Analytical Approaches of Impellent and Preventive Power on Hospital Services

[1]Ghassem Abedi, [2]Jalil Shojaii and [1]Farideh Rostami

[1]Department of Public Health, Health Sciences Research Center,
Mazandaran University of Medical Sciences, Sari, Iran
[2]Mazandaran University of Medical Sciences,
Health Care Management, Iran

Abstract: Nowadays, growth and transformation, productivity and improvements are the main topics in the modern societies. In 1947, Kurt Levin who was the first scientist paid attention to survey the effective factors of productivity based on analysis of force field. The purpose of present study was to conduct a survey on effective factors on hospital services (analytical approaches of impellent and preventive power on hospital services). The survey was conducted based on quantitative analysis of cross-sectional studies in terms of time in series design in several groups. The survey was carried out among groups of physician, nurses and supportive services in Imam Khomeini hospital (Sari, Iran). Data were analyzed with ANOVA, t-Test and correlation coefficients. The average age of groups was 36.63. There was significant correlation between education, monthly wages and relationship with subordinates. The averages of the advantages as impellent and preventive factors were (p<0.001), (p<0.02), (p<0.0), respectively. In addition, there was significant correlation between job set and the average of advantage as impellent factors. Finally, the power of impellent factors in the medical group is more than preventive. The power of preventive factors is also more than impellent factors in nursing services groups and support services (p=0.00, p<0.001). The obtained results had indicate that the power of prevent factors is more than impellent factors in nursing services and support services. Growth and organizational sublimity with profit and participation of all job categories for strengthen impellent factors and weakening of preventive factors to make possible effectiveness in optimum services.

Key words: Impellent factors · Preventive factors · Hospital services · Analytical approach

INTRODUCTION

For many years, when parents are speaking with children, often repeated such statement that they have necessary capability; but they do not carry on their shoulder. Einstein partially cleared this issue by stating such statement that 10% of genius is God-granted and 90% is perspiration. In the era of recognition, human are regarded as a constituent element of social system for management scientists. For better understanding of human behavior, it has been anticipated to investigate in human behavior [1- 3].

Basically, organizational performance is resulted from interaction of three sources such as physical, financial and human element which are the most important factors. Human behavior is complex and unpredictable. Performance of a person is function of her/his ability and motivation. Ability depends on experience, skill and education. Whenever there is motivation, personal efficiency may increases vice versa weak motivation has negative impact. Management should be aware of everything that may have influence on human to enhance the performance and create an environment for boosting productivity and efficiency.

Managers and research scientists cannot be indifferent with regard to behavior needs in an organization. Perhaps, field of human activities may not be more important than management. Manager should prepare indoor and outdoor environment that people can do group work and have effective and constructive role to support organization objectives. Discussions on growth, development, improvement and productivity are the most important topics in communities, especially in developing countries. Prior to pay attention to economic and health services, management issue should be determined and then it can be applied to other important issues.

Corresponding Author: Jalil Shojaii, Mazandaran University of Medical Sciences, Health Care Management, Iran.
Tel: +98-9111262900.

A method with implementation and analysis of the force field with identification of effective variables has been developed by Kurt Levin [4-6]. He assumed that use of power changes (impellent and preventive) identity of these factors may create pressure on each organization collection (set); then the impact of impellent and preventive may improve or reduce the organization efficiency [5-7].

By the assumption of undesired organization productivity, utilization of limited (bounded) resources in hospitals of Islamic Republic of Iran is very important issue. In order to achieve the desired goals in growth, cultural and political economic development special attention to organization needed. It is necessary fundamentally evaluate the cause and lack of organizational productivity. Basically, for efficiency in organization one shall start from individuals if they respond properly, useful and effective for the organization then achievements are favorable [8].

The purpose of present work is to conduct an assay which is affecting factors on employees of Imam Khomeini hospital (Sari, Iran). The method of approach was developed in analysis force field defined by Kurt Levin which introduced the affecting status of organization productivity [3].Two major affecting parameters such as impellent and preventive were drawn and used in order to achieve optimum economic status. The best utilization of time and facilities, manpower resources and also enhance life quality, reduce social abnormal, remove existing contradictions organization aligning and human achievements for the desired goals.

Methodology: The present study conducted using analytical approach with descriptive and quantitative methods. The intention was to investigate cross-sectional study with respect to time and time series design within several groups. The number of sample has been randomly distributed with respect to other related parameters. The distribution of random sampling is defined by the following equation:

$$n = \frac{\left(z_{1-a/2} + z_{1-\beta}\right)^2 * \left[p_1\left(1-p_1\right) + p_2\left(1-p_2\right)\right]}{\left(p_1 - p_2\right)}$$

where, $z_{1-a/2}$ and $z_{1-\beta}$ are statistical coefficients also P_1 and P_2 represent statistical values. Sample population of 380 persons were divided into in 3 groups, medical group with sample size of 55persons, nursing services with sample size of 200 persons and support services with sample size of 125 persons.

The error level of 5% and confidence level of 95% have been selected. Data were collected by the questionnaire which was divided in 2 parts; the questionnaire contained demographic and key factors including the following items:

A=good policy and quality of office, B= success, C= monitoring, D= job, E= responsibility, F= relations with supervisor, G= relationship with colleagues, H= relations with subordinates, I= work condition, J= progress, K= secure job, L= private life, N= possibility of growth, M= recognition, O= job place, P= remuneration in 2 times as preventive in 4 different time (T_1, T_2, T_3, T_4). Then data were analyzed with ANOVA, t-Test and correlation coefficient. These data were in several groups with time series design; T_1, T_1, T_3, T_4 in 3 groups such as medical, nursing services and support services. The average of 4 times replicated data is obtained. It is necessary to explain the reasons for the evaluation of collected data based on feedback derived before and after each case control. Among the four groups of studies the effectiveness factors and productivities (improved or reduced) were evaluated.

RESULTS

Studies were conducted in accordance to the importance role of owner's of hospital services at production of optimal care in 3 groups: medical, nurses and supportive services. In the other hand, the differences of payments were applied between these groups. It is important to analyze the point of view of these 3 groups about the factors that have positive and negative impact on their hospital services. The findings were illustrated for every group in 3 plots (Figures 1 to 3) and the affecting factors among groups were compared. The comparative data between these groups is shown in Figure 4.

Figure 1 depicts active physicians in hospital have been designated the most point of impellent factors response to job with resultant score (6.03) and the most important points to preventive factors to remuneration with the resultant score of (2.87).

Figure 2 shows the role of impellent and preventive factors on present services level in nurse group. This group has been designated the most points of impellent factors related to their colleagues with resultant score of (5.80) and the most points to preventive factors to secure with score of (2.59) and remuneration with 2.26 score. Therefore, the power of impellent was more than preventive factors.
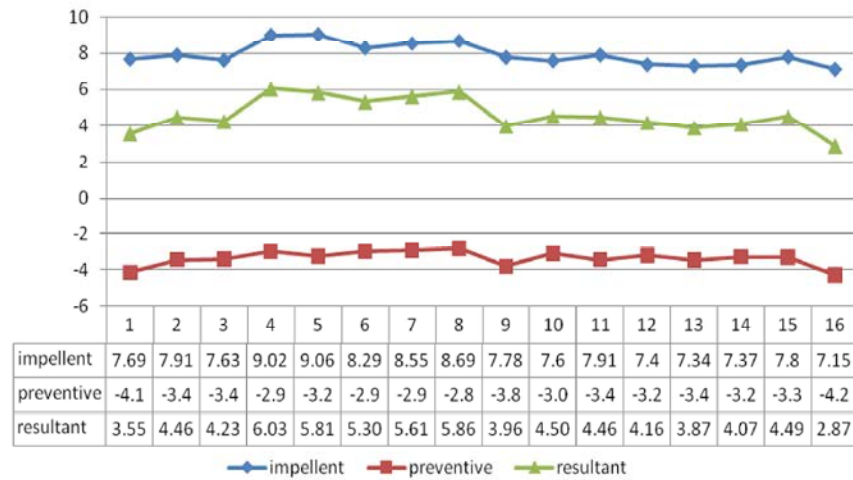
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
impellent	7.69	7.91	7.63	9.02	9.06	8.29	8.55	8.69	7.78	7.6	7.91	7.4	7.34	7.37	7.8	7.15
preventive	-4.1	-3.4	-3.4	-2.9	-3.2	-2.9	-2.9	-2.8	-3.8	-3.0	-3.4	-3.2	-3.4	-3.2	-3.3	-4.2
resultant	3.55	4.46	4.23	6.03	5.81	5.30	5.61	5.86	3.96	4.50	4.46	4.16	3.87	4.07	4.49	2.87

Fig. 1: Resultant of impellent and preventive factors in physician group

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
impellent	7.23	7.35	7.17	8.5	8.73	8.31	8.61	8.38	7.07	6.92	6.8	7.03	7.28	7.27	7.07	6.48
preventive	-3.4	-3.3	-3.5	-3.2	-3.1	-3.0	-2.8	-2.7	-3.5	-3.4	-3.8	-3.5	-3.5	-3.3	-3.5	-3.8
resultant	3.74	3.95	3.65	5.24	5.59	5.28	5.80	5.61	3.52	3.48	2.95	3.53	3.76	3.96	3.56	2.62
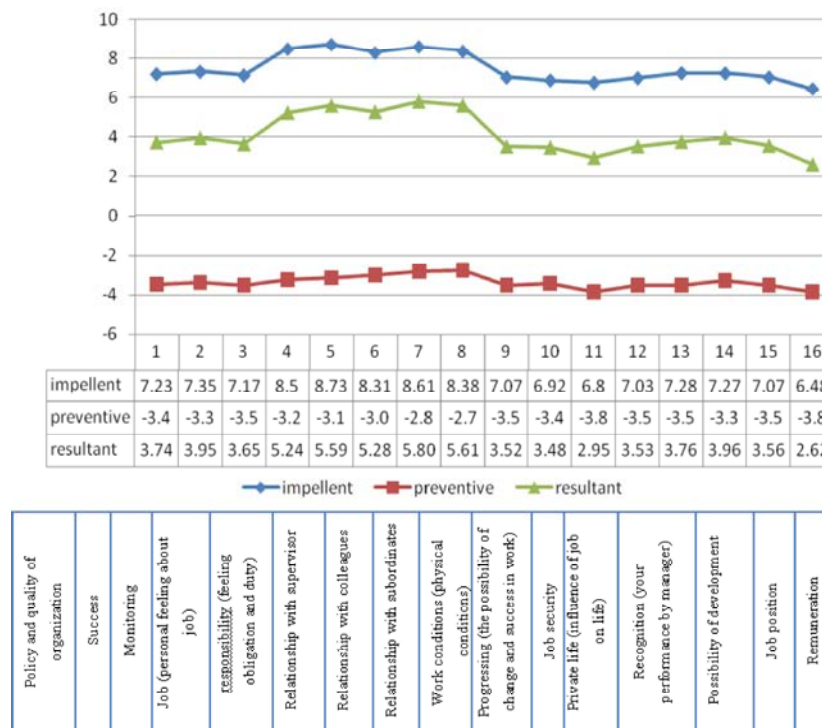
Fig. 2: Effect of impellent and preventive factors in nurse group

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
impellent	7.82	7.63	7.47	7.8	8.55	8.36	8.62	8.11	7.75	7.64	7.58	7.74	7.47	7.46	7.62	7.33
preventive	-3.8	-3.3	-3.2	-3.3	-3.1	-3.0	-2.8	-2.6	-3.8	-3.5	-4.2	-3.4	-3.4	-3.5	-4.2	-3.8
resultant	3.98	4.25	4.21	4.40	5.43	5.30	5.81	5.42	3.86	4.14	3.36	4	4.01	4.01	3.38	3.43
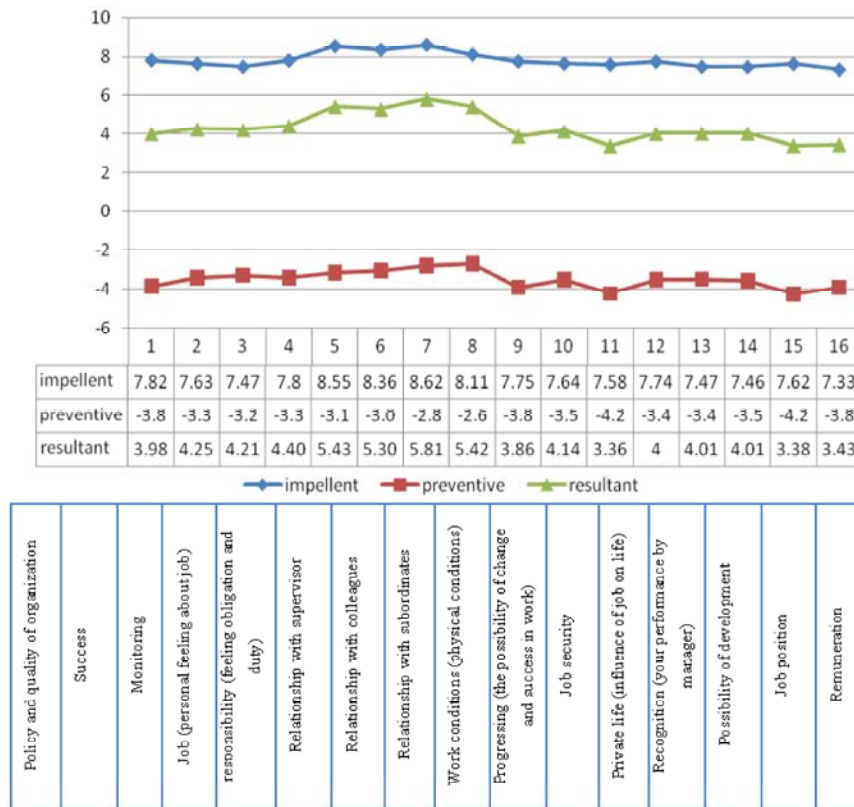
Fig. 3: Relation of impellent and preventive factors in supportive staff

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
impellent	-3.7	-3.4	-3.4	-3.2	-3.1	-3.0	-2.8	-2.7	-3.7	-3.3	-3.8	-3.4	-3.4	-3.3	-3.6	-3.9
preventive	7.51	7.75	7.37	8.43	8.76	8.32	8.6	8.38	7.44	7.3	7.3	7.25	7.35	7.35	7.41	6.89
resultant	3.76	4.16	3.95	5.19	5.60	5.29	5.76	5.61	3.73	3.92	3.44	3.82	3.86	4.00	3.74	2.92
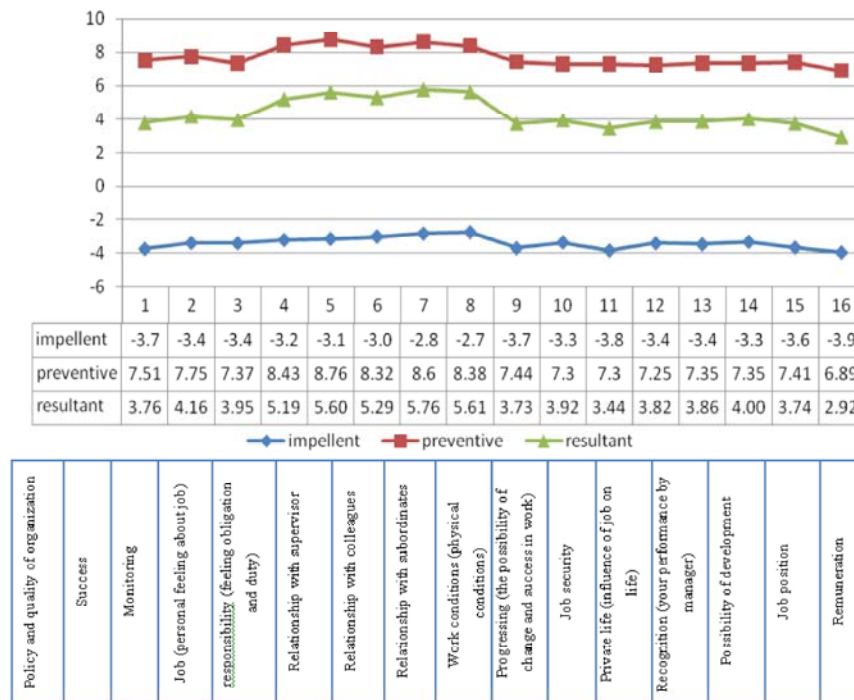
Fig. 4: Resultant of impellent and preventive factors in physicians, nurse and supportive staff

Figure 3 demonstrates the effectiveness of impellent factors on present services level of office and support group. This group has been designated the most points of impellent factors related to their colleagues with resultant score of (5.81) and the most points to preventive factors to job place with score of (3.38). Generally, this is well understood that the power of impellent factors is more than the preventive factor.

Figure 4 shows the status of impellent and preventive powers on working status of physician, nurse's group and support staff. These groups have been designated the top score of impellent factors to relative to colleagues with resultant score of (5.67), score of 5.61 to relative to subordinate, the score value of 5.60 to responsibility and the most score of preventive factors to remuneration variables with resultant score of (2.92), the score of 3.44 to job security and resultant score of 3.73 designated to work conditions.

DISCUSSIONS

The purpose of present study is to determine the effectiveness of impellent and preventive factors on the level of services from physician point of view. Employees in this category designated as the most score of impellent factors to their responsibility (feeling of obligation and duty) with average score of (9.02) and the lowest score of impellent factors to remuneration with average score of (7.15). Also this groups have been designated the most score of preventive factors to remuneration with the average score of (-4.28) and the lowest score of preventive factors devoted to relationship with subordinates with average score of (-2.83). The resultant of scores showed that the job had more score than other variables that was the score of (6.03) and the lowest score was for remuneration with the value of (2.87). Therefore, the power of impellent factors with 7.94 score was more than preventive factors. The result of this investigation was accordance to similar studies carried out by Hoshidari̇s in educational hospital in Lorestan at physician groups [8].

According to Hierarchy of Maslow's needs research study of Donis concluded that the nation center point of needs was more than social and physical needs of this group. Therefore, considering social and physical conditions, amenability and job that are the factors of motivation at Herzberġs theories should be considered and strengthened [9]. Other aim of present study has been determined for impellent and preventive factors on service from nurses' point of view. Employees in this category

designated the most score of impellent factors to responsibility such as feeling of obligation and accountability to tasks with mean score value of (8.73) and the lowest score of impellent factors to remuneration with mean value of (6.47). Also, this groups have been designated the most score of preventive factors to remuneration with mean score value of (-3.58) and job security with mean value of (-3.85) and the lowest score of preventive factors to relationship with subordinates with mean score value of (-2.77). The resultant of scores showed that the relationship with colleagues had more score than other variables (5.80) and the lowest score was for remuneration with the mean score value of (2.62). The result of present study was compatible to investigation conducted by Razavii in Military hospital for the nurse group in resultant of scores [10]. At the other hand, the results did not coincide with the most score of impellent factors; that is clear that nurses staff work with more responsibility than to duty. According; spirituality dimension the findings and facts were similar to Farhangi's study as the role of spiritualities in job satisfaction [11]. Therefore, the nation center point based on Hierarchy of Maslow's needs was more than social and physical needs in this group. By consideration of social and physical conditions, these conditions are counted for health factors; that is the motivation factors (feeling of obligation and duty) relationship with subordinates and colleagues should be prepared in advance.

One of the purposes of present study was to determine the effectiveness of impellent and preventive factors on the level of services from supportive staff point of view. Employees in this category designated the most score of impellent factors with respect to colleague relationships (8.62) and the lowest score of impellent factors to remuneration with average value of (7.33). Also, this groups have been designated the most score of preventive factors to job place (job location) with score of (-4.24) and the lowest score of preventive factors in relationship with regards to subordinates with score of (-2.68). The resultant of scores showed that relationship with colleagues had more score than other variables (5.84) and the lowest score was related to job security (3.36). According to mean value of impellent factors (7.79) and preventive factors (-3.48), the power of impellent factors was more than preventive factors. The obtained results in the present study were similar to investigation conducted by Razavie's supportive staff of military hospitals in resultant score. In contrary, there were no similarities in most and the lowest score of impellent and preventive

factors. In this group, motivation factors have been more taken into consideration. This fact has been proven by Tajer's study about the most satisfaction of social factors like respect, good relationship with colleagues which is equivalent to the case known as interactive with customers, colleagues and managers [12].

Comparison conducted among 3 groups: physician, nurse and support staff showed that the most score of impellent factors with mean score value of (8.76) has been designated to responsibility (feeling of obligation and responsibility of duty) and the lowest score of remuneration with score value of 6.89. Also, the most score of preventive factor has been designated to remuneration with mean value of -3.97 and the lowest score of (2.76) belong to relationship with subordinates. The resultant of scores showed that relationship with colleague's variables had more scores with mean score value of 5.76 and remuneration variable has been designated the lowest score value of (2.92).

The view point of 3 groups is very important for the social relationships. There is much evidence that the formation of social relationships and the needs belong to group having strong motivation. In order to make supported team work and mutual respect can provide strong motivation for employees. Considering that the remuneration score cause to balance at the level of services production in 3 groups had this message that in addition to attention to low level of needs like remuneration and job security have special attention to motivation needs according to Hertzberg's theory that the low level of needs are related to work conditions. This may be the satisfying or can be the dissatisfaction resources. This fact has been proved by Hazavehi's study that remuneration at an organization than other organization and manager's ingenious and consultant with employee cause to more satisfaction between employees [13].

Comparing impellent and preventive factors on service level by Hertzberg's theory; one can conclude that resultant illustrative results for health and motivation factors are linear, i.e. productivity level is higher than balance level. Therefore, the power of impellent factors should be more than preventive factors.

CONCLUSION

The impellent and preventive factors on hospital services in 3 categories as group studies were preformed. The descriptive and quantitative analogies for 3 groups such as physicians, nurses and supportive hospital staff were carried out with determined outcome. Extra attention paid to group motivations which are drawn by additional salaries and overtime payments. There is some solid evidence that social relationships and group of staff having strong motivation with additional payments. In contrary, job security may catch special attention in line with job motivations. The most score of impellent factors devoted to responsibility such as feeling of obligation and accountability to tasks with mean score value of (8.73) and the lowest score of impellent factors given to remuneration with mean value of (6.47).

Comparing results of conducted studies among 3 groups: physician, nurse and support staff showed that the most score of impellent factors with mean value of (8.76) designated to job responsibilities, job obligation and duty. The lowest score of remuneration with score value of 6.89.

ACKNOWLEDGEMENTS

REFERENCES

1. Luthans, F., 1993. Management of organizational behavior. Translated by Ghasem Sarmad. Banking Institution Tehran, pp: 305-320.

2. Hill, R. and A. Maslow, 1984. The philosopher Who Ranked Human Need: International Manage., 29: 65-70.

3. Luthans, F., 1992. Organizational Behavior. New York, McGraw-Hill, pp: 156-252.

4. Baron, R.A., 1986. Behavior in organizations. Allyn and Bacon, 2nd Ed. Baron, pp: 78-90.

5. Lawrenece, K., 1991. Motivating staff. Data Processing, 26(9): 17-19.

6. Armstrong, M., 1991. Personal Management Practice. 4th Ed. Kogan, pp: 157-160.

7. Robbins, S.P., 1989. Organizational Behavior. 5th Ed. New York, McGraw-Hill, pp: 215-249.

8. Hushidri, E., 1999. Survey of effective factors on job satisfaction and motivation at health workers in Tafresh. M.Sc. Thesis, Mazandaran University of Medical Sci.,

9. Davis, K. and J. Newston, 1989. Organizational Behavior. 5th Ed. New York, McGraw-Hill, pp: 215-249.
10. Razavi, P., 2009. Survey of effective factors on present level of services on Iranian Revolutionary Guards, M.A. thesis, Baghiallah University of Medical Sci.,
11. Farhangi, A. and A. Rastgar, 2006. Providing a motivation model on spirituality staff. Daneshvar scientific-Research Biomonthly of Shahed University, 9(13): 23-26.
12. Tajer, M. and M. Arab, 2006. Staff job satisfaction at children medical centers in Tehran. Scientific-research quarterly of Health Manage., 9(23): 27-30.
13. Hezavei, M., 2007. Effective factors on job satisfaction at executive staff in Hamedan province, Behavior Science Research Publication, 5(9): 32-38.