

TITLE: WORKPLACE ABUSE-A SURVEY OF RADIOGRAPHERS IN PUBLIC HOSPITALS IN TSHWANE, SOUTH AFRICA

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Highlights

- Radiographers in public hospitals.
- Prevalence of workplace abuse.
- Perpetrators of abuse.

Abstract

The scope of practice of a radiographer involves interactions with patients and hospital personnel before and after medical imaging services. It has been observed that radiographers experienced loss of enthusiasm and involvement toward their work leading to absenteeism, poor morale, and stress. The aim of this study is to determine the prevalence of work-related abuse against radiographers in public hospitals in Tshwane, South Africa (SA). A quantitative method, nonexperimental cross-sectional design, was used, and data collection tools were questionnaires that were hand-delivered to the participants. The collected data were analyzed using descriptive statistics. Results are presented in figures. In a population of 65 radiographers, only 57% (n = 37) participated in the study. Results are for participants who were involved in one or more form of abuse. Three forms of abuse were investigated, verbal abuse at 73%, emotional abuse at 46%, and physical abuse at 27%. The perpetrators of physical abuse (14%) were hospital patients, whereas coworkers were the main perpetrators of verbal abuse (12%) and emotional abuse (10%) was perpetrated by coworkers. In conclusion, workplace abuse of a radiographer is prevalent, in the x-ray departments of tertiary public hospitals in Tshwane, SA. Verbal abuse was ranked the highest form of abuse, followed after by emotional and physical abuse. Perpetrators of physical abuse were hospital patients, while coworkers were the main perpetrators of verbal and emotional abuse. The study will benefit the health care institutions and the general profession of radiography; it provided empirical evidence on the prevalence of abusive incidences and the perpetrators thereof. Findings were presented to raise awareness of work place abuse of radiographers and may be used to formulate protocols regarding management of such problems.

Keywords

Radiographers

Public hospitals

Workplace abuse

INTRODUCTION:

The duties and responsibilities of a radiographer involves constant and continuous interactions with the patient, general public as well as other healthcare professionals such as nurses and doctors, before, during and after offering medical imaging services. It has been reported that professional medical staff serving the public is likely to be exposed to workplace abuse.¹

The phenomenon of workplace abuse (WPA) in a healthcare setup is attributed to several environmental factors which includes overcrowding in hospitals, inadequate staff and infrastructure.^{1,2,3} This consequently led to increased patient waiting times which resulted in the doubling of anxiety levels in both the patients as well as their companions. Studies conducted on radiographers in Hong Kong¹ and in Taiwan³ showed that in addition to long waiting times and understaffing, communication problems added factors which triggered WPA. Defects in the work design, poor work organization, and insufficient security measures were listed as potential factors contributing to WPA in other research settings.²

The prevalence of WPA recently, increased significantly in the healthcare environment than in other industries and therefore, the healthcare settings are becoming a risky work environment. ^{1,3,4} A study done in Spain on prevalence aggression against health care workers (HCW), revealed that there were higher incidences of abuse occurring in bigger hospitals and hospitals with a high patient workflow.⁵ In Italy, the prevalence of WPA against radiographers demonstrated significant evidence of physical abuse against young radiographers, in the public healthcare facilities whilst non- physical abuse was found to be common in both the private and the public health sectors.⁴ in Egypt the prevalence of WPA on radiographer's showed a step wise increase in the scourge and also posed a huge risk.²

Regarding the perpetrators of workplace abuse, patients and their relatives were the most common perpetrators for verbal and physical abuse in the healthcare facilities.^{4, 5} Most of the incidences were occurring in the emergency department.¹ In Ghana, Boafo et al.⁶ reported that verbal abuse to nurses was due to lack of attendance and long waiting times of patients and their relatives coupled with service dissatisfaction.⁶

In Hong Kong¹ radiographers suffered abuse by co-workers; the highest incidence was by nurses, followed by physicians and by other radiographers. With regards to gender, the perpetrators of WPA were male patients or their companions.⁷ Workplace violence is a serious problem in the healthcare services worldwide.

In South Africa, workplace violence in the healthcare industry was experienced in different forms. Verbal abuse and threats of physical assault were reported within health facilities; emergency departments and psychiatric settings constituted areas with more incidents of violence.⁸ Given the lack of published data on the extent of workplace violence among radiographers in South Africa, the researchers observed that radiographers who are working in government hospitals experienced loss of enthusiasm and involvement towards their work leading to absenteeism, poor morale and stress. On a daily basis they were faced with challenges of overcrowding in hospitals, lack of staff members and increased working hours. They complained about incidences of verbal and non-verbal intimidating language used against them by individuals within the hospital.

The aim of this study was to determine the prevalence of WPA amongst radiographers and to identify the perpetrators of abuse in the x-ray department. Two tertiary government hospitals in Tshwane, SA were identified and selected as suitable research settings for this study, because of the high number of radiographers employed.

The significance of study to the healthcare institutions and to the profession of radiography is that it provided the empirical evidence about the prevalence of intimidation, types of abusive incidences toward radiographers and the perpetrators thereof. Results of the study were used to raising awareness about the occurrences of WPA to radiographers and to provide data that could be used for planning appropriate interventions.

RESEARCH METHODS AND DESIGN:

The study design was a quantitative, non-experimental cross sectional. The setting was in two tertiary public hospitals that provided a larger spectrum of x-ray services in Tshwane, SA. The study population of 65 included all qualified radiographers registered with HPCSA, including those doing community service. Student radiographers were excluded

for this study. A sample size of 37 radiographers participated in the study. The sample size justification was attributed to the fact that some radiographers were on vacation leave and others on night shift during the time of the data collection. The sampling strategy was convenient sampling, due to convenient accessibility of the participants and their proximity to the researcher.⁹

The data collection tool was the survey type questionnaire and one open ended question. Reliability and validity was ensured in this study by developing and modifying a questionnaire adopted from the World Health Organization (WHO) joint program used in previous studies and was adapted to suit this study¹⁰. The content validity of the data collection instrument was further approved by the bio-statistician from the University of Pretoria (UP). Bias was eliminated by keeping the answer sheets of the questionnaires totally anonymous.

Data was collected using a survey type questionnaire after informed consent was obtained from the participants. All questions were answered on a nominal scale for more accurate data collection purposes. The open ended question was for obtaining participants' reaction to the actions that were listed in the questionnaire.

Questionnaires were divided into three sections: section A focused on capturing demographic data on age and gender. In section B, participants were allowed to indicate more than one action by ticking the appropriate block, the department where the actions occurred and who the perpetrators of the actions were. Section C, an open-ended question, captured the reactions to the actions mentioned in section B. The actions were arranged into physical, verbal, and emotional abuse.

The descriptive statistics mean and median, standard deviation, and interquartile range were used to describe continuous variables such as age, and gender. Frequencies and proportions were used to test for associations between categorical variables. Tests were evaluated at 5% level of significance. All analysis was performed using STATA 14 (<https://www.stata.com>). The data were represented using relevant bar graphs.

Ethical approval was obtained from the Faculty of Health Sciences research ethics committee at the University of Pretoria, with ethical reference number: 63/2018. The fundamental ethical principles were observed. The obligation to respect the autonomy of the participants, the participants freely chose to participate in the study and they could

withdraw from the study at any point without any negative consequences. An informed consent was completed after the researchers have explained the aim and purpose of the study. The participants' right to privacy was applied through the anonymous completion of the questionnaire. All the information given remained confidential. The principle of non-maleficence was put into consideration by providing counselling through Hospivision (hospivision.org.za), to any sensitive participant. The principle of justice was observed by ensuring that all the participants in the study were treated equally, fairly, and impartially.

RESULTS:

Figures 1, 2, and 3 show a graphic summary of the data.

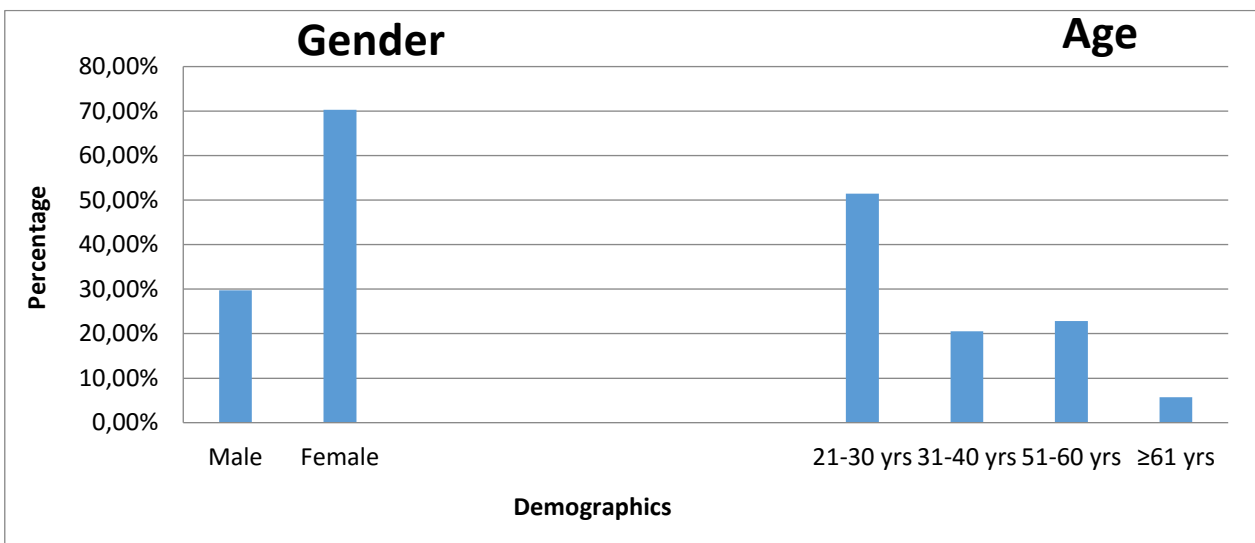


Figure 1: Column graph demonstrating gender and age demographics for the study

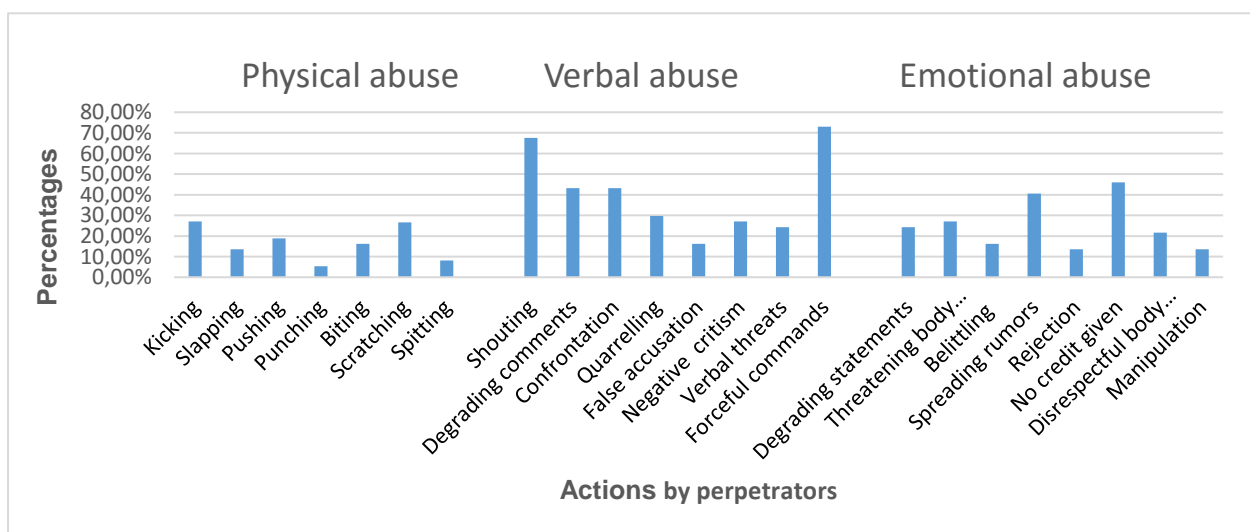


Figure 2: The abusive actions are classified into physical, verbal and emotional abuse.

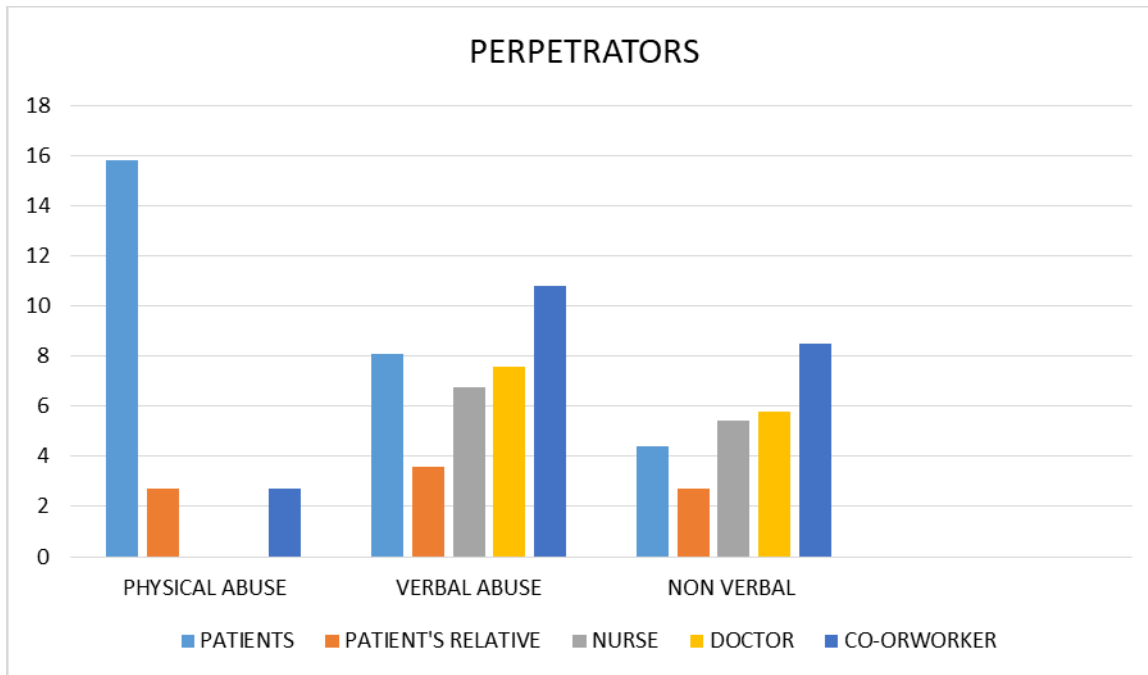


Figure 3: Perpetrators of different types of WPA

DISCUSSION:

It is well known that failure to respond to the questionnaire by the potential respondents may result in nonresponse bias which may consequently affect the validity and reliability of the research findings. A study by Baruch et al.¹¹ pointed out that the response rate of between 37% and 51% or (more) is considered as an average for the questionnaire.¹¹ A good response rate was described as being 40%, the response rates lower may result in non-response bias and may jeopardize any attempt to generalize findings. Out of a population of 65 radiographers, a response rate of 56.92% (n=37) was obtained during data collection in line with the supporting literature on studies done in Hong Kong¹ and in Italy⁸ on the prevalence of WPA with a response rate of 53.34%¹ and 56%⁸ respectively.

Demographic data (see Figure 1), indicated that 51.43% (n=18) radiographers were within the 21-30 year age group. The age range was similar to the study by Ferri et al.⁴ where 24.7% of participants fell into the age range of 25-29 years. With regards to gender, females were 70.27% (n=26) whereas 29.73% were (n=11) males. This indicated a predominance of females in the occupation of radiography locally, which is contrary to most of the findings in literature. According to Tung et al.³, the occupation of radiography

in Taiwan is predominantly male 57.20%) as oppose to 42.80% female.³ In studies involving other HCW male participants were 60%, 51.31% and 57.20% respectively.^{1, 3, 4}

The study settings were tertiary public hospitals in Tshwane, SA. Participants from the two large hospitals were n=21 and n=16 respectively. According to studies done in Spain⁵, Italy⁴, and Hong Kong¹², incidences of abuse were more prevalent in larger hospitals that provided a larger spectrum of services.

Abusive actions

Physical abuse is the intentional behavior, aiming to harm another person physically. In this study, (see Figure 2) physical abuse was the least occurrence form of work place abuse that existed in the study population as it stood at 12.1%. According to Kris Ng¹ physical abuse was the third most common type of abuse (20.88%) after verbal abuse (96.70%) and emotional abuse (34.07%) among radiographers in Hong Kong.¹ A study by Cheung Ton¹², in Hong Kong had similar results with physical abuse being the most common type of abuse (22.7%) after verbal abuse. The following actions were sorted under physical abuse according to the actions found in literature: kicking, slapping, pushing, beating, punching, biting, scratching and spitting.² The results showed the most common actions of physical abuse in the workplace were kicking (27.03%) (n=10), followed by scratching (26.62%)(n=8). These finding where similar to the results of other studies which were done in Turkey, Iran and Taiwan.^{2, 13, 14}

The response to the open ended question with regard to the radiographer's reactions to some of the physical abusive actions experienced, some participants commented:

"These (actions) have been perpetrated by confused patients, so no extensive reactions were taken except for trying to calm the patient down."

"... Where patients were involved: they were confused or had pain, understood and worked around it."

The comment that some staff members had experienced a form of abuse that they did nothing about or kept silent indicated that there are more incidences of abuse that remained unreported, as also evidenced in other similar studies.²

Verbal abuse is the intentional use of language that humiliates, degrades or indicates a lack of respect for dignity and worth of an individual that creates fear, intimidation and

anger in that individual.¹³ The following actions were sorted under verbal abuse: shouting, degrading comments, confrontation, quarrelling, false accusations, negative criticism, verbal threats and forceful commands. Verbal abuse was the most common type of abuse occurring in the workplace seen to have occurred at 35.12%, with shouting (67.57%) and forceful commands (72.97%) being the most common actions in this type of abuse. Verbal abuse had the highest incidences of actions occurring on radiographers recorded, was at 96.70% in Hong Kong¹, then on nurses results showed 65.64% and 39.2% respectively in Taiwan³, and in Hong Kong¹².

Some responses from the open ended questions included:

“Felt belittled and unappreciated, unimportant and useless.”

“Feel unappreciated, degrading, and useful.”

“A decrease in confidence to do job.”

Therefore from such responses, it can be deduced that abuse in the workplace had a significant negative effect on the participant’s self-esteem and emotional well-being and is a noteworthy finding for future studies on effects of WPA on radiographers. In line with this, Banda *et.al.*¹⁵ indicated that workplace abuse had the potential to affect the victims both psychologically and physically.¹⁵

Emotional abuse is defined as a kind of abuse that is emotional rather than physical in nature. It can range from constant criticism to intimidation and manipulation and is also referred to as psychological stress.¹²The following actions were sorted under emotional abuse: degrading statements, threatening body language, belittling gestures, rumour spread, rejection, no credit given, disrespectful body language and manipulations. With regard to abuse that was psychological in nature, this study revealed the existence of this form of workplace abuse against radiographer at the rate of 25.33%, was at least lower than findings of studies done in Turkey¹⁴ at 55.5% and in Hong Kong at 70%.¹

With regards to participant’s responses in the open ended question of the study, one participant commented: *“... Gossip should not be tolerated. It is difficult to intervene when people gossip. Best is then to seal your own lips and not get involved in the conversation”.*

Perpetrators of abuse

Verbal abuse was the type with the highest occurrence in which patients and their relatives were responsible for high incidences among HCW followed by staff members and external colleagues.^{4, 13} With regard to the perpetrators of abuse, (see figure 3) the study revealed that the most common perpetrator of physical abuse were patients (15.81%) and this finding concurs with reports from many other countries such Hong Kong and Taiwan.^{1, 3}

With regards to verbal abuse, a noteworthy finding was made in this study that co-workers were also perpetrators (10.81%) in the workplace. Other forms of abuse perpetrated by co-workers were emotional abuse by doctors and nurses. In Hong Kong, nurses and radiographers were co-workers perpetrating verbal abuse in the workplace.¹

The most common responses to the open ended question were that some participants felt belittled, unappreciated, and useless and found the negative comments degrading. Others reported it to their Head of Department (HOD) and only one case mentioned where action was taken. Other participants stayed calm and professional at all times during WPA, they emphasized that personal emotions were kept under control. Some participants experienced strong emotions such as shock, disgust, anger and temptation to retaliate; however, there was one participant that never experienced WPA within the 5 years period indicated in the questionnaire by the researchers.

LIMITATIONS

The limitation of the study is that reports on the occurrence of WPA in the province of Gauteng, in SA, was limited to the two government hospitals of Tshwane and therefore restricting the study only to these institutions rendered it difficult to generalize the research findings.

FUTURE STUDIES

Recommendations made was that a further study can be done to determine how WPA affects the radiographers and comparison studies can also be done to determine if private hospitals have incidences of WPA and how it compares to government hospitals in terms of the type of abuse and the perpetrators. There might also be a need to carry out this research using a large sample size that would incorporate many more health facilities so as to evaluate the predisposing factors associated with WPA.

CONCLUSION

Workplace abuse of a radiographer is prevalent, in the x-ray departments of tertiary public hospitals in Tshwane, SA. Verbal abuse was ranked the highest form of abuse, followed by emotional and physical abuse. Perpetrators of physical abuse were hospital patients, whilst co-workers were the main perpetrators of verbal and emotional abuse.

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