Relationship of Payment, Based on Performance and Efficiency of Human Resource in Training Healthcare Center of Hasheminejad Hospital, Tehran, 2012

M. Barzegar¹, E. Afzal², B. Delgoshaei³

¹Hospital Management Research Center, Tehran University of Medical Sciences, Tehran, Iran. Ph.D. student of Health Care Services Management, Islamic Azad University
²Hospital Management Research Center, Tehran University of Medical Sciences, Tehran, Iran. Ph.D. student of Health Care Services Management, Islamic Azad University
³School of Health Management and Medical Informatics of Tehran University of Medical Science, Associate Professor, Ph.D., G.W.U.

ABSTRACT

Background: Improvement of human force efficiency is a requirement to improve and advance the organizations and provides background of successfulness in order to present optimum goods and services. Payment and bonus system strategies should be designed so that the individuals motivated to a higher level of efficiency and cause more performance.

This study was carried out with the purpose of determining the relation of payment based on efficiency and performance of human force in specialized healthcare center of Shahid Hasheminejad.

Method: The current study is an integration study. Statistical population included workers or staff of training healthcare center Hasheminejad Tehran (N = 403). The subject volume was determined by using formula, equal to 64 people and was assumed 50% of the subject volume by a quota method for each of two clinical & nonclinical series. Then, from this number, sampling was carried out randomly. Four payment variables were obtained based on efficiency, justice, preservation of competent staff, flexibility and motivation which were analyzed as four independent variables in relation with human force efficiency, as a dependent variable.

In this study, questionnaires were used as a gathering tool for data. The data were analyzed by using indices of descriptive statistics and Pearson Integration Coefficient.

Results: In the field of human force efficiency, the obtained average (66/74) and payment average based on efficiency was estimated (70.8). The meaningful relationship between each of four payment variables based on efficiency (justice, preservation of competent staff, motivation and flexibility) and human force efficiency, was obtained r=0.49 (p < 0.001), r = 0.75 (p< 0.001), r = 0.58 (p = 0.05), r = 0.79 (p = 0.05), r = 0.46 (p = 0.05), respectively.

Conclusion: Attention to the meaningful relation between payment system, based on staff and attempt to improve efficiency management and making a payment system based on justice and focused efficiency which results in motivation and preservation of competent staff, can play an important role to increase the efficiency of human resource in healthcare organizations.

KEYWORDS: payment based on efficiency, human resource efficiency, hospital.

INTRODUCTION

Today, behavior and organization knowledge achievements indicate that the human force, is assumed as the main source to make validity in an organization successfulness and as a competitive advantage and is the most important variable in successfulness of an organization. Studies show that in traditional and hierarchical organizations, in which management is based on control and governing, only 25 to 30 % of the human resource capacity is utilized.

These resources are more considered in administrative departments regarding to provide public services and especially in healthcare system, as the role of them in providing the public health in society.

In human science, this concept is recognized that desirable efficiency can not only be achieved by varying the structures, adding new technologies, codifying instructions and issuing circular letters, but also the human is the basis of any individual or social efficiency. Hence, more considerations should be focused on human factors in organization efficiency. To do this, application of a systematic approach which correlates easy efficiency to the organization purposes, besides describing the human force and manages individual capabilities of staff as a capital for the organization, is of the most important strategic decision in an organization.

Empirical observations show that financial motivations are of the effective factors on individual organizational behavior in healthcare section. Despite approving rules which focus on government power to force individuals to

*Corresponding Author: M. Barzegar, Hospital Management Research Center, Tehran University of Medical Sciences, Tehran, Iran. Ph.D. Student of Health Care Services Management, Islamic Azad University
follow the rules through penalties, financial bonus and encourages is used to exert behavioral changes and to respond the financial motivations which can be effective to increase human force efficiency.

It can be noted that factors such as motivation, individual capabilities and appropriate infrastructures can affect staff efficiency, but this issue is impressed by management factors of the organization rather than the individuals. This viewpoint has been considered in codifying purposes & policies of the country.

In our healthcare system, different experiences have been existed since many years ago. Per case projects with precise payment, Fee – for – service (FFS) and ... have been executed before Islamic revolutionary in hospitals. After the Islamic revolution, some rules were approved for human force payment system in hospitals which include: fee for service plans, modification of hospital structure systems, articles 192 & 193 in the third development plan, articles 49, 88, 143 & 138, from the forth development plan, have all focused on efficiency management and fee payment.

In healthcare service organizations, especially in hospitals, difficulties of the work and complication in activities & processes, on one hand, and necessity to provide qualified services to the patients and absorbance of their satisfaction, on the other hand, will cause the preservation, motivation and efficiency performance of human force, need more précised plans and procedures toward the other organizations.

Payment based on efficiency is used as a management tool in Iran hospitals but the way of payment is mental and the payment value is not compatible with the services provided by the staff. Payments based on performance is like a double edge sword. If it works well, both the staff and organization will enjoy it and if not, both will damage.

The other importance of this issue is that if payment, based on performance, will cause staff satisfaction. The result can be observed by increasing the efficiency and performance of the organization and that's the exact thing managers look for it. According to the efficiency system goals, strategies should be designed so that the employees would be stimulated for higher level of performance.

In the other words, the employees tend to receive bonus compatible to their performance. Those employees, who reach to a high performance level, expect to receive bonus according to their performance.

If the perception of the employees is in such way that they believe a good performance will be considered by the organization, therefore, they will expect to observe this relation in practice, so they will indicate a high level of performance.

Since deficiency in utilization of resources and limited available facilities influence the organizations and is a threat for their survival, attempts to overcome these deficiencies and to do reasonable evaluations of employees' performance and then fair payments can provide a field to decrease job quitting and improvement of efficiency and performance.

Inappropriate utilization of human force and capacities without or with extra utilization of it, indicates lack of human force efficiency. Farshadifar study reported undesirable human resource efficiency in industrial and agricultural companies of Kermanshah province and evaluated seven factors influence on utilization of human resource.

These factors included training, motivation, creativity, work conscience, management, legality and discipline, saving and an appropriate payment system which are all recognized to have a similar influence on human resource efficiency. Another study, done in Yazd Jean Company by Tavariu and coworker, showed that management factors are the most significant ones on efficiency and then, individual, cultural, psycho – social and finally environmental factors, are the most ones respectively.

Results of Najafi Dolatablab in Beheshti hospital of Yasuj in 2009 also indicated that payment method, based on efficiency and according to the staff services in details, improve their service provision and hence high level of satisfaction in patients.

Regarding to the role of human resource in successfulness of human – based organizations, this study tries to study the relation between payment based on performance and human force efficiency in training healthcare center of ShahidHasheminejad, Tehran. With this study the relation between each payment variable, based on performance, and human force efficiency is determined. Hence, it's hoped that the study results can absorb focus and attention of most managers to the variables which have a meaningful relationship with human force efficiency, and help them to modify and improve payment system.

METHODS

This study is practical in terms of its goal and has been done by integration methods statistical population includes staff of training healthcare center of Hasheminejad Tehran (N = 403). The sample the volume was obtained 64 people according to following formula:

\[
\frac{(1.96+1.28)^2}{(0.42)^2} + 3 = \frac{10.49}{0.17} + 3 = 64 = n = \frac{(z_{\alpha} + z_{\beta})^2}{d^2} + 3
\]
\[ d = \frac{1}{2} \ln \frac{1+r}{1-r} \]

Statistical subject volume = n
Integration between the two variables in the previous studies or the hypothesis discussed by the author:

\[ Z_{a} = 1096 \]
\[ z_{\frac{\alpha}{2}} = 1028 \]
\[ r = 0.4 \]

Subject volume was dissociated in a quota method, so that 50% of the subject members were selected from the staff of hospitalization department (n=32) and 50% from other department staff, i.e. administrative – support or Paraclinic (n=3) department (n=32). Selection of subject number was determined randomly in the noted quotas. In this study, the questionnaire was used as a tool to gather data. The questionnaire was designed in three parts; the first part was the measurement of payment features, based on performance, which included 15 questions. The studied variables in it included: justice, preserving competent employees, flexibility and motivation. The second part included 13 questions related to measure 7 components for human force efficiency (capability, occupation recognition, organizational support, motivation, performance feedback, validity and surrounding compatibility)

Which considered the questionnaire used in the thesis of Barzegar in 2011, as a standard. Demographic information of the questionnaires included sex, marital status, education degree, major, and service experience and employment status. Content and structure contents of the questionnaire were evaluated by the experts. Stability (پایایی) of the questionnaire was homology and obtained 76% for the questions of payment, based on performance, and 74% for the questions of human force efficiency.

All the members of the subject under studied were justified for the goals and topic of the study and were assured that the obtained data from the questionnaires only used for investigation and as statistical data and would be considered as secret information.

The questions were measured by 5-option scale of Lickert, so that very low = 1 and very high = 5.

The criterion to judge the data evaluation was determined by converting them into a 0-100 index for each individual and definition of a new variable which was a quantitative and continuous variable and hence, feasibility to conduct Pears on integration test got better. Calculation formula of this conversion is as follow:

\[
(Mean - Min) \times \frac{100}{(Max - Min)}
\]

Where;
mean = the average replies of each individual to each question.
Min = the minimum score = 1
Max = the maximum score = 5
To process all the gathered data, descriptive data (mean & standard deviation) and to study integration and possible effects on understudied variables on each other, Pearson integration coefficient was used.

RESULTS

Demographic information of the repliers included sex; marital status, education degree, experiences and employment status have been presented in table.1 in details.
Table 1- Abundance distribution of the sample members according to the sex, marital status, education degree, experiences and employment status

<table>
<thead>
<tr>
<th>Abundance percentage</th>
<th>Absolute abundance</th>
<th>Descriptive data feature</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>16</td>
<td>male</td>
<td>sex</td>
</tr>
<tr>
<td>75</td>
<td>48</td>
<td>female</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>64</td>
<td>total</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>42</td>
<td>married</td>
<td>Marital status</td>
</tr>
<tr>
<td>34</td>
<td>22</td>
<td>single</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>64</td>
<td>total</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Under diploma</td>
<td>Education degree</td>
</tr>
<tr>
<td>14</td>
<td>9</td>
<td>diploma</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>7</td>
<td>Associate degree</td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>41</td>
<td>B.A</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>M.A</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>PhD</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>64</td>
<td>total</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>63</td>
<td>From 1 to 10 years</td>
<td>Service experience</td>
</tr>
<tr>
<td>30</td>
<td>19</td>
<td>From 11 to 20 years</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>11</td>
<td>From 21 to 30 years</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>64</td>
<td>total</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>18</td>
<td>formal</td>
<td>Employ-mer status</td>
</tr>
<tr>
<td>41</td>
<td>26</td>
<td>contractual</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>20</td>
<td>contractual</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>64</td>
<td>total</td>
<td></td>
</tr>
</tbody>
</table>

Average efficiency of human force and each of payment system properties, based on performance, and are listed in table 2.

Table.2- Average payment system properties, based on performance, and efficiency of human force.

<table>
<thead>
<tr>
<th>Average</th>
<th>Total num</th>
<th>Variable name</th>
<th>Dependent and independent variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>69070</td>
<td>64</td>
<td>Justice</td>
<td>Payment system based on performance</td>
</tr>
<tr>
<td>74091</td>
<td>64</td>
<td>Preservation of competent employees</td>
<td></td>
</tr>
<tr>
<td>66025</td>
<td>64</td>
<td>Flexibility</td>
<td></td>
</tr>
<tr>
<td>72034</td>
<td>64</td>
<td>Motivation</td>
<td></td>
</tr>
<tr>
<td>66074</td>
<td>64</td>
<td>-</td>
<td>Utilization of human resources</td>
</tr>
</tbody>
</table>

Test of meaningful relation between payments, based on performance, and efficiency of human force showed that there was a meaningful relation between the first feature of payment based on performance i.e. justice, and human force efficiency (Pearson integration coefficient = 0.49, p < 0.001).

The second feature of payment based on performance i.e. preserving competent employees, showed a meaningful relation with human force efficiency (Pearson integration coefficient = 0.79, p < 0.001).

There showed a meaningful relation between the third payment feature, based on performance, i.e. flexibility and human force efficiency (Pearson integration coefficient = 0.58, p = 0.05).

There showed a meaningful relation between the forth payment feature, based on performance, i.e. motivation and human force efficiency (Pearson integration coefficient = 0.79 and P = 0.05).

In General, the study findings showed a meaningful relation between payment feature, based on performance, and human force efficiency (Pearson integration coefficient = 0.46 and p = 0.05).

DISCUSSION

The study findings showed the human force efficiency in a desirable level. Therefore, It can be concluded that by attention to capabilities, motivation and staff support and also appropriate management performance and a good understanding of the work conditions, a good utilization of human resource obtained and work force abilities with a generative property to meet the organization goals have been applied as well. It should be noted that efficiency improvement management is a cycle which always needs review. By reviewing all the activities, improvement and advance can be provided in the cycle process.

Findings of a similar study which was carried out by Hedayati in 2006 in Iran medical science universities also showed an average level for the staff efficiency components and only components of clarity and recognition were found in a desirable position. Barzegar study in 2011 also showed desirable level for human resource efficiency.
Regularization & design of a fairly wage & salary system is one of the most important tools to achieve management goals to absorb, maintain &promote human force. In this system, an equal payment should be received against an equal work. Many strikes, inappropriate work, lack of motivation &occupation dissatisfactions, job quitting and decrease in human force efficiency are derived from lack of attention and also inequality in payments or unfairly methods to pay profits and salary more than half of participants in this study confirmed justice in payments, based on performance. To achieve this goal is obtained by training, record and measurement of performance information, determination of service rate and codifying way of payment and also evaluation of staff performance.

These study findings showed a meaningful relation between the first payment feature (based on performance) i.e justice and human force efficiency.

This means that attention of management team toward the creation of staff successful plans makes possible the opportunity to plan for optimum performance management and fairly payments, and this issue can increase motivation, performance improvement and therefore, human resource efficiency. However, attempt to pay, based on fairly performance, derived from performance management is a cycle which definitely need to plan and accurate attention of leadership team and also a continuous improvement. Tajedin in his study noted that if the staff payment is done regardless of the performance, this will lead to a high and ineffective costs for the organization.

Level of preservation of competent staff among the subject members under studied, was determined as a desirable level. This issue shows that managers appreciate the importance of preservation of competent human force. Payment system should be designed and performed such that it can preserve capable and creative employees, as the employees who don't receive sufficient payment and profits against the work they do for the organization, they will decrease their attempts to achieve organization goals and in contrast, if they think they receive better profits in another organization, they will quit their own organization as well. The study findings indicated a meaningful relation between preservation of competent staff and human resource efficiency. Creating payment system based on performance, and preservation of competent staff is one of its results that will surely lead to the best usage of appropriate individuals for personal, organization and social goals. Attention to the capabilities inside the organization will provide feasibility to find potential talents and to design and plan the occupational improvement ways for optimum utilization of the current capacities and will make a motivation to improve the performance of competent staff and to utilize human resources.

Ghahremani study findings in 2005 showed that lack of meritocratic systems is of the important parameters which play an important role in making non – competitive services or products and makes fear to meet foreign competitors in the owners of these industries.

A payment system based on performance should have required flexibility toward staff performance, i.e. the amount or level of payment should vary with the increase and decrease of effective performance of staff.

More than half of the study subject members, evaluated flexibility feature as a desirable feature. Since this feature has the minimum average toward other system features, review and improvement of the system on accurate compatibility of individual qualitative and quantitative performance is very necessary with the payments.

The study findings showed a meaningful relation between flexibility and efficiency of human force.

It can be concluded that the more the flexibility of the payment system, based on performance, against the staff performance, the more effect on efficiency increase.

The goal to create motivation through a payment system, based on performance, can improve human resource performance and prevent the resistance of employees against changes and will result in an efficient organization.

A vital resource for competitive advantage is often obtained by attaining related systems to absorb, motivate and manage human resources of the organization. Motivation is reported desirable among the subject members.

Bonus systems are designed and executed so that they can finally create more motivation & efficiency among the staff. Making motivation and encourage in employees is possible in two spoken (statement of staff troubles and works and appreciating them) and practical (payment of salary and profits) aspects. Both factors are effective in efficiency and performance of the staff.

Statistical findings of this study showed the motivation relation through payment based on performance and efficiency of human resource. Lajevardi also noted bonus and encourage as the effective factors to motivate human force. According to this study, the staff should know which methods or what factors will lead to encourage and good bonus.

Ansari study also introduced increase in staff motivation and succulence from the results of management plan, based on performance.

In general, payments based on performance, were reported desirable in the hospitals under studied. In a study in 2008 done by Alikhani&&Lari in Hasheminjad center of Tehran, the results showed that executing of fee – for service in the current form caused satisfaction of employees, relatively. Hassani&Azizi study in HashemiNejad center in 2007 showed that the center staff had a high level of satisfaction for the payments. In this study a meaningful relation between payment, based on performance, and human resource efficiency was confirmed.
REFERENCES


4-Yazdchi M.[Performance Management and it’s Assessment]. 9th conference electrical networks ;2005 Apr 29-30;Zanjan,Iran (Persian).


