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A Cross-sectional Descriptive Study on Performance-based Payment and the Respective Satisfaction on Diagnosis, Therapeutic and Support-staffs of Jahrom Hospitals

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Abstract

Inequity and inefficiency in the payment system cause problems such as employee discontent, absenteeism, leaving the service, strike, and complaint, reduced organizational belonging or other organizational problems. Thus, we aimed to evaluate the satisfaction of diagnosis, therapeutic and support staffs of Jahrom hospitals of the performance-based payment.

following a descriptive and cross-sectional study and was conducted on 300 relevant employees. Data collection tool was a set of a questionnaire having 35 questions each with 5-point Likert scale. Data analysis was done using SPSS 21 and descriptive and inferential statistics. Result revealed the 48.1% satisfaction level from the participants towards the implementation of this plan is at the low and very low levels, and the satisfaction level of 25.8% of participants was high and very high. Conclusively, staffs' perspectives regarding the performance-based payment plan were evaluated to be lower than average. It seems the healthcare policymakers need further strategies to improve the payment approaches and enhance the motivation of the therapeutic staff.

Introduction:

Health and therapeutic organizations have a special importance in the society due to the importance of the task they have towards prevention, taking care, and therapeutic and rehabilitation affairs and any shortcoming in their management, delays in timely treatment and progression of the illness or even death (Nazari, 1998). Staff dissatisfaction of the healthcare and therapeutic centers affects negatively the patient care and subsequently reduces quality of service, increase residents' stay in the hospital, and increase the associated costs (Jahani *et al.*, 2010; Najafi *et al.*, 2005). The presence of a motivated and deserving workforce and performance evaluation system increases the efficiency and return of services in the provision of health care (Ramazani & Miri, 2003). Thus, besides the proper absorption, the goal of management of an organization must be the maintenance and upgrading the deserved manpower in which, a fair payment system must be one of the most important factors for the

realization of this goal (Kazemi, 2002). In the field of competition, only such organizations can survive that take full advantage of their human resources. In addition, individual in comparison to others who do the same work should feel satisfied of his income (Treiman, 1979). So one of the goals for preparing a payment system must be a fair system for all staff and to mention a condition not to leave the organization by seeing the competitive market, (Shimon, 2000). The hospital is one of the most sophisticated organizations, where works are always performed in groups of staff. Such groups are always of the heterogeneous level, which includes people with the highest possible education that also includes the highest levels of education work in diverse areas. Job diversification in the hospital environment is very abundant, including from power and installation staff to police and law enforcement, from physician and nurse to accountant and supplier, from work in labs and pharmacies to laundry and sterilization, and from

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receiving the minimum wages and income to the significant and high revenues. However, this complicated system has a more complex economics and in government hospitals, especially after the hospital self-regulation plan, this complexity becomes more challenging (Ebadifard Azar *et al.*, 2015). Wage payment system have significant effects on the performance of service providers, efficiency and satisfaction of the recipients of the service, and the health of community.

That is why one of the main pillars of reform in the health system is the subject of payment mechanisms (Sæther, 2004). An efficient payment system can attract potential job seekers, maintain and motivate employees, pay according to legal provisions, restrain the organizational costs, and simplify getting the strategic goals (Bahadori *et al.*, 2013). In the context of the payment system, the results of some studies indicated that the lack of staff satisfaction with the way incomes was related to the wages and the benefits were paid as per the calculations (Bahadori *et al.*, 2013). In confirmation of this subject, it should be stated that not paying attention to improving the performance and customer satisfaction decreases the productivity and the motive to improve employees' performance and reduces individuals' productivity and even various employees are always in search of the second option of income (Carrin, 2003). Performance-based payment is a payment model that tries to reward the measured dimensions of performance and through financial incentives it encourages providers of health services to achieve predetermined goals (Abduljawad & Al-Assaf, 2011). Performance-based payment when being designed effectively leads to three goals in clinical trials, i.e., clinical quality, productivity, and patient satisfaction (Rowe, 2006) and ultimately, this approach can provide satisfaction to employees (Ismail *et al.*, 2011). Performance-based payment in Yasuj Shahid Beheshti Hospital was seen to increase the patients' satisfaction (Najafi-Dolatabadi *et al.*, 2011). Also, Resenthal *et al.* (2005) reported that this payment approach greatly affects the quality of therapeutic in different sectors. The direction of the new administration of hospital affairs in 1995 identified three goals: increasing the motive of physicians and the medical staff, increasing the financial capabilities of hospitals, and increasing the authorities of hospitals for the better administration of executive affairs. This direction was codified, approved and imparted by the Ministry of Health and Medical and allowed the government hospitals to make income through cash payments and insurances. Although this plan became known as the self-regulation plan for the hospitals, the fact is, however, that it is just a payment instruction (Kazemi, 2002) that according to it, a percentage of hospital income would be dedicated to its employees and after deduction of other expenses, the rest is paid to the hospital for self-

regulation (Witter *et al.*, 2000). The plan was implemented in hospitals for 20 years. The new revised instruction of the plan entitled "Performance-based Payment" was implicated from September 2014 after many amendments to the previous plan and removal of its deficiencies. This alternative instruction replaced the guidelines of the new hospital administration system and the next amendment followed by it. Performance-based payment in this instruction establishes a connection between non-continuous income of employees, which is a substitute for overtime and the previous methods, and incomes of the department in which they work in the form of a memorandum (Tavkoli *et al.*, 2016). New changes are made in the health system of the country and one of the goals of designing and modifying the payment system is constructing a fair payment system for all the employees to create appropriate work conditions (Eichler, 2006). Accordingly, this study aims for investigating the satisfaction of diagnostic, therapeutic and support staffs of Jahrom Hospitals while the case performance-based payment is employed.

Methodology:

This study is based on a descriptive and cross-sectional protocol that was implemented in Jahrom Medical Education Centers in the city of Jahrom in the year 2017. Total 300 employees from Jahrom Hospitals on the basis of the easy availability and sampling method were selected. The research community of the study included the medical and support staff of the Medical Centers of Jahrom. The criteria for entering into the study was having at least one year of working experience in the hospital and the exit criteria were the lack of satisfaction and cooperation in the plan as well as the incomplete filling of the questionnaire. The tool used to collect data was a self-made questionnaire containing two parts. The first part is devoted to demographic information, e.g. age, gender, type of employment, work experience, organizational status, type of position, and the second part of the questionnaire relates to employee satisfaction of the performance-based payment plan. The questionnaire included 35 questions with a 5-point Likert scale and the following scores: very high = 5, high = 4, somewhat = 3, low = 2, and very low = 1. Validity and reliability of the study were examined by 5 hospital managers in Jahrom city. In order to examine the validity of the questionnaire, it was given to 20 therapeutic staffs and Cronbach's alpha coefficient was 90%. After approval of the plan, researchers visited the hospital in different shifts randomly selected the personnel from the staff list to fill up the questionnaires. The participants were given full information about the research goals and their consent to participate in the study was observed. Then, the participants were provided enough time to complete the questionnaires. In collecting the questionnaires, we

highly took care of the principles of confidentiality, including confidentiality of personal information. Data analysis was conducted using descriptive statistics indexes, e.g. percentage, mean, and standard deviation, and inferential statistics, e.g. chi-square, and SPSS 21.

Results:

In this study, 300 employees of hospitals of Jahrom Medical Sciences were participated, out of which 210 participants were women (70%) and 90 participants were men (30%). Total 11 participants were of more than 50 years old (3.6%) and the rest were under the age of 50 years. Employment types and work experience were as follows; 94 official (31.3%), and 57 employees (19%) had more than 16 years of work experience. In terms of positions, participants were from the following departments; 198 participants (66%) were from the therapeutic departments, 30 participants (11%) were administrative-financial, 14 participants (4.6%) were department authorities, 2 participants (0.7%) were supervisor, 2 participants (0.7%) were manager, 38 participants (12.6%) were guardian and services and 16 others (5.3%) were placed in others category. Other information is given in Table 1. There is a significant relationship between the specifications listed in Table-1 and the average score of staffs' satisfaction in Jahrom city hospitals in terms of gender and employment type so that the average satisfaction score for men is 2.77, while it is 2.57 for women. It shows that men are significantly more satisfied. The highest average satisfaction related to corporate recruitment with a score of 2.83 and the lowest average satisfaction related to contractual employees with the score of 2.40. There is no significant relationship between the other mentioned features and the employee satisfaction scores (Table-1).

In table-2, descriptive statistics and the mean score of responses to each item are presented. Items based on the average score of participants to each item, or in other words, the amount of their consent/satisfaction of each item, are arranged in descending order. This means that as we go down the table, level of consent or agreement of the participants with the items decreases. According to Table-2, the most agreed item from the viewpoint of participants was Item 18, i.e. I think the therapeutic groups should have far more income than the support group so that the average score of participants to this item was 3.74. Overall, a total of 42.7% of participants for this item selected very high and 9.2% selected very low options, which indicates high agreement of participants with this item. In addition, the lowest amount of participants' consent was with Item 24, i.e. do you think the implementation of this plan has reduced the pay gap between the staffs and the physicians? The average score of participants for this score was 1.76. Overall, 62.5% of participants selected very low for this item and only 3.1% selected very high, which indicates high

opposition of participants to this item. The last row of Table-2 shows the overall average of percentages relating to each option. According to this row, it determines that in general (by summing up all items of the questionnaires for all the participants), the satisfaction rate of 48.1% of participants of the implementation of this plan is low or very low, while only 25.8% of the participants had the satisfaction level of high and very high. This indicates that the majority of personnel had low satisfaction with the implementation of this plan.

Table 1: Results of statistical tests to investigate research hypotheses

Demo-graphic	Indicator Level	Average Satisfaction	Test Statistics	p value	C/R**			
Test-type: 't' test								
Gender	Woman	2.57	2.446	<0.016	Reject			
	Man	2.77						
Test-type: One factor variance analysis								
Age	≤30	2.66	0.774	≥0.509	Confirm			
	31-40	2.57						
	41-50	2.69						
	≥50	2.83						
Employment Status	Plan	2.73	2.617	>0.025	Reject			
	Comp.	2.83						
	Contractual*	2.68						
	Contractual	2.40						
	Official	2.49						
Work Experience	Others	2.61						
	0-4 yrs	2.79						
	4-8 yrs	2.55						
	8-12 yrs	2.56						
	12-16 yrs	2.53						
Organizational Position	>16 yrs	2.66						
	Admin.	2.56						
	Surgery room	2.93						
	Anesthetics	2.79						
	Nurse	2.62						
	Paraclin.	2.64						
	S.&G.***	2.78						
	Others	2.48						
	TDP ^a	2.64				1.003	0.423	Confirm
	AF ^b	2.52						
DA ^c	2.73							
Supervisor	2.53							
Manager	3.13							
S&G***	2.78							
Others	2.44							

**Confirmation/rejection of the hypothesis; *Note 3 and 4;

***Service and Guardian

^aTherapeutic department personnel, ^bAdministrative-financial,

^cDepartment authority

Question 10 examines "how satisfied are you with this payment system?" This question could alone show satisfaction of this payment system. This question with an average of 1.99 was among the last three questions of the table. According to this row, it determines that in general,

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the satisfaction rate of the 68.3% of participants of this payment system was low and very low, while only 10.4% of the participants had selected the high and very high options.

Question 12 asks “Given the implementation of performance-based payment plan, do the payments at the hospital level are fair?” This question scored an average of 1.85 and which was one of the last three questions of the table (one to the last). According to this row, it determines that in general, 75.6% of participants consider the fairness of the performance-based payment plan as low and very low, while only 5.7% of the participants considered its fairness high and very high.

Table-2: Descriptive statistics and average score of participants against each asked question

Item #	Question	Satisfaction rate (%)				
		VL	Low	SH	High	VH
18	In my opinion, therapeutic groups should receive far better income than the support group.	9.2	9.2	23.4	15.6	42.7
17	Do you think the head of department should receive far better income than other employees of the depart.?	7.1	13.8	38.6	24.8	15.7
6	How much this kind of payment has been effective on the quality of your life?	18	18	19	14.2	30.8
16	Do the direct authority of determining your qualitative score considered all your ability and do he/she behave fairly?	12.8	14.9	31.4	24	16.9
15	How far are you satisfied with the qualitative score that you have been given?	16.3	11.5	29.2	27.5	15.6
32	In your opinion, in case of the elimination of genuine defects from this plan, then could it be a good alternative to the modern payment plan?	15.6	13.2	31.9	20.7	18.6
5	How much does this kind of payment affect your mood and relaxation?	23.9	16	14.3	15.4	30.4
19	In your opinion, does the exact registered income of departments of the hospital impact directly on your income?	14.6	16.7	31.3	20.4	17
26	In your opinion, do the case program (case care), which has been announced by the ministry, a suitable method?	16.8	15	34.6	19.6	13.9
34	In the case of I get a job offer from other (private) hospital, would you prefer to continue your job in this (state) hospital?	19.9	14.6	30	20.6	15
2	Up to which extent the overtime hours affect the increment in this type of payment?	17.9	21.6	30.4	15.9	14.2
4	Up to which extent this type of payment affects the provision of favorable services to the patients?	27.4	15.4	21.9	15.1	20.2
23	Does the implementation of the mandatory working hours implicated by the ministry matches with your presence hours in the hospital?	14.8	23	35.1	21	6.2
1	How far this type of payment system relate to the quality of your performance?	24.5	23.5	23.5	12.9	15.6
13	Do the previous modern payment system got replaced by performance-based payment system is satisfactory?	29.2	20.3	20	13.2	17.3
31	In your opinion, do the performance-based payment plan					

	increased your motives for better service the patients?	25	18.2	31.2	16.4	9.2
25	Do the performance-based payment plan increased your presence in the hospital and job shifts?					
14	Did you get more income in the previous payment system than you are getting in the current performance-based payment plan?	27.2	16.6	32.8	12.4	11
33	Do your motivation to work in this hospital has increased, after the implementation of this project?	28.9	23	19.2	16.2	12.7
30	The different departments have different revenues, do you think that the income of staffs of all the departments of the hospital should be the same?	23.7	24.1	30.2	12	10
11	Do your income increased in the performance-based payment plan than in the previous plan?	25.2	27.2	26.5	11.6	9.5
29	How far your personal opinion and interest are affected by this plan?	26.4	27.4	24.3	13.7	8.2
22	Does the lack of relationship between the importance of recruitment and income of staff in this plan be fair?	34.6	18.8	25.3	7.5	13.7
27	Does the director, head of the hospital, and the direct managers of the performance-based payment plan answered your ambiguity & questions in connection to the implementation of this plan?	25.6	27.6	28	14.3	4.4
7	How far this plan of payment match with the experience of staff?	26.9	22.1	35	11.9	4.1
35	Do you think that the plan for the development of the health system and, in particular, performance-based payments can be implemented without the required cooperation of other organizations?	30.1	25.7	23.3	12.8	8.1
20	Are you fully aware of the role and function of the hospital executive board regarding the performance-based payment plan?	28.7	23.1	35	6.3	7
9	In this plan, does the quality of your work is measured by standard benchmarks?	33.7	24.1	26.2	10.2	5.8
8	How far this type of payment fulfill the difficulty of your work and your responsibility?	33.4	34.5	21.2	4.1	6.8
21	Are you aware of the duties and role of the university team about the performance-based payment plan?	41.8	27.2	14.6	7.8	8.5
28	Are you fully aware regarding the percentage income of your department and its direct impact on your income?	35.8	30	25.3	5.8	3.1
3	Does to increase your overtime work indicate a better performance?	40.6	24.2	25.3	6.1	3.8
10	How much are you satisfied with this payment system?	43.4	24.9	21.9	5.4	4.4
12	Do the payments in hospitals with respect to the performance-based payment be fair?	46.1	22.2	21.2	7.7	2.7
24	In your opinion, do the implementation of this plan reduced the gap between the staff and the physician?	47.7	27.9	18.8	3.7	2
	Total	27.3	20.8	26.1	13.6	12.2

Discussion:

As mentioned earlier, one of the goals of the implemented

payment system is to develop a fair rule for all the staffs and creating conditions for them in today's competitive market so that they do not leave their organization (Eichler, 2006). The aim of this study was to evaluate the satisfaction of diagnostic, therapeutic and support staffs of Jahrom Hospitals in the area of performance-based payment. Results of the analysis showed that in general, the satisfaction of the staff on the performance-based payment was at a low level, which means that most hospital staffs in Jahrom city are not satisfied with the current method of payment. This study strengthens the results of Yuzden & Yildirim (2014) on a qualitative assessment of the supplementary performance-based payment system in Turkey on the population of physicians. They reported that the doctors have a negative perception on the performance-based payment system and believe that increased work and stress reduces job satisfaction. They also found that in addition to financial rewards, non-financial incentives can also contribute to the objectives of a supplementary performance-based payment system. Tolideh *et al.* (2016) found that the nurses prefer non-financial compensation methods so that there was a statistically significant relationship between these compensation methods of service and dimensions of job performance. In our findings, in Item 9, which examines the basis for the existence of a standard benchmark for performance measurement, it was revealed that most people believe that no standard approach there exists for performance evaluation (Table-2). Bradley *et al.* (2013) also believed that there is no competency-based indicator or a clear standard to assess the medical staff. In our study, there is a significant relationship between employment status and satisfaction so that the highest average satisfaction relates to the corporate recruitment status (2.83) and the lowest average satisfaction relates to employment status (2.40). In a study of Bastani *et al.* (2016), in relation to the performance-based payment, although there was a relationship between employment status and employee perspectives, it contradicts with our study as the contractual staff had a better view than the rest of the groups to the performance-based payment. Raeisi *et al.* (2010) found that officials and contractual employees were more satisfied than other employees and the reason for this was the more stable job status for this group. About our Item 1, which was regarding the impact of performance-based payment on quality, most people believed that this approach would have the relatively small effect on the quality of their work (Table-2), which was not consistent with the results of Raeisi *et al.* (2010). Among the factors causing performance-based payment system to be of low quality was maybe due to the budget and the time of performing the program that is currently performing, which is consistent with Abbasi & Monourian (2016). Regarding our Items 8, 24, and 12 that somehow represents the fairness in the performance-based payment

plan, the results indicated that most of the employees were not satisfied with this plan, which is not consistent with results of Abbasi & Monourian, (2016), Bastani *et al.* (2016), Raeisi *et al.* (2010), Roozbahani *et al.* (2016). One of the causes that employees perceived the plan unfair was due to the employees' attitudes towards determining the effect of payments. In general, the present study showed that the majority of employees showed low satisfaction with the performance-based payment. Various factors can be effective in the employees' dissatisfaction of the performance-based payment, including negative perception of employees of the plan (Yuzden & Yildirim, 2014) failure to allocate the necessary budget and time for program effectiveness, non-commitment of top-level government executives as organizational leaders in implementation of performance-based payment systems, the lack of proper and continuous training of staff and head nurses about the payment system (Abbasi & Monourian, 2016). It is thus recommended for the health managers in Jahrom city, to frame the proper planning and reinforcing the infrastructure of the payment plan, attempt to further satisfy the staff and consequently improve the quality of services. One of the limitations of this study was the small sample size, which was due to the small number of employees. It is suggested for the future studies to measure patients' satisfaction with the hospital services in different departments and use the results as a benchmark for employee performance evaluation.

Conclusion:

A viewpoint of diagnostic, therapeutic and support staffs about the performance-based payment plan was evaluated to be lower than the average. It seems necessary that healthcare policymakers must plan to improve payment methods and promote motivation of the healthcare staff.

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