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EDITORIAL

Lifestyle Habits, Stress Perception and Quality of Life

Excessive and sustained stress has effects that affect not only health but progress further to trigger various diseases and it is firmly established that these stress-related events can affect the quality of life. The World Health Organisation (WHO) defines quality of life (QOL) as the 'individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns'.¹ It considers the general well-being of individuals and societies and is associated with a wide range of contexts and often includes physical, psychological, social relationships, and environmental aspects.¹ The Centre for Health Promotion model definition of QOL is based on the definition of the QOL by the WHO and defines it as the extent to which an individual makes use of the opportunities that life brings, particularly concerning the three most important areas of human life: belonging, being, and becoming.²

Another model of QOL by Ashing-Giwa considers QOL as comprising of micro and macro components.³ The macro or systemic level comprising of factors outside of the individual that influence his or her functioning and the process of his or her recovery such as socioeconomic, cultural (such as nationality and culture), demographic (such as age and gender) and factors related to quality and access to medical care.³ The micro or individual level includes factors such as the individual's general health condition and comorbidities; health beliefs and knowledge; psychological factors (such as the presence of anxiety, depression) and disease-specific factors (such as nature and type of illness and the degree of debilitation).³ Another prominent

model of Health Related Quality of Life (HRQOL) is that developed by Wilson and Cleary who proposed general QOL as an individual's subjective assessment of their own health status⁴ determined by individual factors (such as sex, marital status, emotional reactivity to difficult situations and cognitive functions); social-environmental factors (such as family, friends, place of work, and overall support system); biological factors (such as the functioning of the biological systems-cells, organs); symptoms (how the patient perceives his/her own physical, emotional, and cognitive status as deviating from the norm); biopsychosocial functioning (an individual's ability to perform tasks in various spheres of life).⁴

Systematic reviews have highlighted the negative association between stress and QOL through the deterioration of various aspects related to physical and mental health.⁵⁻⁷ Stress impacts on individuals differently depending on whether their response is negative or positive and how they perceive their stress.⁸ Perceived stress may affect physiological and psychological health negatively and lead to a decline in the QOL.⁹⁻¹⁰ There is evidence suggesting that psychosocial stress is linked to poor health outcomes by contributing to the development or reinforcement of poor lifestyle habits like substance use, high-calorie diet, and physical inactivity.¹¹⁻¹² An explanation for this is that exposure to prolonged stress may change the physiological processes within the body, leading to physiological dysregulation, exacerbating proclivities for unhealthy lifestyle behaviours, and contributing to morbid health conditions.¹³

A review of the literature suggests that the use of QOL as an outcome measure associated with medical interventions has facilitated its

acceptance as worthy of periodic national surveillance.¹⁴ It has been used increasingly in clinical research to measure improvement in perceived well-being.¹⁵ QOL has not only been linked with clinical variables but also with lifestyle behaviours. This linkage broadens interpretations of the role of QOL, which would be of potential value to policymakers. According to a World Health Organisation (WHO) report, lifestyle factors predict about 60% of HRQOL among individuals.¹⁶ In addition, low adherence to healthy lifestyle behaviours is associated with decreased psychological well-being and QOL.¹⁷ Recent studies have stressed the impact of lifestyle factors on the QOL.¹⁸⁻²⁰ Numerous studies have shown that HRQOL improves when lifestyle disease is reduced. Research related to cardiac rehabilitation, diabetes management and obesity treatment have shown that HRQOL or psychological well-being improves when symptoms are reduced.²¹⁻²³

Occupational stress is a growing problem worldwide that affects not only the health and well-being of employees but also the productivity of organisations. However, studies are not consistent in ascertaining vulnerable occupations. Drivers, agricultural and fishery workers were demonstrated as the main occupational groups having the worst health related quality lifestyle (HRQL) in a large population sample.²⁴ Occupational factors associated with HRQL have been explored among nurses and welders and have been associated with fatigue and burnout.^{25,26} Various studies suggest that long-distance drivers are an occupational group at risk of high work stress levels exhibiting unhealthy lifestyle behaviours, such as sedentary behaviour and high levels of physical inactivity, poor dietary choices,

high consumption of alcohol and high smoking prevalence.²⁷ In this regard, other adverse health and performance outcomes such as cardiovascular diseases, fatigue, poor sleep, anxiety and depression have been documented among them.²⁸

Empirical research has documented the critical relationships existing between job stress and addictive behaviours.²⁹ This has been explored extensively in the field of transportation as potential impairers for the health, welfare, and safety of workers. Psychosocial factors at work and especially work stress have been demonstrated to have a predictive effect on two very relevant health risk-behaviours: smoking and alcohol consumption.^{30,31} Recent studies have found that, in some countries, almost 10% of professional drivers use alcohol while driving³² and several research experiences have documented that a wide number of drivers drive after consuming alcohol and other psychoactive substances.^{33–34} A study among Colombian bus drivers showed 21% were smokers and four out of 10 drivers presented with job strain.³⁵ Furthermore, significant associations were found relating smoking and job strain, and between smoking and traffic incidents. A similar study in this edition of the journal conducted in Lagos, Nigeria found a high prevalence of perceived stress and a high rate of addiction to alcohol, cigarette and cannabis, with negative impacts on QOL among study respondents. In the study, physical and mental fatigue at work was associated with a higher risk of alcohol use, consistent with previous studies.^{23–24} Similarly increased odds for heavy smoking was also observed among respondents with high perceived stress. The study concluded that perceived stress and harmful lifestyles were significant predictors for poor QOL, consistent with findings from other studies confirming the relationship between stress and unhealthy lifestyles and QOL.^{8–10,17}

Adverse working conditions have also been systematically associated with poor safety and health outcomes with

negative occupational outcomes in the mid and long term, both in professional drivers as well as in a very long list of other groups of workers.²⁴ Therefore, developing evidence-based comprehensive approaches for addressing work stress is an important initial response for designing occupational health interventions targeted at achieving reductions in the high burden of work-related risk factors and their negative impact on the health of communities. In addition, enhancement of healthy lifestyles including the prevention and treatment of addictive behaviors needs to be developed for the prevention of adverse events and the promotion of health among workers in general. Finally, there is a need for further research to explore relationships between alcohol and tobacco consumption behaviour and psycho-social factors at work, including different approaches to job stress and the mid to long-term outcomes in terms of occupational health and safety.

REFERENCES

1. World Health Organisation. What quality of life? the WHOQOL group. World Health Organisation quality of life assessment. World Health Forum 1996; **17**: 354–356. pmid: <http://www.ncbi.nlm.nih.gov/pubmed/9060228>.
2. Renwick R, Raphael D, Brown I, Myerscough T. The Quality of Life Model, The Centre for Health Promotion 2002 [2016 Oct 1] Available from: http://www.utoronto.ca/qol/qol_model.htm.
3. Ashing-Giwa KT. The contextual model of HRQoL: a paradigm for expanding the HRQoL framework. *Qual Life Res*. 2005; **14**: 297–307.
4. Wilson IB, Cleary PD. Linking clinical variables with health-related quality. A conceptual model of patient outcomes. *JAMA*. 1995; **273**: 59–65.
5. Ribeiro IJ, Pereira R, Freire IV, de Oliveira BG, Casotti CA, Boery EN. Stress and quality of life among university students: A systematic literature review. *Health Prof. Educ*. 2018; **4**: 70–77.
6. Sarafis P, Rousaki E, Tsounis A, Malliarou M, Lahana L, Bamidis P, *et al*. The impact of occupational stress on nurses' caring behaviors and their health-related quality of life. *BMC Nurs*. 2016; **15**: 1–9.
7. Yang X, Ge C, Hu B, Chi T, Wang L. Relationship between quality of life and occupational stress among teachers. *Public Health*. 2009; **123**: 750–755.
8. Seo EJ, Ahn JA, Hayman LL, Kim CJ. The association between perceived stress and quality of life in university students: the parallel mediating role of depressive symptoms and health-promoting behaviors. *Asian Nurs Res*. 2018; **12**: 190–196.
9. La Torre G, Sestili C, Mannocci A, Sinopoli A, De Paolis M, De Francesco S, *et al*. Association between work related stress and health related quality of life: the impact of socio-demographic variables. A cross sectional study in a region of central Italy. *Int J Environ Res Public Health*. 2018; **15**: 159.
10. Opoku-Acheampong A, Kretchy IA, Acheampong F, Afrane BA, Ashong S, Tamakloe B, Nyarko AK. Perceived stress and quality of life of pharmacy students in University of Ghana. *BMC Res Notes*. 2017; **10**: 1–7.
11. Suvarna B, Suvarna A, Phillips R, Juster RP, McDermott B, Sarnyai Z. Health risk behaviours and allostatic load: a systematic review. *Neurosci & Biobehav Rev*. 2020; **108**: 694–711.
12. Miller GE, Chen E, Parker KJ. Psychological stress in childhood and susceptibility to the chronic diseases of aging: moving toward a model of behavioral and biological mechanisms. *Psychol Bull*. 2011; **137**: 959.
13. Juster RP, McEwen BS, Lupien SJ. Allostatic load biomarkers of chronic stress and impact on health and cognition. *Neuroscience & Biobehavioral Reviews*. 2010; **35**: 2–16.
14. Zahran HS, Kobau R, Moriarty DG, Zack MM, Holt J, Donehoo R. Health-related quality of life surveillance – United States, 1993–2002. *MMWR Surveill Summ*. 2005; **54**: 1–35.
15. Saxena S, Carlson D, Billington R, Orley J. The WHO quality of life assessment instrument (WHOQOL-Bref): the importance of its items for cross-cultural research. *Qual Life Res*. 2001; **10**: 711–721.
16. Ziglio E, Currie C, Rasmussen VB. The WHO cross-national study of health behavior in school aged children from 35 countries: findings from 2001–2002. *J Sch Health*. 2004; **74**: 204–206.

17. Nari F, Jeong W, Jang BN, Lee HJ, Park EC. Association between healthy lifestyle score changes and quality of life and health-related quality of life: a longitudinal analysis of South Korean panel data. *BMJ open*. 2021; **11**: e047933.
18. Aljohani AM, Al-Zalabani AH. Lifestyle factors and quality of life among primary health care physicians in Madinah, Saudi Arabia. *Saudi J Biol Sci*. 2021; **28**: 4732–4737.
19. Daundasekara SS, Arlinghaus KR, Johnston CA. Quality of Life: The primary goal of lifestyle intervention. *Am J Lifestyle Med*. 2020; **14**: 267–270.
20. Kundapur R, Modi B, Ansari R, Deepthi R, Santhosh P, Saxena D. Effectiveness of lifestyle modification on quality of life among uncontrolled diabetics and hypertensives in India – community-based intervention study. *J Family Med Prim Care*. 2022; **11**: 492.
21. Chen YW, Wang CY, Lai YH, *et al*. Home-based cardiac rehabilitation improves quality of life, aerobic capacity, and readmission rates in patients with chronic heart failure. *Medicine (Baltimore)*. 2018; **97**: e9629. 22.
22. Ni Y, Liu S, Li J, *et al*. The effects of nurse-led multidisciplinary team management on glycosylated haemoglobin, quality of life, hospitalisation, and help-seeking behavior of people with diabetes mellitus. *J Diabetes Res*. 2019; **2019**: 9325146.
23. Rodriguez-Lozada C, Cuervo M, Cuevas-Sierra A, *et al*. Changes in anxiety and depression traits induced by energy restriction: predictive value of the baseline status. *Nutrients*. 2019; **11**: 1206.
24. Riise T, Moen BE, Nortvedt MW. Occupation, lifestyle factors and health-related quality of life: the Hordaland Health Study. *J Occup Environ Med*. 2003: 324–332.
25. Ruiz-Fernández MD, Ortega-Galán AM, Fernández-Sola C, Hernández-Padilla JM, Granero-Molina J, Ramos-Pichardo JD. Occupational factors associated with health-related quality of life in nursing professionals: a multi-centre study. *Int J Environ Res Public Health*. 2020; **17**: 982.
26. Qin J, Liu W, Zhu J, Weng W, Xu J, Ai Z. Health related quality of life and influencing factors among welders. *PLoS ONE*. 2014; **9**: e101982.
27. Crizzle AM, Bigelow P, Adams D, Gooderham S, Myers AM, Thiffault P. Health and wellness of long-haul truck and bus drivers: A systematic literature review and directions for future research. *J Transp & Health*. 2017; **7**: 90–109.
28. Cendales B, Useche SA, Gómez V, Bocarejo JP. Bus operators' responses to job strain: an experimental test of the job demand-control model. *J Occup Health Psychol*. 2016; **22**: 518–527.
29. Hamieh N, Descatha A, Zins M, Goldberg M, Czernichow S, Hoertel N, *et al*. Physical exertion at work and addictive behaviors: tobacco, cannabis, alcohol, sugar and fat consumption: longitudinal analyses in the CONSTANCES cohort. *Sci Rep*. 2022; **12**: 1–9.
30. Useche S, Serge A, Alonso F, Esteban C. Alcohol consumption, smoking, job stress and road safety in professional drivers. *J Addict Res Ther*. 2017; **8**: 1000321.
31. Azagba S, Sharaf MF. The effect of job stress on smoking and alcohol consumption. *Health Econ Rev*. 2011; **1**: 1–4.
32. Mir MU, Khan I, Ahmed B, Razzak JA. Alcohol and marijuana use while driving – An unexpected crash risk in Pakistani commercial drivers: A cross-sectional survey. *BMC Public Health*. 2012; **12**: 145.
33. Alonso F, Esteban C, Sanmartín J, Useche S. Reported prevalence of health conditions that affect drivers. *Cog Med*. 2017; **4**: 1303920.
34. Whitehill JM, Rivara FP, Moreno MA. Marijuana-using drivers alcohol-using drivers and their passengers: Prevalence and risk factors among underage college students. *JAMA Pediatr*. 2014; **168**: 618–624.
35. Useche SA, Colomer N, Alonso F, Montoro L. Patterns on work-related stress and tobacco consumption in city bus drivers. *SAGE Open*. 2018; **8**: 2158244018782336.

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