



Effects Of Low-Cost Violence Prevention Intervention on Perception and Behavior of Patients/Attendants and Healthcare Workers in Emergency Department in a Tertiary-Care Setting in Karachi

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Abstract

Background: Objective of the study was to assess the effect of the intervention on patients/attendant's awareness of their rights and responsibilities, Healthcare Workers (HCWs) experiences on patients/attendant's behavior, and their ability to be responsive to them.

Methods: This Quasi-Experimental Pre-Post-study was conducted in September 2019 to February 2020 at the Emergency department [ED] of a public sector hospital for 6 months. Pamphlets and Posters on the rights and responsibilities of patients/attendants and HCWs and awareness videos were introduced. HCWs were trained on de-escalation skills, communication, information sharing, and improving responsiveness towards patients and attendants. The assessments were done before and after the interventions with a gap of two month. The qualitative aspect was assessed through 12 Focus Group Discussions (FGDs) and thematic analysis was conducted. The effect of intervention on HCWs responsiveness was done using quantitative tools. All HCWs in emergency department (ED) and a total of 200 patients and attendants were interviewed before and after the intervention. Data analysis was done by applying paired T-test (for HCWs) and independent T-test (for patients and attendants).

Results: There was a significant positive difference (<0.001) in the overall score of responsiveness of HCWs as reported by the patients and attendants. Conclusion: The qualitative assessment revealed that interventional training assisted HCWs in better understanding the patient's expectation; however, the patient and attendant educational component was less effective in changing their behavior.

Conclusion: Violence in emergency healthcare settings is inevitable; however, its impact and intensity can be reduced significantly by building the capacity of HCW's in prevention and de-escalation skills. Training on the component of responsiveness related to autonomy, confidentiality, respect, and reduce waiting showed improvement at the end.

Keywords: Perception of patients and attendants, multi-faceted interventions to reduce violence, violence against healthcare providers.

Introduction

Violence in the health sector is characterized as rampant and has become a priority concern around the world (1). The World Health Organization (WHO) defines violence as the "use of intentional force to cause injury, death, psychological damage, impaired development or absence or social deprivation." (2) Patients and visitors identified as common perpetrators of violence in the healthcare sector (3). Almost half of the health care workers (HCWs) undergo violence in an emergency department (ED) (4). The violence phenomenon is continuously sloping upward in the EDs and is widely discussed in the literature (5). Studies conducted in Karachi identified different causes of violence. Behavioral of client and healthcare workers was one of them .i.e. violence after adverse outcome, impatience, and intolerance, high expectations from hospital and habit of creating chaos and concluded that there is need of interventions to prevent violence in healthcare (6, 7). Another nationwide study conducted on the magnitude of violence reported death of a patient (17.6%) as the common cause of physical violence followed by serious condition (16.6%) and delay in care (13.4%) whereas delay in care (16.5%) was the common cause of verbal violence followed by lack of facilities (10%) and misconception about vaccines (8.4%) (8). HCW's perceptions about the good quality of care do not always agree with patient perceptions. To minimize the problem, it is important to understand the nature of violence in the Emergency Department and its risk factors (patient, staff, situational, and interaction factors) and the perceptions of patients and expectations of HCWs towards the patients (9). This study aimed to assess the changes in attitude and behavior of HCWs and patients by the application of multi-faceted low-cost interventions.

Methodology

This Quasi-Experimental Pre-Post mixed-methods study was conducted from Sept 2019 to Feb 2020 on HCWs and patients and attendants of the emergency department of public tertiary care sector teaching hospital in Karachi after approval of ethical review committee. Quasi-Experimental Pre-Post mixed-methods are studies that are products of the pragmatist paradigm and that combine the qualitative and quantitative approaches within different phases of

the research process, previously conducted to evaluate effectiveness of interventions (10, 11). The assessment was carried out one month before the interventions and one month after the intervention. Interventions were Client related and Provider related. Client-related interventions included awareness pamphlets and posters on the rights and responsibilities of patients, attendants, and HCWs and awareness videos educating the patients on two newly installed TV Screens. Provider-related interventions included training on de-escalation skills, communication, information sharing, and improving responsiveness towards patients and attendants.

Quantitative assessment was done through a modified structured questionnaire adapted from WHO on responsiveness towards patients (12). The internal consistency of the responsiveness scale was determined by computing Cronbach's Alpha which was $>.7$. The sample size was calculated through a statulator by assuming that 50% of HCW's will report good responsiveness and a 20% increase would be achieved after the intervention at 80% power and 95% confidence level. All the HCWs in the Emergency department were interviewed about their responsiveness. A total of 200 Pt/attendants were also interviewed on their perceived responsiveness of the HCWs .i.e. 100 before the intervention and 100 after the intervention. Pt and Attendants were independent/different during pre and post intervention phase. Data were analyzed by using SPSS 22 version. The descriptive statistics are reported in frequencies and percentages. The average total score of responsiveness reported by HCWs was compared by using Paired T-test. The total responsiveness score reported by patients was compared using Independent T-Test. P-value < 0.05 was considered significant.

For Qualitative assessment, Participants were recruited purposively for conducting Focus Group Discussions (FGDs). The interview guide was designed and reviewed by an expert (with background of PhD in medical education and wide experience of conducting qualitative studies) and piloted. 30 participants were enrolled in pilot study for quantitative and 1 FGD was done for each of the qualitative objective in pilot study. Overall 12 FGDs (6pre and 6post) were conducted by the authors of this study and each FGD involved 6 to 8 participants. Out of 12 Focus Group Discussions, four FGDs were done with patients and their attendants, and the remaining

eight were carried out with HCWs. Each FGD was recorded and transcribed into English. The data was analyzed by manual thematic content analysis. Coding of transcripts was done by three independent researchers. Based on FGDs with patients and attendants, three major themes and their sub-themes were identified including the perception of their experiences on their rights (respect-related rights, care-related rights, facility-related rights) and responsibilities (towards HCWs and institute) before and after the intervention. Similarly based on FGDs with HCWs, two major themes and their sub-themes were identified including the perception of healthcare workers on behavior-related and care-related experiences before and after the intervention.

Results

Perception of patients and attendants on their rights and responsibilities and their experiences before and after the intervention

Respect Related Rights: These rights were; being treated with gentle behavior, no discrimination, and maintenance of confidentiality. After interventions behavior of HCWs improved but discrimination complaints were reported during both phases. One of the attendants quoted, *"They made us wait long to take receipt, then I gave a reference and things started to happen quickly."*

Care Related Rights: These included being guided properly (referral/information), treated quickly, given proper attention, given a good quality of treatment, and be counseled and assured. Experiences on being guided properly were mixed before and after the intervention. Complain of a lack of proper guidance at the counter, delayed response, and long waiting time was made during both phases. Positive experiences were shared of being given proper attention after the intervention. One of the participants expressed, *"I got a good response from doctors and staff, and they visited our patient on time."* Experiences on the quality of treatment, counseling, and assurance were mixed. While some attendants praised the quality of treatment, during both phases, others expressed their dissatisfaction due to lack of consistency in treatment protocol, Lack of support in shifting the patient, and early discharge of the patient before and after the intervention. In FGDs after the intervention, information sharing on the patient's condition was improved, however, participants complained that they were not involved in treatment-related decisions.

Facility Related Rights: These were seen as access to

free medicines/test, availability of doctors, basic facilities, and cleanliness. There was general dissatisfaction with the availability of doctors and free medicines and tests, and basic facilities during both phases. One such complaint was made in this way, *"One thing which I notice here that there is no senior doctor in the emergency department"*

Responsibilities towards HCWs: Responsibilities were showing respect, follow their instructions and wait for a turn. Experiences on showing respect were mixed. Some stated that attendants misbehave while others shared positive experiences of caring for gender and avoid misbehaving. While sharing the following experiences, one participant showed concern before intervention and stated HCWs are blamed unnecessarily for everything. Post-intervention, few participants expressed that they tried to co-operate with HCWs. One of them said, *"We do whatever they say, no matter we die or live we follow their instruction. I understand the burden of the hospital that's not their fault"*. Impatience to wait for a turn was experienced by participants during both phases. One of them said, *"There are only 5 doctors and so many patients, so we should stay calm rather than misbehave."*

Responsibilities towards Institution: These were following one attendant policy and taking care of the cleanliness and upkeep of the facility. Experiences on following one attendant policy were mixed, i.e. positive and negative experiences before the intervention. No negative experience was reported after the intervention. Similarly, experience in maintaining cleanliness was negative before the intervention and positive after the intervention.

Perception of HCWs on Change in patient and attendant behavior before and after the intervention

Behavior Related Experiences: These were seen as showing patience, behaving politely with HCWs, and controlling emotions. Complaints about impatience to wait, physical and verbal violence were reported in both phases of the study without any mention of a positive experience. In one of the FGD's post-intervention, the doctor complained, *"People here lie on waiting time that it has been half-hour when they have only spent 10 minutes in waiting area."* Mixed Experiences were shared before and after intervention on the behavior. HCW's felt that the majority of patients and attendants showed good behavior whereas high aggression was experienced during acute emergencies in both phases

Care Related Experiences: These were seen as cooperating and the following advice and one attendant policy. Regarding experiences on cooperation and the following advice, the experiences

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shared before the interventions were negative. Post-intervention, some positive experiences were reported, however, there was also a complaint of unnecessarily interfering in the care of the patient. Experiences on following one attendant policy were found to be negative during both phases of the study

Quantitative Results

In quantitative data, the mean age of the HCWs was 34.82 ± 6.4 years. Almost two-thirds (67.7%) of the HCWs were males. Most of the HCWs were paramedics (75.8%) including nurses and technicians while the remaining were doctors. No significant difference was found in age, gender, and education status of patients and attendants before and after the intervention but the slightly higher income was noted in post-intervention participants (Table 1)

The maximum score of the 10 items Likert scale for responsiveness was 40 with each item having a minimum score of 1 and a maximum of 4. There was no significant change ($p=0.238$) in the overall score of responsiveness as reported by HCWs (Table 2) from 36.38 at baseline to 37.09 post-intervention except one item i.e. not discriminating between patients which showed significant improvement ($p=0.017$).

In the interviews with patients and attendants, there was a significant positive difference in the overall score from 27.0 at baseline to 30.90 post-intervention (Table 3). The items that showed significant improvement included being greeted respectfully ($p<0.001$), being listened carefully ($p=0.004$), being explained the condition ($p<0.001$), being involved in decision making ($p=0.001$), being taken consent before the treatment ($p=0.002$), having to wait long ($p=0.004$), being taken care for needs ($p<0.001$) and information kept confidential ($p<0.001$). The other items assessed did not show any significance after the intervention.

Table 1. Descriptive characteristics of HCWs, patients and attendants

Variable	HCWs (n=62)	Patients/Attendants (198)	
		Pre (n=99)	Post (n=99)
Age			
18- 30 years	18 (29.0%)	51 (51.5%)	48 (48.5%)
31- 70 years	44 (71.0%)	48 (48.5%)	51(51.5%)
Gender			
Male	42 (67.7%)	67(67.7%)	64(64.6%)
Female	20 (32.3%)	32(32.3%)	35(35.4%)
Designation			
Doctors	15 (24.2%)	NA	NA
Paramedics	47 (75.8%)	NA	NA

Work Experience (Yrs)			
1- 10 years	30 (48.4%)	NA	NA
Above 10 years	32 (51.6%)	NA	NA
Education			
Illiterate	NA	21(21.2%)	28(28.3%)
Primary	NA	16(16.2%)	12(12.1%)
Matric	NA	19(19.2%)	20(20.2%)
Intermediate	NA	24(24.2%)	20(20.2%)
Graduation & Above	NA	19(19.2%)	19(19.2%)
Monthly Income			
> 1200			
0- 28000	NA	55 (55.6%)	39(39.4%)
> 2900			
0-100000	NA	44 (45.4%)	60(60.6%)

Table 2. Changes in Ability to be Responsive towards patients and attendants before and after the intervention

		Before Intervention	After Intervention	p-value
1	Maintain patient's privacy and dignity	3.82±0.425	3.83±0.412	0.796
2	Perform the physical examination of the patient with his permission	3.74±0.541	3.79±0.410	0.491
3	Do not discriminate with any patient based on language, religion, caste or anything	3.41±1.124	3.83±0.578	0.017
4	Give patient the opportunity to ask questions and clarify his/her concerns	3.62±0.633	3.67±0.536	0.640
5	Keep the information related to patient's health confidential	3.58±0.713	3.75±0.501	0.102
6	Involve the patient in all the decisions related to his disease, diagnosis and treatment	3.51±0.695	3.56±0.643	0.589
7	Inform the patient about the waiting time	3.46±0.645	3.54±0.644	0.473
8	Make sure that emergency care patient is attended as soon as possible	3.79±0.448	3.74±0.441	0.564
9	Listen to the concerns of patients/attendants patiently and try to address them	3.69±0.498	3.59±0.585	0.289
10	Show empathy to patients	3.72±0.548	3.74±0.441	0.840

Table 3. Changes in experience of patients and attendants on responsiveness of HCW's after interventions.

		Before Intervention	After Intervention	p-value
1	Greeted respectfully	3.080+-0.709	3.57+-0.640	< 0.001
2	Examination was done in privacy	2.19+-0.911	2.14+-1.069	0.625
3	HCW listened carefully	3.16+-0.778	3.46+-0.689	0.004
4	HCW explained the condition and treatment	3.00+-0.892	3.46+-0.704	<0.001
5	HCW involved in making decisions about healthcare or treatment	2.94+-1.091	3.44+-0.798	0.001
6	HCW took consent before treatment	2.67+-1.219	3.21+-0.961	0.002
7	Treated alone without presence of any other person	2.23+-0.890	2.29+-1.136	0.829
8	Information was kept confidential from others	2.77+-0.931	3.54+-0.689	<0.001
9	Did not have to wait beyond expected time	2.14+-0.914	2.52+-0.907	0.004
10	Needs were met in the time given	2.80+-0.853	3.24+-0.783	<0.001
	Overall Total Score	27.0+-4.84	30.9+-4.36	<0.001

Discussion

There was one interventional study conducted in our context on effectiveness of de-escalation trainings which was particularly targeted on healthcare providers (13) but to our knowledge, this is the first attempted study of its kind in Pakistan on introduction of multi-faceted interventions, as, literature suggests that the use of interventions that have multiple components are more likely to be successful than single component (6, 14).

The findings of the current study indicate that there was a significant increase in the overall responsiveness score after the intervention. These may be attributed to a better understanding of HCWs about patient expectations due to the interventional training. Weak areas which did not show improvement are understandable as some improvements rely on better resources. Therefore, the effect of the intervention on waiting times and facilities was likely to be negligible, however previous literature shows patient facilitation intervention is effective in the prevention of violence (15). The culture of favoritism is also common in society and is virtually a job requirement that is difficult to resist for HCWs. Furthermore, in a high patient flow set-up, it is often not possible to examine the patients in privacy, issue raised in this finding shows similarity with study from previous literature

which criticized the design of emergency departments and raised the issue related to difficulty in examination in privacy (16). Finally, the lack of consistency in treatment protocols points to weaknesses in the quality of medical training given to our HCWs.

Continuing negative experiences post-intervention on patients and attendant behavior show that the client's educational component of the intervention was less successful in the setting. While some of the natural reactive aggression due to the patient's condition or adverse outcome is unavoidable, other aspects of patient behavior can be improved through facilitative and regulatory interventions.

Our findings related to changes in responsiveness of patients and attendants after intervention which includes an explanation of conditions, involvement in making decisions and confidentiality showed higher mean scores as compared to the previous study conducted on assessment of the responsiveness of patients and nurses in Isfahan, Iran (17). Results of the previous study done in west Iran in 2017 also summarized that necessary steps should be taken to improve the responsiveness by paying more attention to patient's right (18). Being greeted respectfully showed the highest mean score after interventions which show consistency with a previous survey conducted in Israel on assessment of responsiveness in

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out-patient and in-patient where respect was also reported with the highest mean score (19). This study provided valuable evidence on the effectiveness of these interventions and their possible up-scaling. There were few limitations of study which includes this was a single-center study thus may not be generalizable to other settings. The assessments on patient/attendant behavior were only done qualitatively.

Conclusion

Violence in emergency healthcare settings is inevitable; however, its impact and intensity can be reduced significantly by building the capacity of HCW's in prevention and de-escalation skills. Training on the component of responsiveness related to autonomy, confidentiality, respect, and reduce waiting showed improvement at the end. Client educational interventions are only effective if supplemented with hospital policies on access restriction and patient facilitation e.g. triage system and strict enforcement of one attendant policy.

Disclaimer: None to declare.

Conflict of interest: No any conflict interest.

Funding disclosure: None.

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