

<https://doi.org/10.48047/AFJBS.6.15.2024.13973-13980>



African Journal of Biological Sciences

Journal homepage: <http://www.afjbs.com>



Research Paper

Open Access

Physical health and sleep quality of women police in reproductive age group: A descriptive study

Bindu C G, Helen shaji J.C.

PhD scholar , Prof Bindu C G, Sri Balaji Vidyapeeth (Deemed to be University) puducherry
Email:bindunaveen53@gmail.com,Contact:+919074061114

Prof.(Dr). Helen shaji J.C. Dean, SRM College of Nursing, Faculty of Medical and Health Sciences,
SRMIST, Kaatankulathur, Chegalpet District, Tamilnadu. PhD Supervisor, Sri
Balaji Vidyapeeth (Deemed to be University) , Puthucherry.
Email: helenshaji@gmail.comContact : +919383880999,Orchid id : 0003-3006-2029

Volume 6, Issue 15, Oct 2024

Received: 15 Aug 2024

Accepted: 25 Sep 2024

Published: 21 Oct 2024

doi: [10.48047/AFJBS.6.15.2024.13973-13980](https://doi.org/10.48047/AFJBS.6.15.2024.13973-13980)

Abstract

This descriptive study was conducted to assess the General health of women police in reproductive age group in Trivandrum district. The objective of the study was to assess the general health of women police and to assess the association between general health and selected socio personal variables. The quantitative descriptive study was conducted among one hundred and fifty women polices in reproductive age group from twenty-one police stations of Trivandrum district by using purposive sampling technique. Data was collected through socio personal proforma, physical assessment checklist Pittsburgh sleep quality index, operational police stress questionnaire. Data were analyzed through descriptive and inferential statistics method. Results shows that majority of the subjects were belong to 30-39 years of age, 44% of subjects were belongs to 40-49 years of age.72% of subjects were having back pain. 90.7% of subjects had poor sleep quality 9.3% of subjects have good sleep quality. There was a significant association between working hours in a day and back pain significant at $p < 0.005$, there were significant association between sleep quality and working hours in a day and there was a significant association between sleep quality and stress due to paperwork. So, it is essential to educate regarding physical and psychological problems and their management and help them cope up with this effectively.

Keywords: Women police, reproductive age group, physical health, sleep quality.

Introduction

Health is an idea with numerous distinct components. It needs to be thought about from a physically, psychological, and social point of view. There is a strong link between mental and physical health. Mental and physical problems that have a big effect on how people live, how much health care they need, and how they affect society as a whole¹. Policing has been called one of the most stressful jobs, and men have usually been the ones who do it. However, more women are joining the police force, and more women are becoming police officers. Because they are a minority in the force, female police officers face stress at work. People in this group have a lot of stress-related problems because they are at risk of exposure, violence, and daily participation in traumatic events².

In Kerala, 78% of policewomen reported that male and female personnel were being treated completely equally as against 60% of police women. The shortage of staff also means enhanced workload for male and female personnel. This is especially true during local religious festivals or during protest rallies in which women participate. About 24% of police personnel in India work for more than 16 hours a day, on average 44% work more than 12 hours. Further, 73% of police personnel reported that their workload is taking a toll on their physical and mental health³.

Poor sleep is associated with bad health outcomes, worse wellbeing and decreases in performance, productivity, and safety at work. Police officers are exposed to several risk factors including extended work schedules, shift work, occupational stress, dangerous and traumatic events and can, as such, develop sleep problems. The pooled prevalence of bad sleep quality in police officers was 51% [95%CI 42–60%]⁴.

Based on the review of prior researchers, there is an empirical and rigorous research gap in the prior literature. Some of these unexplored women police's health in terms of physical mental and reproductive dimensions appeared to be important and worthy of investigation as policing is a very stressful job. An empirical investigation of these issues are important because previous studies revealed that compared with other professions police are at increased risk for stress related physical psychological problems such as depression, anxiety, hypertension, heart diseases and CVA. Also, these studies focused mainly on single dimensions of health mostly on mental

health. Present study has directly attempted to empirically evaluate the general health of women police including physical health and sleep quality.

Methodology

This descriptive study was conducted to assess the General health of women police in reproductive age group in Trivandrum district. The objectives of the study were to assess the general health of women police and sleep quality. The quantitative descriptive study was conducted among one hundred and fifty women polices in reproductive age group from twenty one police stations of Trivandrum district by using purposive sampling technique.

Sample and sample size calculation

Out of total 58 police stations in Trivandrum district, 21 police stations were selected purposively and collected data from 150 subjects by using purposive sampling technique.

Sample size calculated by using prevalence of depression of women police in a previous study.

$$n = 4pq/d^2, p=41\%.$$

$$q = 100-41=59 \quad d=20/100 \times 41=8.2 \quad n=4 \times 41 \times 59$$

However, 150 subjects were included in the study.

Data was collected through socio personal proforma, physical assessment checklist Pittsburgh sleep quality index, operational police stress questionnaire. Data were analyzed through descriptive and inferential statistics.

Ethical considerations

Setting permission was obtained from the commissioner of Police, Trivandrum district, and ethical Clearance from the institutional ethics committee of Sree Gokulam Medical College IEC (SGMC-IEC-No:45/591/09/2021) was obtained. Subjects were given assurance about the confidentiality of the data being collected and were asked to provide written informed consent.

Results

Table 1: Socio demographic data of study subjects

Variables		Frequency (%)
Age	20-29 Years	(6)
	30-39 Years	(50)
	40-49 Years	(44)
Religion	Christians	(53.3)
	Hindus	(38)
	Muslims	(8.70)
Education	Higher secondary	(3.3)
	Graduate/Diploma	(61.4)
	Post Graduation	(35.3)
Years of experience	0-10	36(24)
	11-20	108(72)
	21-30	6(4)
Working hours per day	6-12 hours	4(2.7)
	13-18 hours	53(35.3)
	>19 hours	93(62)
Working hours per week	36-45 hours	25 (16.7)
	46-55 hours	27(18)
	>55 hours	98(65.3)
Official grade in service	Civil police officer	41(27.3)
	Senior CPO	101(67.4)
	ASI	08(5.3)
Household activities	Self	103 (68.6)
	Self and husband	28(18.7)
	Mother	13 (8.7)
	Mother in law	4(2.7)
	Servant	2(1.3)
Performs exercise	Yes	143 (95.3)
	No	07 (4.7)

Table 2: Frequency and percentage distribution of subjects according to physical health problems**(n=150)**

Physical problem	Frequency (f)	Percentage (%)
Asthma	7	4.7
Skin disease	7	4.7
Varicose vein	58	38.7
Headache	3	2
Back pain	109	72.7
Shoulder pain	94	62.7
Neck pain	98	65.3
Heart disease	3	2
Allergic disease	101	67.3
Thyroid problems	93	62
Hypertension	22	14.7
Underwent surgery	1	0.6

Table 2 reveals that majority (72.7%) of the subjects were having back pain, above half (67.3%) of subjects were having allergic diseases, more than half (62.7%) of subjects were having neck pain and 65.3% of subjects were having shoulder pain. Only 0.6% of subjects were undergone surgery, there were no subjects having haemorrhoids and stroke.

Table 3: Frequency and percentage distribution of subjects according to Pitts burgh sleep quality index

PSQI	Frequency	Percentage
Poor sleep quality	136	90.7
Average sleep quality	14	9.3

Table 3 reveals that sleep quality of subjects .PSQI score >5 considered poor sleep and above 90% of subjects had poor sleep.

Discussion

Everyone has the right to be healthy, no matter what race, gender, political beliefs, or economic or social situation they are in. More and more women are becoming police officers in the country, and it is thought that they have more stress than their male counterparts. Due to the unique stresses, many people think that being a police officer is a stressful job. This disrupts both the psychological and physical homeostasis of the person, which can lead to erratic behaviour in the workplace.

In this study majority (72.7%) of subjects have back pain, 62.7% of subjects have shoulder pain and 65.3% of subjects have neck pain. 38.7% of subjects had varicose vein 67.3% of subjects have allergic diseases. These findings were contradictory with another study on blood pressure, sleep quality and fatigue in shift working police officers among 206 police officers in Australia shows that 51% of the subjects had fatigue severity⁵.

The present study revealed that 14.7% of subjects were having hypertension, these findings were consistent with the study on prevalence of hypertension and its determinants among police men in a Haryana shows that 36.4% of subjects were having hypertension⁶. The present study shows that majority of subjects (90.7%) had poor sleep quality and 9.3% had good sleep quality. The findings were congruent with another study on sleep quality on shift working officers in 206 general duties police officers of the New South Wales Police Force in Australia which found that 69% of subjects have poor sleep quality⁵.

Because of this, female police officers tend to have more problems at work than male police officers. When it comes to worry, female police officers have more problems than their male counterparts because they have to work and take care of their families at the same time. The department should set up regular training programmes and one-on-one counseling to help women cops deal with stress. Physical, social, and reproductive health is all very important. It could change how women police officers do their jobs every day. But most of the study's results show that bad sleep quality is a problem. In addition, this study shows that most of the people who took part had bad sleep.

Nurses can identify the person who is lacking information about health and its aspects and can provide health education regarding physical, mental and reproductive problems and their management options. Nurse can teach the women police officers regarding the importance of health checkup and can conduct training programs for women police officers to improve their skill for early identification and prevention of health issues. Regarding limitations; because of purposive sampling technique generalization may not be possible. The study was limited to 150 women police officers in Trivandrum district which also makes study to have its own limits in study rigor. Understanding the gravity of situation, authorities must be take efforts to identify the health problems among women police officers in hopes of improving their overall health and thus contributing to healthy work force

Conclusion

People think that being a police officer is a more difficult job than other jobs, and it does have a higher risk of stress. In recent years, the number of female cops has grown by a lot. The results show that it's hard for women police officers to work alone at night, do extra hours, deal with bad comments from the public, take on more jobs, and work on holidays. Even though more women are becoming police officers, gender stereotypes still make it hard for them in some ways.

Conflict of interest

None declared.

Funding

No fund or grant was received for the conduct of this study.

References

¹ Svalastog AL, Donev D, Jahren Kristoffersen N, Gajović S. Concepts and definitions of health and health-related values in the knowledge landscapes of the digital society. *Croat Med J*. 2017 Dec 31;58(6):431-435. doi: 10.3325/cmj.2017.58.431. PMID: 29308835; PMCID: PMC5778676.

² National Institute of Justice [Internet]. [cited 2023 Jun 27]. Recruiting and Retaining Women Police Officers – The Message Your Organization Sends Matters. Available from: <https://nij.ojp.gov/topics/articles/recruiting-and-retaining-women-police-officers-message-your-organization-sends>.

³ Roy B, Maheshkumar K, Krishna A. Assessment of Psychological Stress among Female Police Personnel in Kerala . In 2016 [cited 2023 Jun 27]. Available from: <https://www.semanticscholar.org/paper/Assessment-of-Psychological-Stress-among-Female-in-Roy-Maheshkumar/28dd1e2c8a568a3574637bd96f3f059da339aeab>

⁴ Garbarino S, Guglielmi O, Puntoni M, Bragazzi NL, Magnavita N. Sleep Quality among Police Officers: Implications and Insights from a Systematic Review and Meta-Analysis of the Literature. *Int J Environ Res Public Health*. 2019 Mar 11;16(5):885. doi: 10.3390/ijerph16050885. PMID: 30862044; PMCID: PMC6427768.

⁵ Elliott JL and Lal S (2016), “Blood pressure, sleep quality and fatigue in shift working police officers: effects of a twelve hour roster system on cardiovascular and sleep health”, *International Journal of Environmental Research and Public Health*, Vol. 13 No. 2, doi: 10.3390/ijerph13020172.

⁶ Hartley TA, Mnatsakanova A, Burchfiel CM and Violanti JM (2014), “Stressors and associated health effects for women police officers”, in Violanti JM (Ed.), *Dying for the job: police work exposure and health*, Charles C. Thomas Publisher, Ltd, Springfield, IL, pp. 93–114.