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Assessment of Factors Associated with Workplace Violence against Nurses among Referral Hospitals of Oromia Regional State, Ethiopia

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Abstract
Background: Workplace violence is a serious occupational risk for global workforce and healthcare workers are at greater risk of violence than other service workers. However, no studies have been investigated about this phenomenon in Ethiopia. **Objective:** to assess the prevalence and predictors of workplace violence against nurses working in referral hospitals of Oromia Regional State, Ethiopia.**Method:** Facility based cross sectional study was conducted among nurses working in all referral hospitals of Oromia Regional State, Ethiopia. Two hundred fifteen (215) nurses were selected by simple random sampling technique. Data were collected using pre-tested questionnaires and analyzed using SPSS software version 16. Binary and multiple logistic regressions were used to see factors associated with workplace violence.**Result:** Out of 203 nurses participated in the study, 168(82.2%) of the nurses have experienced workplace violence during the previous 12 months. Among these 81.8%, 9.9%, 47.3%, and 23.2% had history of verbal abuse, sexual harassment, bulling/mobbing and physical violence respectively within the past 12 months. Nurses working in inpatient departments were 4 times more likely to experience workplace violence than those who did not (AOR=4.326, 95% C.I., 1.594, 11.739. Clients who wait long for service above the recommended time were 3 times more likely to create workplace violence than those who did not (AOR=2.960, 95% C.I.1.214, 7.217). **Conclusion and recommendation**: Most of the nurses (82.8%) have experienced workplace violence in the last 12 months. However majority of them (83.9%) did not report the incidents of workplace violence.
Keywords: prevalence, predictors, workplace violence, nurses, referral hospitals, Ethiopia

Introduction

Violence can be defined as any form of negative behavior or action in the relation between two or more people. Violence manifests itself both in the form of physical and psychological violence. It ranges from physical attacks to verbal insults, bullying, mobbing, and harassment, including sexual and racial harassment (1).

Work related violence includes any activities associated with the physical force or emotional abuse against an employee resulting in physical or emotional injuries and its consequences. Besides physical assault, violence includes non-physical forms of violence, including threat, Sexual harassment, and Verbal Abuse. Physical assault occurs when one is hit, slapped, kicked, pushed, choked, grabbed, sexually assaulted, or otherwise subjected to physical contact intended to injure or harm. A threat occurs when someone uses words, gestures, or actions with the intent of intimidating, frightening, or harming. Sexual harassment occurs when one experiences any type of unwelcome sexual actions that create a hostile work environment. Verbal Abuse occurs when another person yells or swears, engages in name calling, or uses other words intended to control or hurt (2).

Workplace violence affects a millions of people throughout world and it is a major source of inequality, discrimination, stigmatization and conflict at the workplace. Violence causes immediate and often long-term disruption to interpersonal relationships, the organization of work and the overall working environment (3). The negative consequences of such widespread violence impact heavily on the delivery of health care services, which could include deterioration in the quality of care provided to the clients and the decision by health workers to leave the health care professions (4).

Even though work place violence affects all sectors and all categories of workers, the health sector is at a major risk for work place violence and constitutes almost one fourth of all violence at work. Among the health sector, nurses are the more likely to experience abusive workplace violence as working conditions. In Ethiopia, absence of nursing job descriptions, standards of care, understaffing and crowd waiting for the care put pressure on the nurses, and force them to work in a stressful work environment. In these conditions the nurses find themselves many times in the cross fire of patients, physicians, other health-care personnel and patients' relatives (5).

Study conducted in Turkey and to assess Nurses' Experiences of Work place violence had showed that majority of nurses 79.4% had faced VA in the last year. The most commonly reported types of abuse were: judging and criticizing 66.25%, accusing and blaming 43.5%, abusive anger 53.9%, discounting 10.4%, condescending 16.7%, ignoring 19.0%, trivializing 8.9%, threatening 10.4%, abuse disguised as jokes 4.8%, and blocking and diverting 3.7%. In Turkey the nurses with the highest percentage of VA experiences worked in the

inpatient units (55.4%), followed by special units (i.e., ICU, OR, and ED; 25.7%) and outpatient units (19.0%). Nurses who worked in outpatient units had reported more VA incidents compared to nurses who worked in inpatient units and nurses who worked in special units. The majority of the nurses were verbally abused by patients' relatives (72.9%), followed by patients (63.9%), physicians (49.1%), coworkers (25.7%), and head nurse/supervisor nurse (3.7%). Reasons given for WPV were as follows: unknown (44.2%), illness/confusion (115; 42.8%), misunderstanding (39.4%), and personal problem of perpetrator (35.3%), and other (3.0%). About 70.3% of the respondents reported that they were on the day shift. When they experienced VA, (23.8%) were on the evening shift, and (5.9%) were on the midnight shift. It was found that there was a relationship between the education status of the nurses and experience of VA. Nurses who were aged ≥ 35 years had experienced more VA incidents compared to those nurses who were aged below 35 years (6).

Another study conducted in Turkey the prevalence of VA was found to be as high as 91.1% while physical abuse prevalence was about 33.0%. About 91.1% of the nurses reported they were abused either verbally or physically, 32.8% were abused both verbally and physically. 'Yell or shout at' was reported as the most frequently used verbally abusive behavior by abuse sources, and this was followed by 'behave in inappropriate way', 'belittle or humiliate', and other abusive behaviors. Verbally abused nurses reported that they were abused more by their colleagues (80.6%), patients (76.9%), and physicians (73.0%). Physically abused nurses stated that patients' relatives (70.2%) and patients (61.5%) were the source of abusing them more frequently. Threatening the nurses with physical harm was the most frequently reported physically abusive behavior. About 54 nurses reported that they were harmed physically by patients (7-8).

In Australia a descriptive, longitudinal cohort design study of Violence towards ED nurses by patients had showed that a total of (53%) episodes of VA and (26%) episodes of both verbal and PV were reported. About (79%) of nurses reported incidents of violence. Being sworn at was the most common form of VA whilst being pushed was the most common form of PV. Nurses who reported both verbal and PV most frequently described being sworn at and pushed. In Australia ED nurses the evening shift was when most violence of all types was reported, while the day shift was when least violence was reported. The majority of ED nurses who reported violence were in their mid -30s, female, relatively experienced. VA was most often reported in the triage area. Both physical and verbal violence occurred most frequently in the accident and triage areas. Over half of all types of violence involved patients who had prolonged waiting times as evidenced by a wait in excess of that recommended. Alcohol and drug use were involved in the violent incident. Nurses reported that demanding behavior and requesting attention 44% was involved in verbal as well as verbal and PV (9).

Another study in Taiwan showed that age below 30 years were associated with verbal violence. PV was associated with a bachelor's degree, while bullying was associated with a high level of anxiety. Night work shift increased the odds of experiencing SH(10).

In Thailand, patients and their relatives were the main perpetrators of verbal and physical abuse. Nurses who experienced violence could determine the potential cause of the violence and only 4% could not. Miscommunication, anger, emergency situation, anxiety, and symptoms of illness were the most common causes of VA whereas patients' illnesses and alcohol or drug use were the most common causes of PV. Older age had decreased odds of experiencing VA. Training related to violence prevention and control could decrease odds of experiencing VA by approximately 40%. High risk wards, outpatient unit, trauma and ED, OR, medical and surgical unit, increased the risk of verbal violence by 80% (11).

Although different findings show high figure of workplace violence and data from developing nations are virtually non-existent, and the level of violence against nurses/healthcare workers in these countries is largely un-documented. Similarly in our country; Ethiopia there is no documented data pertaining to workplace violence. Thus this study will help to fill the gap and provide evidence based information on the magnitude of WPV and contributing factors in referral hospitals of Oromia region to design various strategies to decrease the problems.

Methodology

Study Area and period

The study was conducted in four referral hospitals of Oromia Regional State of Ethiopia from February 1st to 20, 2012. Oromia region is the central part of Ethiopia which has 18 zonal administratives. Currently in Oromia region there are **55** hospitals: Two specialized-teaching university hospitals, two Military hospitals, four referral hospitals (Tertiary level, regional), ten zonal (secondary level) hospitals, twenty-two district (primary level) hospitals, eight NGO hospitals, and six private hospitals. The four referral hospitals of Oromia region are: Adama referral hospital from East shoa, Shashemene referral hospital from west Arsi, Nekemte referral hospital from East Wellega, and Metu-Karil referral hospital from Ilu Abba Bora zone. The total numbers of nurses have been working in the four referral hospitals of Oromia were **400** (ORHB 2011/2012, 6th month hospitals performance report).

Study Design

Institution based cross-sectional study design that incorporates both quantitative and qualitative method was

conducted.

Population

Source population

All nurses working in referral hospitals of Oromia Regional State, Ethiopia (the 4 hospitals)

Study population

For quantitative study

Selected nurses from referral hospitals of Oromia regional state that fulfill the inclusion criteria constituted the study population.

For Qualitative study

Purposively selected matrons, head nurses and staff nurses of the four referral hospitals

Inclusion and Exclusion criteria

Inclusion criteria: Nurses who have worked for at least the past 12 months in the hospitals

Exclusion criteria: Nurses who are not directly involved in patients care

Sample size determination and sampling technique

Sample size determination

For quantitative part of study

The study used the single population proportion sample size determination formula. Since similar study on work place violence in the region as well as in Ethiopia was not found, in order to obtain optimum sample size, calculation was done using the assumption of proportion (**p**) of work place violence against nurses was 50%, with 95% CI, and 5% marginal error (where **n** is desired sample size, **Z** is value of standard normal variable at 95% confidence interval and, **p** is maximum expected proportion which is 50% and **d** is marginal error which is 5%).

$$\mathbf{n = \frac{Z^2 \alpha/2\ P\ (1-P)}{d^2} = \frac{(1.96)^2 * 0.5 * 0.5}{(0.05)^2}}$$

Therefore the value of **n=384**

Since the total numbers of nurses in the four referral hospitals were less than <10, 000, **(N= 400)** using correction formula for finite population:

$$nf = \frac{n}{1+\frac{n}{N}} \qquad nf = \frac{384}{1+\frac{384}{400}} = \mathbf{195}$$

And adding 10% for non-response rate (20), the final sample size became **nf= 215**

Where '**N'** is the total study population of the four hospitals and '**nf'** is the final sample size.

For qualitative part of the study

Saturation of data (redundancy of ideas by in-depth interview) from those key informants who were not involved in quantitative study determined the sample size of the qualitative part of study. Eleven nurses from different departments with different position were participated in in-depth interview of qualitative study.

Sampling technique
For quantitative part of the study

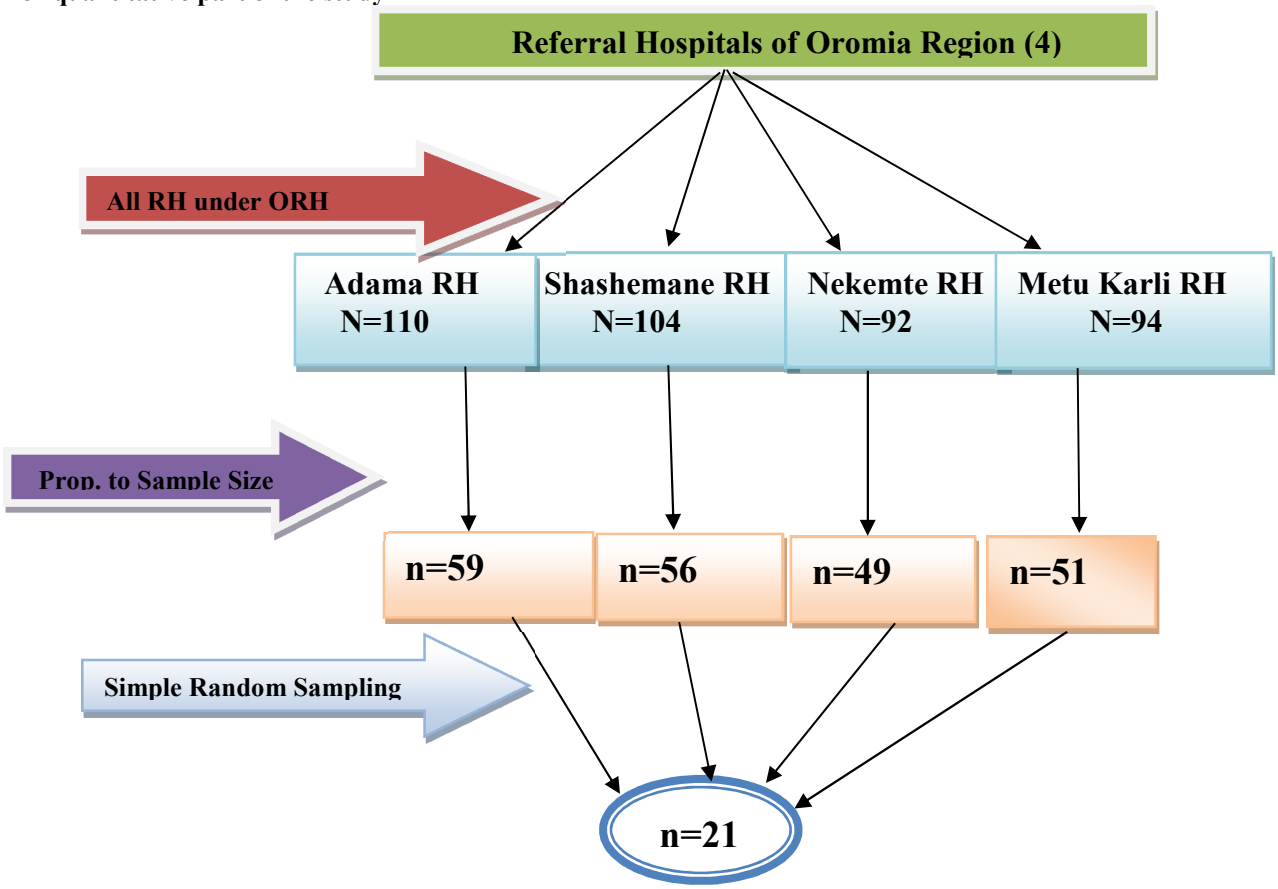

Figure 1. Schematic presentation of sampling procedure for the quantitative study of nurses in Referral hospitals of Oromia, Ethiopia, Feb., 2012

For qualitative part of the study
Purposively selected nursing directors (matrons), head nurses and selected staff nurses who have better knowledge about their workplace and has worked at least in all client service departments of the hospitals were participated in the in-depth interview of qualitative study.

Variables and Measurement
Variables
Dependent variable:
- ✓ Work-place violence (WPV)

Independent variables:
1. **Socio-demographic factors*:***
- ✓ Gender,
- ✓ Age,
- ✓ Ethnicity,
- ✓ Religion,
- ✓ Marital Status,
- ✓ Educational Level,
- ✓ Work Experience.

2. **Organizational factors**:
- ✓ Working hour/Shift,
- ✓ Working unit,
- ✓ Long waiting time,
- ✓ Lack of workplace health and safety training,
- ✓ Lack of prescribed drugs,
- ✓ Not reporting violent incidents

- ✓ Lack of security measures,(guards)

3. **Perpetrator factors:**

- ✓ Under the influence of alcohol,
- ✓ Mental illness,
- ✓ Stressful emergency situation,
- ✓ Role misconception , Misunderstanding

Data collection instrument and procedure

For Quantitative study

The self administered questionnaire used in this study was based on a literature review and modified questionnaire of 'WPV in the Healthcare Sector' developed by the 'Joint Programme on WPV in the Health Sector by ILO/ICN/WHO/PSI' and American Emergency Nurses Association (ENA) instrument (5,12). The information gathered by the questionnaire was based on 12 months experience of the respondents prior to the study.

For Qualitative study

Semi-structured interview guide was prepared and the interview was conducted by data collectors and supervisors. The interview was tape recorded and note was taken by the supervisor to catch the discussion points.

Data Quality Control

The quality of the data was assured by using validated questionnaire which was previously developed and used by ICN/WHO/PSI/ILO and American ENA. The questionnaire was prepared in English since the populations of the study are health professionals with diploma and degree level. Unusual words were given Amharic translation within brackets.

Since the instruments are adapted in our context from previously used instruments and after reviewing similar literatures it was pre-tested on similar population. The questionnaire was tested on 5% of the total sample at Asella referral hospital. The questions was checked for clarity, completeness, consistency, and setting of time required to conduct the study, than the questions which posed difficulty or unclear were rephrased and corrected. The audio taped interviews were transcribed into hand written English transcript. Finally the qualitative findings were triangulated with quantitative findings.

Four diploma clinical nurses for data collection and four BSc nurses for supervision were recruited and participated throughout the data collection. Data collectors and the supervisor were trained for one day by the principal investigator on the study instrument, consent form, how to interview and data collection procedure.

Data processing & analysis

For quantitative data

After data collection, each questionnaire was checked for completeness and code was given before data entry. Data was entered and cleaned for missed values and analyzed using SPSS version 16 statistical packages. Binary logistic regression was performed to see the existence of association between workplace violence and independent variables. Then those independent variables which were significantly associated with workplace violence in binary logistic regression analyses with a *P*-value <0.05 were included in the multiple logistic regression analysis to identify the independent predictors of workplace violence. Finally odds ratio with its p-value and confidence interval of those independent variables that maintain their association with outcome variable (WPV) in multiple logistic regression model were reported. Different frequency tables and descriptive summary were used to describe the study variables.

For Qualitative data

After in-depth interview, the data was transcribed word by word into the local language and then translated into English language. Then similar responses were grouped and summarized based on thematic area or the key variables of the study. Finally results of the qualitative study were presented in narration and triangulated with the quantitative results.

Ethical Consideration

Permission to undertake this study was obtained from Health Research and Postgraduate coordinating office, College of Public Health and Medical Sciences, Jimma University, and permission letter was submitted to the four hospitals. Verbal and written consents were obtained from the study subjects after explaining the study objectives and procedures and their right to refuse to participate in the study and discontinuing at any time they want was respected. For this very purpose, a one-page consent letter was attached to the cover-page of each questionnaire stating about the general purpose of the study and issues of confidentiality which was discussed by data collectors before filling the questionnaire and proceeding with the interview.

Dissemination plan

The results of this study were presented to Jimma University, department of Nursing and Midwifery. It will also be communicated to the four referral hospitals of Oromia, to their respective administrative health office, ORHB and other concerned bodies through report. Furthermore, efforts will be made to publish the findings on local, national and international peer reviewed journals.

Operational Definitions

Physical Violence (PV): when a nurse experienced any of beating, kicking, slapping, stabbing, shooting, pushing, biting, Spit on and/or pinching, from others.

Verbal abuse: when a nurse experienced sworn or cursed at, yelled or shouted at, threaten

Sexual harassment (SH): when a nurse experienced any type of unwanted, unreciprocated and unwelcome behavior of a sexual nature(words or actions) such as physical contacts or verbal comments, jokes, questions, and suggestions which is offensive to the person, that create a hostile work environment.

Sexual violence (SV) –includes attempted rape and/or performed rape with sexual harassment.

Bullying/ mobbing*:* when a nurse experienced repeated and persistent offensive behavior through vindictive, cruel, or malicious attempts ***to humiliate or undermine*** him/her.

Workplace Violence: when a nurse had experienced physical and/or emotional WPVs (VA, SH, BM) within the previous year. This may be: an experience of physical WPV only, psychological WPV only, and/or both physical and psychological WPV within the previous year (8)**.**

Perpetrator: One who commits an offense or crime to the nurse; he/she may be patient/patients relative/non-family visitor and/or other coworker.

Long waiting time for service: when clients wait for service more than 2 hours, the maximum time that is recommended by business process re-engineering (BPR) from triaging to pharmacy department.

Results

Socio-demographic characteristics of the respondents

Out of the total 215 participants, 203 of them were participated in the study making response rate of 94.4%.From the total study participants about 115(56.7%) of the respondents were female nurses. Their mean age was 32.9(±7.98) years. The educational level of most study participants were diploma which accounts 157 (77.3%) and \their mean work experience were 10.344 (±7.88) years. Among the study participants 91(44.8%) of the participants were Orthodox Christian followers and about 143 (70.4%) of the study participants were from Oromo ethnic group. Regarding the marital status of the participants, 122(60.1%) were married and followed by 68(33.5%) and 11(5.4%) were single and divorced respectively **(Table1).**

Table 4. Socio-demographic characteristics of nurses at the referral hospitals of Oromia region, Ethiopia, Feb., 2011, (n=203).

S.N	Socio-demographic characteristics(n=203)	Frequency	
		Number	Percentage (%)
1	**Gender**		
	Female	115	56.7
	Male	88	43.3
2	Age-M=32.9(±7.98)		
	<30	110	54.2
	30-44	74	36.4
	>44	19	9.4
3	**Religion**		
	Orthodox	91	44.8
	Protestants	72	35.5
	Muslim	30	14.8
	Others*	10	4.9
4	**Ethnicity**		
	Oromo	143	70.4
	Amahara	41	20.2
	Gurage	10	4.9
	Others**	9	4.4
5	**Marital Status**		
	Single	70	34.5
	Married	122	60.1
	Divorced	11	5.4
	Widowed	0	0
	Separated	0	0
6	**Educational level**		
	Diploma	157	77.3
	BSc degree	46	22.7
7	**Work experiences**-M=10.344 (±7.88)		
	1-4	51	25.1
	5-9	65	32.0
	10-14	40	19.7
	>14	47	23.2

*= Catholics, Wakefata, Adventist, ** = Tigre, Sumale, Walayita

Magnitude of Workplace violence and forms of violence

From the total participants of the study about 168(82.8%) of the respondents reported that they have experienced workplace violence during the previous 12 months period and regarding the frequency of the violent incidents among the victims, 38.7% reported that they had been experienced violent incidents several times a month, 9.5% were experienced five to nine times, 32.7% were at least two to four times, 10.1% once, 5.4% daily and 3.6% about once a week in the last year. Respondents were also asked to signify the violent incident(s) (could be more than one) of different forms of workplace violence. Majority of the respondents reported that they were called-names (67.3%), shouted at (46.3%), threatened (40.1%) and cursed at(29.6%); which indicates that most of the nurses 166(81.8%) have experienced verbal abuse form of workplace violence and regarding physical violence, the most violent incidents experienced by nurses were: pushed (50%), grabbed/pulled (35.4%), and spit on (25%) **(Table 2).**

Table 5. Prevalence of the different forms of workplace violence against nurses in referral hospitals of Oromia region, Feb., 2012, (n=203).

SN.	**Forms of WPV**	**Frequency No (%)**	
		YES	NO
1	Verbal abuse	**166(81.8%)**	37(18.2%)
2	Sexual harassment	20(9.9%)	183(90.1%)
3	Bullying/Mobbing	96(47.3%)	107(52.7%)
4	Physical violence	47(23.2%)	156(76.8%)

This was supported by qualitative result that the majority of the respondents reported that being called names, shouted at; threat was the most commonly experienced events by nurses. For instance ,34 years old nursing director said that, *"Since nurses are frontline workers for 24hours and 7 days a week we are often subjected to numerous forms of emotional abuse by patients and others.''*

Respondents who have experienced workplace violence in the last 12 months were asked whether they had reported the incidents or not, 27(16.1%) of them stated that they had reported the incident, but 141 (83.9%) nurses had not reported it to the concerned body. Those who did not report where asked to give their reasons for not reporting the incident(s), 49(39.2%) of the participants stated that violence is part of the job and followed by no severe /visible injury 43(34.4%), fear of retaliation from hospital management 23(18.4%), no such reports before 20(16%), and perceived as sign of incompetence 3(2.4%).

This was supported by qualitative data that the majority of the respondents did not report workplace violence incidents and most listed barriers to reporting violent incidents were the perception that 'violence is part of job' and/or no visible injury were described in detail.

One nursing director said that, *"A lot of nurses feel being assaulted verbally and physically is part of the job, which is unfortunate. They don't see it as a reportable incident. It's more paperwork. They're there to deal with the patient.''*

For instance one, key informant said that, *"As a psychiatric nurse, I have always dealt with aggressive and/or assaultive patients. People seem to think that is "just part of the practice" but I disagree. Nurses, no matter where they work, should not be targets for abuse. A large percentage of the violence goes unreported, thus leading to unpunished behavior and lower job satisfaction."*

Respondents were asked to signify the perpetrator(s) (could be more than one) of WPV. Majority of the respondents 123(65.8**%)** indicated that a patient's relative as perpetrator, followed by the patients 90(48.1**%)** and non-family visitor 66 (35.3%) **(Table 3).**

Table 3. Perpetrators identified by respondents for workplace violence against nurses in referral hospitals of Oromia region, Ethiopia, Feb., 2012, (n=203).

S.No.	Perpetrator	Number	percentage
1	Relatives of patient/clients	**123**	**65.8**
2	Patient/client	90	48.1
3	Non-family visitor	66	35.3
4	Other physician	24	12.8
5	Manager/supervisor	19	10.2
6	Medical director	14	7.5
7	Dep't/head nurse	10	5.3
8	Other nurse	10	5.3
9	Nursing director (matron)	9	4.8
10	Other staff*	8	4.3
	Total	373	199.5

*Other staffs=druggists, pharmacists, lab. Technicians and anesthesiologists

Respondents were probed for their opinion to specify some of the reasons they believed workplace violence might take place. Given that multiple responses were possible, long waiting time for service above the

recommended time (65.8%), misunderstanding (53.5%), stressful emergency situation (42.8%), and influence of alcohol (38.5%) were the major contributing factors for workplace violence against nurses (Figure 3).

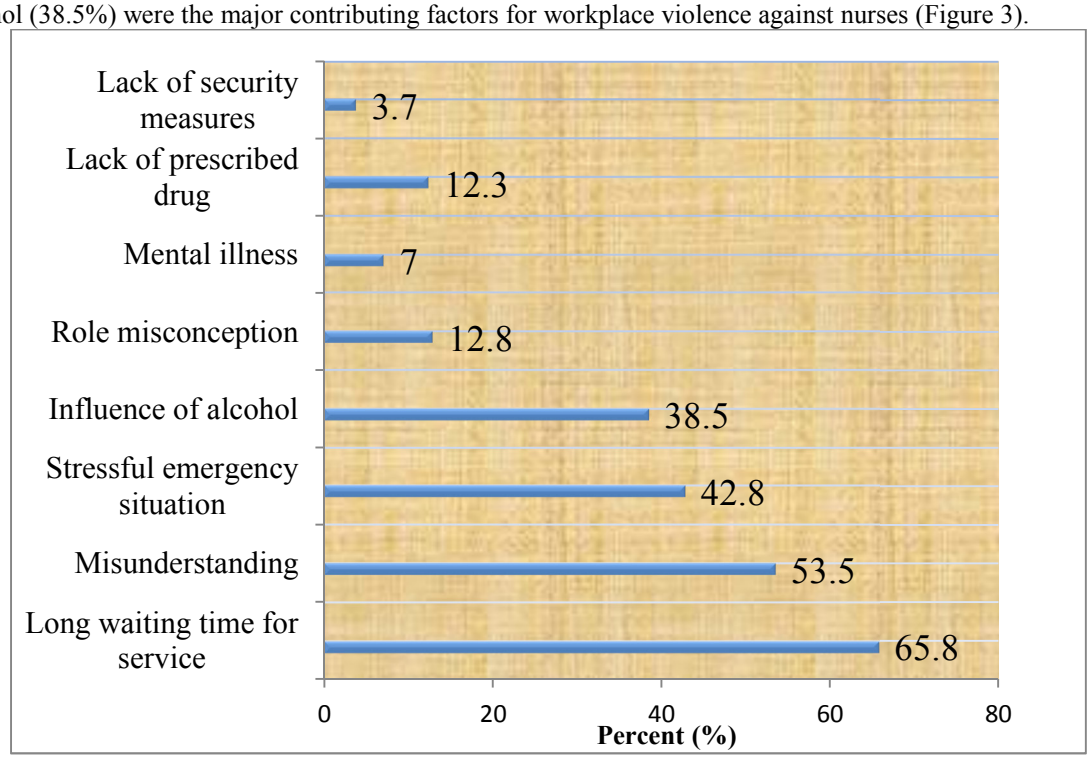

Figure 2: Contributing factors that respondents believed for occurrences of workplace violence against nurses in referral hospitals of Oromia region, Ethiopia, Feb., 2012, (n=203).

This is supported by qualitative data that the majority of the interviewed subjects mentioned that the major contributing factors was patients' long waiting time for service.

For instance, one key informant said that, *"...Some patients want to be able to pop in and get what they need immediately, when the emergency department has to see the sickest patients first, there are many clients who have unrealistic expectations they can get whatever they want immediately, and it isn't a reality..."*

Factors associated with Workplace violence

The socio-demographic data of study participants, perpetrator factors and organizational factors were analyzed first with binary logistic regression model then those variables which were significantly associated with workplace violence at a P-value <0.05 in binary logistic regression analysis were included in multiple logistic regression analysis to identify the independent predictors of workplace violence. Then age less than 30 (AOR=4.165, 95% C.I., 1.149, 15.099) and age between 30-34 years (AOR=4.060, 95% C.I. 1.009, 16.341), long waiting for service (AOR=2.960, 95% C.I.1.214, 7.214), ward (AOR=4.326, 95% C.I., 1.594, 11.739) and regular working hour (AOR=4.490, 95% C.I., 1.832, 11.004) have retained their association with workplace violence in multiple logistic regression analysis **(Table 4).**

Table 4. Multiple logistic regression analysis of socio-demographic factors and other variables associated with workplace violence against nurses at referral hospitals of Oromia region, Ethiopia, Feb., 2012, (n=203).

SN	Variables		Workplace violence		COR (95% C.I.)	Adjusted OR (95% C.I.)	P-Value
			Yes	No			
1	**Age**						
		<30	92 (83.6%)	18(16.4%)	*2.981(1.033, 8.608)*	4.165 (1.149, 15.099)	0.030
		30-44	64(86.5%)	10(13.5%)	*3.733(1.187, 11.742)*	4.060 (1.009, 16.341)	0.049
		>44	12(63.2%)	7(36.8%)	1	1.00	
2	**Long waiting time (>2hrs)**	Yes	112 (91%)	11(9%)	*4.364(1.995,9.542)*	2.960 (1.214, 7.217)	0.017
		No	56(70%)	24(30%)	1	1.00	
3	**Ward/ Inpatient unit**	Yes	96(93.2%)	7(6.8%)	5.333 (2.206, 12.894)	4.326 (1.594, 11.739)	0.004
		No	72(72%)	28(28%)	1	1.00	
4	**Working shift/time**						
	Regular working hrs		127(90.1%)	14(8.9%)	*4.646(2.168,9.959)*	4.490 (1.832,11.004)	
	Night shift		41(66.1%)	21(43.9%)	1	1.00	0.001

Discussion

In this study, the majority of respondents 168 (82.8%) had history of workplace violence within the past 12 months, which was consistent with the study finding in Turkey about 80% of the nurses had reported WPV in the last 12 months(6). The prevalence of verbal abuse/violence and physical violence for this study was 81.8% and 23.2% respectively. This finding was lower than the study conducted in Turkey, which was 91.1% and 33% of the respondents had got verbal abuse and physical violence respectively. But the finding was higher than the study conducted in Egypt, which was 69.5% and 9.3% had got verbal and physical violence respectively (8,10). This might be due to the difference in sample size and the setup of study population.

Sexual harassment was scarcely reported in this study 20 (9.9%).This was similar to the study conducted in New Zealand (11%) and Taiwan (12.9%) but higher than the study finding of Thailand (2%) (12,14).This may be due to the legal awareness of sexual issues in these countries.

The major perpetuators of workplace violence were patients' relatives 123 (65.8%), which was similar with the study done in Turkey, in which the majority of respondents were verbally abused by patients' relatives (72.9%), followed by patients (63.9%) and physicians (49.1%) (6). Most of the contributing factors for workplace violence mentioned by nurses were long waiting time for service (65.5%) and misunderstanding (53.5%) which was similar to the study done in Turkey, America and Australia (6,9,15).

This study identified factors associated to workplace violence (age of nurses, long waiting time for service, misunderstanding, inpatient department and regular working hour were increased the risk of workplace violence which was in line with some studies conducted in different parties of the world (3,7,10,11,15).

Previous study done in Thailand and Iraq had showed that training related to violence prevention and control could decrease odds of experiencing VA by approximately 40% (13).In this study training on workplace violence was not significantly associated, this is may be due to that those who have reported taking training were few in numbers and were in comparable.

Conclusion and Recommendations

This study showed that the prevalence of workplace violence was high among the respondents. The prevalence of verbal abuse was three times higher than that of physical violence and patients' relatives were the most perpetrator of workplace violence. Almost all of the respondents have not taken training related to workplace violence safety and the incidence of workplace violence was never reported to the responsible body. The respondent's age, long waiting time for the service, working inpatient department (ward) and regular working hours were identified as the independent predictors for workplace violence.

Based on the findings of the study the respective health office should give training for all health professionals on workplace safety and how to report workplace incidents in order to take appropriate action. Nurses working in the ward area should get special attention in order to reduce the incidence of violence against them. Furthermore, large-scale studies should be conducted for more closely examining the problem.

References

1. ILO / ICN / WHO / PSI. Framework Guidelines for Addressing Workplace Violence in the Health Sector Training Manual. 2005. available from: www.ilo.org/wcmsp5/groups/public -ed protect/---protrav/...accessed Dec. 2011
2. Gerberich, Church, McGov ern, et al. An Epidemiological Study of the Magnitude and Consequences of Work Related Violence: The Minnesota Nurses' Study. Occup Environ Med. 2004;61:495–503.
3. Hahn S, Müller M, Needham I, Dassen T, Kok G, Halfens RJ. Measuring Patient and Visitor Violence in General Hospitals: Feasibility of the Soves-G-R, Internal Consistency and Construct Validity of the Poas-S and the Pois. Journal of Clinical Nursing. 2011;20(17-18):2519–30.
4. Guidelines on Workplace Violence in the Health Sector: Comparison of Major Known National Guidelines and Strategies: United Kingdom, Australia, Sweden, USA (OSHA and California) | HRH Global Resource Center. [cited 2011 Oct 30].
5. ILO/ICN/WHO/PSI. Workplace Violence in the Health Sector Country Case Studies Research Instruments Survey Questionnaire English. 2003. available from: http://www.who.int/entity/violence_injuryprevention/violence/interpersonal/en/WVquestionnaire
6. Sezer Kisa. Turkish Nurses' Experiences of Verbal Abuse at Work. Archives of Psychiatric Nursing. 2008;22:200–7.
7. S. S¸. Çelik et al. Verbal and Physical Abuse Against Nurses in Turkey. International Nursing Review. 2007;54:359–66.
8. Moylan LB, Cullinan M. Frequency of Assault and Severity of Injury of Psychiatric Nurses in Relation to the Nurses' Decision to Restrain. Journal of Psychiatric and Mental Health Nursing. 2011; 18(6):526–34.
9. J. Crilly et al. Violence Towards Emergency Department Nurses by Patients. Nov 20;2003
10. Esmaeilpour M, Salsali M, Ahmadi F. Workplace Violence Against Iranian Nurses Working in

Emergency Department. International Nursing Review. 2011 Mar;58(1):130–7.
11. Franz S, Zeh A, Schablon A, Kuhnert S, Nienhaus A. Aggression and Violence Against Health Care Workers in Germany - a Cross Sectional Retrospective Survey. BMC Health Services Research. 2010;10(1):51.
12. Hsiang-Chu Pai and Sheuan Lee. Risk Factors for Workplace Violence in Clinical Registered Nurses in Taiwan. J Clinical Nurse. 2011; 20:1405–12.
13. F. Fawzi et al. Workplace Violence Among Iraqi Hospital Nuring. Journal of Nursing Scholarship. 2007;39(3):281–8.
14. MCKENNA ET AL. A Survey of Threats and Violent Behavior by Patients against Registered Nurses in Their First Year of Practice. Int J Mental Health Nurse. 2003.
15. JONA. Violence Against Nurses Working in US Emergency Departments 2009; 39, (7/8,):340–9.