

PalArch's Journal of Archaeology of Egypt / Egyptology

Quality Of Life among Police Officers and Soldiers of Nam Dinh Provincial Public Security Department in Viet Nam, in 2019-2020: A Study using Whoqol-Bref Instrument

Nguyen Huu Ban¹, Dao Anh Son², Vu Manh Tuan³, Nguyen Thi Thuy Hanh⁴

¹PC11- Nam Dinh Provincial Public security department, Nam Dinh province, Viet Nam

^{2,3,4} Ha Noi Medical University, Ha Noi city, Viet Nam

Email: ¹nguyenhuuban2102@gmail.com

Nguyen Huu Ban, Dao Anh Son, Vu Manh Tuan, Nguyen Thi Thuy Hanh: Quality Of Life among Police Officers and Soldiers of Nam Dinh Provincial Public Security Department in Viet Nam, in 2019-2020: A Study using Whoqol-Bref Instrument -- Palarch's Journal Of Archaeology Of Egypt/Egyptology 18(1). ISSN 1567-214x

Keywords: Quality of life; police officers and solders; WHOQoL-Bref

ABSTRACT

Objectives: Evaluate the quality of life of police officers and solders based on the WHOQoL-Bref instrument. **Subjects and research methods:** Cross-sectional descriptive study was performed with 843 officers and soldiers of Nam Dinh Provincial Public security department, Nam Dinh province, Viet Nam, in 2019-2020. Selecting intentionally 03 regions and randomly selecting each region of Nam Dinh province to be 2 units, in each selected unit, sampling all police officers and soldiers of each unit. Information is collected by questionnaires, through direct questioning. **Results:** The study has 759 police officers and soldiers who are men, accounting for 90%. Age, mainly from 18 to 30 years old (accounting for 67%). Average quality of life score for each domain and for each domain according to WHOQoL-Bref instrument, on a scale of 0-100. The overall average score is 28.0 ± 9.0 , the average score for the physical domain was 38.5 ± 11.5 ; The average score in the psychological domain was 28.0 ± 11.0 ; Average score of social relationship domain was 29.0 ± 15.0 ; The average score for the environmental domain was 15.5 ± 11.0 . **Conclusion:** The average quality of life score for police officers and soldiers in Nam Dinh province is low, and the lowest is in the domain of environment. The questionnaire is appropriate to the quality of life assessment for police officers and soldiers.

1. Introduction

The People's Public Security Forces include the People's Security force, the People's Police force and the Commune Police force. In this study, using the word "Officer, soldier", is to include all of: Officers, non-commissioned officers, soldiers, employees and labor contracts in the people's police.^[1] Police officers and soldiers are those who operate in the armed forces, require a high

working intensity, an unstable working environment in terms of space and time, often participate in missions and practice when have requirements, physical hardship, mental stress and work requirements, so many times when eating and resting erratically, there are many units of concentration and group activities, so there are many risk factors. impacts on health such as physical, mental, social and environmental conditions, thereby affecting the quality of life of police officers and solders. [2], [3]

The instruments for quality assessment of life in studies are also different such as: SF36, EQ-5D, WHOQol-Bref. [4], [5], [6] However, WHQol-Bref has the strength that its value and reliability have been tested on many studies in many countries around the world and have been translated into Vietnamese and applied for evaluation on many subjects. with good value and reliability. [7], [8] Some researches in the world on the quality of life among police officers and soldiers using the WHOQol-bref toolkit showed that: Scores in domains have changed, such as scores for the physical domain from 28 to 69, scores for the psychological domain from 23 to 69, score for the social relationship domain from 10 to 81, score for the environmental domain from 24 to 56, score for quality of life in each country, each domain is different.[9], [10] In the country, there is no research on the quality of life on police officers and soldiers.

Currently, there have been many studies on the quality of life and the scale of quality of life in different population groups in the community, but the research on measuring the quality of life among police officers and soldiers is still quite good. Therefore, it is necessary and practical to learn about the current situation of measuring the quality of life among police officers and soldiers. Stemming from the above reasons, we conduct the research: "Quality Of Life Among Police Officers And Soldiers Of Nam Dinh Provincial Public Security Department In Viet Nam, In 2019-2020: A Study Using Whoqol-Bref Instrument", aim at the following.

Evaluate the quality of life of police officers and solders based on the WHOQoL-Bref instrument

2. Subjects And Research Methods

2.1. Research subjects

Police officers and soldiers of 6 units of the Nam Dinh Provincial Public security department have the official list of units, aged 18-60 years old, voluntarily participating in the study.

- Selection criteria

+ All police officers and soldiers, both men and women of 6 units (aged 18-60) of Nam Dinh Provincial Public security department have an official list by unit.

+ Voluntarily participate in research.

- Exclusion criteria

- + Including police officers and soldiers on the list are selected but are ill, cannot participate or are receiving inpatient treatment for other diseases.
- + Including police officers and soldiers on duty in other places who did not participate in oral examination during the research examination.
- + Including police officers and soldiers on the selected list but studying at training institutions.
- + Soldiers participating in the service (conscripts) in the People's Public Security Forces cannot leave their duties to participate during the time of conducting research (on duty, special duties).

2.2 Research Methods

- Time and place of the study

+ Data collection time: from september 2019 to june 2020.

+ Place of the study: At 06 units of the Nam Dinh provincial public security Department: Division PK02 (Mobile Police Force), Police of Nam Dinh City, Police of Vu Ban District, Police of Y Yen District, Police of Hai Hau District, Police of Giao Thuy District.

- Research design: Description of cross section and vertical track intervention

- Sample size and sample selection

+ Sample size: Apply the sample size formula to estimate a ratio.

$$n = DE * Z_{1-\alpha/2}^2 \frac{p(1-p)}{d^2}$$

Inside:

$Z_{1-\alpha/2} = 1,96$ (with reliability 95%)

$d=0,05$ expected error

$p=0,35$ (35% of police officers and soldiers achieve average quality of life score or higher, according to a pilot study of over 20 police officers and soldiers at the Y Yen district police).

Design coefficient $DE = 2$ because in the study, we want to take all police officers and soldiers of 06 participating units.

Instead of the formula we have $n = 700$. In fact, researching on all 843 police officers and soldiers in 6 units of the Police Department of Nam Dinh province

+ How to select a research sample: Selected purposefully according to 03 regions: The central region of industry and service of Nam Dinh city, the delta region: low-lying area and the delta region: coastal area. In each region, select randomly 2 units, in each selected unit, select all police officers and soldiers according to selection and exclusion criteria described above.

+ Information collection techniques: Information collection includes 04 steps: (1) the formulation and development of the research tools, (2) testing and completing research toolset, (3) training research tools, (4) conducting surveys and data collection through the questionnaires.

+ The toolkit is built on research objectives and variables, according to WHO guidelines, with reference to a number of toolkits that have been standardized and used for other research. The toolkit has been tested and evaluated Cronbach's alpha coefficients before officially collected.

+ Data collectors include 03 doctors, 02 physicians and 02 nursing bachelors specializing in dentistry, well trained before data collection.

- Analyzing and processing data

+ Data were entered using Epidata 3.1 software and analyzed using Stata 14.2 software.

+ Each WHOQOL-BREF question is scored on a 5-point Likert scale from 1 to 5, specifically for questions Q3, Q4, and Q26 are reversible questions, scores from 5 to 1. The WHOQOL-BREF instrument includes 4 domains. Physical domain (Q3, Q4, Q10, Q15, Q16, Q17, Q18), psychological domain (Q5, Q6, Q7, Q11, Q19, Q26), Social Relationship domain (Q20, Q21, Q22)), Environmental domain (Q8, Q9, Q12, Q13, Q14, Q23, Q24, Q25); and scored according to WHO guidelines.^[11]

+ The average score of the quality of life of each field and the general will be converted into a 0-100 scale by the following formula: Transformed score = (average score - 4) * 100/16. Cronbach's Alpha coefficients are used to evaluate the internal consistency of WHOQOL-BREF in general and in each physical, psychological, social, and environmental domains. Intrinsic constant is accepted when the CronbachAlpha coefficient is ≥ 0.6 [12].

2.3. Research ethics

The research was approved by the Ethical Council for Research in Biomedical Medicine of Hanoi Medical University, according to the decision number: NCS31 / DHYHN-HDDD of the Ethics Council, Hanoi University of Medicine, March 29, 2019. Participants in the study will be introduced to the research purpose. If you agree to participate in the study, the subjects participating in the study will sign a written consent to participate in the study. Participants can withdraw from the study at any time. Their information remains confidential.

3. Results

Table 1: General information about study subjects

Content		n	%
Gender	Male	759	90.0
	Female	84	10.0
Age group	$\geq 18 \ \& \ \leq 34$	565	67.0
	$\geq 35 \ \& \ \leq 44$	247	29.3
	$\geq 45 \ \& \ \leq 60$	31	3.7
Marital status	Married	604	71.7
	Single and unmarried	239	28.3
Educational level	High school, professional intermediate	65	7.7
	College / university	578	88.4
	Postgraduate	33	3.9
Working unit of the block	Politics, advisory, logistics	74	8.8
	Police block	688	81.6
	Security block	81	9.6
Working region	The central region of industry and service of Nam Dinh city	370	43.9
	The delta region: low-lying area	256	30.4
	The delta region: coastal area	217	25.7
Nature of work	Directly fighting crime	588	69.8
	Not directly fighting crime	255	30.3
Job position	Leader	30	3.6
	Command	226	26.8
	Officers and soldiers	587	69.6
Working time	Administrative time	224	26.6
	Working time in shifts	52	6.2
	Working time is not fixed	567	67.3
Workplace	Regularly have to go to work, on duty	261	31.0
	Occasionally have to go to work, on duty	246	29.2
	Working at the agency	336	39.9
Perform unexpected tasks assigned by superiors	Regularly accept unexpected missions	265	31.4
	Occasionally receive unexpected missions	505	59.9
	Not having to accept unexpected missions	73	8.7
Seniority of work	≤ 10 years	401	47.6
	> 10 years, ≤ 20 years	343	40.7
	> 20 years	99	11.7
Change job	Usually change	441	52.3
	Constant	402	47.7
Psychology, pressure of work	Stress	316	37.5
	without stress	527	62.5
Time for training and coaching	Regular	431	51.1
	Without regular	412	48.9

Comments: The study has 759 police officers and soldiers who are men, accounting for 90%. Age, mainly from 18 to 30 years old (accounting for 67%). The contents with a high rate such as education, college and university degrees (accounting for 68.6%), belonging to the police block (accounting for 81.6%). The contents at a low rate such as the age group from 45 to 60 (accounting for 3.7%), the group with postgraduate degrees (accounting for 3.9%), the group taking the leadership (accounting for 3.6%).

Table 2. Cronbach's alpha coefficients of 4 domains and WHOQOL-BREF's (n = 843)

Variable	Cronbach's alpha coefficients
Physical health (q3, 4,10,15,16,17,18)	0.60
Psychological health (q5, 6, 7, 11, 19, 26)	0.70
Social relationships (q20, 21, 22)	0.50
Environment (q8, 9, 12, 13, 14, 23, 24, 25)	0.80
General	0.85

Comments: Research shows that Cronbach's alpha coefficients are lowest in the field of social relations (0.50) and highest in the field of environment (0.80). Cronbach's alpha coefficients for common fields are 0.85.

Table 3. Average score of overall quality of life and domain (n = 843)

Quality of life (QOL)	M ± SD	Min value	Max value
A scale of 0-100			
Physical health	38.5 ± 11.5	4	71
Psychological health	28.0 ± 11.0	4	67
Social relationships	29.0 ± 15.0	0	75
Environment	15.5 ± 11.0	0	56
General	28.0 ± 9.0	10	62
A scale of 0-20			
Physical health	10.5 ± 2.0	5	15
Psychological health	8.5 ± 2.0	5	15
Social relationships	9.0 ± 2.5	4	16
Environment	6.5 ± 2.0	4	13
General	8.5 ± 1.5	6	14

Comments: Research shows that on a scale of 0-100 and a scale of 0-20, both the average content of the quality of life is highest in the physical health field and the lowest in the field of living environment. Research shows that, when using the 0-100 scale, the average overall quality of life is 28.0, the highest in the physical health field and the lowest in the environmental domain. The difference between the highest and lowest domain quality of life scores is 23.

4. Discussion

The research results show that there are 843 police officers and soldiers participating in the study. Of which, 759 officers and soldiers are male,

accounting for 90%. Age, mainly from 18 to 30 years old (accounting for 67%). The contents with a high rate such as education, college and university degrees (accounting for 68.6%), belonging to the police block (accounting for 81.6%). The contents at a low rate such as the age group from 45 to 60 (accounting for 3.7%), the group with postgraduate degrees (accounting for 3.9%), the group taking the leadership (accounting for 3.6%). This rate is somewhat similar to the study of 475 police officers and soldiers in Mathura city, Uttar Pradesh state of India, in which there were 473 men, accounting for 99.6% and 2 women, accounting for 0.4%; 62.3% of ages under 35 years old [13]. Another study was done with 172 police officers and soldiers participating in the study in Virajpet, in the southern part of India, there were 154 men, accounting for 89.5% and 18 women.⁷ Another study was done with 925 Peruvian police officers and soldiers, there were 797 men, accounting for 86.2% and 128 women, accounting for 13.8% [14].

Average quality of life score for each area and for each area according to WHOQol-Bref instrument, on a scale of 0-100. The overall average score is 28.0 ± 9.0 , the average score for the physical domain was 38.5 ± 11.5 ; The average score in the psychological domain was 28.0 ± 11.0 ; Average score of social relationship domain was 29.0 ± 15.0 ; The average score for the environmental domain was 15.5 ± 11.0 . The lowest quality of life score is in the field of environment, this is because police officers and soldiers often work under stress, work pressure, do the task of exposure to criminals, group activities, regular duty and duty readiness to fight, martial arts-military practice. Our research is similar to the study of the quality of life and work pressure of the Greek and Indian police officers and soldiers [9], [15].

When assessing the internal consistency coefficient of the WHOQol-Bref questionnaire in this study, it shows that the questionnaire used has a common Cronback's Alpha constant coefficient of 0.85 and according to the norm classification when the system is Cronback's Alpha number > 0.8 gives a very good scale [12]. However, when evaluating this internal consistency coefficient in each domain, the environmental domain is 0.80 and according to the classification, it gives a very good scale, for the domain of psychological, this coefficient is 0.70 and by classification, the scale is good, the field is physical health (coefficient 0.60) and according to classification, the scale is acceptable, social relationship domain (coefficient is 0.50) and by classification the scale is low. The domain of social relations includes 03 questions Q20, Q21, Q22 (coefficient is 0.5), analyzing specific data for each sentence, when removing the question Q20, the coefficient is 0.6. Question Q20 asks about personal relationships, because the perceptible characteristics of personal relationships are difficult to perceive and often answer incorrectly. In this study, we still keep this question, but it is suggested that when asking this question, it is necessary to ask more carefully and have enough time for the police officers and soldiers to correctly answer this question.

5. Conclusion

The study only shows that: The average quality of life score for police officers and soldiers in Nam Dinh province is low, and the lowest is in the field of living environment. Cronbach's alpha coefficients for common fields are 0.85. The questionnaire is appropriate to the quality of life assessment for police officers and soldiers.

Recommendations

- Need to strengthen education and health communication for police officers and soldiers.
- It is necessary to include the health communication and education program on the occasion of periodic health checks for police officers and soldiers.
- It is necessary to maintain periodic health check once a year for police officers and soldiers.
- Need to improve the life, material, spirit and working and resting regime for police officers and soldiers. In addition, there must be a policy of paying attention to the family situation of officers and soldiers so that they can work with peace of mind

Conflict of interest

All the authors declare that they do not compete, conflict of interest.

ACKNOWLEDGMENT

To complete this research, our research team would like to express our sincere gratitude to:

- Rector Board, Postgraduate Training Office, Institute of Medicine and Public Health Training of Hanoi Medical University.
- Police of Nam Dinh province and Department of Health of Nam Dinh province.

References

- National Assembly, "Law on People's Public Security 2018," 2018. <https://thukyluat.vn/vb/luat-cong-an-nhan-dan-2018-5dde7.html> (accessed Dec. 06, 2020).
- K. N. Abhishek, S. Shamarao, J. Jain, R. Haridas, S. L. Ajagannanavar, and S. C. Khanapure, "Impact of caries prevalence on oral health-related quality of life among police personnel in Virajpet, South India," *J. Int. Soc. Prev. Community Dent.*, vol. 4, no. 3, pp. 188–192, 2014, doi: 10.4103/2231-0762.142027.
- U. Rajagopalachari, L. Sonde, and M. Puranik, "Impact of oral health on quality of life among police personnel in Bengaluru City, India: A cross-sectional

- survey,” *J. Indian Assoc. Public Health Dent.*, vol. 13, no. 1, p. 42, 2015, doi: 10.4103/2319-5932.153584.
- F. C. da Silva, S. S. S. Hernandez, B. A. V. Arancibia, T. L. da S. Castro, P. J. B. G. Filho, and R. da Silva, “Health-related quality of life and related factors of military police officers,” *Health Qual. Life Outcomes*, vol. 12, no. 1, p. 60, Apr. 2014, doi: 10.1186/1477-7525-12-60.
- X. Wu, Q. Liu, Q. Li, Z. Tian, and H. Tan, “Health-Related Quality of Life and Its Determinants among Criminal Police Officers,” *Int. J. Environ. Res. Public Health*, vol. 16, no. 8, Apr. 2019, doi: 10.3390/ijerph16081398.
- F. G. da Costa, L. S. Vieira, M. G. Cócáro, K. de O. Azzolin, D. Dal Pai, and J. P. Tavares, “Quality of life, health conditions and life style of civil police officers,” *Rev. Gaúcha Enferm.*, vol. 41, p. e20190124, 2020, doi: 10.1590/1983-1447.2020.20190124.
- S. K. Min, K. I. Kim, C. I. Lee, Y. C. Jung, S. Y. Suh, and D. K. Kim, “Development of the Korean Versions of WHO Quality of Life Scale and WHOQOL-BREF,” *Qual. Life Res.*, vol. 11, no. 6, pp. 593–600, 2002, Accessed: Dec. 07, 2020. [Online]. Available: <https://www.jstor.org/stable/4036934>.
- H. Nguyen, H. Le, N. Trang, and Q.-C. Nguyen, “Initially assess the validity and reliability of a toolkit to measure the quality of life for the elderly in Vietnam,” *J. Pract. Med.*, vol. 9, pp. 61–66, 2009.
- E. C. Alexopoulos, V. Palatsidi, X. Tigani, and C. Darviri, “Exploring Stress Levels, Job Satisfaction, and Quality of Life in a Sample of Police Officers in Greece,” *Saf. Health Work*, vol. 5, no. 4, pp. 210–215, Dec. 2014, doi: 10.1016/j.shaw.2014.07.004.
- S. D. Phadke and A. A. Gupta, “Application of WHOQOL-BREF in Measuring Quality of Life in Traffic Police,” vol. 3, no. 6, p. 4, 2012.
- WHO, “Programme on mental health: WHOQOL user manual, 2012 revision,” 2012. <https://www.who.int/publications-detail-redirect/WHO-HIS-HSI-Rev.2012-3> (accessed Jan. 11, 2021).
- S. N. Anisah, R. Djuwita, “Evaluation of cronbach’s Apha constant when evaluating WHOQol-Bref toolkit Values of the Cronbach’s alpha coefficient ≥ 0.6 are acceptable,” *Indian J. Public Health Res. Dev.*, vol. Vol. 10, no. No. 12, pp. 1972–1977, 2019, doi: 10.37506/v10/i12/2019/ijphrd/192160.
- M. Bhalla, N. A. Ingle, N. Kaur, E. Ingle, D. Chandan, and Z. Charania, “Oral Health Status and Treatment Needs of Police Personnel in Mathura City,” *J. Int. Oral Health JIOH*, vol. 7, no. 9, pp. 51–53, Sep. 2015, Accessed: Dec. 07, 2020. [Online]. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4589719/>.
- K. N. Abhishek *et al.*, “Impact of caries prevalence on oral health-related quality of life among police personnel in Virajpet, South India,” *J. Int. Soc. Prev. Community Dent.*, vol. 4, no. 3, p. 188, Sep. 2014, doi: 10.4103/2231-0762.142027.
- D. Gangwar, “Quality of life among traffic police,” *Int. J. Home Sci.*, vol. 3, no. 3, pp. 103–105, 2017.