# Association between Social Capital, Mental Health and Quality of Life among Migrant Workers in Myanmar

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#### Abstract

**Introduction:** During these decades, Myanmar has faced mass internal migration as a result of pull and push factors. The concepts and concerns related to Quality of Life on internal migrant workers are different from the general population. Migration gives rise to huge stresses and depression.

**Methods and Materials:** Cross-sectional study was conducted among 1,182 migrants. To assess socioeconomic status, health behaviors, mental health status, social capital, accessibility to health care services, and QOL. The Generalized Linear Mixed Model was used to determine the association between social capital, mental health and QOL after controlling the other covariates.

**Result:** About one third of respondents were factory workers and had low level of education. Regarding the level of good, fair and poor QOL were 26.82% (95% CI: 24.37-29.42), 71/74% (95% CI: 69.10-74.24) and 1.44% (95% CI: 0.89-2.30) respectively. Cognitive social capital (AOR=2.51, 95%CI: 1.14-5.55 p value<0.05), structural social capital (AOR= 2.14, 95%CI: 1.22-3.76, p value=0.008) and depression (AOR=2.13, 95%CI: 1.25-3.62, p value=0.006) were associated with QOL. Not like the other studies, stress was not associated with QOL. The other factors associated with good QOL were monthly family income, living with related family members in a house and burden of medical services costs.

**Discussion:** Only one-fourth of internal migrant workers had good quality of life. The findings highlighted to develop policies aimed to improve QOL in order to reducing stress and depression among migrants by promoting social capital. In order to achieve the sustainable development goals, it is important to make investment on health of the migrant workers.

Keywords: Quality of Life, social capital, mental health, migrant workers.

## Introduction

Like migrants are increasing trend globally<sup>(1)</sup>, Myanmar has seen the significant internal migration, 20% of total Myanmar population<sup>(2)</sup>to seek job opportunities and pursue a better life<sup>(3)</sup>during these last few decades<sup>(4)</sup>.The rural to urban migration has contributed to the explosive growth of cities all over the world<sup>(5)</sup>. Migrants are principally vulnerable to health problems<sup>(6)</sup>.Migration gives rise to unambiguous stress, nevertheless most immigrants behave well in new settlement<sup>(7)</sup>.

Rogers explored that socially isolated migrants were at increased risk for poor health outcomes because of their limited access to resources<sup>(8)</sup>. The impact of human migration on mental health is complex and has crosscultural differences<sup>(9)</sup>. Stress and depression could have an impact on overall health<sup>(10)</sup> and not recognized or treated, depression can profoundly impair their quality of life<sup>(1)</sup>.

QOL is one of the essential aspects of human health, which includes physical, mental and social context. Over the past few decades, measuring QOL has become a familiar approach in health research<sup>(11)</sup>.

Currently, there are limited data available regarding the level of QOL and its associated factors among internal migrant workers who were chosen as a priority group because they were living under highly stressful situations and needs to be addressed because 25 % of those migrate to Yangon.

Hence, the aims of this study were to investigate the levelof quality of life and association between social capital, mental health and QOL among internal migrant workers in Myanmar. The findings of the study will contribute to formulate specific measures to improve quality of life among migrant workers even though they are vulnerable population.

## Methods

This cross-sectional study was conducted in 2018 at North and East Districts among four districts namely East, West, North and South of Yangon Region.

**Study participants:** Migrant workers with the aged between 18 to 59 years living in Yangon Region and could verbally communicate were included in this study.

The multiple logistic regressions used to estimate the sample size. The approximate sample size was 600. In order to control the over-fitting, we used  $\rho$  and VIF. Therefore, total samples was 1182. A multistage random sampling method was used.

Firstly Yangon was purposively selected then 2 districts were randomly selected namely, East and North among 4 districts. After that two townships (sub-districts) from each district were randomly selected namely Hlaingtharyar and Shwepyithar from North District and Dagon East and Dagon Seikkan from East District. Therefore 4 townships (sub-districts) were included in the study. Finally, 2 community were randomly selected from each township. Then simple random sampling was applied to select 1,182 individuals proportionate to the size of the population. All participants were interviewed face-to-face by trained interviewers.

**Research tools:** A structured questionnaire which was developed from reviewing literature. The questionnaire underwent content validation by 3 experts and then it was revised to improve validity. The questionnaire was tested for reliability using Conbach alpha coefficient, 0.80. The questionnaire consisted of six parts: (1) socioeconomic (2) Health behavior (3) social capital (4) mental health (5) accessibility to health services and (6) quality of life.

Assessment of quality of life: QOL was assessed by using WHOQOL– BREFquestionnaire, consisted of 26

items within the 4 domains. The scores are categorized into 3 groups: poor (26–60), moderate (61–95) and good (96–130).

Assessment of Stress: By using Perceived Stress Score, contains 10 questions, each scored from 0 to 4. The higher and longer the duration of self-perceived stress, indicated by a higher score. The scores are categorized into 3 groups: low (0-13), moderate (14-26), high (27-40).

Assessment of Depression: Burmese version of the Centre for Epidemiological Studies Depression Scale (CES-D) which is a 20-item self-report questionnaire using a four-point rating scale. A cut point of 16 or greater is defined as depression in Myanmar migrant population.

Assessment of Social Capital: Structural Social Capital included; Unity, Transparency, Responsibility of leaders, Participation and Responsibility, Parallel Organization. Cognitive Social Capitalincluded; behavior, attitude, trust, reciprocity and sharing the norms. For each part, using the 5 scores: Never, Often, average, frequently, mostly. After summing the total marks, according to Kiess's theory, total score were divided into 3 groups such as high, median and low.

Socio-economic status (SES) and Health service accessibility factors: Socio-economic status composed of gender, age, marital status, educational, occupation, house ownership, relationship with family members, monthly income, adequacy of income, burden of transportation cost and medical service costs were treated as covariates in the analysis.

To minimized information bias, we trained interviewers and standardized the data collection competency in the study area. They were structured questionnaire interviewed by well-trained and standardized interviewers.

**Data analysis:** STATA® (ver. 13; College Station, TX, USA: Stata Corp). The categorical data were presents as frequency and percentage whereas the continuous data as mean, standard deviation, median, and range. The GLMM was operated to model the random effects and correlations inside clusters. In the modeling, the residential area, community set as the random effect. Bivariable analysis was utilized to define the association of each independent variable with quality of life. In bivariate analysis that had  $p \leq 0.25$  were chosen and continue to the multivariable analysis.

The final model results presented the magnitude of association of independent variables and good quality of life were adjusted odds ratio (adjusted OR) and 95% CI.

### **Results**

The average age of migrant workers in this study was 31.42 years and gender distribution was not much different but more than half of respondents were married. Nearly three fifth of participants were primary and secondary school education level. Only 11.24% owned their houses. Among the migrants, nearly 90% were related and breathed in a house. Nearly three fourth of migrants responded that their monthly family income ranged between USD 130 – USD 230 with median monthly family's income of USD 200. Nearly half of the respondents said that they had no financial problem but can't save money.

Most of migrants responded that they felt moderate level of: stress, total social capital, cognitive social capital, structural social capital, QOL and no burden of medical services costs. Nearly two fifth of the respondents suffered depression.

Quality of Life	Number	Percent	95%CI	
Poor QOL (≤60)	17	1.44	0.89-2.30	
Moderate QOL (60-90)	848	71.74	69.10-74.24	
Good QOL(≥90)	317	26.82	24.37-29.42	
Mean ± standard deviation	83.12			
Median (Min : Max)	83 (52			

#### Table 1: Number and percentage of QOL among migrants in the Myanmar (n=1,182).

Most of the migrants had moderate QOL (71.74%), 26.82% had good QOL and the rest, 1.44% had poor QOL.

The bivariate analysis revealed that total social capital (COR= 1.95, 95%CI: 1.38-2.75, p value <0.001), cognitive social capital (COR= 2.30, 95%CI: 1.68-3.13, p value <0.001), structural social capital(COR= 1.95, 95%CI: 1.37-2.78, p value <0.001), depression (COR= 2.33, 95%CI: 1.75-3.11, p value <0.001) and stress (COR= 1.52, 95%CI: 1.02-2.25, p value <0.001) were strongly associated with Good QOL. Also, gender,house ownership, relationship of family members, time to reach the health service center, burden of transportation cost and medical service costs, support for medical servicecosts were associated with good QOL. But in contrast to previous studies that age, marital status, education, occupation, monthly family income were not associated in this study.

Multivariable analysis for associated factors of good QOL, GLMM was performed to control the clustering effect of the sampling selection of the participants. The association between multiple independent variables and good QOL was determine by using multivariate analysis to control the effect of covariates.

 Table 2. Adjusted Odd ratio for the factors on good quality of life based on GLMM after controlling the random effect (n = 1182)

Characteristics	No	% of Good QOL	Crude OR	Adjusted OR	95%CI	p-value
1. Cognitive Social Capital						0.023
Low and moderate	970	23.61	1	1		
High	212	41.51	2.30	2.51	1.14-5.55	
2. Structural Social Capital						0.008
Low and moderate	1027	24.93	1	1		
High	155	39.35	1.95	2.14	1.22-3.76	
3. Depression						0.006
Depression	452	17.26	1	1		
Without Depression	730	32.74	2.33	2.13	1.25-3.62	
4.Monthly Income						

<usd 130<="" th=""><th>264</th><th>21.59</th><th>1</th><th>1</th><th></th><th></th></usd>	264	21.59	1	1		
USD 130- 200	578	27.68	1.39	1.41	1.03-1.92	0.032
≥USD 200	340	29.41	1.51	1.49	1.05-2.13	0.024
5. Related with family members						< 0.001
not related	135	25.50	1	1		
Related	1047	37.04	1.71	2.15	1.59-2.92	
6.Burden of medical services costs						< 0.001
Some what a burden & Very burden	296	20.27	1	1		
Not a burden	905	28.51	1.57	1.34	1.14-1.56	
7. Stress						0.643
Moderate and severe stress	1076	25.56	1	1		
Mild stress	125	34.40	1.53	1.18	0.58-2.40	

# Discussion

The prevalence of good QOL among migrant workers was 26.82%. These findingwas consistent with the study, one third<sup>(12)</sup>were felt as good QOL. But a study showed that 94% were moderate level of QOL<sup>(13)</sup>. It was less than all level of QOL in compared with two studies among Myanmar migrant workers in Thailand. It was not consistent with the study done in Chiang Rai, 56% demonstrated moderate QOL, high (43.8%) and low  $(0.20\%)^{(14)}$ . It was not similar in a study done in Dhaka city, low QOL (94%), moderate (3.25%) and high (2.75%)<sup>(15)</sup>. Inconsistent with the study was done at construction site, 14.6% were rated as having poor QOL<sup>(16)</sup>.

After GLMM analysis, cognitive social capital, structural social capital and depression, monthly family income, living with related family members and burden of medical services costswere strongly associated with good QOL.But stress was not significantly associated in this study.

More socially connected female expressed higher QOL<sup>(17)</sup>. The presence of social capital among adolescents and establish associations with their QOLin Brazil<sup>(18)</sup>. Hosseini, S. M et al suggested that enhance social capital for improving QOL among breast cancer patients<sup>(19)</sup>.

Social support is very important to health outcomes and has a positive effect on  $QOL^{(20)}$ . For the cognitive social capital, migrants with high cognitive social capital were 2.51 times more likely to get good QOL than those with moderate and low cognitive social capital. Regarding structural social capital, migrants with high structural social capital were 2.14 times more likely to get good QOL than those with moderate and low group. These findings were consistent with the study done among elderly in north east of Thailand<sup>(21)</sup>.

On seeing the mental health status, migrants did not suffer depression were 2.13 times more chance to get good QOL than migrants suffered depression. The finding was consistent with other study<sup>(12)</sup>.

Stress was not significant, migrants with mild stress were 1.18 times more chance to get good QOL compared to moderate and severe stress group. It had similar agreement with the study<sup>(16)</sup> but inconsistent with the study done in Singapore<sup>(1)</sup>.

Regarding socioeconomic and demographic characteristics of the respondents, living with related family members was the strongest variable (AOR=2.15, 95% CI= 1.59 to 2.92, p<0.001). It was similar with the study done in Myanmar<sup>(22)</sup>.

High monthly income group got good QOL than the other groups. It had agreement with the studies<sup>(23)</sup>.

Burden of medical service cost associated with good QOL. The participants with financial hardship were 1.34 times more chance to get good QOL than those without (AOR= 1.34; 95% CI= 1.14 to 1.56; p-value < 0.001). It had similar agreement with the study done in northeast of Thailand<sup>(21)</sup>.

#### Conclusion

Only one-fourth of internal migrant workers had good QOL. Cognitive social capital, structural social capital and depression were strongly associated with good QOL. But stress was not associated with good QOL. Limitation of the Study: Cross sectional study was not allowed the cause and effect relationships between various factors and QOL. This study was conducted among migrant workers (18 to 59 years old) living in Yangon Region thus it could not generalize the all migrant workers in Myanmar.

**Conflicts of Interest:** The authors declare no conflict of interest.

**Ethics Clearance-:** Taken from Khon Kaen University Ethics Committee in Human Research (the approval number, HE 612079) and University of Public Health, Yangon, Myanmar (ITERB-2018/Research/17). A coding scheme was used and every document were destroyed on completion of research.Written consent was obtained from all participants prior to participation.

## Reference

- Anjara SG, Nellums LB, Bonetto C, Bortel T Van. Stress, health and quality of life of female migrant domestic workers in Singapore : a cross-sectional study. BMC Women's Heal 1798 DOI 101186/ s12905-017-0442-7. 2017;1–14.
- Central Statistical Organization. Myanmar Statistical year book. 2015.
- Akiyama T, Win T, Maung C, Ray P, Sakisaka K, Tanabe A, et al. Mental health status among Burmese adolescent students living in boarding houses in Thailand : a cross-sectional study. 2013;1–12.
- Thet KK. Pull and Push Factors of Migration : A Case Study in the Urban Area of Monywa Township, Myanmar [Internet]. Vol. 1, World of Statistics. 2014. Available from: http://www.worldofstatistics. org/files/2014/03/March-24-2014.pdf
- Rozental Y. Access to Health Care among Migrants in Central Asia. J Immigr Minor Heal 2014 December; 16(6) 1138–1148 doi101007/s10903-013-9942-1. 2015;16(6):1138–48.
- Topal K, Eser E, Sanberk I, Bayliss E, Saatci E. Challenges in access to health services and its impact on quality of life : a randomised populationbased survey within Turkish speaking immigrants in London Health and Quality of Life Outcomes 2012, 10:11.
- 7. Kirmayer LJ, Narasiah L, Munoz M, Rashid M, Ryder AG, Guzder J, et al. Common mental health problems in immigrants and refugees:

General approach in primary care. Cmaj. 2011;183(12):959-67.

- 8. Rogers EM. DIFFUSION OF INNOVATION Third Edition. 1985.
- Dai J, Floor G, Hospital P, Po T, Hospital SK, Mental S, et al. Internal migration, mental health, and suicidal behaviors in young rural Chinese. Soc Psychiatry Psychiatr Epidemiol 2015 April ; 50(4) 621–631
- Chen J, Chen S, Landry PF. Urbanization and Mental Health in China: Linking the 2010 Population Census with a Cross-Sectional Survey. Int J Environ Res Public Heal 2015, 12, 9012-9024; 2015;9012–24.
- Zhu C, Geng Q, Yang H, Chen L, Fu X, Jiang W. Quality of life in China rural-to-urban female migrant factory workers: a before-and-after study. Health Qual Life Outcomes [Internet]. 2013;11(1):1. Available from: Health and Quality of Life Outcomes
- 12. Tsai S. A Study of the Health-Related Quality of Life and Work-Related Stress of White-Collar Migrant Workers. 2012;3740–54.
- Tun Linn Thein\* PH and PH. Nature of accessibility to health care services and health -related quality of life among adult Myanmar migrant workers in Mahachai Sub-District, Samut Sakhon Province, Thailand. 2008;23–7. Available from: http://cphs. healthrepository.org/handle/123456789/1457
- Tongprasert M, Hongsranagon P, Havanond P. Factors Related With Health-Related Quality of Life for Adult Myanmar Migrant Workers in Muang District, Chiang Rai Province, Thailand : J Heal Res. 2010;24(2):71–6.
- Ahmed S, Akter A, Islam M, Sarker R, Saha S, Farjana S. Health-related Quality of Life Among Adult Migrant Garment Workers in Dhaka City. Bangladesh Med J. 2014;40(3):14–7.
- Geethu Mathew, Naveen Ramesh SD, Ramakrishna G, Sharan S, Lobol Carol, Xavier Alex, Department PD. Quality of life and probable psychological distress among male workers at a construction site, Kolar district, Karnataka, India. 2016;
- 17. Min Kyi Zin. Socioeconomic Determinants on Quality of Life of PLWHA in Ayeyarwaddy Region, Myanmar. 2018;
- 18. Cristina A, Campos V, Borges CM, Leles CR, Lucas SD, Ferreira EF. Social capital and quality

of life in adolescent apprentices in Brazil: An 2 exploratory study. 2013;5(6):973–80.

- 19. Hosseini SM, Mousavi MT, Rafiee H, Karimi SE. The Effect of Social Capital Enhancement on Quality of Life, Treatment Compliance and Pain in Patients with Breast Cancer The Effect of Social Capital Enhancement on Quality of Life, Treatment Compliance and Pain in Patients with Breast Cancer. 2016;(November).
- 20. Fu, Chun-yan, Zhu Jia-ji Wang X. Correlates of quality of life in China rural urban female migrate workers. 2012;495–503.
- 21. Prachuntasen K, Laohasiriwong W, Luenam A. Social capital associated with quality of life among late adults and elderly population in the Northeast of Thailand [ version 1 ; referees : 1 approved with reservations ] Referee Status : 2018;(0):1–14.
- 22. Naing\*, Myo Myint SNCM. Quality of Life of the Elderly People in Einme Township Irrawaddy Division, Myanmar. 2011;1(2):4–10.
- 23. Hongthong D, Somrongthong R, Ward P. Factors Influencing the Quality of Life (Qol) Among Thai Older People in a Rural Area of Thailand. 2015;44(4):479–85.