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ETHICAL PREDICTABILITY OF HUMAN RESOURCES IN IRANIAN HOSPITALS

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ABSTRACT

INTRODUCTION: The effective provision of health services is affected by human resources and this renders upholding ethical principles in hospitals more urgent than in any other organization. This study aimed to determine the ethical predictability of human resources in hospitals in 2022.

MATERIAL AND METHODS: This descriptive cross-sectional study was conducted in public, private, and "social security" hospitals in Mazandaran province in 2022. Data were collected through a researcher-made questionnaire designed based on Iranian national accreditation standards. The questionnaire consisted of 18 questions from 6 areas, including organizing manpower, employee evaluation, employee satisfaction and participation, employee empowerment, job promotion, and paying attention to employee motivation. The content validity was confirmed using experts' views, and its reliability was confirmed by Cronbach's alpha coefficient higher than 0.78. Data were analyzed by one-way ANOVA and Tukey's *post hoc* tests.

RESULTS: There was a significant difference between the mentioned hospitals regarding the ethical predictability of human resources ($p < 0.05$), which was higher in social security hospitals (3.80 ± 0.00) compared to public hospitals (3.30 ± 0.00) and private hospitals (2.49 ± 0.00). The highest and the lowest mean ethical predictability of human resources in selected hospitals were reported for the areas of employee empowerment (3.89 ± 0.00) and employee evaluation (2.83 ± 0.00), respectively.

CONCLUSIONS: In addition to exerting an impact on enhancing the satisfaction and productivity of employees, identifying ethical predictability factors will help medical and health services managers identify the priorities of human resources and adopt solutions to improve them.

KEYWORDS: ethical analysis; workforce; humans; hospitals; health services

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INTRODUCTION

The existential philosophy of the health system is to generate health by providing patients with services [1]. The hospital, as one of the most important service providers, faces many concerns. Hospitals pay more attention to ethics compared to other organizations, since medical and health care has a much more complicated structure [2]. Ethics can be defined as respecting the rights of others, and therefore, organizational ethics can be referred to as respecting the rights of service recipients [3]. The ethical perception of predictability in hospitals moves towards the relationship of the elements of the organization with its internal and external environment. Predictability, as the concept of foresight, is oriented towards the sources of power within the hospital and seeks to provide resources and internal interests of the organization; however, predictability, as an ethical definition, seeks to improve communication and respect for rights and also seeks to empower service recipients (*i.e.*, outside the organization) [4]. The hospital environment and distribution of medical procedures carried out in hospitals make it more urgent and at the same time more arduous to take into account predictability. Taking such a view of predictability has not been observed in the studied organizations, especially in Iranian hospitals [5]. The effective provision of medical and health services is seriously affected by human resources [6]. Therefore, management experts have devoted increasing attention to the role of human resources as well as their influence on other key organizational productivity factors [7].

The importance of human resources in providing services in hospitals is undeniable and without trained and appropriate human resources, the activity of hospitals will be disrupted. The mismatch between employed manpower and the facilities and capacities generated and the failure to equip and optimize human resources are among the main reasons behind the lack of optimal efficiency in hospitals [8]. The healthcare sector experiences a scarcity and unbalanced distribution of human resources, which overshadows the access to medical and health services [9]. The success, survival and competitive power of organizations largely depend on the quality and competence of their employees. Therefore, organizations should pay more attention to their human resources, because the implementation of human resource practices supports the maximization of employees' competencies in the organization and creates organizations that are characterized by intelligence, flexibility and competence compared to their competitors [10]. Lack of proper use of intellectual resources, mental abilities, and potential capacities of human resources is known as one of the most challenging problems of the current organizations [11]. Many organizations have identified the solution to this problem, which is through the implementation of an empowerment program; therefore, they have attempted to pave the way for training empowered employees [12] and, through meeting the needs of employees, generate an appropriate motivation for increasing the quality of work and encourage employees to get more productivity as much as possible [13].

The results of Singh and Rangnekar's [14] study in India showed that empowerment has a direct positive and significant impact on employee activity and an indirect significant impact through goal orientation and commitment to the organization. Investment in human resources for health not only strengthens the health system but also generates employment and contributes to economic growth. The results of Karan et al.'s [15] study reflected a highly uneven distribution of the health workforce across states, rural-urban and public-private sectors in India. Ayalew et al. [16] believed that health workers' job satisfaction contributes to the delivery of high-quality healthcare, but it is affected by intrinsic motivation factors. Given that the role of employees and their training and empowerment have gained great attention in the performance and innovation of organizations [17]. Fair and effective performance appraisal can improve employee performance and healthcare quality. Health workers' performance appraisal is facing several challenges, including the ineffectiveness of appraisal data for performance improvement, lack of immediate and constructive feedback and unfair performance appraisal. As the ultimate goal of human resource management systems (HRM) is to motivate employees for better health outcomes and performance improvement, these systems should be reviewed and revised [18]. Therefore, there is a necessity to develop a new system different from the formal appraisal system of hospitals [19].

Despite studies on human resources and hospital accreditation, there is a lack of literature on the concept of ethical predictability of human resources in Iranian hospitals, and the existing studies assessed the human resources situation in one of the studied

areas, whereas the current study identified the priority of human resources ethical predictability factors based on hospital ownership. Due to its enormous importance in an ethical hospital, the need for conducting inclusive and exclusive studies in this sense has been highlighted. The significance of this issue is such that in addition to exerting impact on enhancing employee satisfaction and productivity, identifying the factors causing ethical predictability leads to an increase in the quality of services and helps medical and health services managers identify the priorities of human resources and adopt solutions to improve and increase the desirability of human resources. In this study, the predictability of human resources in selected hospitals was evaluated.

MATERIAL AND METHODS

Study design

The present descriptive cross-sectional study was conducted in 2022. The statistical population included the clinical wards of public, social security, and private hospitals selected under the auspices of Mazandaran University of Medical Sciences. In the structure of Iran's health system, all hospitals located in a province are under the supervision of a university of medical sciences located in that province, and these universities of medical sciences belong to the Ministry of Health and Medical Education of Iran. First, with stratified random sampling method, out of 23 public hospitals, 9 private hospitals, and 5 social security hospitals located in Mazandaran province, one hospital on each floor was randomly selected, including Imam Khomeini public hospital in Sari, Shafa private hospital and Ghaemshahr social security hospital. The sample size was calculated using the Cochran formula. The final volume of employees in each hospital was determined at 77, 25, and 51, respectively. Dimensions of human resources in ethical predictability in hospitals were extracted by reviewing valid texts and articles, especially Iranian national accreditation standards for the management of human resources. Data were collected through a researcher-made questionnaire on human resources. The questionnaire consisted of 18 questions from 6 areas, including: organizing manpower (3 questions about the allocation and arrangement of manpower, succession and transfer of experiences, matching between job description and employed person, and matching individual capabilities to job), employee evaluation (3 questions about regular evaluation, identifying strengths, utilizing the results of evaluation in training programs, and job promotion), employee satisfaction and participation (3 questions about continuous assessment of employee satisfaction, analysis of satisfaction assessment results, and utilizing employee comments and suggestions), employee empowerment (3 questions about developing regular training programs based on needs assessment, evaluation of the effectiveness of training programs, and supporting the presence of employees in scientific circles), job promotion (3 questions about delegating responsibilities based on employee competence, creating job promotion opportunities, and transparency of the process for and the path to job promotion), and paying attention to employee motivation (3 questions about employee payment based on performance and quality criteria, employee welfare facilities, introducing and encouraging exemplary employees based on transparent criteria). All the questions were scored on a five-point Likert scale ranging from strongly disagree to strongly agree (strongly disagree = 0, disagree = 1, no idea = 2, agree = 3, strongly agree = 4). The content (face) validity of the questionnaire was confirmed by 10 faculty members of Mazandaran University of Medical Sciences, and its reliability was confirmed by calculating Cronbach's alpha coefficient at 0.78. In order to carry out the study, an expert evaluator was appointed, became acquainted with the objectives of the study, and empowered in this field through holding orientation classes and providing the necessary training in this sense. The evaluation was conducted using three methods including reviewing documents, performing observations, and conducting interviews using checklists. To do so, hospital human resources management and employees in all wards were interviewed, and observation was performed on each relevant standard. This study lasted for 9 months. Obtaining permission from the authorities of the university and related hospitals and obtaining an informed commitment from the participants in the research as well as observing the information confidentiality framework were among the ethical considerations observed in this research. Data were analyzed by one-way ANOVA and Tukey's post hoc tests using SPSS software version 21.

Ethical approval

The study was approved by the Mazandaran University of Medical Sciences, under the ethical code

Table 1. Mean ± standard deviation of predictability of human resources clinical ethics

Hospital	Mean	Standard deviation (SD)
Public	3.30	0.000
Social security	3.80	0.000
Private	2.49	0.000

Table 2. Results from the Kruskal–Wallis test on the comparison of the mean human resources

	Human resources
Chi-squared statistic	731.597
Degrees of freedom	2
Significance level	0.000

Table 3. Mean ± standard deviation of human resources dimensions in selected hospitals by ownership

Hospital dimension	Public	Social security	Private	Total mean
Organizing manpower	2.79 ± 0.01	3.33 ± 0.00	2.67 ± 0.00	2.93 ± 0.00
Employee evaluation	2.50 ± 0.03	4.00 ± 0.00	2.00 ± 0.00	2.83 ± 0.00
Employee participation	3.79 ± 0.01	4.00 ± 0.00	2.00 ± 0.00	3.26 ± 0.00
Employee empowerment	3.92 ± 0.00	4.00 ± 0.00	3.75 ± 0.00	3.89 ± 0.00
Job promotion	3.43 ± 0.01	4.00 ± 0.00	2.00 ± 0.00	3.14 ± 0.00
Employee motivation	3.00 ± 0.01	3.67 ± 0.00	2.00 ± 0.00	2.89 ± 0.00
Total mean	3.23 ± 0.83	3.83 ± 0.00	2.73 ± 0.00	3.26 ± 0.27

IR.MAZUMS.REC.1398.5986. Approval from the local ethics committees from each hospital was acquired. The participants were orally informed of the purpose of the study, participants' rights, being free to participate in the study or withdraw at any time, as well as the confidentiality of the information in all steps of the study. The written consent forms were obtained.

RESULTS

Sociodemographic profiles

The descriptive analysis of the studied sample indicated that out of 145 participants, 92 (63.4%) were female and 53 (36.6%) were male. 11 (7.6%) subjects were under 25 years of age, 113 (77.0%) between 25 and 40 years of age, 19 (13.1%) between 40 and 50 years of age, and 2 (1.4%) above 50 years of age. 15 (10.3%) subjects had a high school diploma, 99 (68.3%) an associate's degree, 29 (20%) a bachelor's degree, and 2 (1.4%) a master's degree. 68 (46.9%) subjects had less than 10 years of work experience, 76 (52.4%) between 10 and 20 years of work experience, and 1 (0.7%) more than 20 years of work experience. The employment status of 53 (36.6%) subjects was formal, 11 (7.6%) semi-formal, 61 (42.1%) contractual, and 20 (13.8%) projected-based.

The mean ± standard deviation of human resources variable in selected public, private, and social security hospitals in Mazandaran province based on ownership is shown in Table 1. According to the table, the mean ± standard deviation of predictability of human resources clinical ethics was higher in social security hospitals compared to public and private hospitals, which was reported at 3.80 ± 0.00, 3.30 ± 0.00, and 2.49 ± 0.00, respectively.

The results from the Kruskal–Wallis test on the comparison of the mean human resources in public, private, and social security hospitals of Mazandaran province showed that there was a significant difference between the mentioned hospitals in terms of human resources ($p < 0.05$) (Tab. 2).

The mean ± standard deviation of human resources dimensions in selected hospitals is shown in Table 3. The highest and the lowest scores on evaluating the predictability of human resources clinical ethics in social security, public, and private hospitals were reported for the employee empowerment dimension with a mean of 3.89 ± 0.00 and the employee evaluation dimension with a mean of 2.83 ± 0.00, respectively.

Spider Chart, also known as Radar Chart, is a graphic method for displaying multivariate data in the form of a two-dimensional chart, which is shown on the axes from the same point. This type of chart is useful when we want to display performance data graphically. The status of human resources dimensions in selected hospitals by ownership is shown in Figure 1. The ethical predictability

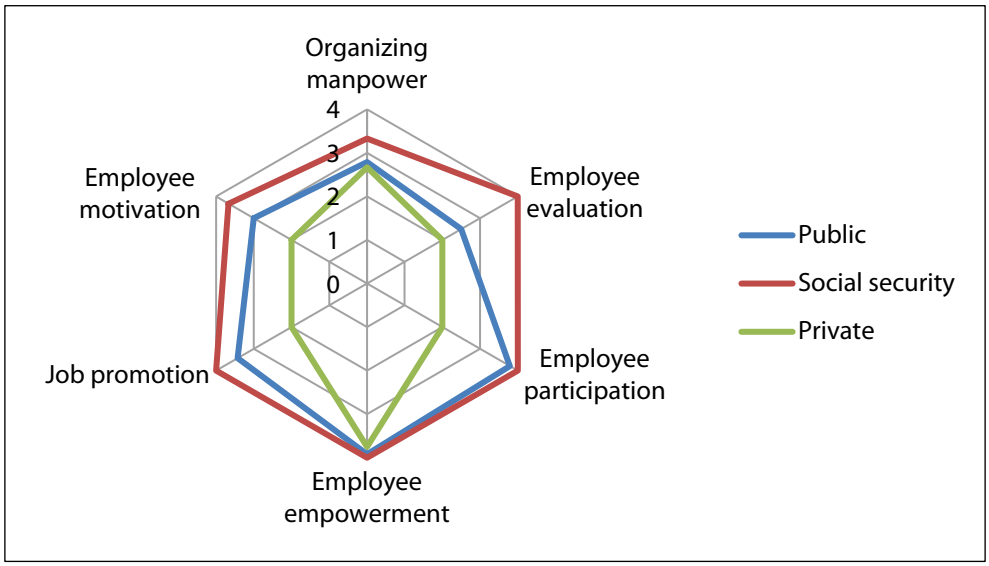

FIGURE 1. Status of human resources dimensions in selected hospitals by ownership

of human resources in social security hospitals was higher in comparison with public and private hospitals. The highest and the lowest mean ethical predictability of human resources in selected hospitals were reported for the areas of employee empowerment and employee evaluation, respectively.

The highest score in social security hospitals is based on dimensions; employee evaluation, employee participation, employee empowerment, and job promotion with an average of 4.00 ± 0.00. In public and private hospitals, the highest score was related to employee empowerment with an average of 3.92 ± 0.00 and 3.75 ± 0.00, respectively. The lowest scores in social security, public and private hospitals were respectively in the dimensions of organizing manpower (3.33 ± 0.00), employee evaluation (2.50 ± 0.03) and employee evaluation, employee participation, job promotion and employee motivation (2.00 ± 0.00).

DISCUSSION

The current study aimed to determine and compare the ethical predictability of human resources in selected public, private, and social security hospitals in Mazandaran province. The findings from this study indicated that the ethical predictability of human resources in social security hospitals was higher than in public and private hospitals.

The results from the present study revealed that ethical predictability in the area of employee empowerment had priority over other areas, and social security hospitals had higher employee empowerment compared to public and private hospitals. In the study of Al-Sabi et al. [17], it was found that training and empowering employees has a positive and significant effect on innovation performance. In Murray et al.'s [20] study, it was revealed that employee empowerment, particularly when the ideals and standards between workers and their organization are aligned, creates a strong emotional commitment which appears to strongly reduce an employee's intention to leave. Feelings of emotional connection or duty towards an organization show clear positive relationships with reduced intentions to leave. In their study in India, Singh and Rangnekar's [14] study showed that empowerment has a direct positive and significant impact on employee proactivity and an indirect significant impact through goal orientation and commitment to the organization, which is consistent with the findings of the present study. However, in the study by Moura et al.'s [21] study, hospital employees have a moderate level of structural empowerment. The greatest value was obtained in the Opportunity dimension, followed by the Resources and Informal power dimensions; while the scores of Support, Formal power, and Information were lower. To achieve the goal of survival and success, every organization should have the right personnel at the right place and at the right time. Therefore, organizations have to pay more attention to the empowerment of their human resources, because the implementation of human resource practices supports maximizing

employees' competencies in the organization [10]. The reason for such discrepancy in results is that the opposite studies evaluated the dimensions affecting the hospital empowerment atmosphere, whereas the present study assessed every single dimension of human resources in ethical predictability.

The results from the present study revealed that the ethical predictability of human resources in the area of employee participation was the second priority, and social security hospitals had greater employee participation than public and private hospitals. The results of Atouba's [11] study showed strong support for an indirect relationship between employee work participation and organizational commitment. Also, the results of the study showed that this relationship is mediated by internal communication adequacy, job satisfaction and also the job burnout-job satisfaction path. The results from Spence Laschinger et al.'s [22] study also confirmed this finding. Moreover, in their research, Tabarsa et al. [23] asserted that there was a significant positive correlation between all factors of organizational structure and job burnout. In Sarcevic et al.'s [24] study, it was found that employee participation in their own affairs as well as in organizational affairs contributed to reducing potential employee conflicts. Furthermore, the results from Nadi et al.'s [25] research indicated that employee participation was increased using suggestion system strategies, and satisfaction and teamwork were above average. In Sundaray et al.'s [26] study, it was demonstrated that there was a direct relationship between the implementation of the suggestion system with increased employee participation and organizational commitment and decreased absenteeism and conflicts, which is in line with the empowerment components of the present study. In their study, Zahavi et al. [27] reported low levels of nursing staff participation in the strategic decision-making process in Shariati Hospital. The reason for such discrepancy is because the opposite study evaluated the level of employee participation, only in the strategic decision-making process, whereas the current study explained the priority of predictable factors in human resources. On the other hand, the difference in the time and place of the study can be another reason for inconsistency.

The results from the present study demonstrated that ethical predictabilities of human resources in the areas of employee job promotion and organizing manpower were the third and the fourth priorities, respectively, and social security hospitals reported higher rates in this regard compared to public and private hospitals. The results from Suprapto et al.'s [8] study indicated that Training has a great impact on the satisfaction of healthcare providers in hospitals, and employees must optimize their abilities and competencies to improve. In Zainal et al.'s [9] study, it was revealed that the healthcare sector experiences a scarcity and unbalanced distribution of employees due to job turnover. Shanker et al. [28] referred to the drastic reduction in the number of trained medical personnel in developing countries due to migration to developed countries and proposed the idea of replacing "brain exchange" with "brain drain". Moreover, the results from Boniol et al.'s [29] research in the assessment of the health workforce in 2020 showed that the distribution of health workers in the world is unfair. Also, this assessment showed the lack of a global health workforce at the rate of 15 million people in 2020. Also, the results of Karan et al.'s [15] study showed a very unequal distribution of the health workforce across states, rural-urban and public-private sectors in India. Therefore, they emphasized the proper distribution of manpower to provide optimal services to patients. So Investment in human resources for health not only strengthens the health system but also creates employment and economic growth. In their study, Niaz et al. [30] asserted that there was no significant difference between public and social security hospitals in terms of the mean manpower; however, there was a significant difference between the distribution of nursing manpower in the studied hospitals and the Ministry of Health standard. According to numerous studies, the distribution of human resources, especially nurses, in Iranian hospitals did not follow a defined, uniform pattern [31, 32]. All of the above results corroborate with the present study findings.

The results from the present study showed that the ethical predictability of human resources in the area of employee motivation was the fifth priority. The results from the study by Peters et al. [33] demonstrated that non-financial motivators such as work environment and creating opportunities to improve skills were among the common important points. The findings from Alrawahi et al.'s [34] study indicated that job dissatisfaction reported resulted from the absence of hygiene factors including health and safety, heavy workload, salary, promotion, recognition and organizational policies as well as the

results of the research from Abolhoseini et al. [13], Hoseyni et al. [35] showed that job security and salary were the most important motivational factors affecting performance. Moreover, the results of Wijoyo et al.'s [36] study, showed that the Work Environment and Competence have a positive and significant effect on Performance both directly and indirectly through Motivation, which is consistent with the findings of the present study. However, the results from Kitsios et al.'s [37] study, showed that key motivators for employees can be considered the relationships with their colleagues and the level of achievement, while the level of rewards and job characteristics play a secondary role, Bimpong et al.'s [38] review highlighted that multiple factors influence health labour force retention. Also, pay was found to affect satisfaction, which in turn affected retention. An increase in wages alone is not sufficient to ameliorate the concerns of health workers, and a system leadership approach is needed to implement strategies to improve job satisfaction and achieve the goals of the health system's long-term plan, which is not consistent with the results of the present study.

The current study results indicated that the ethical predictability of human resources in the area of employee evaluation was the last priority. In this regard, Murphy et al. [39] identified four barriers to successful performance appraisal including; (a) the distribution of performance, (b) the continuing failure to devise reliable and valid methods for obtaining judgments about performance, (c) the limited utility of performance feedback to employees, and (d) the limited utility of performance evaluations to organisations. also emphasized performance management without relying on traditional and formal evaluations of employees. In the study by Ansari-Tabar et al. [40], 35.8% of the staff of Kashan University of Medical Sciences considered the current performance appraisal inappropriate and 41.9% of the staff had a positive attitude towards the impact of performance appraisal on providing motivation and job satisfaction. Moreover, in Ghamari Zare et al.'s [41] study, 83.5% of the participants responded positively to the necessity for performance appraisal and evaluation. The findings from the study by Majidi et al. [18] indicated that health workers' performance appraisal is facing several challenges, including the ineffectiveness of appraisal data for performance improvement, lack of immediate and constructive feedback and unfair performance appraisal. Furthermore, Abolhoseini et al. [13] stated that 90% of the staff in the rehabilitation ward considered it necessary to take into account organizational performance appraisal and 57.7% did not agree with the current performance evaluation scoring system, which confirms the current study results.

Limitations of the study

The data was gathered in public, social security, and private hospitals, but just one hospital from each group was selected, which represents a significant limitation of the current study. Also, only one province out of 31 provinces in Iran was selected to gather data. The results provide new ideas for future research such as investigating the relationship between ethical predictability and patient satisfaction in hospitals.

CONCLUSIONS

The ethical predictability of human resources in social security hospitals was higher in comparison with public and private hospitals. The highest and the lowest mean ethical predictability of human resources in selected hospitals were reported for the areas of employee empowerment and employee evaluation, respectively. The present results highlight the need for systemic approaches to human resource management. Considering the poor score in the dimensions of staff evaluation and staff motivation is suggested to revise the human resources management system and adopt strategies to increase the motivation of health workers and improve job satisfaction, update the staff performance evaluation system and change it from traditional methods to The methods are based on individual employee development programs, performance evaluation feedback to employees, and the use of performance evaluation results to strengthen and empower employees. Conducting consistent studies in this regard can provide valuable information to managers and policymakers in the field of hospital services so that by relying on this information, they can take effective steps to improve the productivity and satisfaction of hospital employees and increase the quality of hospital services as well.

Article information and declarations

Data availability statement

The data that supports the findings of the study are available on request from the corresponding author.

The data are not publicly available due to privacy or ethical considerations.

Ethics statement

The study was approved by the Mazandaran University of Medical Sciences, under the ethical code IR.MAZUMS.REC.1398.5986. Approval from the local ethics committees from each hospital was acquired. he participants were orally explained the purpose of the study, participants' rights, being free to participate in the study or withdraw at any time, as well as the confidentiality of the information in all steps of the study. The written consent forms were obtained.

Author contributions

All authors were responsible for the study. RM and GA conceived and designed the survey. RM and AZ performed the investigation. RM analyzed the data. RM and AZ wrote the original paper. RM, AZ, and LS revised the paper. All the authors have read and approved the final manuscript.

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Conflict of interest

All authors declare no conflict of interest.

Supplementary material

None.

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