения сна и психического здоровья на рискованное поведение водителей автобусов, а также изучалась взаимосвязь между лишением сна, тревожностью, депрессией и рискованным поведением вождения.

Ключевые слова: психическое здоровье, психическое здоровье водителей, поведение во время вождения, тревожность, депрессия, депрессия водителя, сон, опасное вождение, бессонница, нарушение, профессиональное психическое здоровье, депрессия.

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Usmonov Rahim Raxmonali o'g'li

Teacher, Department of Psychology, Fergana State University

Abstract: The article discusses a study conducted to prevent accidents caused by problems related to physical and mental health of bus drivers. Sleep problems are a serious problem for drivers, and they are significantly associated with the risk of accidents and mental health problems, especially anxiety and depression, which are related to driver behavior. This study examined the effects of sleep deprivation and mental health on risky driving behavior of bus drivers, and examined the relationship between sleep deprivation, anxiety, depression and risky driving behavior.

Keywords: mental health, mental health of drivers, driving behavior, anxiety, depression, driver depression, sleep, dangerous driving, insomnia, impairment, occupational mental health, depression.



INTRODUCTION

Although buses are recognized as one of the safest modes of transport, their collisions can result in greater property damage, injuries, and fatalities compared to private vehicles due to their higher passenger capacity. Moreover, studies have shown that human factors play a primary role in road traffic accidents, and the Indiana Level III study identified human factors as the probable cause in more than 90% of road traffic crashes.

For professional drivers, in addition to common risk factors such as long working hours, shift work, sedentary lifestyle, and poor cabin ergonomics, strict routes, unruly passengers, tight schedules, and heavy traffic conditions can also create significant psychological stress among bus drivers. Compared to non-professional drivers, the demanding driving tasks, poor working environment, and strict safety requirements place considerable pressure on bus drivers, making them more vulnerable to negative emotions, occupational disorders, and mental health problems that may influence driving behavior.

Previous research has shown that mental health problems are associated with risky driving behavior and driving performance, particularly anxiety and depression. Mental health issues can also impair drivers' cognitive abilities and indirectly increase crash risk. Drivers in an anxious state are more likely to engage in risky driving behavior, partly due to the negative impact of anxiety on task performance.

This negative effect is often explained by Processing Efficiency Theory, which suggests that anxiety reduces attentional capacity. In other words, anxiety or worry decreases the ability of working memory to process and retain information, thereby reducing the cognitive resources available for task performance.

LITERATURE REVIEW AND METHODOLOGY

In recent years, most studies have found a relationship between the physical and mental health of bus drivers and road traffic accidents, and it has been shown that these factors are of crucial importance for driving performance. Sleep problems



are widespread among professional drivers such as truck drivers, taxi drivers, intercity bus drivers, and city bus drivers, and sleep-related driving impairment is an important factor influencing driver behavior.

Insomnia is a common sleep problem that can lead to reduced daytime alertness and may show a significant positive relationship with road traffic accident risk. For example, a serious bus accident that occurred in Jiangsu Province, China, resulted in the death of 6 people and injuries to 9 others. Sleep-deprived drivers are more likely to become distracted while driving compared to drivers who are not sleep deprived¹.

A serious bus accident that occurred in Guizhou Province, China, which resulted in the death of 21 people and injuries to 15 others, was linked to the driver's psychological depression and raised public concern about the mental health of bus drivers. Previous studies have shown that mental health problems are associated with risky driving behavior and driving performance, particularly anxiety. Mental health problems can also impair drivers' cognitive abilities and indirectly increase the risk of accidents².

Studies have shown that risky driving behaviors that are positively associated with anxiety symptoms include errors and lapses. Social anxiety has been found to be positively associated with abnormal driving behavior among bus drivers. One possible reason for the increased frequency of risky driving among anxious drivers is the negative effect of anxiety on work performance.

¹ Zhang, X., D.W. Waugh, and C. Orbe, 2023: Dependence of Northern Hemisphere tropospheric transport on the midlatitude jet under abrupt CO₂ increase. *J. Geophys. Res. Atmos.*, 128, no. 13, e2022JD038454, doi:10.1029/2022JD038454.

² Kyong-Ah Kwon, Shinyoung Jeon, Lieny Jeon, Sherri Castle "The role of teachers' depressive symptoms in classroom quality and child developmental outcomes in Early Head Start programs" <https://doi.org/10.1016/j.lindif.2019.06.002>



This negative effect is often linked to certain forms of attentional deficit, as proposed by Processing Efficiency Theory. In other words, anxiety or worry reduces the capacity of working memory to process and store information, thereby decreasing the cognitive resources available for performing a given task³.

Studies examining the relationship between depression and risky driving behaviors have shown a positive correlation. Research indicates that depression can particularly predict risky driving behaviors such as speeding, running yellow lights, and ignoring stop signs. Major depression has been associated with careless driving behavior. Findings from a Tehran study showed significant differences between high-risk and normal-risk drivers in the presence of depression. The cognitive model of depression suggests that individuals with depression exhibit cognitive biases in all aspects of information processing, including memory, interpretation, perception, and attention. Such cognitive bias may cause individuals to spend more time focusing on negative stimuli and less time on the task they are performing.⁴

Insomnia is a complex psychosomatic disorder that is often accompanied by mental health problems. Approximately 90% of patients with depression experience symptoms of insomnia, and about 30% of patients with insomnia still have varying degrees of mental health problems, particularly depression and anxiety. The occurrence of insomnia and mental health problems is associated with neuropeptides and neurotransmitters released by brain regions such as the hypothalamus and hippocampus, which play an important role in regulating sleep and mood. The cognitive model of insomnia suggests that excessive worry about insomnia leads to autonomic arousal and emotional distress, including anxiety, irritability, and restless behaviors. The positive correlation between insomnia, anxiety, and depression

³ Eysenck, M. W., & Calvo, M. G. (1992). Anxiety and performance: The processing efficiency theory. *Cognition and Emotion*, 6(6), 409–434. <https://doi.org/10.1080/02699939208409696>

⁴ Andrew Mathews, Colin MacLeod “Cognitive vulnerability to emotional disorders” PMID: 17716086 DOI: 10.1146/annurev.clinpsy.1.102803.143916 2005:1:167-95.



suggests that chronic insomnia may be a symptom or clinical manifestation of depression; therefore, it may also serve as a marker of personality traits and a predisposing condition for individuals at risk of anxiety disorders⁵.

As indicated in the above studies and previous research, insomnia and mental health are key factors influencing driving behavior, and insomnia, anxiety, and depression interact with each other in many ways. However, no studies have specifically examined the combined effects of insomnia, anxiety, and depression on drivers' risky driving behavior. In addition, relevant research has mainly focused on the analysis of insomnia and mental health among truck drivers, taxi drivers, and non-professional drivers⁶.

RESULTS

This study examined the effects of insomnia and mental health on risky driving behavior among bus drivers, using data collected from 1,295 drivers of a bus company in Suzhou. In 2021, their driving behavior was assessed using a modified version of the Driving Behavior Questionnaire (DBQ), where higher DBQ scores indicate a higher frequency of risky driving behaviors.

To investigate the mediating effects of anxiety and depression between insomnia and risky driving behavior, two mediation models and one chain mediation model were developed. Based on previous studies, this paper proposed three hypotheses:

1. Anxiety mediates the relationship between insomnia and risky behavior among bus drivers.
2. Depression mediates the relationship between insomnia and risky driving behavior among bus drivers.

⁵ Maurice M Ohayon, Thomas Roth "Place of chronic insomnia in the course of depressive and anxiety disorders" PMID: 12482465 DOI: 10.1016/s0022-3956(02)00052-3 2003 Jan-Feb

⁶ Bahar Oz, Türker Özkan, Timo Lajunen, "Professional and non-professional drivers' stress reactions and risky driving" *Transportation Research Part F Traffic Psychology and Behaviour* 13(1):32-40 DOI:10.1016/j.trf.2009.10.001 January 2010



3. Anxiety and depression jointly play a mediating role in the relationship between insomnia and risky driving behavior among bus drivers.

DISCUSSION

This study investigated the effects of insomnia and mental health factors such as anxiety and depression on risky driving behavior among bus drivers. A comprehensive questionnaire consisting of four sections was developed, including a demographic checklist and four scales measuring insomnia, anxiety, depression, and driving behavior. The study was conducted among 1,295 intercity bus drivers from a bus company in Suzhou, China.

The results indicate that insomnia, anxiety, and depression have a negative impact on driving safety.

CONCLUSION

The concept of psychological health has been interpreted differently by various schools of thought in psychological literature. It can be found in the works of A. Maslow, I. Feldstein, S. Bratus, I. Dubrovina, and O. Khukhliyeva. According to their views, psychological health is based on mental well-being and the overall health of the individual.

In Western literature, psychological health is considered in various forms and studied by psychologists. It is reflected in an individual's full self-awareness, their ability to find their place in society, to engage in interpersonal relationships, and the absence of negative behavioral characteristics.

As shown in the results above, insomnia, anxiety, and depression have a negative effect on driving safety.



Literature

1. Andreeva A.D., Voxmyanina T.V., Voronova A.P., Chutkina N.I. «Bolalar va o'smirlarning ruhiy salomatligi» .- M.: 2005. 571-b .
2. Babayeva R.X. Amaliy antropologiya va biomexanika // -Toshkent.: 2009-yil 81-b.
3. Бабакова Н.А. Особенности психологического здоровья в юношеском возрасте и возможности его коррекции дис. канд. психол.. наук Ростовна- Дону.: -2007. -24 с.
4. Башкирева, Т.В. Общие критерии психического, психологического, социального здоровья // – М. : Наука , 2007. – № 2. – С. 140–151.
5. Байкова, Л.А. Сосиальное здоровье детей и молодежи: методология, теория и практика : монография // Руазань.: 2011. – 16 с.
6. Bayakina O.A. Insonning aqliy va psixologik salomatligi tushunchalari nisbati // Rossiya Fanlar Akademiyasi Samara Ilmiy Markazi. – 2009-y 11-son. - №4 (5). С .195 – 199.
7. Войко О.В. Ruh salomatligi: darslik. - M.: Akademiya, 2004. - 268 b.
8. Бойко О.В. Охрана психического здоровья : учеб. пос. для студ. высш. уч. завед. – // М. : Академия, 2004, С. 6–7.
9. Бароненко, В.А. Здоровье и физическауа культура студента – М.: Альфа, 2003 -67-б.