

Original Article

Operation room conflicts and management.

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Abstract

Background: This study is based on management issues within the healthcare sector in Karachi. Specifically, it is focused on managing conflicts in the operation rooms, whereby team performance of Operation Theatre staff directly impacts patients' speedy recovery.

Methodology: A quantitative survey was conducted involving the surgeons and Operation Theatre staff in Karachi's community hospitals. A closed-ended questionnaire was used in this study, and the questions mainly focused on the conflicts and management of doctors and staff in the operation theatre. Only those doctors and staff members included in the study who is currently working in the operation theatre division of the hospital. a Pearson correlation analysis was performed to assess the relationships between the factors affecting conflicts in the hospital's operating room.

Results: The results indicated that the extent of conflict management is high. Factors include communication, leadership, training, adequate compensation, and role identification as perceived by employees. After performing OLS regression tests, the study found that the variable of miscommunication, the communication gap, plays a crucial role in accelerating disagreements of conflicts in Operation Theatre.

Conclusion: A significant positive association between the factors and conflict management is observed. It suggests that operation theatre-related factors are improving with better conflict management practices.

Keywords

Operation Theater, Conflicts, Management, Hospitals, Healthcare.



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Introduction

Operation theatre is a complex environment and is highly prone to conflicts causing hindrance to inpatient treatment and healthcare. Literature suggested that several factors like insufficiency of resources, including medical supplies and human resources, issues in leadership, lack of formal training for surgeons to develop personal approaches towards teamwork and conflict management, and lack of clear roles and responsibilities contribute to disagreements in workplaces¹.

The operation theatre is considered to have a unique dynamic of teams with professionals working in various disciplines. Since multiple teams are working in the operation theatre to perform the desired surgery and offer adequate health care to the patient being treated; consequently, they collectively contribute to Operation Theatres' efficiency and provide patient safety and quality care².

The complex environment of operation theatre involving numerous specialties may lead to a huge communication gap, clashes, errors, and other conflicts³. This may not always be due to poor technical skills, but the root cause may be a lack of interpersonal skills among the team members⁴. However, it is found that 47 to 50 % of the adverse events occur at the site of Operation Theatre in hospitals³.

Good communication is an essential component of teamwork safety in Operation Theatre. Various errors, such as a wrong implant, wrong site, and retained foreign objects, occur due to a lack of communication among the team members working in the Operation Theatre⁴. In simpler terms, the environment of the operating room is very volatile and full of complexities. It is a workplace where two or more coequal physicians possess and share responsibility for a single patient⁵.

However, conflicts are inevitable when two or more members work in a team. Several studies link patient events in the operating room to disputes or

communication problems⁶. Studies examining operation theatre patients' health indicate that interpersonal conflicts arising from teamwork in operation theatre are one of the major factors interlinked to errors and adverse patient health⁷.

Booij et al. conducted an observational study in operating rooms and described conflicts as a situation of highly tense events. Furthermore, it showed approximately 1 in 4 times that these tensed events occurred in all surgical cases. Another study revealed four conflicts per surgery among team members of operation theatre⁹. Quantitative research showed that out of 5000 full-time employees working in nine different countries, 85% dealt with conflict at work to some extent, whereas 29% had frequent conflicts. Most often, conflicts are caused due to toxic personalities or negative interactions¹⁰.

Since conflicts are inevitable and will always be present whether the team of professionals is working in an organization or healthcare setting, it is essential to learn and apply the skills to manage conflicts adequately. Consequently, the current study aims to identify which factors within Pakistan's local hospitals, Karachi contributes to conflicts and their management among the team members during operation room surgery.

Methodology

A quantitative survey was conducted involving the surgeons and OR staff in Karachi's community hospitals. We opted for a convenience sampling strategy under a non-probability sampling strategy to reach out to people working in the healthcare industry associated with the OR. The study was conducted following the rules of the Declaration of Helsinki, and independent ethics committee approval was obtained before contacting the participants. Only those doctors and staff members included in the study who is currently working in the OR division of the hospital, while doctors and staff working in some other divisions except for the Operation Theatre were excluded from the study. Written informed consent was obtained from each participant, and the study's objective was explained to them. Due to accessibility and other concerns

(such as permission for data collection), the researcher could only access and collect data from three hospitals/healthcare centers. The names of the healthcare units are not disclosed due to confidentiality concerns.

A closed-ended questionnaire was used in this study, and the first section asks respondents multiple-choice questions (MCQs) regarding their role in the OR and the departments they are employed in for their job at local hospitals in Karachi. The second and third section includes 5-point Likert Scale questions regarding the underlying constructs of the study. The numbers of items of the chosen constructs are different based on the availability of previous evidence and

literature that helped to develop the questionnaire items.

The study uses SPSS statistical software for robust analysis and results. The statistical tests, in this case, include; descriptive and frequency analysis, Pearson Correlation, and OLS Regression.

Results

Table 1 demonstrates the mean scores as per the Likert scale's rating regarding contributing factors of conflicts and conflict management possibilities in OR based on the perception of the enrolled healthcare workers.

Table 1: Conflict contributing factors and management as per the perception of healthcare workers.

Variables		Mean	Std. Deviation
Contributing factors of conflict	Communication Gap	3.50	0.97
	Role Identification	3.77	0.78
	Leadership Issues	3.61	0.88
	Inadequate Compensation	3.69	1.14
	Lack of Resources	3.43	0.77
	Lack of Training	3.52	0.74
Conflict Management		3.55	0.88

There was a significant correlation between the contributing factors of conflicts in the operation theatre and the conflict. It was observed that communication gaps, role identification, leadership issues, inadequate compensation, lack of resources, and training, have significant negative correlations with conflict (Table 2). Similarly, conflict management is significantly negatively associated with conflict ($r=-0.57$; $p<0.01$).

Table 2: Correlation between factors, contributing factors to conflicts in OR, and conflict management.

Variables		Contributing factors to conflicts							Conflict
		Communication Gap	Role Identification	Leadership Issues	Inadequate Compensation	Lack of Resources	Lack of Training	Conflict Management	
Contributing factors to conflicts	Communication Gap	1	.588**	.397**	0.22	.333**	.599**	.571**	-.684**
	Role Identification		1	.608**	.404**	.337**	.556**	.346**	-.545**
	Leadership Issues			1	.726**	.225	.413**	.329**	-.459**

	Inadequate Compensation	1	-.003	.332**	.321**	-.307*
	Lack of Resources		1	.382**	.037	-.294*
	Training			1	.320**	-.568**
Conflict Management					1	-.569**
Conflict						1

** . Correlation is significant at the 0.01 level (2-tailed).

As per the regression analysis, the only communication gap is a significant predictor of conflict in local hospitals' operating rooms when other factors ($t = -3.853$, $p < 0.05$). The overall multiple regression model for conflict development explains 53.6% of variance in conflict ($F = 11.159$, $R^2 = 0.536$, $p < 0.01$). Similarly, only the communication gap was observed as a significant predictor of conflict management, i.e., by controlling miscommunication issues, the conflicts could be managed. The regression model for conflict management explains 39.0% of variance in conflict management ($F = 6.181$, $R^2 = 0.390$, $p < 0.05$).

Table 3: Regression analysis to assess the predictors of conflict and conflict management.

Variables	Conflict				Conflict management			
	B	SE	t	p-value	B	SE	t	p-value
Lack of Training	-.233	.161	-1.447	0.153	-.064	.169	-.376	0.708
Inadequate Compensation	-.008	.116	-.073	0.942	.167	.122	1.370	0.176
Communication Gap	-.468	.121	-3.853	0.000*	.562	.127	4.416	0.000*
Leadership Issues	-.159	.169	-.941	0.350	-.003	.177	-.019	0.985
Lack of Resources	-.015	.127	-.117	0.907	-.159	.133	-1.189	0.239
Role Identification	-.091	.164	-.555	0.581	-.030	.172	-.175	0.862

Discussion

This study gathered preliminary information from 65 respondents employed in the local hospitals of Karachi. This study uses correlation and regression analysis to examine the main research objectives, i.e., the impact of various internal OR-related factors on conflict and its management. Based on the statistical analysis findings, the current section aligns the study's results with the literature reviewed to compare whether Karachi, Pakistan's hospital, has similar causes of conflict and whether it's effectively managed or not.

The correlation results, therefore, validate the arguments which explain that when sufficient training is provided, clarity of goals is offered, and policies are pre-established in the OR, there are high chances that conflict can be avoided or resolved rather than triggering it further¹¹⁻¹³. Consequently, a trend was found to correlate

positively with the presence of conflict management, showing that there will be better conflict management and less conflict.

Even though many criticisms have come through that categorize conflicts as a benefit in certain situations, the case is notably different in healthcare. The potential benefits of conflict may cause surgeons to find new ways of treating patients. But an opposing school of thought suggests that conflicts can distract surgeons and other operation theatre team members from successfully providing care and further waste resources instead of capitalizing on them⁸.

Individually interpreting each variable with its impact on conflict, it can be explained that when a communication gap is perceived, nurses, anesthesiologists, and other staff members in the operation room feel dissatisfied from the fact that they cannot keep their concerns in front of their

leaders, which hinder team performance, delayed responses and lack of empathy towards one another^{14,15}. Thus, conflicts can be well controlled when communication channels are better defined and encouraged¹⁶.

Previous studies have identified that poor leadership can contribute to a lack of planning, lack of control, hostile behaviors, and stressful environments^{17,18}. Thus, if the leadership role is prominent and encouraging, literature advocates that it ensures friendly negotiations and successful coordination and helps guide everyone to be on the same page.

Limitation & Recommendation

The sample size was restricted to only 65 medical professionals; further research in a similar domain is suggested to include a large sample size for better generalizability of the problem. The data was collected from one region of Pakistan, specifically Karachi; it might not hold implications in other parts of the country.

Future studies should include different regional hospitals for a better comparative analysis. It is urged that future research should be focused on factors like lack of training, compensation, resources, leadership issues, and role identification.

Conclusion

The correlation results suggest all significant associations between the factors related to operation theatre (proposed causes of conflicts) and the conflict's latent variable. A significant negative link is observed in all cases, suggesting that improving OR-related factors reduces conflicts in the OR. On the other hand, a significant positive association between the factors and conflict management is observed, and it suggests that OR-related factors are improving with better conflict management practices. The regression analysis only found a significant contribution of communication in influencing conflict and its management.

Conflicts of Interest

The authors have no conflicts of interest to declare.

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