The Effectiveness of Communication Skills Training on Job Satisfaction and Conflict Resolution among Emergency Medical Technicians

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Quantitative Study

Abstract

Background: Communication skills in establishing positive interactions and constructive conflict management are directly and significantly associated with job satisfaction. This study investigated the effectiveness of communication skills training on job satisfaction and conflict resolution among emergency medical technicians (EMTs).

Methods: The current research was a quasi-experimental study with a pretest-posttest design and a control group. The research statistical population consisted of all EMTs in Rafsanjan city, Iran, in 2016 (n = 280). By utilizing a purposive sampling technique, 30 EMTs were chosen. The participants were randomly divided into two groups of intervention and control (n = 15). The intervention group underwent 8 sessions of training during 2 months (a 1.5-hour session per week) (Fetterman & Wandersman, 2012). The data collection tools included the Job Descriptive Index (JDI; Smith et al., 1969), and Dubrin Job Conflict Questionnaires (DJCQ; 1985). In order to analyze the data analysis of covariance (ANCOVA) was used in SPSS software (Dubrin, 1985).

Results: The results showed that communication skills training was effective on job satisfaction (F = 4.637; P = 0.04) and conflict resolution (F = 7.654; P = 0.003) among EMTs.

Discussion: To optimize the impact of communication abilities on emergency care personnel, it is advisable to devise tailor-made workshops separately for different EMTs.

Keywords: Communication skills training; Job satisfaction; Conflict resolution; Emergency medical technicians

Introduction

Emergency medical technicians (EMTs) face daily exposure to human tragedy and chronic stressors such as dealing with cardiac arrest, chronic diseases, and accidents, and their work environment, unlike a hospital, is not well-equipped with sufficient medical staff. Under these circumstances, they must decide quickly and provide suitable care to their patients (Parvaresh-Masoud, Cheraghi, & Imanipour, 2021).

Thus, good communication skills are essential for healthcare professionals to diagnose illnesses, provide effective treatment, increase patient satisfaction, and resolve issues (Nikmanesh, Mohammadzadeh, Nobakht, & Yusefi, 2018). Moreover, job satisfaction is a sign that human expectations are parallel to their job rewards. Low job satisfaction among nurses is due to a variety of factors, including interaction with co-workers. Few studies have examined how communication skills explain job satisfaction (Jankelova & Joniakova, 2021).

According to the job demands-resources model (JD-R model), the abilities needed in interpersonal tasks involve cognitive,psychomotor, and emotional efforts, and they also help in enhancing communication (Lee, Lovell, & Brotheridge, 2010). Job satisfaction has been identified as a major determinant of nurse retention and performance. Moreover, the quality of intraorganizational communication and perceived communication satisfaction influence job satisfaction at different levels and for all types of employees within the organization (Vermeir et al., 2017). Communication skills training for nursing students leads to an increase in their satisfaction with patients. It is suggested that nursing teachers and managers pay more attention to communication skill training in both theoretical and practical courses (Sabet Dizkohi, Nasrabadi, & Ebrahim Abyaneh, 2016).

The emergency service, when compared with other hospital departments, is the unit in which violence against healthcare workers is most common. The increasing incidence of exposure to violent behaviors and verbal violence was found to decrease nurses' emotional commitment to their occupation (Kiymaz & Koc, 2023). Conflict is an inevitable part of life, and EMTs must learn how to reduce its destructive effects while increasing its constructive results (Parvaresh-Masoud et al., 2021). It is also stated in the international literature that good relationships between the teams function as facilitators of the communication process in responding to emergencies, highlighting the effects that conflict in interpersonal relationships can have on the care provided (impairment in communication during the transfer of care can lead to unnecessary delays in diagnosis and treatment) and adverse events that result in deaths or in serious harms to the patients (da Silva Indruczaki, Miorin, Pais, Gemelli, da Silva Lima, & Dal Pai, 2020).

Thus, understanding the causes of the conflicts between the teams in transferring pre-hospital care can support investment in processes related to interactions between the pre- and in-hospital health teams. Previous researches have shown that effective communication between a nurse and patient can not only enhance the patient's physical condition regarding their illness, but also positively affect their emotional, mental, and social well-being (Parvaresh-Masoud et al., 2021; Vermeir et al., 2017). Skar and Soderberg (2018) reported that communication issues rather than healthcare staff's incompetence are often the root cause of patients' grievances regarding care services and improper adherence to doctors' orders. Their findings showed no significant difference between the mean pre-intervention score of job satisfaction of nurses in the two study groups. After the communication skills training program in

the experimental group, the mean job satisfaction score increased and it was significant compared to the control group. The data analysis showed that the interpersonal communication skills training program increased the mean score of job satisfaction in the intervention group. Therefore, it seems necessary that nursing managers design training programs in this regard for nurses (Dehaghani Akhormeh, & Mehrabi, 2012).

Huaman et al (2023) indicated an inverse relationship between work-family conflict and communication skills and work engagement. Moreover, their results indicate the influence of work-family conflict and resilience through the mediating role of work engagement and work-family conflict on job satisfaction. The importance of human resources in the organization is such that they are called internal customers and it can be said that until these customers are satisfied with their activities, it is very difficult and perhaps impossible to satisfy external customers. The present study investigated the effect of communication skills training on conflict resolution and job satisfaction among EMTs.

Methods

The current research was a quasi-experimental study with a pretest-posttest design and a control group. The research statistical population consisted of all EMTs in Rafsanjan city, Iran, in 2016, whose number was 280. By utilizing a purposive sampling technique, 30 emergency medical workers were chosen. The calculated sample size for the study was 43, considering $\alpha = 5\%$, $\beta = 20\%$, $d = 3$, and $\sigma = 5$. However, only 30 individuals were ultimately included in the study after considering the potential loss of participants in both the intervention and control groups. The participants were randomly divided into two groups of intervention and control (n = 15). The inclusion criteria of the study included permanent and not part-time employment in the hospital, engaging in different shifts, the willingness and physical and mental ability to cooperate, working experience of over 6 months in the hospital, and a minimum age of 25 years. The exclusion criteria were not taking part in training classes and unwillingness to answer questionnaire questions.

At the beginning of the study, participants received instructions on how the plan was going to be implemented and they were assured of the confidentiality of their information. The questionnaires used in the study were completed by the participants. The intervention group participants took part in 8 sessions of training during 2 months (a 1.5-hour session per week). The control group did not receive any training. The groups completed the questionnaires before and after the training.

In the first 30 minutes of the class, the topics were reviewed, and thereafter, the subjects participated in the group discussion. A clinical therapist participated in the discussion as an expert. Then, for 15 minutes, the subjects reviewed the taught skills through role playing and made a conclusion at the end of each session. The course covered the following areas that are essential in understanding the importance of effective communication skills and increasing the participants' ability to practice these skills effectively (Fetterman & Wandersman, 2012) (Table 1).

Job Descriptive Index: The tool included inquiries regarding satisfaction in the workplace that were taken from the Job Descriptive Index (JDI). The JDI was created at Cornell University by Smith, Kendall, and Hulin in 1969 and later translated by Shekarshekan in 2004. This 40-item questionnaire has 5 subscales including job description (10 questions), current manager or superintendent (10 questions), current

coworkers (10 questions), promotion opportunities in the organization (5 questions), and salary (5 questions). The items are scored on a 5-point scale ranging from 1 to 5 ("strongly disagree", "disagree", "no comment", "agree", and "strongly agree", respectively). Moreover, the total score of each dimension shows the satisfaction rate in that dimension. Furthermore, a score obtained from the total of 5 dimensions is considered as the total score. Scores of 40 and 200 indicate low and high satisfaction, respectively. Finally, the scores are calculated from 100 and expressed as percentage. Through correlating this scale with the Minnesota Satisfaction Questionnaire (MSQ), for the factors of overall job satisfaction, job, supervisor, salary, promotions and coworker, Dehghani obtained a Cronbach's alpha of 42.63, 0.25, 0.48, 0.37, 0.0, and 0.31, respectively, and confirmed the validity of the JDI. Moreover, for its reliability, he obtained a Cronbach's alpha of 0.67 for job, 0.92 for supervisor, 0.86 for coworker, 0.90 for promotions, 0.93 for salary, and 0.92 for overall job satisfaction, and confirmed it as a reliable tool (Dehaghani, 2012).

Dubrin Job Conflict Questionnaires: Dubrin (1985) constructed the Dubrin Job Conflict Questionnaires (DJCQ) with 20 two-choice questions (mostly agree and mostly disagree) (Dubrin, 1985). In this questionnaire, a score of +1 is given for mainly agreeing to answers and a score of 0 for mainly opposing answers; therefore, the job conflict score ranges between 0 and 20. Scores of less than or equal to 3 illustrate a low level of conflict, scores between 4 and 14 illustrate a medium level of conflict, and a score equal to or greater than 15 is suggestive of a high level of conflict in the person.

Table 1. Communication skills training

Sessions	Content
Module 1: The Characteristics of an Effective Communicator	Importance of Communication in the 21st Century; Communication Self-Assessment; Basics of Communication; Elements of Effective Communication; Summary
Module 2: Core Components of Effective Communication	An Introduction | Components of Communication; Verbal Communication; Importance of the Tone; Application and Practice; Assessment and Personal Constructive Feedback
Module 3: Effective Verbal Communication	What You Say Matters; Effect and Impact of Power Words; Positive Communication; Words for Success; Words to Avoid; Practice Activities & Constructive Feedback
Module 4: Vocal Impact	Introduction | The 'How' of Effective Communication; Pronunciation and Syllable Stress; Common Grammatical Errors; Constructing Effective Sentences; Word Stress for Vocal Impact; Role-plays and Constructive Feedback
Module 5: Non-Verbal Communication	Introduction | Body Language; Elements of Non-Verbal Communication; Do's and Don'ts; Interpretation of Various Body Signals; Recommended Postures for Workplace Communication; Summary and Practice
Module 6: Role of Listening in Communication	Introduction | Listening; The Impact of Listening on Communication; The 3 Levels of Listening; Listening with Empathy; How to Display Effective Listening; Practice Activities & Constructive Feedback
Module 7: Probing and Acknowledgment	Introduction | Questioning Skills; Use of Effective Probing in Communication; What is Acknowledgement? Benefits of Sincere Acknowledgements; The Conversation Cycle; Rapport Building; Summary & Assignment
Module 8: Assertive Communication	Types of Communication; Introduction to Assertiveness; The Art of Assertive Communication; Applying Communication Components Effectively; Cross-cultural Communication; Summary & Personal Constructive Feedback; Personal Development Plan

Aliabadi and Khakpour (2014) used exploratory factor analysis to validate this questionnaire, and reported a Cronbach's alpha coefficient of 0.81 for the questionnaire, which is acceptable. In order to determine the formal and content validity of the questionnaire, the questionnaire was given to 7 faculty members of the School of Nursing and Midwifery in Mashhad, and the validity of the questionnaire was confirmed.

Statistical analyses: The data were analyzed in the pretest and posttest stages using the descriptive statistics of mean and standard deviation and the inferential statistics of the analysis of covariance (ANCOVA). The normality of the data was checked using the Kolmogorov-Smirnov test. Moreover, Levene's test was used to assess the assumption of homogeneity of variances. Chi-square test was used to compare the means in the experimental and control groups. Data analysis was done using SPSS software (version 16; SPSS Inc., Chicago, IL, USA).

Results

Table 2 shows that 6 participants (20%) were 25 to 30 years old, 20 participants (66%) were 35 to 40 years old, and 4 participants (14%) were 40 years old and above. Most of the participants were married and most of them had an MSc.

Table 3 shows a difference in the mean of job satisfaction and conflict resolution between the control and experimental groups before and after the intervention.

Table 4 presents the results of ANCOVA. The results demonstrated the significant effects of time (pretest and posttest) (F = 4.637; P = 0.04), and conflict resolution (F = 7.654; P = 0.003) on job satisfaction. In other words, the estimated mean scores of job satisfaction and conflict resolution from the pretest and posttest stages were significantly different. Therefore, communication skills training had a significant effect on job satisfaction and conflict resolution at the level of five percent.

Discussion

The aim of this study was to investigate the effectiveness of communication skills training on job satisfaction and conflict resolution among EMTs. As was observed, there was a significant difference between job satisfaction in the control and experimental groups in the posttest after controlling the effect of the pretest.

The results are consistent with the research of Dehaghani et al. (2012), Jankelova and Joniakova (2021), Khodadadi, Ebrahimi, Moghaddasian, and Babapour (2013), and Sabet Dizkohi et al. (2016).

Table 2. Comparison of demographic data across groups

| Variables | Categories | Groups | | Comparison |
		Intervention (n)	Control (n)	
Age	25-30 years	4	2	$X^2 = 1.33$ P = 0.230
	35-40 years	9	11	
	40 years and above	2	2	
Marital status	Married	9	8	$X^2 = 2.41$ P = 0.222
	Unmarried	6	7	
Education	BA	3	3	$X^2 = 4.97$ P < 0.001
	MSc	6	9	
	PhD	6	3	

Table 3. Mean and standard deviation of research variables in experimental and control groups

Variables	Groups	Pretest (Mean ± SD)	Posttest (Mean ± SD)
Job Satisfaction	Experimental	80.58 ± 10.11	83.35 ± 13.64
	Control	80.41 ± 9.23	80.35 ± 12.20
Conflict Resolution	Experimental	12.28 ± 3.3	9.30 ± 4.3
	Control	11.30 ±.3.8	11.39 ± 3.7

SD: standard deviation

The previous findings point to the strong direct effects of communication skills on nurses' job satisfaction (Jankelova & Joniakova, 2021). The role of communication in promoting organizational efficiency is increasingly recognized and emphasized. The absence of effective communication can compromise patient safety and the quality of care, so it is necessary to ensure effective communication, as well as to develop and maintain communication skills in the clinical setting (Paksoy, Soyer, & Çalık, 2017). By increasing communication skills, job satisfaction increases. At all levels of management and human resources of organizations, special importance is given to job satisfaction because this concept plays a significant role in organizational progress and improvement as well as the health of the workforce, and various fields of human sciences, for example, psychology, sociology, economics, and management, have addressed it. Therefore, in order to create a pleasant interpersonal atmosphere in the workplace, the organization members should pay attention to communication factors (Wikaningrum & Yuniawan, 2018). Communication in the workplace is important because it boosts employee morale, engagement, productivity, and satisfaction. Communication is also crucial for better team collaboration and cooperation.

Ultimately, effective workplace communication helps drive better results for individuals, teams, and organizations.

The results showed a significant difference between conflict resolution in the control and experimental groups in the posttest after controlling the effect of the pretest.

Therefore, communication skills training had a significant effect on conflict resolution in the experimental group. The results of the present research are consistent with the findings of Akhlaghi Rezaei, Salehmoghaddam, Heshmati Nabavi, and Behnam Vashani (2022), Nikmanesh et al. (2018), Soltani Ramezan Zadeh et al. (2020), and Sweeney, Warren, Gardner, Rojek, and Lindquist (2014). Our findings showed that the implementation of conflict management programs for nurses leads to a reduction in job conflicts among them. Further studies are suggested to explain the role of conflict management program implementation in the functioning of the health system.

Table 4. Analysis of covariance test of job satisfaction and conflict resolution in the control and experimental groups

Variables	Source	SS	MS	F	P	η^2	Power
Job Satisfaction	Pretest effect	496.88	987.85	698. 5	0.03	0.564	0.865
	Group	689.43	653.37	4.637	0.04	0.752	0.423
	Error	529.354	354.10				
Conflict Resolution	Pretest	342.29	310.28	6.235	0.07	0.147	0.723
	Group	527.31	247.31	7.654	0.003	0.198	0.752
	Error	296.91	369.4				

SS: Sum of squares; MS: Mean square

Nikmanesh et al. (2018) and Soltani Ramezan Zadeh et al. (2020) showed that the implementation of communication skills training courses for nurses can lead to improved patient satisfaction. Hospital directors were then recommended to hold regular communication skills training courses for their nursing staff. Research shows that conflict in organizations can have positive or destructive consequences. The essential destructive consequences of conflict are the loss of time and energy in the organization, dissatisfaction in the organization, reduction of the group's effectiveness, forgetting the main goals of the organization, people's misjudgment of each other, weakening of harmony, and lack of disagreement between the organizational groups.

Individuals, who are unsuccessful, tend to distance themselves from one another, resulting in the disintegration rather than the integration of the organization. (Parvaresh-Masoud et al., 2021). Effective communication and teamwork are essential to provide high-quality care and patient safety (Vermeir et al., 2015). Poor communication can lead to various negative outcomes, such as discontinuity of care and compromising of patient safety (Vermeir et al., 2015). The complexity of medical care along with the limitations of human action reinforces the importance of standardized communication and a secure environment, in which team members can express their concerns about patient safety. In such an environment, members can speak freely and critical language can create alertness and prevent confusion (Vermeir et al., 2017).

This research faced some limitations. The current investigation was conducted to examine a few employees, and thus, it cannot be generalized to other societies. The socio-cultural and economic differences of employees were not taken into account. According to the results, the impact of other skills such as problem-solving skills and assertiveness skills on job satisfaction should also be determined. The impact of communication skills should be measured among other people in society, including students, athletes, employees, etc. Based on the results of the research and the identification of the effects of communication skills training, the employees of organizations should try to increase this feature in the organization from the beginning. Since increasing the efficiency of human resources depends on training and developing knowledge and techniques, and creating desirable behaviors for successful job performance, more attention should be paid to this matter. To have efficient training, the content of the training courses must be consistent with individual and organizational needs.

Conclusion

Emerging knowledge about emergency care systems in post-conflict areas reveals a shortage of evidence concerning optimal practices and interventions. When rebuilding healthcare systems after conflict, it is crucial to focus on overcoming common obstacles that prevent effective emergency care. This involves improving pre-hospital care services and training healthcare workers in emergency care practices that are tailored to the specific context.

Conflict of Interests

Authors have no conflict of interests.

Acknowledgments

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