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| Website: www.jehp.net |
| DOI: 10.4103/jehp.jehp_180_20 |

The role of communication skills in the promotion of productivity of health human resource in Iran: A cross-sectional study

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Abstract:

INTRODUCTION: Organization survival is dependent on communications and managers spend a main portion of their time to establish communications. The identification, improvement, and development of communication skills serve as the essential components of successful organizations. The present study aimed to investigate the role of communication skills in human resource (HR) productivity in North Iran and aimed to investigate the role of communication skills in health HR (HHR) productivity in North Iran.

METHODS: The study employed a cross-sectional design and was conducted in six deputies supervised by the Alborz University of Medical Sciences, in 2019. The statistical population included all 302 employees were selected as the sample population according to the Cochran's formula. Using two researcher-made questionnaires of communication skills and HHR productivity, we assessed the role of communication skills in HHR productivity.

RESULTS: According to the research findings, there were significant relationships between communication skills including verbal skills, listening skills, and effectiveness skills with HHR productivity ($P \leq 0.05$). There was a significant relationship between age group, gender, level of education, and travel home-university distance with communication skills and resource productivity of employees ($P \leq 0.05$).

CONCLUSION: This study examines the role of communication skills in the promotion of HHR productivity who work in the administrative section of the University of Medical Sciences in Iran. Findings suggest that health planners and authorities may need to examine factors that contribute to the promotion of the communication skills for increase HHR productivity of employees and improved performance of health organizations.

Keywords:

Communication skills, human resource, Iran, productivity

Introduction

An organization is an example of a communication network that tries to improve its conditions continually. To realize this, it plans its business capitals.^[1] Health human resource (HHR) is an example of such capitals and organizations try to make them be more productive. Working on communication skills is one

of the best techniques for promoting HHR productivity.^[2,3] Organizations need communications to survive. A better understanding and identification of human communication skills leads to organizational promotion, therefore communication skills in health care system should be taught in a systematic way, including practice and constructive feedback.^[4-6] Therefore, modern organizations need to understand the necessity of establishing appropriate

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How to cite this article: Pouragha B, Keshtkar M, Abdolahi M, Sheikhbardsiri H. The role of communication skills in the promotion of productivity of health human resource in Iran: A cross-sectional study. *J Edu Health Promot* 2020;9:229.

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Received: 28-02-2020

Accepted: 05-04-2020

Published: 28-09-2020

communications with people. However, the lack of understanding and awareness of the quality and nature of communications and their role inside an organization have not still been addressed.^[7]

Communications can be considered as the obligatory element of success in all social systems and subsystems. Managers have found that establishing effective communications with HHR and understanding their communication motives plays an effective role in their success in achieving organizational targets. Communication skills and their role in human resource (HR) productivity contribute to the main portion of organizational communications. Therefore, managers should be aware of the quality of the communication process and establishing effective communications.^[8-10] Communication in the health system may become quite challenging due to the complexity of this field. The interaction between health workers and patients is influenced by the feelings and thoughts; patients' outcome and patient and physician satisfaction can be improved with a good communication.^[11]

To provide optimal patient care, all members of the health care team must effectively communicate with patients and communication skills of physicians and nurses are critical components in quality of health care,^[12] and also, patients' satisfaction is obtained when facilities provided health service (hospital, health center, and clinic) pay attention to patients' experiences as well as their demand and need.^[13] Studies have shown that good communication skills in the health system can increase staff and patients' satisfaction,^[14] quality of care, and patients' safety.^[15,16] Communication is a skill, and skills are capabilities that are obtained by people via learning and education.^[11] They are actually the different dimensions of people capabilities that should be effectively manifested in practice.^[12]

Medical University in Iran is in charge of medical education and health-care delivery, so paying attention to the skills learned in medical universities with regard to their role in promoting community health is really important. This study aims to answer this question that "what is the role of communication skills in the productivity of the employees of University of Medical Sciences in Iran?" and "can we use it as a fit measure in universities, considering the importance of these variables?"

Methods

Respondent characteristics and setting

The statistical population of the study included all 302 personnel who work in the six administrative deputies at Alborz University of Medical Sciences including

health ($n = 92$), treatment ($n = 79$), logistic ($n = 39$), food and medicine ($n = 32$), student cultural ($n = 28$), and educational ($n = 32$). The appropriate sample size was selected from all the above staff as the statistical population estimated using Cochran's formula:

$$n = \frac{N \times z^2_{\alpha/2} \times p(1-p)}{\varepsilon^2(N-2) + z^2_{\alpha/2} \times p(1-p)}$$

$$= \frac{302(1.96)^2 \times 0.5 \times 0.5}{(0.05^2)(302) + (1.96)^2 \times 0.5 \times 0.5} = 169$$

Data were kept confidentially by putting no name or other personal information in the questionnaires. Questionnaires were handed out by research assistants and distributed to the participants in the office environment and participants filled the questionnaire during their daily work hours.

Inclusion and exclusion criteria

The inclusion criteria were all the personnel worked in the office environment. Exclusion criteria included a lack of consent for participation in the study and incomplete questionnaires.

Data collection

For data collection, the research team initially developed a tree questionnaire after an extensive review of the relevant literature to achieve good content validity. We developed the tree questionnaire in Farsi to reconcile study issues and concepts culturally and linguistically for Persian-speaking study participants. The first questionnaire included questions about demographic characteristics of employees including sex, age, education level, job experience, position, and travel home-university distance. The second questionnaire contained 18 questions to investigate communication skills of employees including verbal dimension (items 1-6), listening dimension (items 7-12), and effectiveness dimension (items 13-18). The third questionnaire contained 14 questions to investigate HHR productivity. Two questionnaires of communication skills and HHR productivity were scored using Likert 5-point scale (completely agree = 5, agree = 4, no idea = 3, disagree = 2, and completely disagree = 1).

The communication skills and HHR productivity questionnaires were validated using the viewpoints of ten faculty members at Alborz University of Medical Sciences to resolve ambiguities indicating an acceptable content and face validity of the test. To assess the reliability of the scales in this research, a reliability test was conducted by Cronbach's alpha method among 30 subjects yielding and Cronbach's alpha coefficient of 0.95 for communication skills and 0.83 for HHR productivity, showing good reliability of the questionnaires.

Data analyses

To analyze data, descriptive tests including frequency, percentage, mean, and standard deviation and analytical tests including the Kolmogorov–Smirnov test were conducted to indicate that the data were sampled from a population with a normal distribution. The correlation between demographic data and communication skills and HHR productivity was examined by the Pearson correlation coefficient and one-way ANOVA and *t*-tests. The multivariate regression was used to determine the effects of variables that were assessed using the SPSS software (version 19, SPSS Inc., Chicago, IL, USA). There was a significant difference at the level of $P < 0.05$.

Results

According to the results, 39.1% and 60.9% of the studied cases were male and female, respectively. In addition, 12.4%, 46.7%, 30.7%, and 10.2% of the cases were 20–30, 30–40, 40–50, and >50 years old, respectively. Regarding education, 2.9%, 66.2%, and 30.9% of the cases had over-diploma, BS and MS, and above degree, respectively. Furthermore, 11.2%, 22.4%, 38.4%, 17.7%, and 10.3% of the cases had <5, 5–10, 10–15, 15–20, and >20 years of job experience. Of the studied cases, 13.6% were no experts, 76.3% were experts, 7.1% were experts in charge, and 3% were managers. Regarding the travel time from home to university, 32.6%, 42%, and 25.4% of the cases were traveling the distance in <½ h, 0.5–1 h, and >1 h, as shown in Table 1.

The *t*-test results also revealed the positive and significant relationship of gender with the communication skills ($P = 0.04$). The ANOVA results revealed the positive and significant relationship of age group, level of education, and travel home-university distance with the communication skills affected the productivity of employees ($P \leq 0.05$).

The results of Pearson correlation analysis revealed a positive significant relationship between the dimensions of communication skills and HHR productivity ($P = 0.000$). On the other hand, the coefficient of correlation is $R = 0.814$ which has a positive sign and is a high value. Therefore, this relationship is direct and strong in the meaning that as communication skills increase HHR productivity. The results of Pearson correlation analysis showed a significant positive relationship between the dimensions of communication skills and HHR productivity where effectiveness ($r = 0.812$, $P = 0.000$), listening ($r = 0.706$, $P = 0.000$), and verbal ($r = 0.624$, $P = 0.000$) dimensions have the highest correlation with HHR productivity, respectively shows in Table 2.

The regression implementation stages of communication skills with standard and nonstandard coefficients,

Table 1: Demographic characteristics of the research sample

| Variable | Frequency (%) |
|---------------------------------|---------------|
| Sex | |
| Male | 66 (39.1) |
| Female | 103 (60.9) |
| Age | |
| 20-30 | 21 (12.4) |
| 30-40 | 79 (46.7) |
| 40-50 | 52 (30.7) |
| >50 | 17 (10.2) |
| Education | |
| Over diploma | 5 (2.9) |
| BS | 112 (66.2) |
| MS and above | 52 (30.9) |
| Job experience | |
| <5 | 19 (11.2) |
| 5-10 | 38 (22.4) |
| 10-15 | 65 (38.4) |
| 15-20 | 30 (17.7) |
| >20 | 17 (10.3) |
| Position | |
| Non specialist | 23 (13.6) |
| Specialist | 129 (76.3) |
| Responsible specialist | 12 (7.1) |
| Manager | 5 (0.3) |
| Travel home-university distance | |
| <½h | 55 (32.6) |
| 0.5-1 h | 71 (42) |
| >1 h | 43 (25.4) |

Table 2: The coefficient of the correlation of communication skill dimensions with human resource productivity of the research sample

| Variable (communication skill dimensions) | Coefficient of correlation | Significant level | <i>n</i> |
|---|----------------------------|-------------------|----------|
| Verbal → HR productivity | 0.624 | 0.000 | 169 |
| Listening → HR productivity | 0.706 | 0.000 | 169 |
| Effectiveness → HR productivity | 0.812 | 0.000 | 169 |

HR=Human resource

standard deviation, and *t*-test with their significance levels are shown in Table 3. Therefore, it can be stated that there is a significant linear relationship between communication skills and HHR productivity. The *t*-test for regression coefficient also shows the significance of this coefficient (significance = 0.000). In other words, communication skills have a positive significant effect on HHR productivity as indicated by the positive sign of B-factor, as shown in Table 3.

The effect and explanatory role of each communication skills dimension on HHR productivity were determined by entering method regression analysis. The study data indicate that the correlation of the effectiveness dimension, which was introduced to the regression model to explain the variance of HHR productivity, is

0.812 and it explains 66% of changes to HHR productivity. Listening skill was introduced to the model too with the coefficient of correlation of 0.706 and the coefficient of determination of 49%. Moreover, the correlation between verbal skills and HHR productivity was 0.624 and verbal skills explained 38% of changes to HHR productivity, as shown in Table 4.

Multiple regression models showed that increased verbal skill, listening skill, and effectiveness skill increased HHR productivity. Among all factors influencing HHR productivity based on β coefficient, the dimension of effectiveness skill among communication skills dimensions had the most impact on HHR productivity, as shown in Table 5.

Discussion

The aim of this study was to evaluate the effect of communication skills on HHR productivity. Based on the results of demographic variables, communication skills have a higher influence on female employees of the studied university because the number of females is higher in the population. Majority of communication skills affected the productivity of employees aged 30–40. Moreover, employees with BS. degree obtained more benefits from this study. The participation of the specialists of the studied university in this study was high and the effect of communication skills on their productivity was higher. Finally, the employees who

travel home-university distance in 0.5–1 h showed more productivity.

The results of this study indicated that there is a significant relationship between communication skills and HHR productivity. This agrees with the results studies of Raina and Roebuck,^[13] Abas and Imam,^[14] and Omani and Yu and Nilsson.^[15] Our results showed that communication skills play a role in promoting the productivity of the employees of the studied university so that the employees believe that the existence of effective communication skills will promote HHR productivity. It is suggested, therefore, that managers should empower their employees by educating them how to concentrate on different issues that are in connection with communication skills or should strengthen their communication skills by arranging different courses to build new skills in them. In addition, managers can promote employees' productivity by arranging training courses associated with verbal, listening, and effectiveness skills. On the other hand, HHR productivity could be promoted by the awareness of the planning department of the mission, vision, and organizational objectives.

This study showed a significant relationship between verbal skills and HHR productivity. This agrees with the results of studies Noe *et al.*^[16] and Kiani *et al.*^[17] In other words, verbal skills play a role in promoting the productivity of the employees of the studied

Table 3: Regression model coefficients

| Model | Nonstandard coefficient | | Standard coefficient (β) | t | Significant level |
|----------------------|-------------------------|-------|----------------------------------|--------|-------------------|
| | B | SE | | | |
| Constant | 0.512 | 0.163 | - | 3.140 | 0.000 |
| Communication skills | 0.831 | 0.046 | 0.814 | 18.100 | 0.000 |

SE=Standard error

Table 4: The effect and role of each communication skill dimensions on human resource productivity of the research sample

| Regression results | R | R ² | Adjusted R ² | F | Significant | STD | Durbin-Watson |
|---------------------|-------|----------------|-------------------------|---------|-------------|---------|---------------|
| Verbal skill | 0.624 | 0.389 | 0.385 | 106.214 | 0.000 | 0.49037 | 1.74 |
| Listening skill | 0.706 | 0.498 | 0.495 | 165.598 | 0.000 | 0.44444 | 1.92 |
| Effectiveness skill | 0.812 | 0.660 | 0.658 | 323.690 | 0.000 | 36.591 | 1.52 |

STD=Standard Deviation

Table 5: The coefficient of the correlation of communication skill dimensions with human resource productivity of the research sample

| Model (dimensions of communication skills) | Nonstandard coefficient | | Standard coefficient (β) | t | Significant level |
|--|-------------------------|-------|----------------------------------|--------|-------------------|
| | B | SE | | | |
| Constant | 1.274 | 0.212 | - | 6.016 | 0.000 |
| Verbal skill | 0.602 | 0.058 | 0.324 | 10.306 | 0.000 |
| constant | 1.313 | 0.167 | - | 7.848 | 0.000 |
| Listening skill | 0.609 | 0.047 | 0.706 | 12.869 | 0.000 |
| Constant | 0.953 | 0.140 | - | 6.806 | 0.000 |
| Effectiveness skill | 0.711 | 0.040 | 0.812 | 17.991 | 0.000 |

SE=Standard error

university so that the employees believe that the existence of effective verbal skills will promote HHR productivity. It is suggested that managers should state ideas in the framework of general words to strengthen verbal and speaking skills of their employees through education.

This study obtained a significant relationship between listening skills and HHR productivity. This agrees with the study results of Arnold and Boggs, Grudzen *et al.*, and Kurtz *et al.*^[18-20] In other words, listening skills play a role in promoting the productivity of the employees of the studied university so that the employees believe that the existence of effective listening skills will promote HR productivity. It is suggested that employees should listen to the words of their clients more accurately to establish an effective listening and comprehend their whole words.

This study obtained a significant relationship between effectiveness skills and HHR productivity. This agrees with the results of studies Najafi *et al.*^[21] and Delery and Gupta.^[22] In other words, effectiveness skills play a role in promoting the productivity of the employees of the studied university so that the employees believe that the existence of effective effectiveness skills will promote HHR productivity. Therefore, employees can speak with clients in a manner that could enable them to get an accurate feedback of their words.^[22]

Limitation

Potential limitations of the present study were a lack of cooperation of the participants and not responding to the questions truly due to fear of revealing information. These limitations were partially overcome by communicating to the participants properly and explaining that their participation is optional, their responses will be kept confidential, and they can fill it without writing their names on it.

Conclusion

This study examines the role of communication skills in the promotion of HHR productivity who work in the administrative section of the University of Medical Sciences in Iran. Findings suggest that health planners and authorities may need to examine factors that contribute to the promotion of the communication skills for increase HHR productivity of employees for improved performance of health organizations. Conducting similar comparative studies in different organizations is recommended.

Acknowledgment

This article is based on the findings of an approved research project with a number: IR.ABZUMS.REC.1395.1438, and

also, we would like to thank all the people who helped us to perform this study.

Financial support and sponsorship

This study was financially supported by Alborz University of Medical Sciences.

Conflicts of interest

There are no conflicts of interest.

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