Lifestyle Pattern among Nepalese Migrant Workers in Gulf Countries and Malaysia

Abha Sharma[1], Jaya Pradhan[2], Renuka Adhikari[3]

[1]Assistant Professor, Janamaitri Foundation Institute of Health Sciences, Hattiban, Lalitpur, Nepal, [2]Professor Central department of Home Sciences, Faculties of Humanities and Social Sciences, Tribhuvan University, [3]Masters graduate from Central department of Home Sciences, Faculties of Humanities and Social Sciences, Tribhuvan University

Abstract

Background: Nepal is one of the largest suppliers of low skilled laborer to gulf countries. The conditions surrounding the migration can increase health vulnerabilities due to lifestyle pattern. This study assessed the lifestyle pattern adopted by migrant workers in gulf countries and Malaysia.

Method: Descriptive cross-sectional study was conducted among 502 Nepali migrant workers arriving in Tribhuvan International Airport from gulf countries and Malaysia during 15th May to 15th June 2019. Face to face interview with structured questionnaires was done.

Results: More than half (51.5%) respondents consumed alcohol. Majority (96.8%) of the respondents were non vegetarian and (69.3%) never did exercise, 7.6% respondents often consume extra added salt in food. More than half (51%) respondents drank only 1-3 liters water per day. Majority (86.9%) of the respondents worked 8-12 hours per day and 27.5% worked at temperature of 41-50 degree centigrade. Painkiller was used sometimes by 19.5% respondents. About thirty two percent lived by sharing the room with 6-10 people.

Conclusion: Nepalese migrant workers have unhealthy lifestyle pattern which increases the risk of non-communicable diseases. Further there is a lack of adequate information for the migrants making them aware of their health risks and consequences of lifestyle pattern.

Keywords: *Lifestyle pattern, Nepalese Migrant workers, Gulf countries*

Introduction

Globalization of markets and labour supply has added impetus to the growing mobility of people working abroad. In Asia the movement of labour is an important and enduring phenomenon associated with economic growth and development since it eases skill imbalances in labour markets and provides benefits for both sending and receiving countries. Conditions surrounding migration process can increase health vulnerabilities along with injury, illness, poor provision of health care. In extreme situations, migrants are forced to return home because of ill-health, chronic or terminal illnesses, and often end up

Corresponding author:
Abha Sharma,
Assistant Professor Janamaitri Foundation Institute of Health Sciences, Hattiban, Lalitpur, Nepal;
Ph.D. candidate, Mahidol University, Thailand.
link2abha9@hotmail.com

unable to work or die back in their home country[1].

Nepalese migrant workers travelling to Malaysia and the Middle East has increased in recent years. Nepal is the second largest labour supplier to Malaysia with 519,000 workers. They are in semi-skilled or manual roles with majority in the construction and manufacturing sectors [2]. These jobs are characterized by lower payment, longer working hours and physically and mentally hazardous working conditions [3]. Further these migrant workers experience poor housing conditions with very limited access to quality health care leading to emergence of variety of adverse health outcome [4].

On an average three migrant workers return home (Nepal) from gulf countries with kidney problem daily. Seventy such returnees are undergoing dialysis at National Kidney Center. 'Most of the migrant workers are from hilly region, their body is not accustomed to hot climate. Further, people are not habituated in working longer hours in Nepal. Longer work hours causes body aches leading to using painkillers which further damage kidney. Regular intake of toxins and persistent dehydration can damage kidney within 6 months. Intake of high protein; red meat and stress also damages kidney' [5].

The transition to new country, new environment, new cultural and language perspective, along with working and living conditions subject Nepalese migrant workers in Gulf countries and Malaysia to drastic lifestyle changes. These lifestyle changes can increase the risk of chronic and non-communicable diseases.

Objectives of this study is to find out the lifestyle pattern adopted by Nepalese working in gulf and its effect on mental health of migrant worker.

Methods

Descriptive cross sectional study design was used to identify the lifestyle pattern of the Nepalese migrant workers in gulf countries. The study was conducted in the arrival section of Tribhuvan International Airport (TIA). It serves as the world's gateway to migrant workers. Data collection was done from15th May to 15th June 2019. All the Nepali migrant workers arriving in TIA from gulf countries and Malaysia were the study population. Purposive sampling technique was used to collect data from 502 respondents. Nepalese citizen working in any post and occupation in gulf countries and Malaysia, residing there for 6 months of duration or more and arriving at TIA during the period of data collection and no diagnosis of mental illness were included in the study. Further the participation was voluntary. Structured questionnaires including sociodemographic information and lifestyle questionnaire based on STEPwise Approach to NCD Risk Factor Surveillance (STEPS) instrument were used to collect data. An informed written consent was obtained from all participants.

Results

Socio demographic information: Nearly half (43.2%) of the respondents were from the age group of 26-35 years with the mean age 32.97 (SD=7.62). Majority (93%) of the respondents were male, married (81.7%) and Hindu (80%). Regarding the educational status, nearly half (47%) of the respondents have completed their secondary level education, 35.7% had completed primary level. More than half (55.60%) of the respondents were from Terai region, 37% from hilly and 7% from mountain region of the country. Regarding the work experience, it shows that nearly half (41.8%) of the respondents have worked experience in Qatar followed by 21%

respondents in Saudi Arabia and UAE, 7% in Kuwait, 5% in Malaysia. Representing occupation, most of the respondents (15%) were driver, followed by laborer (14.7%), scaffolder (14.2%), electrician (10.6%), housekeeping (10.4%), cook (10.2%), security guard (8%). More than half (56.8%) of the respondents worked in the indoor area. More than half (63.7%) of the respondents have 1-5 years, 23.5% had 6-10 years of work experience.

Table 1 Distribution of respondents according to smoking, chewing tobacco, drinking alcohol and dietary composition (n=502)

Behavior	Yes (%)	No (%)
Smoking	32%	68%
Chewing Tobacco	26.7%	73.3%
Alcohol consumption	51.5%	48.5%
Dietary composition	Frequency	Percentage (%)
Vegetarian	16	3.2%
Non-vegetarian	486	96.8%

Table 2 Distribution of respondents according to dietary pattern and exercise (n=502)

Items	Always	Often	Sometimes	Seldom	Never
Consumption of food in hotel/ fast food	30(6%)	53(10.6%)	200(39.8%)	83(16.5 %)	136(27.1%)
Consumption of additional salt	15(3%)	38(7.6%)	153(30.5%)	181(36.1%)	115(22.9%)
Consumption of Fruits	115(22.9%)	143(28.5%)	180(35.9%)	56(11.2%)	8(1.6%)
Consumption of Vegetable	51(10.2%)	129(25.7%)	183(36.5%)	109(21.7%)	30(6%)
Consumption of processed food	16 (3.2%)	76(15.10%)	166(33.10%)	159(31.6%)	85(17 %)
Consumption of sugary drinks	103(20.5%)	104(20.7%)	160(31.9%)	89(17.7%)	46(9.2%)
Exercise	42 (8.4%)	20 (4%)	76 (15.1%)	16 (3.2%)	348 (69.3%)

Table 3 Distribution of respondents as per water supply and water intake (n=502)

Water supply and water intake	Percentage (%)	
Water supply at workplace	Yes	No
	95.2%	4.8%
Water intake per day		
1-3 liters	51%	
4-6 liters	41.6%	
7-9 liters	6%	
10-12 liters	1.4%	

Table 4 Distribution of respondents who skip drinking water and urinating despite the urge (n=502)

Items	Always	Often	Sometimes	Seldom	Never
Skipping drinking water despite the urge to drink	42 (8.4%)	41 (8.2%)	101 (20.1%)	64 (12.7%)	254 (50.6%)
Skipping urination despite the urge to urinate	11 (2.2%)	81 (16.1%)	151 (30.1%)	92 (18.3%)	167 (33.3%)

Table 5 Distribution of respondents according to their working and living arrangements (n=502)

Duration of working hours per day	Frequency	Percent (%)
3-7 hours	12	2.4
8-12 hours	436	86.9
13-17 hours	35	7.0
18-22 hours	19	3.8
Work Temperature (degree centigrade)		
20-30	259	51.6
31-40	71	14.1
41-50	138	27.5
51 and above	34	6.8

Cont... **Table 5 distribution of respondents according to their working and living arrangements (n=502)**

Living room equipped with		
Air condition	479	95.4%
Fan	15	3%
None	8	1.6%
Number of persons in a room		
1-5 people	326	64.9
6-10 people	162	32.3
11-15 people	7	1.4
16-20 people	4	.8
21-25 people	3	0.6

Table 6: Distribution of respondents according to use of painkiller (n=502)

Use of painkiller	Frequency	Percent
Always	10	2.0
Often	37	7.4
Sometimes	98	19.5
Seldom	76	15.1
Never	281	56.0

Discussion

The common age for migration in this study was 26 to 35 years and majority of respondents were engaged in laborious job as in other studies. A study done among Nepalese migrant workers to Gulf had respondents of age 26-35 years and were involved in unskilled and laborious jobs [3,6].

As per study by NIDS (2006), the reported health problems of the Nepalese migrants in the Gulf countries and Malaysia were stomach pain, fever, malaria, jaundice, blood pressure, obesity, physical disability, temperature related illness, kidney failure and mental trauma [7]. As this study, respondents had less intake of drinking water and skipped water and urination due to heavy workload [7].

The study suggests that Nepalese migrant workers have unhealthy lifestyle which are risk factors for non-communicable diseases. The use of tobacco along with lack of physical activities, harmful use of alcohol and unhealthy diets has been identified as four major risk factors for non-communicable diseases (NCD). NCD includes heart disease, stroke, cancer, diabetes, chronic lung disease [8]. Tobacco accounted for 7.2 million deaths annually while 4.1% death were linked to excess salt intake, 3.3 million deaths because of alcohol use ad 1.6 million death because of insufficient physical activity [9]. Vulnerable and socially disadvantaged group of people have higher risk of being subjected to unhealthy dietary practices, use of tobacco, smoking and alcohol [8].

Among South Asian migrants, (Indian, Pakistani and Bangladeshi) in United Arab Emirates, prevalence of hypertension was 30.5%. Hypertensive respondents were less likely to walk 30 minutes daily [10]. Another study compared Indian male Gulf (UAE, Saudi, Arabia, Qatar, Oman, Kuwait and Bahrain) migrants with non-migrants in India. The age adjusted prevalence of hypertension was higher (57.6%) among migrants. Migrants were more likely to be physically inactive (OR:1.8; 95% CI) than non-migrants [11].

Another study conducted among migrant women in UAE, found that prevalence of prediabetes and diabetes among 127 South Asian (India, Pakistan and Bangladesh) migrants was 30.3% and 16.7%. Prevalence was higher among South Asian female migrants than Filipinos and Arabs migrants[12].

As per a study there was death of five thousand Nepalese migrants working abroad in between 2008 and 2014 [13]. Among death almost 29% were attributed to cardiac arrest or heart attack [14] this demonstrates the greater burden of cardio-metabolic disease as well as greater NCD risk factors in this population [14,15].

Along with rapid urbanization there has been tremendous changes in lifestyle with inclusion of high- calorie foods, processed foods and increased proportion of meat leaving behind traditional food culture of unrefined carbohydrates, fibers and tubers [16,17,18].

Not only these lifestyle practices are risk factor for physical health, but it has an impact on mental health and wellbeing. A review identified lifestyle changes along with occupational injuries and hazards and sexual risk-taking behaviors as the key risk factors linked with Nepalese Migrant workers health and wellbeing [1]. Another study among male Nepalese migrant workers in Malaysia, Qatar and Saudi Arabia showed that 13% reported poor or very poor health and nearly a quarter reported a mental health issue. Age and exercise were significantly associated with health status, while poor work environments and perceived health risks at work were associated with both mental health issues and physical health status [19].

Hydration in the workplace is an important concern because dehydration can affect productivity, safety, health care costs and employee morale. Protective clothing and safety equipment and air-condition also contributes to dehydration[20]. Dehydration with loss of body mass of 2% or more results in impaired cognitive function [21], reduced physical performance [22], headaches and fatigue [23]. Severe dehydration is fatal [24]. Mild dehydration of 1 % to 2% loss of body mass is sufficient for impairing physical and mental performance [25]. Chronic mild dehydration is associated with increased risk of many conditions as constipation, urinary tract infection, hypertension, coronary heart disease and even stroke [26]. While overhydration leads to hyponatremia leading

to lung congestion, brain swelling, headache, fatigue, lethargy, seizures, fatigue eventually coma [27]. Almost 30% of respondents in this study work at 41-50 degree centigrade which suggest of rapid fluid loss as sweat. The initiation of thirst response occurs when loss of body mass is 1% to 2% [28]. Thus, skipping drinking as seen in this study despite the urge further leads to dehydration.

Migration from rural to urban areas necessitates alterations in social status and living conditions resulting in behavioral adaptations to urban life. Migrant workers are more likely to take riskier jobs than natives. The stress induced by migration itself, unstable living situations and poor working conditions, is likely to increase the risk of substance abuse [29]. Being away from home and feeling socially isolated might led migrants to engage in drugs and alcohol use [1].

In this study respondents were found to skip urination despite the urge because of longer working hours and limited breaks in the work. This increases the risk of bladder dysfunction, increased risk for urinary tract infection, damage to urinary structure like bladder and or even kidneys which may result in kidney diseases [30].

Almost 10% of the respondents in this study used painkiller always or often. Main painkillers available for over-the-counter use are acetaminophen and non-steroidal anti-inflammatory drugs (NSAIDs). Long term use of NSAID can lead to stomach issues, kidney problems, hypertension, fluid retention [31].

Conclusion

Nepalese migrant workers to gulf and Malaysia have lifestyle pattern as risk for physical as well as mental health problems. Most of the lifestyle posit risk for non-communicable diseases. This study provides important messages for the migration policy makers in Nepal. There is a lack of adequate information for the migrants making them aware of their health risks and consequences of lifestyle adaptations.

Recommendations: Dietary counselling for workers applying to work abroad might be conducted by dietician. Pre-departure training and counseling might be provided to every worker regarding the potential health risks due to change lifestyle pattern.

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Conflict of Interest: Nil

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References

1. Simkhada PP, Regmi PR, van Teijlingen E. Identifying the gaps in Nepalese migrant workers' health and well-being: A review of the literature. Journal of Travel Medicine. 2017; 24(4):1-9. Identifying the gaps in Nepalese migrant workers' health and well-being: a review of the literature - PubMed (nih.gov)
2. Baruah N, Tuladhar S. The challenge for Nepal's migrant workers. The Diplomat. 2012. The Challenge for Nepal's Migrant Workers – The Diplomat
3. Sönmez S. "Human rights and health disparities

for migrant workers in the UAE,". Health and Human Rights: An International Journal. 2011;13(2):17-35. Human Rights and Health Disparities for Migrant Workers in the UAE 13 Health and Human Rights 2011 (heinonline.org)

4. Joshi S, Shimkhada P, Prescot G. Health problems of Nepalese migrants working in three Gulf countries. BMC International Health Human and Rights. 2011; e3. Health problems of Nepalese migrants working in three Gulf countries | BMC International Health and Human Rights | Full Text (biomedcentral.com)
5. The Himalayan Times. Renal Failure Rampant among migrants. 2nd Sep 2017.https://thehimalayantimes.com/nepal/renal-failure-rampant-among-migrants
6. Graner E, Gurung G. Arab KoLahure: Looking at Nepali Labour Migrants to Arabian Countries. CNAS Journal. 2003;30 (2): 295-325. CNAS_30_02_04.pdf (cam.ac.uk)
7. Nepal Institute of Development Studies (NIDS). State of Migrants Health 2005. Nepal country Report. 2006. [http://www.caramasia.org/enews/ 2007/april/inside/soh_country_reports/nids_booklet.pdf].
8. World Health Organization. Non communicable disease; key facts. 2021. Noncommunicable diseases (who.int)
9. GBD 2015 Risk Factors Collaborators. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. Lancet, 2016; 388(10053):1659-1724. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015 (nih.gov)
10. Shah SM, Loney T, Sheek-Hussein M, El Sadig M, Al Dhaheri S, El Barazi I, et al. Hypertension prevalence, awareness, treatment, and control, in male south Asian immigrants in the United Arab Emirates: a cross-sectional study. BMC Cardiovasc Disord. 2015;15:30. Hypertension prevalence, awareness, treatment, and control, in male South Asian immigrants in the United Arab Emirates: a cross-sectional study | BMC Cardiovascular Disorders | Full Text (biomedcentral.com)
11. Begam NS, Srinivasan K, Mini GK. Is migration affecting prevalence, awareness, treatment and control of hypertension of men in Kerala, India? J Immigr Minor Health. 2016;18(6):1365–70. Is Migration Affecting Prevalence, Awareness, Treatment and Control of Hypertension of Men in Kerala, India? | SpringerLink
12. Shah SM, Ali R, Loney T, Aziz F, ElBarazi I, Al Dhaheri S, et al. Prevalence of diabetes among migrant women and duration of residence in the United Arab Emirates: a cross sectional study. PLoS One. 2017;12(1):e0169949. Prevalence of Diabetes among Migrant Women and Duration of Residence in the United Arab Emirates: A Cross Sectional Study (plos.org)
13. STATs News. At a rising rate, Nepalis working abroad go home in coffins USA: STAT; 2016 [Available from: https://www.statnews.com/2016/12/21/ nepalis-die-working-abroad/.
14. International Labour Organization. When the safety of Nepali migrant workers fails: A review of data on the numbers and causes of the death of

Nepali migrant workers. Kathmandu; 2016.

15. Aryal N, Regmi PR, Van Teijlingen E, Simkhada P, Adhikary P, Bhatta YKD, et al. Injury and mortality in young Nepalese migrant workers: a call for public health action. Asia Pac J Public Health. 2016;28(8):703 –5. Injury and Mortality in Young Nepalese Migrant Workers: A Call for Public Health Action - Nirmal Aryal, Pramod R. Regmi, Edwin van Teijlingen, Padam Simkhada, Pratik Adhikary, Yadav Kumar Deo Bhatta, Stewart Mann, 2016 (sagepub.com)
16. Subedi YP, Marais D, Newlands D. Where is Nepal in the nutrition transition? Asia Pac J Clin Nutr. 2017;26(2):358–67. Where is Nepal in the nutrition transition? | Asia Pacific Journal of Clinical Nutrition (informit.org)
17. World Health Organization. WHO Country Cooperation Strategy Nepal, 2013–2017. Kathmandu: World Health Organization, Country Office for Nepal; 2013. cover.CDR (who.int)
18. Bishwajit G. Nutrition transition in South Asia: the emergence of noncommunicable chronic diseases. F1000Research. 2015;4. Nutrition transition in South Asia: the emergence of non-communicable chronic diseases (nih.gov)
19. Adhikary P, Sheppard Z, Keen S, van Teijlingen E. Health and well- being of Nepalese migrant workers abroad, International Journal of Migration, Health & Social Care. 2018. https://doi.org/10.1108/IJMHSC-12-2015-0052
20. Natural Hydration Council. Hydration in workplace fact sheet. 2018. https://www.naturalhydrationcouncil.org.uk/ wp-content/uploads/2016/07/NHC-Hydration-in-Workplace-fact-sheet-FINAL1. pdf
21. Ritz P, Berrut G. The importance of good hydration for day- to day health. Nutrition Reviews. 2005; 63 (Part II): S6-13. Importance of Good Hydration for Day-to-Day Health | Nutrition Reviews | Oxford Academic (oup.com)
22. Shirreffs S. The importance of good hydration for work and exercise performance. Nutrition Reviews. 2005; 63 (Part II): S14-21. Importance of Good Hydration for Work and Exercise Performance | Nutrition Reviews | Oxford Academic (oup.com)
23. Shirreffs SM, Merson SJ, Fraser SM et al. The effects of fluid restriction on hydration status and subjective feelings in man. British Journal of Nutrition. 2004; 91: 951-8. The effects of fluid restriction on hydration status and subjective feelings in man | British Journal of Nutrition | Cambridge Core
24. Thomas DR, Cote TR, Lawhorne L et al. Understanding clinical dehydration and its treatment. Journal of American Medical Directors Association. 2008; 9: 292-301. Understanding Clinical Dehydration and Its Treatment - ScienceDirect
25. Benelam B, Wyness L. Hydration and health: a review. Nutrition Bulletin. 2010 Mar;35(1):3-25. Hydration and health: a review - Benelam - 2010 - Nutrition Bulletin - Wiley Online Library
26. Manz F, Wentz A. The importance of good hydration for the prevention of chronic disease. Nutrition Reviews. 2005; 63 (Part II): S2-5. Importance of Good Hydration for the Prevention of Chronic Diseases | Nutrition Reviews | Oxford Academic (oup.com)
27. O'Brien KK, Montain SJ, Corr WP et al. Hyponatraemia associated with overhydration in US army trainees. Military Medicine.2001;

166: 405-10. Hyponatremia Associated with Overhydration in U.S. Army Trainees | Military Medicine | Oxford Academic (oup.com)

28. Armstrong LE. Hydration assessment technique. Nutrition Reviews.2005; 63: S40- S54.

29. Wan X, Shin SS, Wang Q, Raymond HF, Liu H, Ding D, et al. Smoking among young rural to urban migrant women in China: a cross-sectional survey. PLoS One. 2011;6(8):e23028. doi: 10.1371/journal.pone.0023028.

30. Nall R. How long can you hold in your pee? MedicalNewsToday.2020. How long can you hold in your pee: Timing and dangers (medicalnewstoday.com)

31. American Addiction Centers. The effects of painkiller use. 2019.Painkiller Effects | Short Term, Long Term & Side Effects (drugabuse.com)