The Role of Communication Skills in the Promotion of Human Resource productivity in Iran: A cross-sectional Study

CURRENT STATUS: POSTED

Behrooz Pouragha
Alborz University of Medical Sciences

Mahnaz Keshtkar
Alborz University of Medical Sciences

mahdieh Adolahi
Islamic Azad University

Hojjat Sheikhbardsiri
Kerman University of Medical Sciences

hojat.sheikhbardsiri@gmail.com Corresponding Author
ORCID: https://orcid.org/0000-0002-3264-6792

DOI: 10.21203/rs.2.20618/v1

SUBJECT AREAS
Health Economics & Outcomes Research

KEYWORDS
Communication Skills, Human Resource, Productivity, Iran
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 productivity in north Iran.

Method

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 Cochran's formula. Using two researcher-made questionnaires of communication skills and human resource productivity, we assessed the role of communication skills in human resource productivity. Data were analyzed by implementing descriptive statistics including mean and standard deviation (SD), and analytical statistics such as Kolmogorov-Smirnov, ANOVA, Pearson correlation coefficient, T-test and multivariate regression tests using SPSS 21 and $P \leq 0.05$.

Results

According to research findings, there were significant relationships between communication skills including verbal skills, listening skills and effectiveness skills with human resource 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 human resource 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 human resource productivity of employees and improved performance of health organizations.
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]. Human resource 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 human Resource productivity [2]. Organizations need communications to survive. A better understanding and identification of human communication skills leads to organizational promotion. Obviously, the more the compliance of specialists’ knowledge, and communication skills, with society needs, and scientific advances and changes, the higher is the success of both individuals and organization [3, 4]. Therefore, modern organizations need to understand the necessity of establishing appropriate communications with people. However, the lack of understanding and awareness of the quality and nature of communications, and their role inside an organization, has not still been addressed [5].

Communications can be considered as the obligatory element of success in all social systems and sub-systems. Managers have found that establishing effective communications with human resource and understanding their communication motives plays an effective role in their success in achieving organizational targets. Communication skills and their role in HR productivity contribute to a main portion of organizational communications. Therefore, managers should be aware of the quality of communication process and establishing effective communications [6]. According to Hayatiet al., establishing a suitable communication demands the awareness of communication skills so that poor communication skills can affect performance [7]. Active listening is a communication skill where the listener should concentrate all his/her senses on the speaker’s words on the one hand, and should give a brief feedback to the speaker on the other hand in order to assure that all the words of the speaker have been accurately comprehended. Modern organizations have understood the need for establishing appropriate communications with people. However, the lack of understanding and awareness of the quality and nature of communications, and their role inside an organization, has not still been addressed. This means that the necessity of improving required communication skills is an undeniable fact [7].
Skills are capabilities that are obtained by people via learning and education[8]. They are actually the different dimensions of people capabilities that should be effectively manifested in practice[9]. Communication skills are a key success factor in every organization that lead to specific organizational performances so that adopting them in different organizational positions and situations leads to the achievement of organizational targets[9, 10]. 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:

\[
N = \frac{Z_{a/2}^2 \times p(1-p)}{e^2 (N-1) + Z_{a/2}^2 \times p(1-p)} = \frac{302(1.96)^2 \times 0.5 \times 0.5}{(0.05^2)(302) + (1.96)^2 \times 0.5 \times 0.5} = 169
\]

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 lack of consent for participation in the study and incomplete questionnaires.

Data collection
For data collection, research team initially developed 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, travel home-university distance. The second questionnaire contained 18 questions to investigate communication skills of employees including verbal dimension (items 1 to 6), listening dimension (items 7 to 12) and effectiveness dimension (items 13 to 18). The third questionnaire contained 14 questions to investigate human resource productivity. Two questionnaire of communication skills and human resource productivity were scored using Likert five-point scale (completely agree = 5, agree = 4, no idea = 3, disagree = 2 and completely disagree = 1).

The communication skills and human resource productivity questionnaires were validated using the viewpoints of ten faculty members at the 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 human resource 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 human resource productivity was examined by the Pearson correlation coefficient, and one-way ANOVA and t-test. The multivariate regression was used to determine the effects of variables were assessed using the SPSS 21 software. There was a significant difference at the level of p < .05.

Results
According to results, 39.1% and 60.9% of the studied cases are 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 have over-diploma, B.S and M.S and above degree, respectively. Furthermore, 11.2%, 22.4%, 38.4%, 17.7% and 10.3% of the
cases has <5, 5–10, 10–15, 15–20 and > 20 years of job experience. Of the studied cases, 13.6% were non-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 was travelling the distance in less than half an hour, 0.5-1 hour and > 1hour, shows in Table 1.

| 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                  |           |    |
| < half an hour            | 55        | 32.6|
| 0.5-1 hour                | 71        | 42  |
| > 1 hour                  | 43        | 25.4|

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 ≤ 0.05).

The results of Pearson correlation analysis revealed a positive significant relationship between the dimensions of communication skills and human resource 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, human resource productivity. The results of Pearson correlation analysis showed a significant positive relationship between the dimensions of communication skills and human resource 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 human resource productivity, respectively shows in Table 2.
The regression implementation stages of communication skills with standard and non-standard coefficients, standard deviation, and t-test with their significance levels, show in Table 3. Therefore, it can be stated that there is a significant linear relationship between communication skills and human resource productivity. T-test for regression coefficient also shows the significance of this coefficient (sig = 0.000). In other words, communication skills has a positive significant effect on human resource productivity as indicated by the positive sign of B-factor, shows in Table 3.

| Table 2 |
| The Coefficient of the Correlation of Communication Skill Dimensions with Human Resource Productivity of Research Sample. |

| Variable | Coefficient of correlation | Sig. level | number |
| --- | --- | --- | --- |
| Communication skill dimensions | | | |
| verbal → HR productivity | 0.624 | 0.000 | 169 |
| listening → HR productivity | 0.706 | 0.000 | 169 |
| Effectiveness→HR productivity | 0.812 | 0.000 | 169 |

The effect and explanatory role of each communication skills dimension on human resource productivity were determined by entering method regression analysis. Study data indicate that the correlation of the effectiveness dimension, which was introduced to the regression model to explain the variance of human resource productivity, is 0.812 and it explains 66% of changes to human resource 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 human resource productivity was 0.624 and verbal skills explained 38% of changes to human resource productivity, shows in Table 4.

| Table 3 |
| Regression model coefficients. |

| Model | Non-standard coefficient | Standard coefficient | t | Sig. level |
| --- | --- | --- | --- | --- |
| Constant | B | Std. Error | Beta | 3.140 | 0.000 |
| Communication skills | 0.512 | 0.163 | - | 18.100 | 0.000 |
Table 4
The Effect and Role of Each Communication Skill Dimensions on Human Resource Productivity of Research Sample.

| Regression results | R     | R²    | Adjusted R² | F      | Sig. | 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         |

Multiple regression models showed that increased verbal skill, listening skill and effectiveness skill increased human resource productivity. Among all factors influencing human resource productivity based on β coefficient, effectiveness skill the most impact on human resource productivity, shows in Table 5.

Table 5
The Coefficient of the Correlation of Communication Skill Dimensions with Human Resource Productivity of Research Sample.

| Model            | Non-standard coefficient | Standard coefficient | t    | Sig. level |
|------------------|--------------------------|----------------------|------|------------|
|                  | B     | Std. Error | Beta |        |          |
| Dimensions of communicato| Constant | 1.274 | 0.212 | - | 6.016 | 0.000 |
| Verbal skill     | 0.602 | 0.058 | 0.324 | 10.306 | 0.000 |
| Listening skill  | 1.313 | 0.167 | - | 7.848 | 0.000 |
| Constant         | 0.609 | 0.047 | 0.706 | 12.869 | 0.000 |
| Effectiveness skill | 0.953 | 0.140 | - | 6.806 | 0.000 |
|                  | 0.711 | 0.040 | 0.812 | 17.991 | 0.000 |

Discussion
The aim of this study was to evaluate the effect of communication skills on human resource productivity. Based on the results of demographic variables, communication skills have 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 B.S. 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 hour showed more productivity.

The results of this study indicated that there is a significant relationship between communication skills and human resource productivity. This agrees with the results studies of Raina [11], Abas et al [12], Omani and Yu et al [13]. 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 human resource 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 in order 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, human resource 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 human resource productivity. This agrees with the results of studies Noe[14] and Kiani[15]. In other words, verbal 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 verbal skills will promote human resource productivity. It is suggested that managers should state ideas in the framework of general words in order to strengthen verbal and speaking skills of their employees through education.

This study obtained a significant relationship between listening skills and human resource productivity. This agrees with the results studies of [16–18]. 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 in order to establish an effective listening and comprehend their whole words.

This study obtained a significant relationship between effectiveness skills and human resource productivity. This agrees with the results of studies Najafi[19] and Delery[20]. 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 human resource productivity. Therefore, employees can speak with clients in a manner that could enable them to get an accurate feedback of their words (19).

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 human resource 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 human resource productivity of employees for improved performance of health organizations. Conducting similar comparative studies in different organizations is recommended.

References

1. Tayebi, M.A., B. Pouragha, and M.K. Bagheri, The performance of select universities of medical sciences based on the components affecting medical education. F1000Research, 2018. 7: p. 301-301.

2. Nobakht, S., et al., Human resources for health: A narrative review of adequacy and distribution of clinical and nonclinical human resources in hospitals of Iran. The International journal of health planning and management, 2018. 33(3): p. 560-572.

3. Kamuzora, F. Enhancing Human Resource Productivity Using Information and Communication Technologies: Opportunities and Challenges for Tanzania. in Mzumbe University-CAFRAD Regional Conference, Arusha, Tanzania, February. 2006.

4. Ammendolia, C., et al., Healthy and productive workers: using intervention mapping to design a workplace health promotion and wellness program to improve presenteeism. BMC Public Health, 2016. 16(1): p. 1190.

5. Ghalesefidi, M.J., J. Maghsoudi, and B. Pouragha, Effectiveness of gratitude on psychological well-being and quality of life among hospitalized substance abuse
6. Tabibi S J, N.A., Zahiri abyaneh Z. R, *Relationship Between Managers Communication Skill and Staff Motivation in Modarres Hospital of Tehran.* jhosp, 2013. ; **12** (**2**): 73-80.

7. Hayati, Y., E. Movahed, and M. Arab, *Assessing the status of managers' leadership style and its relationship with mental health staff of hospitals affiliated to Tehran University of Medical Sciences in 2014.* Journal of Hospital, 2017. **16**(1): p. 55-62.

8. Sheikhbardsiri, H., et al., *The effect of educational workshop on emergency department nurses’ self-efficacy in patient training.* Journal of education and health promotion, 2019. **8**.

9. Sheikhbardsiri, H., et al., *Motivation of the nurses in pre-hospital emergency and educational hospitals emergency in the southeast of Iran.* The International journal of health planning and management, 2018. **33**(1): p. 255-264.

10. Moore, P.M., et al., *Communication skills training for healthcare professionals working with people who have cancer.* Cochrane Database of Systematic Reviews, 2018(7).

11. Raina, R. and D.B. Roebuck, *Exploring cultural influence on managerial communication in relationship to job satisfaction, organizational commitment, and the employees' propensity to leave in the insurance sector of India.* International Journal of Business Communication, 2016. **53**(1): p. 97-130.

12. Abas, M.C. and O.A. Imam, *Graduates' Competence on Employability Skills and Job Performance.* International Journal of Evaluation and Research in Education, 2016. **5**(2): p. 119-125.

13. Yu, L. and J. Nilsson, *Social capital and the financing performance of farmer cooperatives in Fujian Province, China.* Agribusiness, 2018. **34**(4): p. 847-864.
14. Noe, R.A., et al., *Human resource management: Gaining a competitive advantage.*
   2017: McGraw-Hill Education New York, NY.

15. Kiani, F., A. Balouchi, and A. Shahsavani, *Investigation of nursing students’ verbal communication quality during patients’ education in zahedan hospitals: Southeast of Iran.* Global journal of health science, 2016. 8(9): p. 331.

16. Arnold, E.C. and K.U. Boggs, *Interpersonal Relationships E-Book: Professional Communication Skills for Nurses.* 2019: Elsevier Health Sciences.

17. Grudzen, C.R., et al., *EM Talk: communication skills training for emergency medicine patients with serious illness.* BMJ supportive & palliative care, 2016. 6(2): p. 219-224.

18. Kurtz, S., J. Draper, and J. Silverman, *Teaching and learning communication skills in medicine.* 2017: CRC press.

19. Najafi, K., et al., *Investigating Employees’ and Health Care Practitioners’ Communication Skills.* Iranian Journal of Psychiatry and Clinical Psychology, 2017. 23(2): p. 208-217.

20. Delery, J. and N. Gupta, *Human resource management practices and organizational effectiveness: internal fit matters.* Journal of Organizational Effectiveness: People and Performance, 2016. 3(2): p. 139-163.

**Declarations**

**Ethics approval and consent to participate:** This study was approved by Alborz University of Medical Sciences prior to the collection of the data. A cross-sectional study was used in 2019.

**Consent for publication:** Not applicable.

**Availability of data and materials:** Not applicable.

**Competing interests:** The authors declare they have no conflict of interest.

**Funding:** on

**Authors’ contributions:** Sheikhbardsiri H proposed the study and wrote the paper. All the authors contributed to the design and interpretation of the study and to further drafts.
Acknowledgments: The present study was supported by Alborz University of Medical Sciences. The researchers wish to express their gratitude to the university president, deputies and all those who helped conduct this research.