



Health Cube with School of Empathy and Stress Reduction for Iranian Drivers: New Tools for Traffic Psychology and Biocentric Health Management in Iran

Marcus Stueck^{1,2,*}, Vahid Delshad³, Juliet Roudini³, Hamidreza Khankeh^{3,4}, Maryam Ranjbar³, Konrad Reschke², Alejandra Villegas⁵, Hans-Ullrich Balzer⁶, Gerald Matthews⁷ and Ulrich Sack⁸

¹DPFA Academy of Work and Health, Leipzig, Germany

²International Research Academy-BIONET, Leipzig, Germany

³Health in Emergency and Disaster Research Center, University of Social Welfare and Rehabilitation, Tehran, Iran

⁴Department of Clinical Science and Education, Sodersjukhuset Hospital, Stockholm, Sweden

⁵IBF Research Network Department, International Research Academy-BIONET, Leipzig, Germany

⁶Humboldt-Universität zu Berlin, Berlin, Germany

⁷Department of Psychology, University of Cincinnati, Cincinnati, United States

⁸Institute of Clinical Immunology, Leipzig, Germany

*Corresponding author: DPFA Academy of Work and Health, Leipzig, Germany. Email: marcus.stueck@dpfa.de; marcusstuck@gmail.com

Received 2019 February 13; **Revised** 2019 February 28; **Accepted** 2019 March 10.

Dear Editor,

A traffic accident is a serious problem globally. It is the 8th cause of death in the world for people of all ages. Based on the World Health Organization (WHO) global status report on road safety 2018, the number of road traffic deaths continues to rise steadily, reaching 1.35 million in 2016 (1). Road accidents are among the leading causes of death in Iran too. There are 20% more road accidents in Iran last year than in other countries worldwide (2). Risky driving and stress-related psychological reactions can be among the causes of increased traffic accidents (3). Therefore, paying attention to traffic psychology and periodic psychological examinations of drivers, especially in the public transportation and applicants for driving licenses, can lead to a reduction in the number of traffic accidents in the long term.

In Scandinavian countries, standards for driving have been considered. Standard in driving has two meanings: (1) drivers should have no human error and (2) they do not commit driving violations in which their psychological condition does not adversely affect their performance. The driving standards include different domains; first, public transport drivers, emergency vehicle drivers, and even train and metro drivers should have some cognitive, emphatic, and emotional abilities in which the driver's response is proportional to a particular situation. It means as the response time to a stimulus is lower, the risk of crash decreases equally, and the rate of attention and concentration of drivers should be estimated by scientific methods; consequently, they can increase their concentration by training if it is needed.

How could be the adaptation of the biocentric tools of Health Cube in Iran? The "Health-Cube" with the integrated "Mobile Health Laboratory" (4, 5), was developed by the German psychologist Marcus Stueck and colleagues (e.g. Ulrich Sack, immunological diagnostic, Hans-Ulrich Balzer, physiological diagnostics) in Leipzig, Germany is a scientific reflexive and interventional tool for increasing the "Biocentric Health Commitment" in individuals and systems. It can be used for professional drivers as a questionnaire or also as a workshop. The first use of biocentric tools in islam context was from 2016 onwards at Islam University Indonesia in Yogyakarta (Dian Utami and colleagues). The term "Biocentric Health Commitment" was defined in the Health Cube to develop self-motivation and to take self-responsibility in relation to an individual's life (biocentric attitude), behavior, and health in traffic. The Health Cube includes the School of Empathy and School of Stress reduction and Presence (6-8). These strategies are as follow:

(1) To improve the risk management in Iranian professional drivers by undertaking a psychic risk analysis (Health Cube) in 6 areas (e.g. driver stress, coping, conditions, resources, biocentric attitude).

(2) After the risk analysis to train the areas of stress reduction (School of Stress Reduction and Presence) which are needed. Here also we work with Biofeedback.

(3) To train the empathic behavior and biocentric "life-oriented" attitudes of Iranian drivers in traffic situations and also for the use in Iranian schools (School of Empathy for adults and children).

As research has shown, the empathy is low when the

stress is high (9, 10). More empathy can be generated in traffic situations by using the method of the School of Empathy. In this regard, biocentric value (biocentric means “saving a life”, “life orientation” (11), is developed by training the eye contact in traffic situations or by receiving a new attitude towards saving a life (biocentric principle). There is a significant observation in Iran because the missing of eye contact may result in less empathy in Iranian traffic. This School of Empathy was developed by Stueck (6) and colleagues (2013) (9-11) and it will be trained for drivers in Iran. For children, it also makes sense to develop a School of Empathy for traffic and life situations.

Another standard for drivers should be the development of the ability to manage the stress (School of Presence and Stress reduction) in Iran, which contains evidence-based programs developed by Stueck or Reschke et al. (7, 12). This School of Stress Reduction and Presence will be adapted to Iranian context and use dor taught to professional drivers in the PhD project of Vahid Delshad. For example, a driver should not have anxiety, chronic disorder, bipolar disorder, or schizophrenia, or should not be quickly excited and stressed, because each of these disorders is problematic, especially in professional drivers such as emergency vehicle and police drivers. That is why a psychic risk analysis with Health Cube and diagnose-based interventions for stress management are necessary.

The Health Cube was developed by Marcus Stueck and colleagues, for the Biocentric Health Management (BHM) in institutional and individual contexts at Leipzig University since 1999. Nowadays, it is being used and continuously researched in different fields of Health Management at DPFA-Academy for Work and Health in Leipzig. It was also modified for other target groups, e.g. for disaster- and emergency management, for health-management in hospitals, and now for drivers, to identify psychic and physiological risk pattern of driving behavior. It is recommended to customize traffic psychology proportional with Iranian culture by the transportation of the managers and policy makers, and developing standards for above-mentioned domains, especially for professional drivers to reduce the death and injuries caused by road accidents.

Footnotes

Conflict of Interests: There is no conflict of interests.

Funding/Support: Thanks to University of Leipzig, to the DPFA-Academy of Work and Health, to Chronomar GmbH in Berlin and to the colleagues in Germany and Iran (University Social Welfare and Rehabilitation) who support the research and the practical application of Health Cube and School of Empathy and Stress reduction and Presence within the last 20 years.

References

1. World Health Organization. *Global status report on road safety 2018*. World Health Organization; 2018.
2. Stueck M, Delshad V, Pourvakhshoori N, Balzer HU. Risk-analysis and training for Iranian professional drivers under the help of a new biocentric health promotion instrument (Health Cube). *9th International Conference on Reducing Burden of Traffic Accidents: Challenges and Strategies*. Iran. 2019.
3. Delshad V, Khankeh HR, Sack U, Stueck M. Stress-related psychobiological preparedness in Iranian emergency and non-emergency (public) drivers: Fisible/ pilot study. *9th International Conference on Reducing Burden of Traffic Accidents: Challenges and Strategies*. Iran. 2019.
4. Stueck M. Der Gesundheitswürfel (The Health Cube). In: Witruk E, Utami DS, editors. *Educational and Rehabilitation Psychology: Traumatic experiences and dyslexia*. 8. Frankfurt: Peter Lang Publisher; 2019. German.
5. Stueck M, Balzer HU, Mueller S, Utami D, Sack U. Das Mobile Gesundheitslabor (The mobile Health Laboratory). In: Witruk E, Utami DS, editors. *Educational and Rehabilitation Psychology: Traumatic experiences and dyslexia*. 8. Frankfurt: Peter Lang Publisher; 2019. German.
6. Stück M. School of Empathy: Introduction and first results. In: Witruk E, Wilcke A, editors. *Beitrage zur pädagogischen und rehabilitationspsychologie. Historical and cross-cultural aspects of psychology*. Switzerland: Peter Lang D; 2013. doi: [10.3726/978-3-653-02104-2](https://doi.org/10.3726/978-3-653-02104-2).
7. Stueck M. Ten steps of stress reduction: The intercultural adapted version of training of stress reduction with elements of relaxation. In: Witruk E, Novita S, Lee Y, Utami D, editors. *Dyslexia and traumatic experiences*. Switzerland: Peter Lang D; 2016. German. doi: [10.3726/978-3-653-05604-4](https://doi.org/10.3726/978-3-653-05604-4).
8. Matthews G. Towards a transactional ergonomics for driver stress and fatigue. *Theor Issues Ergonomics Scie*. 2002;3(2):195-211. doi: [10.1080/14639220210124120](https://doi.org/10.1080/14639220210124120).
9. Stück M, Schoppe S, Lahn F, Toro R, Sachsen DH. Was nützt es sich in jemanden hineinzusetzen, ohne zu handeln? [Empathy - what for a use to have empathy without acting? Development of a integrated scale of empathy]. *Ergomed/Prakt. Arb. Med*. German.
10. Stück M, Villegas A, Toro R. Nonverbale aspekte wertschätzender kommunikation in kindertagesstätten: Empathieschule für pädagogen [Nonverbal aspects of respectful communication]. *Beitr zur Bildungsgesundheit*. 2010;8. German.
11. Toro R. *Biocentric Principles and Biocentric Education*. Leipzig: Pinguine and Polar Bear; 2002.
12. Reschke K, Kranich U, Lessing A. *Optimistisch den Fahr(er)-Stress meistern. Ein psychologisches Interventionsprogramm für die Stressreduktion belasteter Kraftfahrer (Stressreduktion programme for stressed professional drivers)*. Aachen: Shaker; 2015. German.