

Original Article

The Effect of the Appraisal Interview on Nurses' Performance in Neonatal Intensive Care Units

Abstract

Background: Performance appraisal system can be an effective role to improve the infants' health in the Neonatal Intensive Care Unit (NICU). The most important challenge of the nurses' performance appraisal system is that the process is not conducted correctly. The aim of this study was therefore to determine the effect of the appraisal interview on the performance scores of the nurses in NICU.

Materials and Methods: A randomized clinical trial study was conducted with 71 nurses in two selected hospitals of Isfahan University of Medical Sciences in 2018. The participants worked in the NICU and were selected through convenience sampling method, and then, were randomly assigned to the intervention and control groups. The intervention was an appraisal interview which was done by head nurses, who attended a training workshop to know how to conduct an appraisal process. Control group was appraised without an interview. The performance scores of both groups were collected through approved Nurse Appraisal Tool, developed by the Ministry of Health and Medical Education for nurses, and analyzed by SPSS Software before and after the intervention.

Results: Independent *t*-test showed no significant differences in mean scores of nurses' performance appraisal before the intervention between the two groups ($p = 0.91$), but independent *t*-test showed that these scores were significantly higher in the intervention group compared to the control ($p = 0.007$). **Conclusions:** According to the findings, nurses' performance scores can be increased through an acceptable performance appraisal system with an interview process.

Keywords: Employee performance appraisal, interview, neonatal intensive care units, nurses

Introduction

Nurses' performance appraisal as one of the managerial controlling responsibilities plays a decisive role in increasing job satisfaction, improvement of motivation, and recognizing nurses' educational needs. This, in turn, can lead to an improvement in nurses' performance status and overall success of an organization. Conversely, inappropriate performance appraisal is accompanied by an increase in dissatisfaction, lack of motivation, and employees' resistance.^[1]

One of the main reasons for failure of the performance appraisal system is the lack of its proper implementation.^[2] Inadequate education of evaluators and lack of appropriate guidelines for completing appraisal forms are two main shortcomings in the nursing appraisal system. In fact, for effective appraisal, it is necessary to have guidelines to explain the performance appraisal standards and methodology for

all employees and evaluators, to be equally aware of job standards and descriptions, and understand how they are evaluated. Since managers are not well-informed on the proper steps of performance evaluation, the appraisal is not effective. Therefore, empowering the managers and enhancing the quality of performance appraisal implementation process, according to valid and reliable guidelines, are necessary.

Despite the fact that using the appraisal interview is very important to improve nurses' performance, no interventional research was found in Iranian context to document its effect. In a descriptive study with a Neonatal Intensive Care Unit (NICU) nurses in Iran, nurses' performance was evaluated. Results indicated that fields of infant nutrition (84.11%) and utilized equipment (51.93%) had the highest and lowest practices, respectively. In this study, the clinical performances of the employed neonatal nurses were generally acceptable (69.74%).^[3] In another analytical study

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**Azam Bigdeli¹,
Marzieh
Adel-Mehraban²,
Mahboobeh
Namnabati³**

¹Student Research Committee,
Faculty of Nursing and
Midwifery, Isfahan University
of Medical Sciences, Isfahan,
Iran, ²Nursing and Midwifery
Care Research Center, Faculty
of Nursing and Midwifery,
Isfahan University of Medical
Sciences, Isfahan, Iran, ³Nursing
and Midwifery Care Research
Center, School of Nursing and
Midwifery, Isfahan University of
Medical Sciences, Isfahan, Iran

Address for correspondence:
Dr. Marzieh Adel-Mehraban,
Nursing and Midwifery Care
Research Center, Faculty of
Nursing and Midwifery, Isfahan
University of Medical Sciences,
Isfahan, Iran.
E-mail: adel@nm.mui.ac.ir

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in Egypt, the relationship between the staff performance appraisal system and job satisfaction and empowerment was assessed. Results indicated that the performance appraisal system was not implemented effectively at the selected hospitals, thus, it affected job satisfaction and empowerment of staff nurses. It was recommended that a structured system of performance appraisal must be used.^[4]

The present challenge has revealed in some units, particularly in Iran's NICUs. Thus, there is a need for research-based scientific changes in the procedure of performance appraisal implementation.^[5] The purpose of the present study was therefore to determine the effect of the appraisal interview on the performance scores of the nurses in NICU.

Materials and Methods

This clinical trial (IRCT2018924041122N1) was conducted from April to September 2018 in NICUs of two major educational hospitals in Isfahan, Iran. Seventy-two nurses were selected through convenience sampling method, and according to inclusion criteria, they were randomly and equally assigned to intervention and control groups. During the study, one of the nurses was excluded from the intervention group because of a day off. Thus, the number of participants was 35 in the intervention and 36 in the control group [Figure 1]. In addition, two NICU head nurses were also included in the appraisal interview process of the nurses. The sample size of nurses was calculated according to power analysis by 95% confidence coefficient and 80% test power. The inclusion criteria for nurses were having 6 months of working experience in the NICU wards, being evaluated at least one time in the appraisal performance system and filling the written consent of the study. In addition, all of the head nurses had more than 15 years of clinical experience.

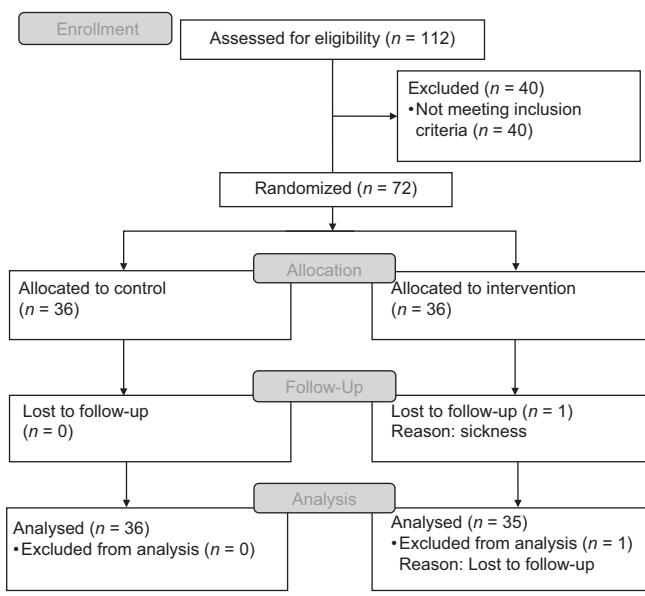


Figure 1: CONSORT flow diagram

At first, a training workshop was held from 8 AM to 2 PM on the working days for the head nurses in the hospital. The content of the workshop was about the appropriate appraisal process and the method of the appraisal interview. After head nurses became familiar with the appraisal process, they conducted the appraisal interviews with their nurses along with the main researcher. The content of the interview was determined based on the disciplines of the interview, originated in Marquis and Huston leadership roles.^[6] In the appraisal interview, nurses' strengths and weaknesses were determined and the objectives were set for correcting behavior. The appraisal interview was repeated during and at the end of the intervention. For the control group, the appraisal performance form was filled, based on the routine method without an interview. At the end of the third session of the appraisal interview, data were collected by the Nurses Appraisal Tool in both intervention and control groups.

The reliability and validity of the Nurses Appraisal Tool were approved by the Ministry of Health and Medical Education.^[7] This tool has three parts: A- Nurses' characteristics (position, unit, name of the evaluator), B- Specific indexes (40 scores with 13 items including quantity, quality, knowledge, and job skills), and C- General indexes (60 scores with 12 items including innovation, creativity, training, and satisfaction).^[8] The range of scores before and after the intervention was 0–100. Collected data were analyzed by SPSS version 22 Software (IBM Amos Ver. 22).

Ethical considerations

The study was approved by the Ethics Committee of Isfahan University of Medical Sciences (396889) in March 2017. In addition, written consents were obtained from all subjects and the goals of the study were explained to them. The participants were informed about their right to quit whenever they desired. They were assured of the confidentiality of their information.

Results

Based on obtaining the results of demographic information record of the participating nurses in the study, the mean age of 75% of participants in the experimental group and control group was 40 years old. The mean Standard Deviation (SD) of working experience was 13.63 (5.66) years in the experimental group and 13.78 (6.11) in the control group. Type of employment was permanent in the experimental and the control (34.30% vs. 47.20%). There was no significant difference in demographic characteristics between both groups; thus, they were homogeneous [Table 1].

Independent *t*-test showed that the mean score of nurses' performance appraisal before intervention was not significantly different between the two groups (*t* = 0.11, *p* = 0.91); however, after intervention, these scores were

Table 1: Frequency of demographic characteristics in both groups

Groups	Intervention group n (%)	Control group n (%)	t	df	p
Age, years					
<35	9 (25.70)	9 (25%)	0.07		0.94
35-45	26 (74.30)	27 (75%)			
Education					
Associate degree	2 (5.7%)	2 (5.60%)			
Bachelor's	26 (74.30%)	31 (86.10%)	1.14	-	0.25
Master's degree	7 (20%)	3 (8.30%)			
Marital status					
Single	5 (14.30%)	9 (25%)	1.29	1	0.26
Married	30 (85.70%)	27 (75%)	1.29		
Types of employment					
Permanent	12 (34.30%)	17 (47.20%)			
Contractual	7 (20%)	7 (19.40%)			
Corporation	3 (8.60%)	2 (5.60%)	1.53	4	0.82
Pseudo-contractual	11 (31.40%)	8 (22.20%)			
Other	2 (5.70%)	2 (5.60%)			

significantly higher in the experimental group than in the control group ($t = 2.78$, $p = 0.007$) [Table 2].

In addition, independent t -test showed that the mean increase in the total scores of the nurses' performance and after the intervention, the specific and general domains in the intervention group were significantly more than in the control group. (Total score: $t = 4.57$, $p < 0.001$; specific score: $t = 2.96$, $p = 0.005$; general score: $t = 3.89$, $p < 0.001$).

Discussion

The findings of this study showed that after the intervention, the mean score of performance appraisal in the experimental group was significantly higher than the control group. This indicated that conducting the proper performance appraisal had a significant impact on its results so that the appraisal interview and determination of the purposes for the nurses could improve the score of performance in individuals, and eventually change the persons' behavior and improve their performance. Similarly, the results of other studies showed that determining goals at the beginning of the work was a useful tool for performance appraisal.^[9] In addition, the study of Emamzadeh Ghasemi *et al.* (2008) indicated that the result of performance appraisal in a goal-based management approach was effective in nursing care quality and intervention by interviewing and training the nurses and providing their participation in identifying their strengths and weaknesses. Their collaboration in planning to improve and resolve the weaknesses ultimately improved the quality of care and performance appraisal score and positive findings were obtained.^[10] On the contrary, Spence *et al.* (2010) also studied nurses' participation in performance appraisal and reported that nurses had less satisfaction with performance appraisal interviews as they rarely had the experience of feedback, guidance, and encouragement. Moreover, they did not like the interview to be removed from the performance appraisal process

Table 2: Comparison of mean scores of nurses' appraisal performance between two groups before and after intervention (of 100)

Time	Intervention	Control	Independent t-test		
	group mean (SD)	group mean (SD)	t	df	p
Pre-intervention	84.30 (5.42)	84.47 (7.47)	0.11	69	0.91
Post-intervention	89.88 (6.09)	85.24 (7.84)	2.78		0.007

as they believed in the potential value of performance appraisal interviews.^[11]

Performance appraisal interview has led to an increase in nurses' specific scores and, consequently, caused an improvement in the quantity and quality of their work, knowledge and professional skills. For example, some nurses have no chance to perform some of the specialized appraisal indicators, such as research or teaching, and it is necessary to provide them with other situations to be observed again in these indices. In addition, conducting appraisal interview in public health has led to an increase in individuals' scores and improvement of their creativity, education, and satisfaction. This can be because of being informed about nurses' duties description form and the justification at the beginning of the appraisal period on the weaknesses and how to plan to resolve them. This indicated that by empowering nursing managers in implementing performance appraisal and also increasing the awareness and participation of the nurses through proper interviews and discussions, satisfactory results both in the specific and in the general domain can be obtained. In this regard, Farndale and Kelliher (2013) showed that when the participation level of people in performance appraisal is higher, the commitment of individuals to the organization increases and their performance is improved.^[12] On the other hand, Giangreco *et al.* (2012) believe that sometimes performance appraisal is accompanied with an increase in

employees' dissatisfaction, which may be due to the faults in the appraisal process.^[1]

One of the limitations of this study can be due to the performance appraisal scores as they are collected annually, systematically and collectively. Hence, we evaluated the officially reported scores before the intervention, the assessment scores of the previous year, and the current year nursing scores after the intervention. We avoided presenting the data as unofficial and estimated scores for ethical considerations. So, the reported data here are completely valid, formal and organizationally accessible.

Conclusion

The results of this research and similar studies have applications such as identifying the views of nurses about the annual appraisal, identifying the managers' weaknesses in performing the task of evaluating the performance of their employees in clinical settings and subsequently, explaining about their improved behaviors and relevant educational planning. Nurses should know about the indicators, the head nurses consider to evaluate their performance so they can attempt to strengthen their weaknesses. It is suggested that planners and policymakers design an integrated system for evaluating the performance level of the employees, working in hospitals and the health centers in accordance with the complex conditions of activity in these centers through the opinions of the experts in health, medical sciences, and nursing including the senior nurses and head nurses. Nurses' performance appraisal results should be feedbacked orally and in written format so they can identify their weaknesses and attempt to resolve them.

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Isfahan University of Medical Sciences, Isfahan, Iran

Conflicts of interest

Nothing to declare.

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