

Occupational hazards among police officers in South Africa

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ABSTRACT

Background: Globalisation has led to an increase in international crimes, which may increase the incidence of occupational hazards among police officers. The health and safety of police officers is a major concern, given that police work is a high-risk occupation. However, there is limited research conducted among police officers, particularly in developing countries.

Objective: The objective of our study was to describe the occupational hazards that affect police officers, in order to recommend a strategy for prevention, control and management.

Methods: A cross-sectional study was conducted among police officers in the City of Tshwane Metropolitan District, Gauteng province. Forty-five police officers from 15 South African Police Service (SAPS) stations were asked to complete a standardised questionnaire about health and safety.

Results: Shooting of police officers was the most commonly reported occupational hazard (37.8%), and gunshot wounds (57.8%) were the most common occupational injuries. Stress and tuberculosis were reported by a considerable number of participants (26.7% and 20.0%, respectively).

Conclusion: This study provided a better understanding of occupational hazards affecting police officers, and helped to identify a strategy for prevention, control and management.

Keywords: chronic diseases, injuries, health and safety, law enforcement

INTRODUCTION

Globalisation has led to an increase in international crimes, which may increase the incidence of occupational hazards among police officers.¹ The occupational health and safety (OHS) of police officers is a major concern because police work is hazardous and affects both their social and psychological wellbeing.² Findings from the World Health Organization (WHO) show that, of 74 million unintentional injuries reported worldwide, 50% occurred

at home or in the community, related to work.³ Recently, the International Labour Organization (ILO) indicated that work-related accidents or work-related diseases account for more than 2.78 million deaths per year.⁴ Moreover, 374 million non-fatal work-related injuries often lead to more than four days of absence from work, annually.⁴ These findings indicate the extent to which work can negatively affect the health and safety of employees.⁵

The number of years of potential life lost among police

Table 1. Socio-demographic characteristics of the respondents (N = 45)

Characteristic	Category	n	%
Age group (years)	20-29	7	15.6
	30-39	20	44.4
	40-49	12	26.7
	50-59	6	13.3
Sex	Male	27	60.0
	Female	18	40.0
Duration of service in the SAPS (years)	2-5	4	8.9
	6-10	16	35.6
	11-15	7	15.6
	16 or more	18	40.0
Work setting	Rural	6	13.3
	Semi-urban	20	44.4
	Urban	19	44.2

officers in a US city was reported to be 21 times higher than the general population, in a study published in 2013.⁶ The South African injury-related death rate is nearly 158 per 100 000 population; almost twice the global average.⁷ South African police officers are vulnerable to occupational hazards because of the high level of crime, nationwide.⁸ Despite the 4.1% crime level reduction reported by the South African Police Service (SAPS) in 2016, violence and injuries remain leading causes of disability/adjusted life years and death in the country.⁹ In 2018, the number of reported work-related injuries was 5 120; 6.4% were fatalities.¹⁰ These statistics indicate that morbidity and mortality within police forces is high. Families of affected police officers and the public health system carry the burden and consequences of occupational diseases and injuries.¹¹

Although police officers are expected to cope with the demands of their jobs,¹² poor OHS management can affect productivity.¹³ The unavailability of health and hazard surveillance systems, particularly in developing countries, affects accountability.¹⁴ Moreover, very little research has been done in the area of OHS among police officers in South Africa. The objective of our study was to describe the occupational hazards that affect police officers, in order to recommend a strategy for prevention, control and management. The knowledge of OHS among police officers can assist with providing reactive and comprehensive measures to reduce exposure to work-related hazards.¹³

METHODS

We conducted a cross-sectional study in the City of Tshwane Metropolitan District (CoTMD) in Gauteng province, South Africa. This study area was selected because it comprised police stations in rural, urban and semi-urban areas, which have different types of hazards. We included all police stations within each cluster according to demographic location (clusters refer to the demographic locations of each police station within the CoTMD). For this study, Tshwane North, Tshwane East, Tshwane West and Tshwane Central clusters were included.

We selected 15 police stations governed by the SAPS, from a total of 36 from the CoTMD. The number was selected taking into consideration practical issues,¹⁵ such as representation of each cluster and number of participants required per cluster. The SAPS stations are categorised as C2 (managed by a Brigadier Station Commander), C1 (managed by a Colonel Station Commander), and B (managed by a Lieutenant-Colonel Station Commander) and A (managed by a Captain Station Commander). All categories of police stations were represented in the sample. Forty-five police officers older than 19 years, who had worked for the SAPS in CoTMD for more than 24 months, participated in the study.

Data collection tools

A standardised structured questionnaire, adapted from the ILO,¹⁶ was administered to the study participants by the principal investigator and a research assistant in May and June 2017. The first part of the questionnaire included demographic characteristics such as sex, age and rank of the police officers. The second part required

the participants to indicate their experiences and perceptions with regard to occupational hazards, injuries and diseases. The questionnaire comprised both closed and open-ended questions.

We piloted the questionnaire on police officers who were not working at the selected police stations. Questions noted to be unclear were restructured, to remove ambiguity.

We used an audio recorder and note-taking to supplement responses to the questionnaire, and augmented our data using document reviews and checklists to ensure that we had comprehensive information from each participant and for each police station in the study.

Statistical analysis

Descriptive statistics were used to describe the characteristics of the study participants. Associations between sex, race and years of service in the SAPS and the occurrences of OHS among the respondents, were measured using Pearson's chi-squared test. All analyses were performed using SPSS (Statistical Package for the Social Science, IBM, New York, United States of America) version 25.

Ethical approval was obtained from the Humanities and Social Sciences Research Ethics Committee (HSSREC) office of the University of KwaZulu-Natal. We also obtained ethical clearance from the SAPS National Office, Provincial Office, and participating police stations.

RESULTS

Of the 45 police officers who responded to the questionnaires, 27 (60.0%) were male (Table 1). The age range was 20 to 59 years with a mean of 38.6 years (SD + 10.1) and a median of 39 years. The majority of the respondents were black ($n = 38$; 84.4%). There was only one coloured police officer (male).

Occupational hazards

Based on the personal experiences of the respondents, shooting was reported as the most common occupational hazard (37.8%, $n = 17$), as shown in Figure 1. Stress, infectious diseases, and assault were also reported as challenges.

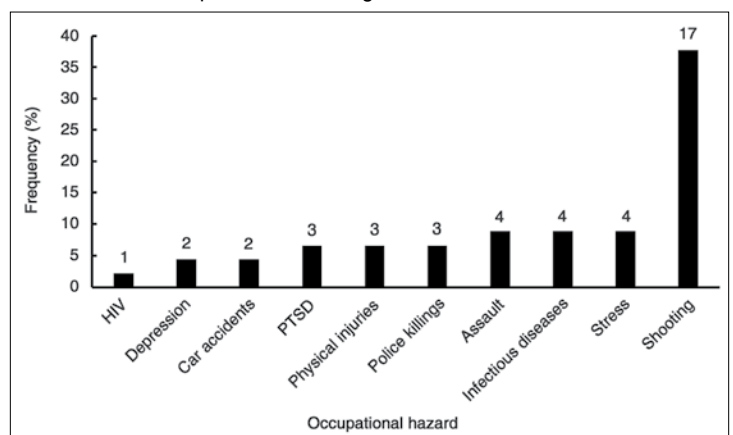


Figure 1. Perceived occupational hazards affecting police officers

PTSD: post-traumatic stress disorder

Figures above bars indicate numbers (n)

Accidents were reported as the most common occupational hazard (n = 32; 71.1%), as shown in Figure 2. A higher proportion of male than female police officers perceived accidents as occupational hazards (n = 20; 74.1%, and n = 12; 66.7%, respectively). A fifth (n = 9; 20.0%) of the participants were concerned about psychological hazards. Only four (8.9%) perceived biological hazards as a problem.

Occupational injuries

Forty-three (95.6%) of the respondents indicated that they had sustained an injury while on duty, either during routine or non-routine work. The most common occupational injuries reported were gunshot wounds (n = 26; 57.8%), as shown in Figure 3. There were no statistically significant associations between the types of injuries sustained and sex (p = 0.434).

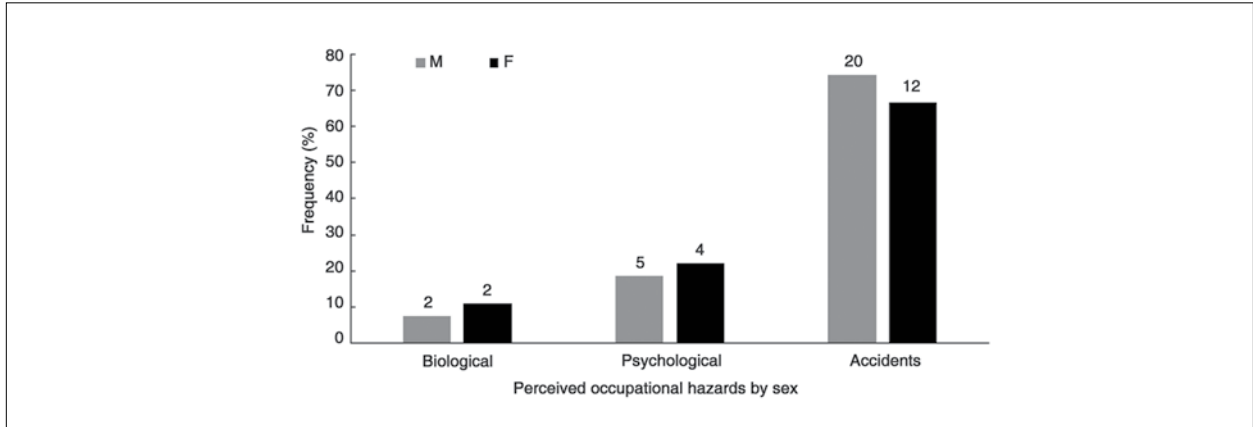


Figure 2. Perceived occupational hazards by sex

Figures above bars indicate numbers (n)

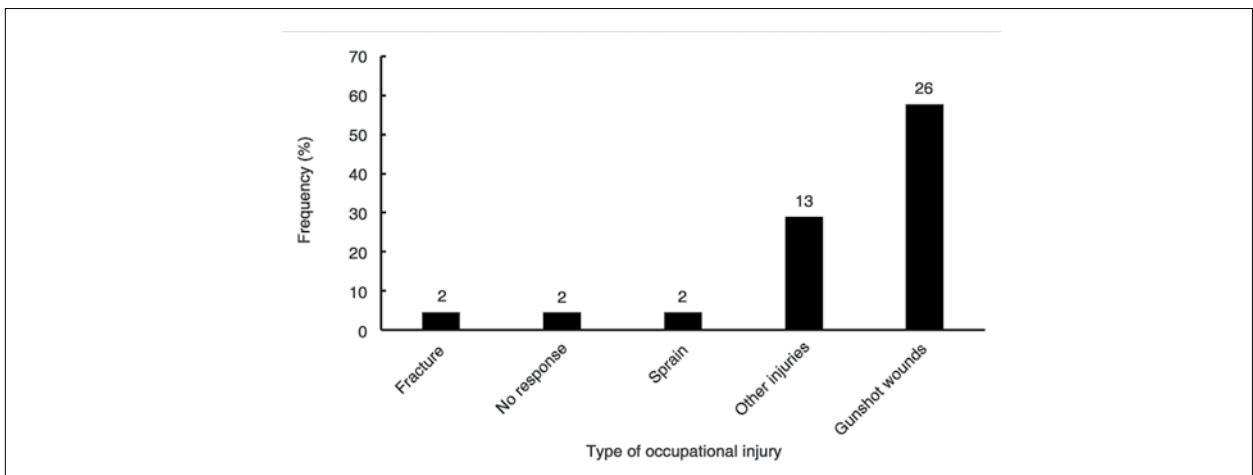


Figure 3. Occupational injuries reported by study participants

Figures above bars indicate numbers (n)

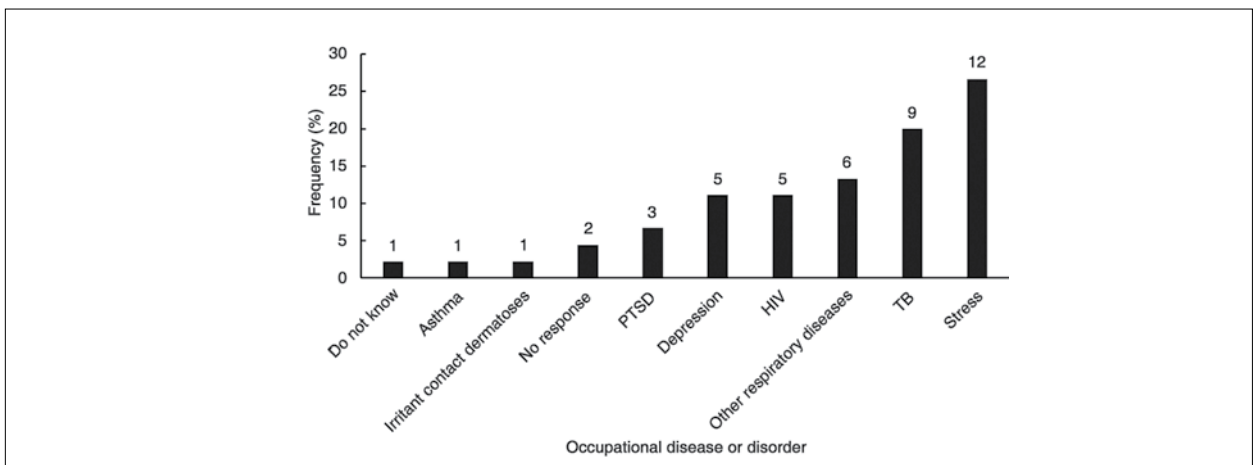


Figure 4. Perceived occupational diseases and disorders

PTSD: post-traumatic stress disorder

Figures above bars indicate numbers (n)

Occupational diseases

Stress was perceived to be the most common occupational disease among police officers ($n = 12$; 26.7%), followed by tuberculosis (TB) ($n = 9$; 20.0%), as indicated on Figure 4. There was no association between sex and perception of occupational diseases ($p = 0.367$). Psychological disorders were also perceived to be associated with police work ($n = 12$; 26.7%), as was human immunodeficiency virus (HIV) ($n = 5$; 11.1%).

DISCUSSION

The results of this study revealed various occupational hazards affecting police officers, with shooting being the most common. This was supported by the high number of reported gunshot injuries (57.8%). This finding is in line with that from a retrospective study conducted in South Africa from 1993 to 2002, during which 69% of police injuries were gunshot wounds.¹⁷

Police officers face stressful situations related to their work, and stress was commonly reported by the study participants. In a study conducted in New York in 2015, reported triggers for stress were murder scenes and armed robberies.¹⁸ In addition, depression and high stress levels among police officers have been associated with physical and mental health issues.¹⁹ These findings suggest the need for future investigations on the mental health and wellness of police officers, including monitoring of stress levels. Police officers require mental health assessments at entry into the SAPS, as well as continuous monitoring and support.²⁰

The respondents did not report exposure to high levels of noise, heat stroke or frostbite as physical hazards. This suggests the need to increase awareness of occupational hazards among police officers, as recommended by the ILO.²¹ Awareness of police officers about potential occupational hazards can help them distinguish between the hazards, and report them.²² Moreover, there is a need to establish relationships between occupational hazards, chronic diseases and mortality, especially in South Africa where the crime rate is on the rise.²³ Such efforts would help to promote the efficiency of police officers, who would have more knowledge about hazards that affect them within their workplace and impact on their health and safety, given that police work is a high-risk occupation.²¹

In line with ethical principles, the study participants were offered an awareness discussion on the relevant OHS hazards and how these can be reported. This intervention was conducted to ensure that the research participants become immediate beneficiaries of the results of the study. From our observations, educating police officers about health and safety will empower them to seek more information about how they can protect themselves when faced with occupational hazards.

It is evident that police officers are exposed to various occupational hazards. We recommend a strategy for prevention, control and management of these hazards. The first approach is to ensure that police officers are trained on health and safety.²⁴ Training is an essential component of OHS and cuts across the management of occupational hazards. The second approach is to develop, communicate and implement guidelines to control infectious

diseases which may affect police officers, such as TB and HIV, which have been reported as occupational health problems in the ILO's international hazard datasheets on occupation for police/law enforcement officers.²¹ To manage occupational hazards in the SAPS, it is essential to collaborate with key stakeholders, including communities and OHS professionals.

Limitations

The study was conducted in only one district of Gauteng, using a small number of the SAPS officers. Thus, the findings are not representative of all police officers in the province, or in South Africa, and may not provide a full picture on the extent of occupational hazards in this workforce. Nevertheless, the study provided some insights about occupational hazards, injuries and diseases affecting police officers.

Recommendations

The health and safety of police officers as a unique workforce, similar to mine workers, require more attention. Although it is hard to quantify TB and HIV acquired in the line of work, it is essential for the SAPS to implement processes that can help police officers to obtain clear diagnoses and report such infections, if work-related. It is important for systems to be put in place in South Africa to protect the health and safety of law enforcement officers. More research needs to be done countrywide and in the sub-Saharan African region, to inform policy. Furthermore, it is essential to educate communities on the importance of police support. Police work is stressful, but this can be ameliorated with the assistance of community policing forums, and civil society can reduce the workload of police officers.

Collaborative strategies with key stakeholders are essential, including SAPS wellness teams and Department of Employment and Labour officials who are responsible for health and safety. In addition, professional organisations, such as The South African Society of Occupational Medicine (SASOM), the South African Society of Occupational Health Nursing Practitioners (SASOHN), the Southern African Institute for Occupational Hygiene (SAIOH), and the National Institute for Occupational Health (NIOH), can help by sharing new knowledge, research findings, management strategies and policy development on OHS with the SAPS. A collective effort can intensify the prevention, control and management of occupational hazards, and improve the effectiveness of police officers in South Africa.

CONCLUSION

Occupational hazards to which police officers in the CoTMD are exposed are similar to those reported in other countries. Gunshot wounds are the most important consideration in the SAPS. Stress can negatively affect the mental health of police officers. Hence, strategies for stress management should be implemented to help police officers cope with work-related demands and hazards. Wellbeing is essential for productivity in the workplace. Police officers help promote safety in communities; however their own health and safety should also be considered.

LESSONS LEARNED

- There is limited knowledge amongst police officers about the need for research on OHS in the SAPS.
- Police officers do not consider extreme weather conditions to be work-related hazards.
- Police officers need to be appropriately protected against work-related hazards.

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AUTHOR CONTRIBUTIONS

Conception and design of the study: GGM, MC, CH

Data acquisition: GGM

Data analysis: GGM, CK

Interpretation of the data: GGM, CK, MC

Drafting of the paper: GGM

Critical revision of the paper: GGM, CK, MC

DECLARATION

The authors declare that this is their own work; all the sources used in this paper have been duly acknowledged and there are no conflicts of interest.

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