Verbal Abuse and Coping Behaviors Directed to Operating Room Nursing Staff at University Hospitals

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Abstract: Verbal abuse is a most common form of workplace violence in the operating room settings. It affects operating room nurses personally and professionally. Such effects have a major implication for nursing profession in term of retention, satisfaction, and quality of care. So, the occurrence of verbal abuse depends on a great extent of coping behaviors among nurses working in the operating room environment. Thus this study aimed to determine the relationship between verbal abuse and coping behaviors directed at operating room nursing staff at university hospitals. This study was conducted in all operating room (n = 65) in five major governmental hospitals affiliated to University hospitals, Egypt. The subjects consisted of 206 operating room nursing staff categorized into operating room head nurses (n=16) and operating room nurses (n=190) working in the above mentioned settings. The participants completed a questionnaire includes the verbal abuse scale (VAS) , this questionnaire consisted of a five section related to frequency and stressfulness of incidence of verbal abuse , strength of feeling, similarity of thought, severity of long term negative effects, and coping behaviors. The finding of this study shows that 40% of operating room nursing staff reported that they had been abused by surgeons followed by another nurses 27.7%. The average number of reported incidents during the year was at least once a month or less episodes of verbal abuse. Judging and criticizing, abusive anger as well as blocking and diversity were the most frequent and stressful forms of verbal abuse. The most severe, long term effect of verbal abuse was reported to be its impacts on the physical health, relationship with other nurses as well as patient care outcomes. Threatened was the most intense of emotional reactions, indifferent and frustration. In addition the operating room nursing staff identified with a variety of adaptive and maladaptive coping behaviors and rated the similarity and effectiveness of these coping behaviors in responses to verbally abusive episodes. Conclusion, the need of nursing administrators for empowering operating room nurses to develop the formal protocols for adequately supported dealing with and prevent incidence of verbal abuse from surgeons against them. Also, training of nursing personnel is an essential element of effective verbal abuse prevention program.

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1. Introduction:

Verbal abuse has become an alarming phenomenon worldwide. It is increasingly known as serious health problem affecting all personnel of all educational levels [(1)]. Violence does not occur as one single incident, but also may be expressed in repeated small incidents which together create sever harm ranging from physical , psychological harm to permanent disability and even death [(2)] .

Verbal abuse is an insidious common form of workplace violence in today's health care environment that is a major contributor to dissatisfaction and high rates of attrition in nurses [(3)]. The term verbal abuse frequently defined as “any communication a nurse perceives to be a harsh, condemnatory attack upon herself or himself professionally or personally”[(4)]. According to Cook *etal* [(5)], they defined verbal abuse among perioperative nurses as “verbal behaviors that humiliate, degrade, or otherwise indicate a lack of respect for the dignity and worth of another individual". These behaviors include yelling, swearing, verbal insults, and threats of harm. [(5,6)]

The literature reveals that all nurses are susceptible to the threat of verbal abuse episode , regardless of their level and areas of specialties, yet this is particularly true for those at special care units and in operating rooms [(7)]. Araujo and Sofield [(8)] reported that 91.1% of the 1000 operating room registered nurses that they surveyed had been victims of verbal abuse in the course of their nursing career. Moreover, Cook *et.al.*[(5)], in a study of verbal abuse of perioperative nurses reported that 45% of them experiencing verbal abuse once per month or less.

Multiple causes had been identified to spread verbal abuse rapidly in operating room. Among theses causes are surgeons change and/or add procedures or need equipment and supplies without

warning, working with a surgeon, anesthesiologist, or staff member whom she likes or dislikes may mitigate or exacerbate perceived stress, and hospital policy is another element of the environment that can produce stress for the individual nurse [9,10]. Also, operating room nurses can develop interdependency on one another to accomplish their goals. This constant exposure with high acuity situation, long hours, technology, time pressure, and professional expectations may increase stress, leading to verbal abuse situation. Because of the length of time needed to train an OR nurse, many nurses who go through the specialized training choose to remain in the OR for a very long time. This may create difficulty for new, younger nurses who may be seen as a threat to existing staff [10-12].

The operating room setting can be very stressful. A surgical team consists of the anesthesia, a surgeon, a scrub person, and a circulating nurse. The circulating nurse, team members must remain within the sterile area and, therefore, are unable to leave when verbal abuse occurs [12-14]. The incidence of verbal abuse in the OR may be related to changes in the health care delivery system. Mergers, downsizing, and reduced staffing levels have affected the demand for quality, cost-effective patient care [15]. Meeting these demands requires teamwork and harmonious relationships between nurses and physicians. [16]. In addition, it represents as a costly problem for managers of the operating room and administrators if incidents of verbal abuse are not dealt adequately, the consequences can be devastating, not only in terms of the psychological trauma, but also from a professional perspective in term of lowered morale, decreased job satisfaction, altered job performance, and turnover of qualified nurses. [13, 17].

Verbal abuse was recognized as the external, focal stimulus that immediately confronts the nurse to make responses. These responses are categorized in the regulator and cognator subsystems and manifested through adaptive modes of behaviors. The modes of behaviors were measured by response of incidence of verbal abuse, severity of stress, cognitive appraisal of the verbally abusive episode, identification and effectiveness of coping mechanism, emotions, and long –term effects of verbal abuse from physicians [5,11] . Nurses do not need to be victims of verbal abuse. A positive adaptation to verbal abuse would be to use positive coping mechanisms and resources to inactivate the abuser. Administrative policies of the nurse's employer, nursing regulatory bodied, as well as the legal system are social systems that can provide support [11,18] .

Nationally, reviewed literature for studies conducted in Egypt revealed that has been focused on issues concerning workplace violence and job satisfaction [19], prevalence of workplace violence toward health care providers.[20] However, no attempt was made to determine the relationship between verbal abuse and coping behaviors directed at operating room nursing staff working at University Hospitals, Egypt. It is hoped that this study will help nurse managers to reinforce the idea that the nurses have a right to be treated with respect and work in a safe environment. In addition, will give valuable insights to the operating room nursing staff regarding the risk they face in their units and the effective methods to manage and prevent its occurrence.

Aim of the study:

This study aimed to determine the relationship between verbal abuse and coping behaviors directed at operating room nursing staff working at University Hospitals, Egypt.

2. Material and Methods:

Design:

A correctional descriptive research design was utilized for this study.

Settings:

The study was conducted in all operating rooms in five major governmental hospitals affiliated to University Hospitals, Egypt. They were approved to be the setting for study conduction. The study hospitals included twenty four (n=24) operating suites with sixty five operating rooms (n=65) (each suite comprised from 2 to 7 operating rooms).

Subjects:

The subjects solicited for the study consisted of a convenience sample of 206 nursing staff of all educational backgrounds, working in the selected settings and welling to be involved in this study. They were all head nurses (n=16), who have the responsibility for managing the operating room administrative activities, and all nurses (n=190) who have the responsibility of carrying out the manual activities in operating room for patients undergoing surgery. Also, they available at the time of data collection and inclusion criteria included a minimum of one year experience in the current operating rooms.

Tool: verbal abuse scale (VAS)

Verbal abuse scale is self report, retrospective questionnaire developed by Manderin and Banton [21] , since the essential questionnaire was developed in agreement with nurses' working in the surgical environment; it was modified in a manner to be suitable to be used in operating room environment and nurse- nurse abuse. For this purpose, rewording or rephrasing of the statements was done. For

example, the word "operating room head nurse / operating room nurse" was used instead of "head nurse/ nurse", "operating room setting" instead of "Work setting". The questionnaire designed toward reflecting verbal abuse of nurses from others i.e. physicians and nurses during the past year. Verbal Abuse Scale comprises five subscales, and each item was scored on a seven-point Likert-scale. It consists of 60 items categorized into: three parts. Part one measured socio-demographic characteristics of the subjects as, operating room specialty, martial status, age, educational qualification, and years of experience in the O.R etc. Second part measured frequency of verbal abuse incidence and sources among operating room nursing staff. Part three, designed to identify frequency and stressfulness of verbal abuse forms, estimate responses to the verbal abuse in term of strength of feeling (emotional reactions), similarity of thought (cognitive appraisal), severity of long term negative effects, and describe perceived similarity and effectiveness of coping behaviors in handling verbal abuse.

I: Frequency and stressfulness of verbal abuse identifies the incidences of ten (n =10) forms of verbal abuse. These items were rated how often verbal abuse occurs ranging from 0 = repressing never to 6 = repressing every day. In addition, rated how stressful the event of verbal abuse with 0 = representing not at all to 6 = representing extremely stressful.

II: Strength of feeling, measures for emotional reactions in the context of the verbally abuse episodes encounter (n =13 items). The response to each item was assessed ranging from 0 = indicating not at all to 6 = indicating extreme feeling.

III: Similarity of thought, measures nurses' interpretations or cognitive appraisals thoughts through evaluation of personal significance for verbally abusive episodes (n= 11 items). Responses to each items was measured as following 0 = indicating not at all similar to 6 = indicating extremely similar.

V: Severity of long term negative effects describes negative effects caused by past experiences of being verbally abused by others i.e. physicians, nurses (n=13 items). The response items range from 0 = not negative effect at all to 6 = extreme negative effect.

VI: Coping behaviors perceived as effectiveness and similarity in handling verbal abuse during the past year (n =13 items). The responses to perceived similarity of coping behaviors ranged 0= not at all similar to 6 = extremely similar. Also the responses to perceived effectiveness of coping behaviors ranged 0= indicating not at all effective to 6 = indicating extremely effective. The reliability of the essential VAS had been previously established (the overall alpha coefficient ranged from 0.67 to 0.95 was ([21, 22]). For the current questionnaire (VAS), alpha coefficient was ranged from 0.65 to 0.78 alpha coefficients

Methods:

After obtaining the official approvals from the selected settings, the researcher translated the original questionnaire into Arabic. Then submitted to five experts in the filed of the study to be tested for its statements relevance, and accordingly, necessary modification as rewording of a number of statements was done. Reliability for the questionnaire was tested to measure the internal consistency of the sub-items composing each verbal abuse scale using Cronbach alpha coefficient. Consequently, a pilot study was carried out on (10%) of the nursing staff as follow: O.R head nurses (n =2), O.R nurses (n =19) to check, insure the clarity of the statements and estimating time spending for fulfill the questionnaires. The decision was made to conduct the pilot study on those subjects in order not to contaminate the sample. Accordingly, they were excluded from the main study subjects and based on their opinions some statements were rephrased. After obtaining the subjects consent and assuring information confidentiality, they filled the sheets while they were in their work settings. All nursing staff was carefully instructed about the aim of the study were given before the distribution of the questionnaire. Filling the questionnaire consumed about 15-25 minutes to be completed and data collection in two months period from September to the end of November 2010.

Ethical considerations:

A cover letter sent with the questionnaire containing instructions, identifying the research purpose for the study and assure of confidentiality. Emphasizing that the participants were completely voluntary and the respondents would remain anonymous.

Statistical analysis:

After the questionnaire was collected, a codebook was developed to provide numerical results for analysis. Data were reviewed and transferred into a specially designed format to be suitable for computer feeding .A package for the Statistical Package for Social Science software (SPSS version 11.0) was used for statistical analysis of this data. Descriptive measures included frequency, percentage; arithmetic mean and standard deviation were used to measure data. Statistical tests utilized included: Chi-

square (X^2), Student t-test for analysis qualitative variables as well as Cronbach alpha coefficient was calculated to assess the reliability of the questionnaire. Level of significance selected for using this study was ($p<0.05$).

3. Results:

Table 1: shows frequency distribution of operating room head nurses and nurses in relation to their demographic characteristics. It indicated that, the age group of the operating room head nurses and nurses in this study ranged from 40 years old and more (50%, 24.7%, respectively), currently married (68.75%, 62.1%) with 16 years and more of experience (62.5%, 44.7%). The majority of them 87.5% and 86.8% held diploma degree in nursing and were working in general surgery specialty 25% for operating room head nurses as compared to 21.1% of operating room nurses in orthopedic surgery specialty. All operating room head nurses work in morning shift and about nearly half of operating room nurses stay for rotated shifts.

Table (1): Frequency distribution of operating room head nurses and nurses in relation to their demographic characteristics

Demographic Characteristics	O.R H.N (n = 16)		O. R. N (n = 190)		O.R nursing staff (n = 206)	
	NO.	%	NO.	%	NO.	%
Specialty						
General surgery	4	25.00	36	19.00	40	19.43
Thoracic and heart surgery	1	6.25	8	4.20	9	4.37
Urology surgery	1	6.25	9	4.70	10	4.85
Ophthmology surgery	1	6.25	8	4.20	9	4.37
Nero surgery	1	6.25	9	4.70	10	4.85
Maxillofacial surgery	1	6.25	9	4.70	10	4.85
Emergency surgery	1	6.25	6	3.20	7	3.40
Orthopedic surgery	2	12.50	40	21.10	42	20.39
Pediatric surgery	2	12.50	28	14.70	30	14.56
Obstetric surgery	2	12.50	37	19.50	39	18.93
Age (years):						
< 20 –	-	-	22	11.60	22	10.70
20 –<25	-	-	26	13.70	26	12.60
25 –<30	3	18.75	30	15.80	33	16.00
30 –<**35**	2	12.50	32	16.80	34	16.50
35 –<**40**	3	18.75	33	17.40	36	17.50
40 and more	8	50.00	47	24.70	55	26.70
Marital status:						
Single	3	18.75	67	35.30	70	34.00
Married	11	68.75	118	62.10	129	62.60
Divorced	2	12.50	4	2.10	6	2.90
Widow	-	-	1	0.50	1	0.50
Educational level:						
Secondary Technical Nursing School Diploma	14	87.50	165	86.84	179	86.90
Technical Institutes of Health diploma	-	-	16	8.42	16	7.80
Bachelor of Science Degree (BSc N)	2	12.50	9	4.74	11	5.30
Years of experience:						
1– 5	-	-	40	21.10	40	19.40
6 – 10	2	12.50	28	14.70	30	14.60
11 – 15	4	25.00	37	19.50	41	19.90
16 and more	10	62.50	85	44.70	95	46.10
Shift						
Morning	16	100.0	55	28.95	71	34.47
Evening	-	-	28	14.74	28	13.59
Night	-	-	30	15.79	30	14.56
Rotated	-	-	77	40.52	77	37.38

O.R H.N : Operating room head nurses O.R N: Operating room nurses

Table 2: shows incidence, frequency and sources of verbal abuse as distributed by nurses' job categories. It was observed that about one third of operating room nursing staff 35.9% experience verbal abuse among operating room settings and they reported at least once a month or less episode of verbal abuse during the last year. Also operating room head nurses (37.5%) experienced more verbal abuse and reported that they getting verbal abuse several times a month (62.5%) as compared to operating room nurses 35.8% who reported occurrence of verbal abuse once a month or less 34.7%. A statistical significant difference was found between incidence of verbal abuse and nurses' job categories in term of operating room nurses , operating room nursing staff (X^2 = 15.347, and 16.330 <0.05 respectively). Also, between frequency of verbal abuse and nurses' job categories (X^2 = 19.000 p< 0.05, 73.432, and 90.796 p< 0.01 respectively).

Regarding, verbal abuse sources surgeon, surgical nurses as well as anesthesiologist reported to be the most significant identified as abusers to operating room nursing staff (40.3%, 27.7%, and 17.5% respectively). Surgeons are the principal abusers for verbal abuse significantly against operating room head nurses (43.8%) than operating room nurses (40%) while surgical nurses are the abuser for verbal abuse significantly against operating room nurses (28.4%) than operating room head nurses 18.75% (X^2 = 10.250, and 178.863 p < 0.01 respectively).

Table 2: Incidence, frequency and sources of verbal abuse as distributed by nurses' job categories

Verbal abuse variables	O.R H.N (n = 16)		O. R N (n = 190)		Total (n = 206)	
	NO.	%	NO.	%	NO.	%
Incidence of verbal abuse						
Yes	6	37.50	68	35.80	74	35.90
No	10	62.50	122	64.20	132	64.10
X^2	1.000		15.347*		16.330*	
P –Value	0.317		0.000		0.000	
Frequency of verbal abuse						
Never	1	6.20	24	12.60	25	12.10
Once to 6 times	3	18.80	48	25.30	51	24.80
Once a month or less	1	6.20	66	34.70	67	32.50
Several times a month	10	62.50	29	15.30	39	19.00
Once a week	1	6.30	12	6.30	13	6.30
Several times a week	0	0.00	11	5.80	11	5.30
Every day	0	0.00	0	0.00	0	0.00
X^2	19.000*		73.432**		90.796**	
P –Value	0.001		0.000		0.000	
Sources of verbal abuse						
Surgical nurse	3	18.75	54	28.40	57	27.67
Medical nurse	1	6.25	9	4.70	10	4.85
ICU nurse	-	-	2	1.10 0	2	0.97 0
Emergency nurse	1	6.25	11	5.80	12	5.83
Outpatient nurse	1	6.25	5	2.60	6	2.91
Surgeon	7	43.75	76	40.00	83	40.29
Anesthesia	3	18.75	33	17.40	36	17.48
X^2	10.250		178.863**		192.184**	
P –Value	0.068		0.000		0.000	

O.R H.N : Operating room head nurses O.R N: Operating room nurses

* $p \leq 0.05$ at 5% level denotes a significant difference .

** $p \leq 0.01$ at 1% level denotes a highly significant difference .

Corresponding to frequency and stressfulness of verbal abuse forms encountered by nurses' job categories (Table 3), it was observed that, judging ad criticizing followed by abusive anger and blocking and diversity were rated as the highest mean score that mostly frequent occurring forms of verbal abuse directed at operating room nursing staff, head nurses, and nurses (6.28±.98, 6.50±063, 6.26±1.00, 6.22±1.05, 6.44±081, 6.21±1.07, 5.84±1.36, 6.13±1.09, and 5.82±1.38, respectively). While accusing and blaming was the lowest mean score that rated least frequent occurring forms of verbal abuse among them (2.92±1.73, 3.56±1.86, and 2.87±071, respectively). Also, a statistically significant difference was documented between frequency of verbal abuse forms and job categories in term of threatening ($t = -2.25$ $p<0.05$)

Concerning, stressfulness of verbal abuse forms, this table also reflects that trivializing, followed by judging and criticizing as well as abusive anger were the highest mean score as the most stressful forms of verbal abuse among operating room nursing staff, head nurses, and nurses (6.17±1.19, 6.19±1.28, 6.16±1.18, 5.49±1.60, 5.38±1.67, 5.50±1.60, 5.39±1.77, 5.63±1.31, and 5.37±1.80, respectively). On the other hand, discounting as well as accusing and blaming those least likely to occur as stressful forms of verbal abuse with low mean scores among them (3.07±1.28, 3.07±1.27, and 2.69±1.99 respectively). There is no significant difference in this respect.

Table 3: Frequency and stressfulness of verbal abuse forms encountered by nurses' job categories

Forms of verbal abuse	Frequency				Stressfulness			
	O.R Nursing staff				O.R Nursing staff			
	O.R H.N (n = 16)	O. R N (n = 190)	Total (n=206)	t-value	O.R H.N (n = 16)	O. R N (n=190)	Total (n=206)	t-value
	X±SD	X±SD	X±SD		X±SD	X±SD	X±SD	
Abusive anger	6.44±081	6.21±1.07	6.22±1.05	-0.85	5.63±1.31	5.37±1.80	5.39±1.77	0.33
judging and criticizing	6.50±063	6.26±1.00	6.28±.98	-0.95	5.38±1.67	5.50±1.60	5.49±1.60	0.30
Accusing and blaming	3.56±1.86	2.87±071	2.92±1.73	-1.55	2.69±1.99	3.12±2.08	3.09±2.07	0.80
Blocking and diverting	6.13±1.09	5.82±1.38	5.84±1.36	-0.87	4.06±1.98	4.45±2.29	4.42±2.27	0.65
Verbal abuse disguised	3.50±2.31	3.72±2.22	3.70±2.22	0.37	5.19±2.17	4.94±2.11	4.96±2.11	-0.46
Discounting	4.33±2.32	4.88±2.13	4.84±2.14	0.95	3.00±1.41	3.07±1.27	3.07±1.28	0.22
Trivializing	4.56±2.28	4.98±2.07	4.95±2.08	0.78	6.19±1.28	6.16±1.18	6.17±1.19	-0.08
Ignoring	4.31±2.21	4.72±1.97	4.69±1.99	0.79	3.69±2.18	4.27±2.28	4.23±2.27	0.99
Threatening	5.81±1.11	5.11±1.96	5.17±1.92	-2.25*	3.25±2.08	3.07±1.99	3.09±1.99	-0.34
Condescending	4.13±2.09	3.61±2.05	3.65±2.05	-0.97	4.81±2.20	5.33±1.96	5.29±1.98	1.01

* $p \leq 0.05$ at 5% level denotes a significant difference .

Table 4: Presents the strength of feeling, similarity of thoughts, and severity of long-term negative effects as perceived by nurses' job categories. Concerning strength of feeling, it was found that, the most intense emotional reactions from a verbally abuse episodes that have a highest mean score was threatened, followed by indifferent and frustration as reported by operating room nursing staff (6.17±1.30, 6.16±1.26, and 6.14±1.22). On the other hand, shack/ surprise was rated as the lowest mean score that indicates strength of feeling among operating room nursing staff 3.00±1.94. Also, head nurses who engaged in OR had highest mean score of threatened feeling as compared to confusion feeling for nurses those working in OR. A statistically significant difference was found between strength of feeling and nurse' job categories in term of embarrassed / humiliated and threatened ($t = -2.23$, -2.06 $p<0.05$, respectively)

For similarity of thoughts, it was observed that the highest mean scores of cognitive appraisal thought that most frequently interpreted were "I don't deserver this treatment" followed by "this could potentially hurt me" among operating room nursing staff, head nurses and nurses (6.13±1.11, 5.80±1.43, 6.11±1.11, 5.76±1.43, 6.31±1.08, and 6.19±1.38, respectively). While "it must be my fault" is the lowest means score of cognitive appraisal thoughts that less frequently interpreted by operating room nursing staff and nurses (3.79±1.96, and 3.73±1.96 respectively). There is no statistically significant difference in this respect ($p> 0.05$)

The same table shows that, the highest mean scores of physical health followed by relationships with other nurses and patient care outcomes were the most frequently responses to severity of long term negative effects among operating room nursing staff, head nurses and nurses.(6.03±1.30, 5.89±1.25, 5.85±1.31, 6.50±0.82, 6.25±1.00, 6.00±1.55,

5.99±1.33, 5.89±1.27, and 5.85±1.32, respectively) However, trust and support at work was the lowest mean score of the least frequent responses to severity of long term negative effects (4.36±1.90, 4.31±1.70, and 4.36±1.92, respectively). The relationship between severity of long term negative effects and job categories was not statistically significant.

Table 4: Strength of feeling, similarity of thoughts, and severity of long-term negative effects as perceived by nurses' job categories

Variables	O.R H.N (n = 16)	O. R nurses (n = 190)	Total (n = 206)	t-value	p
	X±SD	X±SD	X±SD		
Strength of feeling					
Confusion	5.88±1.31	6.16±1.22	6.14±1.22	0.90	0.37
Anger	5.94±1.48	5.58±1.70	5.61±1.69	-0.82	0.42
Sadness /hurt	5.56±1.63	5.44±1.70	5.45±1.69	-0.28	0.78
Shack / surprise	2.69±1.66	3.03±1.97	3.00±1.94	0.68	0.50
Misunderstood	6.38±1.02	6.07±1.25	6.10±1.24	-0.94	0.35
Shamed	6.06±1.44	5.58±1.64	5.62±1.63	-1.13	0.26
Felt responsible	6.31±1.54	5.57±1.90	5.63±1.88	-1.52	0.13
Embarrassed / humiliated	6.19±1.05	5.31±1.54	5.38±1.52	-2.23*	0.03
Threatened	6.81±0.40	6.12±1.34	6.17±1.30	-2.06*	0.04
Frustration	6.38±1.31	6.13±1.28	6.15±1.28	-0.75	0.46
Indifferent	6.50±0.82	6.13±1.29	6.16±1.26	-1.14	0.26
Intimidated	5.19±2.34	4.54±2.31	4.59±2.31	-1.08	0.28
Fear	5.44±2.37	5.58±1.87	5.57±1.91	0.28	0.78
Similarity of thoughts					
It must be my fault	4.50±1.83	3.73±1.96	3.79±1.96	-1.52	0.13
I don't deserve this treatment	6.31±1.08	6.11±1.11	6.13±1.11	-0.70	0.48
This could potentially hurt me	6.19±1.38	5.76±1.43	5.80±1.43	-1.14	0.26
She has no right to do this	5.19±2.14	4.58±2.11	4.63±2.12	-1.11	0.27
This is no big deal to me	5.19±2.07	5.57±1.60	5.54±1.64	0.89	0.37
What a jerk	4.56±2.00	4.31±2.04	4.33±2.04	-0.49	0.63
This is horrible	4.31±2.12	4.06±1.89	4.08±1.91	-0.51	0.61
I have not done anything wrong	4.94±1.73	4.45±2.00	4.49±1.98	-0.95	0.34
This will get me in trouble	6.00±1.32	5.60±1.30	5.63±1.30	-1.18	0.24
I did something wrong	5.69±1.74	5.59±1.65	5.60±1.65	-0.23	0.82
I can deal with this	5.38±1.96	5.71±1.30	5.68±1.36	0.95	0.34
Severity of long-term negative effects					
Confidence in yourself	5.88±1.54	5.71±1.36	5.72±1.37	-0.47	0.64
Sense of well-being of work	5.88±1.59	5.63±1.53	5.65±1.53	-0.61	0.54
Job satisfaction	4.63±2.22	4.37±1.93	4.39±1.94	-0.50	0.62
Your job performance	4.69±2.27	4.77±1.78	4.77±1.81	0.18	0.86
Trust and support at work	4.31±1.70	4.36±1.92	4.36±1.90	0.10	0.92
Relationships with other nurses	5.94±1.00	5.89±1.27	5.89±1.25	-0.15	0.88
Relationships outside work	5.00±1.93	4.98±1.68	4.99±1.70	-0.04	0.97
Mental health	6.00±1.55	5.44±1.46	5.49±1.47	-1.47	0.15
Physical health	6.50±0.82	5.99±1.33	6.03±1.30	-1.51	0.13
Turnover of nursing staff	4.88±2.31	5.29±1.71	5.26±1.76	0.91	0.37
The nursing shortage	5.56±2.13	5.38±1.70	5.39±1.73	-0.41	0.69
Patient care outcomes	5.94±1.24	5.85±1.32	5.85±1.31	-0.26	0.79
Productivity of work	6.25±1.00	5.51±1.53	5.56±1.51	-1.91	0.06

* $p \leq 0.05$ at 5% level denotes a significant difference .

Similarity and effectiveness of coping behaviours as perceived by nurses' job categories were shown in table 5. The table point out that the most similar coping behaviors perceived by operating room nursing staff, head nurses, and nurses were "I deal directly with the nurse about the abuse" followed by "I engage in positive activities" (5.58±1.50 ,5.94±1.06, 5.55±1.53, 5.81±1.61, 5.81±1.56, and 5.81±1.61 respectively). Whereas "I engage in wishful thinking" was the least frequent similar coping behaviors used for operating room nursing staff, head nurses, and nurses (2.36±1.53, 2.63±0.96, and 2.25±1.48 respectively). Also, there was statistically significant difference among nurses job categories regarding mean scores for ssimilarity of coping behaviours as related to "I ask for assistance /support from others", and "I exercise or do some form of muscle relaxation". (t = -3.54 $p<0.01$, and -1.96 $p<0.05$, respectively).

Correspondingly, it is clear from this table that the highest mean score was for "I ask for assistance /support from others" followed by "I attempt to clarity any misunderstanding the nurse may have" as the most effective coping behaviors among operating room nursing staff, head nurses, and nurses (6.08±1.30, 6.19±1.60, 6.07±1.28, 6.01±1.48, 6.19±1.56, and 6.00±1.47, respectively). On the other hand, they perceived the lowest mean score for "I tend to blame myself" as the least effective coping behaviors (2.38±1.14, 2.44±0.96, and 2.37±1.16, respectively). The nurses' job categories differed statistically and significantly in mean scores for effectiveness of coping behaviors in term of "I deal directly with the nurse about the abuse ", "I ask for assistance /support from others" , and "I talk to myself in a reassuring way" (t = -2.38, 2.12, and -2.31 $p<0.05$ respectively).

Regarding, coping behaviors, table 6 describes the relationship between incidence of verbal abuse and coping behaviors among operating room nursing staff. In order of highest mean score of coping behaviors were "I ask for assistance /support from others" and "I deal directly with the nurse about the abuse" as most similar after verbally abusive events for operating room head nurses as compared to "I engage in positive activities" , and "I deal directly with the nurse about the abuse" for operating room nurses (6.67±0.52, 5.50±1.05, 5.97±1.51, and 5.54±1.64 respectively). Whereas, the lowest mean score was perceived for "I with draw" among operating room head nurses comparing to "I engage in wishful thinking" for operating room nurses as the least similar coping behaviors (2.17±0.41, and 2.31±1.53, respectively). Additionally, there was statistically significant difference between similarity of coping behaviors and incidence of verbal abuse among operating room head nurses as related to "I become silent", "I tend to blame myself", and "I exercise or do some form of muscle relaxation" (t = 2.288, -2.761, and -2.502 $p<0.05$ respectively)

Form this table, it can be noticed that operating room head nurses tend to have significantly higher mean score for" I attempt to clarity any misunderstanding the nurse may have" and I engage in positive activities" as most effective coping behaviors subsequent to a verbally abusive events comparing with "I deal directly with the nurse about the abuse" and "I ask for assistance /support from others" (6.50±0..84, 6.33±1.216.13±1.16, and 6.12±0.99, respectively). Where "I engage in wishful thinking" perceived as the least mean score of effective coping behaviors for both operating room head nurses and nurses (2.67±0..82, and 2.35±1.21).This significance is reflected that there was relationship between mean score of effective coping behaviors and incidence of verbal abuse among head nurses only for "attempt to clarity any misunderstanding the nurse may have" (t = 2.230 $p<0.05$)

4. Discussion:

Verbal abuse in the organizations is a central feature of counter productive work behavior, and workplace activities. It has been argued that verbal abuse is a less extreme, but more widespread form of workplace violence that has been empirically neglected in comparison with the study of physical attacks [(23)].

Generally, this study provides up-to-date survey information on the verbal abuse in Egypt hospitals and reveals an important finding: Nursing staff working in operating room regardless of their position presented an overall perception of verbal abuse incidence at least once a month or fewer episodes during the last year was lower than that agreed upon in relevant literature. This finding is inconsistent with much of the previous research on verbal abuse among operating room nursing staff. They indicated that 91% of perioperative nurses reported experiencing verbal abuse at least once per year. This was apparent by decreased compensation, inexperienced operating room staff members, lack of available resources, and loss of physician autonomy and control, may be factors that create environments where nurses are vulnerable to verbal abuse [(5,11)].

Moreover, the current findings indicated that operating room head nurses experienced more verbal abuse at several times a month as compared to operating room nurses who experience it at once a month or less. A statistical significant difference was found between incidence of verbal abuse and nurses' job categories. Particularly, the current finding can

be justified due to OR head nurses spent much of their time in administrative work with direct contact together with surgeons and anesthesiologist. This result could be contributed to the demands of the management position in which they may not be able to verbalize their anger and frustration than operating room nurses. This finding goes parallel to Buback [24] who view that supervisors of OR personnel are susceptible to verbal abuse because their responsibility for ensuring that OR functions efficiently 24 hours/ day. In this respect Higgins and MacIntosh [25] stated that nurse managers who working in operating rooms feel more verbal abuse than staff nurses.

In the same line with the previous results, it is interesting to notice that operating room nursing staff seems to communicate their verbal abuse in multiple forms. The characteristics of verbal abuse were most frequent and stressful commonly in the form of judging ad criticizing followed by abusive anger, and trivializing encountered by operating room nursing staff. This result is supported by the finding, of Oweis and Diabat [26] surveyed 138 Jordanian nurses who had reported experiencing verbal abuse by physicians. Their results showed that judging and criticizing, accusing and blaming, and abusive anger were the most frequent and severe forms of verbal abuse reported. The result of this study is contradicted with Manderino and Berkey [21] who found that the most frequent and stressful types of verbal abuse encountered by perioperative nurses were abusive anger and condescension. These findings could may be related to the volume of verbal abuse experienced by operating room nursing staff violence has been and continues to be a popular theme in movies, television, and advertising to the extent that violent language and behaviors are embedded in society and thus have become a more common feature of everyday life. In accordance with this finding, Joubert *etal*. [27] found that judging and criticizing and abusive anger is identified as the most frequent and stressful type of abuse among nurses working in operating room settings seems to alienate the nurse and physician collaboration. Furthermore, Smith-Pittman and McKoy[28], Rowe and Sherlock [29]., they stated that extent of violent language and behaviors are embedded in operating room settings due to publicize violence topic in movies and television.

For the sources, the present study indicated that operating room nursing staff experience high risk of being exposed to verbal abuse from surgeons, surgical nurses as well as anesthesiologist as the most significant abusers to them. In addition, Surgeons are the principal abusers for verbal abuse significantly against operating room head nurses as compared to surgical nurses against operating room nurses. This finding was expected, due to the fact that operating room nursing staff was fear of retribution or blame affected their decision to report verbal abuse incidents. Therefore, these reasons support the explanations of acceptance of a culture of verbal abuse in operating room setting. This finding goes in congruence with Harulow.[30] they believed that there is a blame culture, with the actions of nurse victims seen as somehow justifying the circumstances for violence. Another explanation, may be due to the fact that operating room nursing staff in their work deals closely with physicians and surgical nurses under often very difficult and stressful situations, thus increasing their risk of verbal abuse from this source. According to Anderson [17] who found that nurses listed surgeons as the most common source of verbal abuse followed by other nurses. Duncan *etal.*[14] in a study of 6,526 nurses in Alberta, indicated that the verbal abuse was more evenly distributed among different sources, including physicians, co-workers, and other nurses.

Regarding strength of feeling, it was noticed that threatened followed by indifferent and frustration are the highest mean scores of emotional feelings identified by operating room nursing staff in reaction to verbal abuse. A statistically significant was found between strength of feeling and nurses' job categories in term of embarrassed/ humiliated and threatened. These findings can be explained due to nurses' inability to change or reduce the incidence of verbal abuse in operating room settings. Because, they have experience of blame, and responsibility for situations in which they have no control. These finding were supported by Manderino and Berkey [21], identified that most nurses appear to be able to manage their threatened and frustration in a constructive, and effective manner.

Regarding, the highest mean scores of similarity of thoughts, the finding of the present study proved that cognitive appraisal thought that most frequently interpreted were "I don't deserver this treatment" and "this could potentially hurt me" among operating room staff, head nurses and nurses. While the lowest mean score recorded for "it must be my fault" as less frequently interpreted by them. No significant difference among nurses 'job categories and similarity of thought. These findings is consistent with those of Spring, and Stern [31] who explained that "I don't deserver this treatment" was a thought processes most frequently selected and was considered to be adaptive, and interpretations of verbal abuse.This seems to be due to the fact that operating room nurses are not responsible for the verbally abusive behavior and physician may be angry with them so they need to take some kind of

positive action to remedy the problem. In this issue, Manderino and Berkey [21] supported this finding and identified that participants agree in order to the verbal abuse creates an unfavorable image of the physician. Moreover, Diaz and McMillan [32] acknowledged that verbal abuse from physicians was related to the physician's personal and professional problems.

With some specification, this study revealed that physical health followed by relationship with other nurses and patient care outcomes were the most frequently responses to severity of long term negative effects from verbal abuse among operating room nursing staff, head nurses and nurses. However, trust and support at work was the least one. There is no statistically significant difference in this respect. However, this finding is inconsistent with Cameron [13] and Nelson [16] they concluded that long term effects of verbal abuse lead to absenteeism, turnover of staff, and resignations. This is interpreted by the fact that nurses are not receiving any support from upper authority and physicians due to lack of an operating room policy that address the problems of verbal abuse or inappropriate behavior in the work place. Also, nurses identified that a gender factor that exists between them and physicians i.e. between male and female because females are predominates gender employed in nursing. Parallel to this finding, Rosenstein and O'Daniel[33] study found that male physicians believe, they can be over-powered and manipulated therefore, this lead to the explanation of why the prevalence of verbal abuse of nurses remains high.

It is interesting to notice that a significant difference was found between similarity, effectiveness of coping behaviours and nurses' job categories. Positive coping behaviors were identified as the most frequently used behaviors by operating room nursing staff to deal with verbal abuse in term of I deal directly with the nurse about the abuse" followed by "I engage in positive activities" and "I ask for assistance /support from others". While "I engage in wishful thinking" and "I tend to blame myself" were the least frequent similar and effective coping behaviors. Operating room nursing staff indicated that the positive behaviors of coping were much more similar and effective than the negative behaviors. This finding is in agreement with the study of Manderino and Berkey [21] who concluded that nurses selected and identified positive coping behaviors when they experienced verbally abusive episodes. Specifically, the current finding can be justified as nurses become abusive anger to others and controlled this situation by refusing to work with physicians who were critical of their work. Moreover, Pejic [34] described that nurses acquired helplessness and failed to report their experience to verbal abuse when they dealing with difficult physicians.

Based on the previous results, the finding could be attributed to the conclusions that nurses working in operating room had significantly difference between incidence of verbal abuse and coping behaviors. This was apparent that coping behaviors has an impact on the incidence of verbal abuse operating room nurses, experienced at their work. Harulow [35]reported that perioperative nurses select and identify positive, adaptive behaviors as similar and effective when they experience a verbally abusive episode. This may be reflected that positive coping where the nurse was able to redirect the energy from verbal abuse incidents to channel it into effective change. Also, nurses indicated that they being indirectly forced to resign due to verbal abuse, and the expensive potential lawyer fees associated with dealing with it. This is substantiated by Lybecker [36] finding that responding to the stimulus of verbal abuse requires the person to spend more energy to adapt to the focal situation through using positive/ coping behaviors reactions.

5. Conclusion and Recommendation:

Two hundred and six of operating room nursing staff completing the questionnaire; more than one third of them reported experiencing at least once a month or less episode of verbal abuse during the past year in the operating rooms areas. Moreover, they more frequently show evidence of positive methods of coping behaviors in responses to verbally abusive episodes. In response to the marked findings, the following proactive approaches are recommended to facilitate the development of organizational standards, and policies guidelines. This is required to design materials, flyers and picture folders mobilizing for zero tolerance to verbal abuse at the workplace.

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