

Analysis of cases of assaults by patients on healthcare service workers in Limpopo Province of South Africa

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ABSTRACT

Objective: Workplace violence is a serious problem in the healthcare services worldwide. This study describes assaults by patients experienced by healthcare service workers of Limpopo Province.

Methods: Details of such assault cases from Limpopo Province, submitted to the Compensation Commissioner from January 2007 to December 2009, were analysed.

Results: There were 33 cases; 75.6% were among those 40 years and older, 54.5% involved females workers. The most affected were nurses (66.7%) and the least affected were kitchen staff members (6.1%) and pharmacy personnel (3.1%). Most (66.7%) were beatings, and injuries including soft tissue injuries and swellings. Over half occurred in Mopani district health facilities (51.5%), followed by Capricorn (24.5%), and Vhembe district (21.5%). The trend analysis over the three years showed that the number of cases kept on increasing from 2007 to 2009.

Conclusion: Interventions are needed to reduce such assaults.

Key words: workplace violence, assault, healthcare service workers, South Africa

INTRODUCTION

Workplace violence has been defined as "incidents where employee(s) are physically or emotionally abused, harassed, threatened or assaulted (overt, covert, direct, indirect) in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, well-being or health".¹ As such, workplace violence is a serious problem in the healthcare services worldwide.^{2,3} In general, it is reported that between 35.0% and 80.0% of hospital staff have been physically assaulted at least once; while up to 82.0% of nursing staff have experienced verbal

abuse.⁴⁻⁵ Other studies have reported high rates of psychological assaults ranging from 32.2% in Bulgaria to 67.0% in Australia; while physical assaults have been reported in 33.0% among nurses in Turkey.⁶⁻¹⁰

In South Africa, the Medical Research Council conducted a study on workplace violence in the healthcare industry and reported that most respondents had experienced it in different forms. Verbal abuse was reported by 92.3% of respondents, while 36.4% of interviewees had occasionally been threatened with physical assault.¹¹⁻¹² Within health facilities, emergency departments and psychiatric settings constitute areas with more incidents of violence.¹³

Given the lack of published data on the extent of workplace violence among healthcare service workers from Limpopo Province, South Africa, the purpose of this study was to describe the violent assaults by patients experienced by healthcare service workers from this province based on data submitted to the Compensation Commissioner in terms of the Compensation for Occupational Injuries and Diseases Amendment Act 61 of 1997.¹⁴ In doing so, this study endeavoured to contribute to raise the debate on this topic and provide data that could be used for planning appropriate interventions.

METHODS

Data submitted to the Compensation Commissioner from January 2007 to December 2009 were extracted using a pre-tested data collection form. This form was designed by the investigator for this study. Cases were defined as



Figure 1. Map showing the health districts of Limpopo Province in 2009

reports about any act of assault suffered by a healthcare worker in a healthcare setting during the study period in Limpopo Province.

The following data were collated: age and gender of victim, year of report, year of employment, professional category, how the assault was carried out and its outcome, and the health district where the assault occurred. Data were captured in a spreadsheet and the accuracy of capturing was checked by means of a comparison of a printout to the original forms. From the year of employment, the number of years of working experience and the time it took to being assaulted were calculated. The age was dichotomised into less than 40 years and 40 years and above based on the mean value of the age parameter. Analysis of variance was conducted to test the difference between younger and older victims with regard to how long it took for one to be assaulted. The level of statistical significance was set at $p < 0.05$. Ethics approval to conduct this study was obtained from the Medunsa Research Ethics Committee.

RESULTS

The total number of cases of assault reported during the study period was 33, an average of 11 cases per year. There were no cases in the Sekhukhune district, only one case in Waterberg district (Figure 2), which involved a male nursing manager who was assaulted by a patient in 2008.

The districts most affected by workplace violence (in descending order) were Mopani (51.5%), Capricorn (24.2%), and Vhembe (21.2%). There was a significant difference among districts based on the trend of assaults during the 3-year period ($p = 0.028$). In the Capricorn and Vhembe districts, the number of cases increased sharply from 2007 to 2008 and then decreased sharply between 2008 to 2009; in contrast, in Mopani district, the cases increased significantly, rising from two in 2008 to 12 in 2009 (Figure 3).

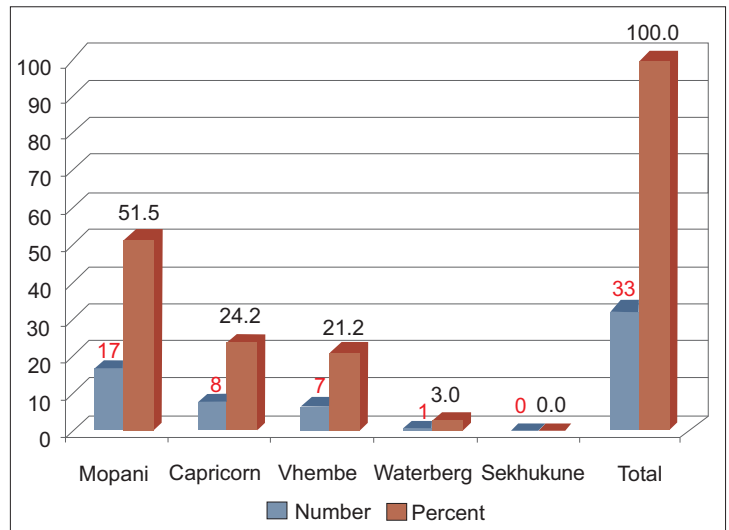


Figure 2. Cases of assault against healthcare service workers in Limpopo Province of South Africa 2007-2009 (n=33)

Table 1. Modalities of assault to healthcare service workers by patients in Limpopo Province of South Africa 2007-2009 (n=33)

How the assault was carried out	Frequency	Percent
Beating (use of fists and punching)	22	66.7
Kicking	3	9.1
Biting	2	6.1
Pushing	2	6.1
Beating and biting	1	3.0
Strangulation	1	3.0
Hard squeezing of hand	1	3.0
Hitting with an object	1	3.0
Total	33	100.0

Though the majority of assaults were beatings, some cases involved kicking, pushing, and strangulation (Table 1). As a result of assaults, three victims (9.1%) missed three, four and seven days of work respectively, as they were being treated for their injuries. These three victims were

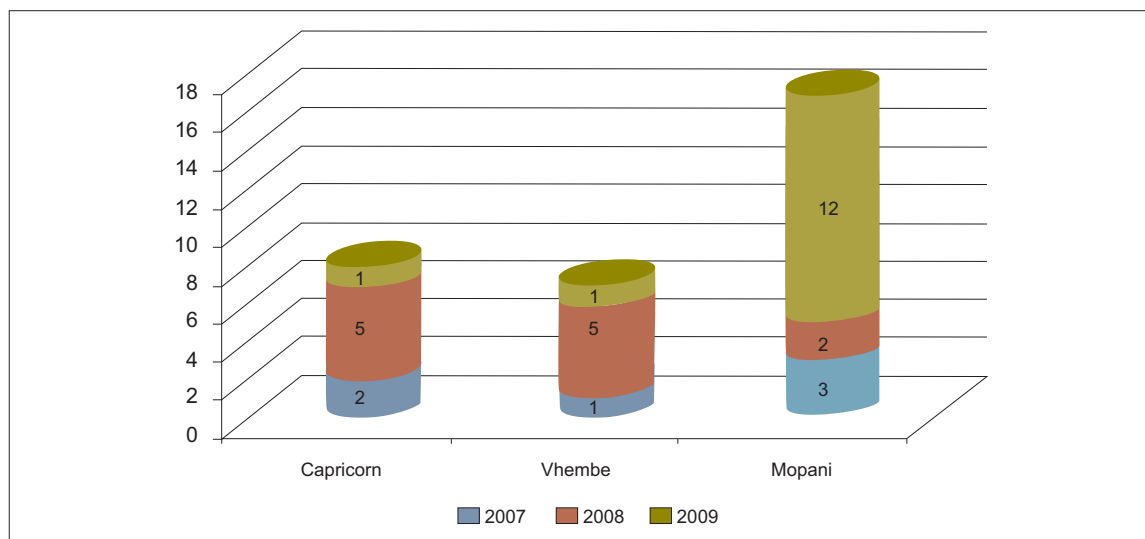


Figure 3. Cases of assault against healthcare service workers per district and per year in the Limpopo Province of South Africa 2007-2009 (n=33)



one male and two female nurses from Vhembe and Mopani districts. Most victims sustained soft tissues injuries and bruising which led them to claim for compensation. Among the serious cases, a 65-year old woman was strangled by a psychiatric patient in November 2007; she survived with severe neck injury. She worked as a cleaner in a hospital of Vhembe district. In a different hospital of Vhembe district in June 2008, another psychiatric patient assaulted a male nursing assistant, fracturing one of his fingers. Other victims of assaults by patients suffered from head injuries, lacerations and swellings (Table 2).

The majority of victims were females (54.5%); their ages ranged from 27 to 65 years, with a mean of 45.5 ± 9.3 years and median of 47 years, and 75.8% of victims were 40 years and above. Health professionals, namely nurses were the most affected (66.7%); in addition, one female pharmacist assistant was beaten up by a patient at a regional hospital in Mopani district during 2009. Among the non-professional staff members, the cleaning and administrative personnel were the most affected (12.1% for each category). The least affected staff members were kitchen staff members and

Table 2. Injuries from assault to healthcare service workers by patients in Limpopo Province of South Africa 2007-2009 (n=33)

Injuries sustained	Frequency	Percent
Soft tissues injuries	14	42.4
Bruising	5	15.2
Lacerations	4	12.1
Swellings	3	9.1
Bruising and swellings	3	9.1
Abrasions	1	3.0
Fractures	1	3.0
Head injuries	1	3.0
Neck injury	1	3.0
Total	33	100.0

pharmacy personnel (Table 3). Of note, no cases of assault were reported among medical doctors or pharmacists.

Overall, based on the number of years of work experience; it took on average 14.2 ± 8.8 years to becoming a victim of an assault. However, there was a significant difference between younger and older victims (Table 4); the mean number of years was only 3.8 ± 3.6 years in those younger than 40 years old versus 17.5 ± 7.3 years in those 40 years and older ($p = 0.001$).

DISCUSSION

This study found that, on average, 11 cases of assaults per year were reported to the Compensation Commissioner from Limpopo Province. Although diverse categories of healthcare service workers were involved, nurses were the most assaulted, most likely because they are the ones who attend to patients primarily, most often, and interact with patients the longest.⁵ Based on the average number of 8000 nurses employed in the province during the 3-year study period, the 22 cases of assault among nurses represent a reported annual incidence of 27.5 cases per 10 000 nurses.¹⁵ This figure is consistent with reports that showed that up to 11.5% of healthcare workers in South Africa have been victims of assault.¹ Female healthcare workers were slightly more affected than males in this study. This finding concurs with reports from many other countries such as USA, France, Kuwait, and Canada that show that female workers are more often victims of violence than males.^{5,16-17} Besides the age and the professional category of victims as discussed above, several other risk factors associated with violence against healthcare workers include shift work, working at night, being alone with the perpetrator, and working during weekends.¹⁸⁻²⁰ In this study, the circumstances surrounding the incidents were not documented in the records reviewed.

The assaults led to two documented outcomes. This study documented lost productivity in terms of number of

Table 3. Characteristics of healthcare service workers assaulted by patients in Limpopo Province of South Africa 2007-2009 (n=33)

Variables	Frequency	Percent
Age category		
40 years and above	25	75.8
Under 40 years	8	24.2
Sex		
Female	18	54.5
Male	15	45.5
Job category		
Nurses	22	66.7
Cleaners	4	12.1
Administrative staff	4	12.1
Kitchen staff	2	6.1
Pharmacy staff	1	3.0

Table 4. Results of one-way analysis of variance based on age category

Age category	Mean	Std Dev	Max	Min	DF	F	p-value
Younger than 40 years old (n=8)	3.8	3.6	12	1	1	27.57	0.001
40 years and older (n=25)	17.5	7.3	36	1			

working days that were lost. The findings from this study concur with a previous report by Steinman who reported that over 60% of those who had been physically attacked had to take 1 to 3 days' leave, while about 20% stayed home for 1 to 3 weeks, and about 10% for 1 to 6 months.¹ Although the monetary value of these lost days were not estimated in South Africa, data from other settings suggest that, in 1996, the total costs for 344 non-fatal work-related assaults were estimated at \$5 885 448 in the United States of America.²¹ In addition, injuries as outcomes of assaults were consistent with reports by other investigators. In particular, soft tissue injuries, bruising and swellings resulting from punching and kicking have been reported by Shepherd and co-workers.²² Victims of workplace violence may also suffer consequences that lead to psychological, psychosomatic and musculo-skeletal health disorders as well as post-traumatic stress disorder.²³⁻²⁴ However, no such data were available in this

study. Although no fatalities were reported among the victims of assaults, the details of the severe cases are worrying. The reason for this is that the perpetrators were psychiatric patients. This finding suggests that there was a failure in the

“ . . . there should be a comprehensive strategy that includes the implementation of prevention measures . . . ”

system with regard to the control and isolation of psychiatric patients. Additionally, the victims may have been physically unable to defend themselves given their ages and may have been unable to detect the signs of aggression.

The above findings suggest that managers of health districts and facilities need to take actions to prevent

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workplace violence.¹³ In South Africa, the Guideline Booklet of Occupational Health Services for Healthcare Workers clearly states the need to promote wellness and prevent occupational injuries and diseases.²⁵ The findings from this study and the existing international literature suggest that

“... the involvement of psychiatric patients and younger staff members suggest the need for training ... on warning signs of aggression ...”

there should be a comprehensive strategy that includes the implementation of prevention measures, the management of incidents when they occur, and a post-incident follow-up plan of actions.²⁶ Such a comprehensive strategy should be developed with the involvement of diverse stakeholders within and outside the healthcare sector.²⁷⁻²⁸

Hence, as a matter of policy, there is a need for a review of the current measures in place in light of the reported incidents so that gaps can be identified and appropriate interventions could be designed and implemented within the province. With regard to practices, the consistent reoccurrence of assaults every year during the study period and the involvement of psychiatric patients and younger staff members suggest the need for training of all staff members on warning signs of aggression and how to respond when such signs are noticed.²⁹⁻³⁰ Steinman¹ reported that 70.3% of 52 respondents stated that the incident could have been prevented. This implies that if healthcare workers had the necessary skills they may have been able to avert some

of the incidents. Yet, Van der Spuy and colleagues noted that most South African healthcare workers report not having been trained on how to handle violent clients.³¹ In contrast, American nurses have identified behaviours that could assist healthcare workers to predict workplace violence according to a study by Chapman and colleagues.³² These include staring, change in the tone of voice, anxiety, mumbling and pacing; altogether known by the acronym “STAMP”. Being alert to these behaviours may help healthcare workers predict whether an act of workplace violence is likely to occur. It is therefore important to train healthcare workers so they acquire the skills to deal with workplace violence.

This study suffered from some limitations due to its design. As it was based on compensation data, it is likely that all cases of assault may not have been reported; hence, the actual incidence could be greater. In addition, since it was a cross-sectional study, causal relationships could not be established.

CONCLUSION AND RECOMMENDATIONS

In conclusion, assaults suffered by healthcare service workers in Limpopo affected mainly nurses, females and older workers. Interventions are needed to reduce the occurrence of such assaults. With regard to further research, the findings from this study suggest that prospective studies are needed to explore the circumstances of the incidents, the profile of perpetrators, and reasons why assaults occur more or less at various health facilities and districts in the same province. Further studies are needed in order to establish the actual incidence and prevalence of workplace violence in its many forms as well as the risk factors that could be targeted with specific interventions. Given the retrospective nature of this study, the above information could not be gathered.

LESSONS LEARNED

1. Healthcare service workers, especially nurses, and women and older workers, are at risk of assault by patients.
2. Healthcare workers must be trained to recognise behaviours in patients which may indicate a risk of assault.
3. Healthcare workers must be actively involved in the design and implementation of strategies aimed at addressing workplace violence.
4. Healthcare workers must participate and conduct operation research studies aimed at improving the safety and security of patients and themselves in healthcare settings.

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