Original Article

Nurses' Lived Experience of Green Human Resource Management: A Qualitative Study

Shadi Seyedein[1], Maryam Mesbahi[2]*

1. Master in Human Resource Development, Department of Economics and Management, Payam-Noor University, Kerman, Iran
2. PhD in Management, Assistant Professor and Head of Department of Economics and Management, Payam-Noor University, Kerman, Iran

Abstract

Introduction: Experts have considered environmental issues in health departments very important and essential. Understanding nurses' experience of integrated human resource management and environmental management is an important aspect in this regard. Since nurses are a major source of organizational knowledge in hospitals, their point of views can be important and effective.

Methods: This study was a qualitative content analysis with 21 nursing staff in hospitals affiliated to Kerman University of Medical Sciences. The participants were selected via purposive sampling method and data were collected through in-depth semi-structured interviews. The data collection continued until data saturation point. The Graneheim and Lundman method was applied to analyze the data.

Results: In data analysis, six main and relevant themes were found, including "Green Culture Management", "Green Education", "Green Performance Management", "Green Empowerment", "Green Structure", and "Green Screening".

Conclusion: Green human resource management activities are a set of cultural, organizational and individual factors, which strengthen the environmental attitude and performance in hospitals.

Keywords: Green human resource management, Green social responsibility, Nurses, Qualitative content analysis

Introduction

Today, experts consider environmental and public health issues as two crises. The simultaneous overlap of these two issues has led hospitals and healthcare centers into a managerial paradox. In other words, climatic changes, chemical pollution and the unsustainable use of resources, the increase in CFC and CO_2, the destruction of the ozone layer, and similar environmental damage have pushed the world towards the diseases more than ever. The health departments, while trying to address the consequences of these pollutions and changes, are causing more environmental problems (1). The opposite is also true. While the two crises are interwoven, they can also present common solutions that strengthen environmental sustainability, promote public health, and ultimately achieve sustainable development goals (2). For such solutions to be achieved, not only the health departments but also

most economic entities and organizations have raised issues such as "environmentally-friendly" or "green" products and behaviors in recent years. Among all the organizations, many educational hospitals and healthcare centers are taking step towards environmentally-friendly processes in Iran (3). Current measures for the development of "green hospitals" include implementing environmental and green experiences, improving safety and quality, saving costs, and protecting staff and patients' health (4). The process of "Green Human Resource Management" is regarded as part of those actions and measures aimed at performing the "green" activities, in staff and line sections in the hospitals (5). Green human resource management, the integration of environmental management systems (as the most effective tool for achieving sustainable development) into various aspects of human resource management (6), has attracted much more attention in recent years (7). Researchers have considered green human resource management activities as a drive for employees' responsible behaviors (8), and as a factor in promotion of optimal resource usage (9); its implementation strengthens environmental sustainability and increases employees' awareness of and commitment to specific environmental issues (10).

In previous studies, most reports were about waste management in hospitals, and researchers did not find any comprehensive report on environmental sustainability in hospital websites or related organizations, thus, the current study aimed to explain nurses' views on green human resource management, which is one of the factors of achieving environmental sustainability.

Methods

This research investigated the nurses'

experiences of the green human resource management in hospitals based on Granheim & Lundman's method for content analysis (11), which was performed in hospitals affiliated to Kerman University of Medical Sciences. Since no study has been conducted on green human resource management in Iranian hospitals, qualitative content analysis can help clarify this phenomenon. This method is appropriate to get a new perspective on a familiar situation, to describe and illustrate areas that have rarely been studied, and to clarify the relationships between unclear variables (12). The study population included head nurses, supervisors, head nurses, and nurses in educational hospitals affiliated to Kerman University of Medical Sciences. They were selected purposefully with in-depth and semi-structured interviews. The participants had five years of work experience in nursing or one year of work experience in nursing management. Supervisors and other colleagues approved that the participants were interested in environmental issues when doing their responsibilities. In a semi-structured interview, the researcher pre-arranges the questions to receive the required information, however, the interview relies heavily on questions that arise spontaneously in the interaction between interviewer and participant (13). Since this study aimed to explore participants' experiences with green human resource management, the interviews began with this question: "What experiences do you have in the field of human resource management and environmental issues in the hospital?" As is typical of qualitative studies, the interviews continued until the data saturation. Twenty-one participants were interviewed face-to-face within 60 minutes. The interviews were conducted outside the hospital in a suitable and calm environment

in participants' non-working time to overcome the limitations of participants' high workload and insufficient time. For ethical considerations, informed consent was obtained from participants and they were assured that their participation in the study and interview recording were voluntary, their information would remain confidential, and they could withdraw from the study at any stage of the research. Finally, the participants in this study consisted of a nurse manager, three head nurses, two educational supervisors, six head nurses, and nine nurses.

The steps taken in this study included transcribing the whole interviews, reading the entire texts of the interviews to get a general understanding of their content, determining the semantic units, identifying the initial codes, classifying similar initial codes into more comprehensive categories, determining the final categories, and extracting the main themes. Thus, at the end of each interview, all notes with the recorded audio file were typed verbatim. After reviewing and reading the interviews line by line, the main and related sentences and concepts were identified and annotated, so that the smallest semantic units and then the codes could be extracted. In the next step, the initial codes were compared with each other, and similar and overlapping codes in the sub-themes were each replaced in the main themes, which contained the main and abstract contents of the research.

Voice recording and analysis of the interview texts immediately after completion, review of the codes extracted by some participants (Member Check), and the analysis process performed by three qualitative researchers were used to determine the validity of the

data. The viewpoints of a number of experienced professors on extracted codes and themes (External Check) were used to ensure dependability, which suggests data reliability.

Results

Nine hundred and forty-five initial codes were extracted by analysis of the rich and deep opinions of the participants. After being reviewed several times, the codes were summarized and categorized according to their similarities. Their internal meanings were identified in the form of six main themes, which were named conceptually and abstractly based on their nature as "Green culture management", "Green education", "Green performance management", "Green empowerment", "Green structure", and "Green screening", which from the perspective of nurses can explain the Green Human Resource Management (GHRM) in hospitals (Table 1).

The themes and sub-themes are explained as follows.

Green Culture Management

The participants considered green culture management as the most important and fundamental factor. The sub-themes include "Green organizational climate", "Green ethics", and "Green social responsibility". The first sub-theme, "Green organizational climate", refers to the concept of "Managers' green empathy".

"I've had some good suggestions for action on some environmental events, such as Non-Plastic Sundays or Clean Air Day, but managers did not pay attention to them at all" (Participant No.5, a female head nurse, the ICU).

Table 1. Extraction of the main themes from concepts and sub-themes

Themes		Sub-themes	Codes
Green human resource management	Green culture management	Green organizational climate	Managers' green empathy; Nurses' green attitude
		Green ethics	Nurses' green individual values; Nurses' green occupational values; Nurses' ethical saving
		Green social responsibility	Creative and environmentally-friendly activities in the workplace
	Green education	Green educational needs assessment	Assessing weaknesses and shortcomings in previous training; Creating green headlines; Providing facilities for green education
		Green group education	Green integrated education with the collaboration of several hospitals; Educational programs for all hospital staff; Promotion of environmental competitions among departments
		Nurses' green special education	Green in-service training for nurses; Holding seminars on green nursing
	Green performance management	Green continuous evaluation	Interview, observation and testing of nurses' frugality; Observation and pollution reduction tests by nurses; Evaluation criteria based on nurses' green suggestions and ideas
		Continuous feedback	Providing green recommendations for improvement; Sharing green performance results
		Green rewards	Benefits of green performance; Being seen
	Green empowerment	Sharing environmental knowledge	Strengthening nurses' communication in the workplace; Creating an environmental information circulation system; Interacting with environmentally-friendly associations
		Green participation	Using Nurses' green innovative ideas; Involving nurses in green decisions; Freedom in action and green trust
	Green structure	Green standards	Defining environmental standards; Explaining environmental goals
		Green nursing services	Electronic work process; Green workspace; Application of green requirements
	Green screening	Green sociability indices	Review of green examples of nursing students; The pre-entrance institutionalization process
		Environmental criteria for choosing nurses	Assessing the environmental attitude of the nurses when recruiting them

From the participants' perspectives, managers' support and empathy, as well as nurses' initial attitudes toward the nature and the environment have a direct effect on the organizational climate.

The participants introduced "Green individual values" related to the sub-theme "Green ethics".

"As a nurse, when I get into the healthcare system, I learn how to control infection or the environmental health unit holds some educational courses for me, which shape my knowledge or vision. Then, it is up to me how much to value the environment and nature" (Participant No.2, a female nurse, the infectious ward).

The following statement is related to the concept of "ethical saving":

"We are recommended in our religion and Islamic ethics to use divine blessings and not to waste them ". (Participant No. 3, a male head nurse)

The next sub-theme is "Green social responsibility", which deals with the concept of "Green and creative activity".

"We talked to the baker in our hospital yard and asked him not to give people plastic bags as much as possible, and we were planning to take cloth bags there; we even wanted to write on them – plastic: a silent killer" (Participant No. 11, a female nurse, the medical ward).

Green Education

This theme includes three sub-themes: "Green educational needs assessment",

"Green group education", and "Nurses' green special education". Participants emphasized the importance of education in all interviews, believing that green education is very important for nurses to increase their environmental awareness. The concept of "Green headlines" is related to "Green educational needs assessment".

"Currently, there is too much training on environmental issues based on environmental health and occupational health, and we accept that generally there is no environmental education as what is outlined in sustainable development" (Participant No. 1, a hospital manager).

The next sub-theme, "Green group education", refers to the concept of "Green integrated education with the collaboration of several hospitals".

"Group and practical training is very good for behavioral change, especially if it takes the form of competition. For example, groups from several hospitals can participate in the training program" (Participant No. 4, a female educational supervisor).

Another important concept in this theme is "Green education".

"Other departments provide pervasive learning for their employees. If the green education is carried out during nurses' years of work experience in all hospitals, it will be very useful; it should be uniform and considered for everyone" (Participant No. 17, a female nurse, the women's surgical ward).

Green Performance Management

This theme includes the following three sub-themes: "Green continuous evaluation", "Continuous feedback", and "Green rewards". The following statements are about the concept of "Observation and pollution reduction tests by nurses".

"The environmental health unit regularly checks us with checklists. A checklist can also be created for the environmental work of a nurse in the entire workspace and hospital; for example, whether he/she pays attention to waste segregation, whether he/she knows the place of disposable forks and spoons, and whether he/she brings a fork from the house. Therefore, we are more motivated to do such things" (Participant No. 12, a female nurse, the general surgical ward).

"Sharing green performance results" is another concept related to "Continuous feedback".

"If the bad results of any group or individual environmental work were announced, we would come up with a solution or try something new to get a better result. If the results are good, there will be many benefits" (Participant No. 20, a female nurse, the cardiac surgery ward).

"A lot of good environmental work is being done in every hospital, but it does not have feedback to identify how effective such work is. For example, since we have shifted patients' disposable clothes to fabric clothing in our hospital, the amount of garbage has reduced by 300 kilograms; feedback of these developments attracts the attention of the personnel" (Participant No.7, a male nurse, the surgical ward).

The next sub-theme is "Green rewards". The following statements are about the concept of "Being seen".

"If a person does an environmentally beautiful work, it will not be necessary to give him/her money. I will not accept it;

being seen is the best reward for us. An appreciation in front of others or more leaves is enough" (Participant No. 13, a female nurse, the women's surgical ward).

Green Empowerment

The sub-themes include "Sharing environmental knowledge" and "Green participation". The former associates with the concept of "Strengthening nurses' communication".

"Many nurses have good information of and experiences with the nature and environment, or sometimes we come up with suggestions, but we never get a chance to talk about such experiences and issues and learn from each other" (Participant No. 19, a female nurse, the ICU).

The next sub-theme is "Green participation", which deals with the concept of "Involving nurses in green decisions".

"If a nurse is asked to solve environmental problems and listen to and accept our suggestions, naturally he/she will try his/her best to be the first one who does it; he/she also helps others to implement his/her plan successfully" (Participant No.7, a male head nurse, the surgical ward).

Green structure

From the participants' views, facilities, equipment and infrastructure related to the environment are important elements in the green human resource management in the field of nursing. This theme includes two sub-themes: "Green standards" and "Green nursing services". According to the participants, the goal definition and the appropriate structure are necessary in the Green Human Resource Management. The first sub-theme, "Green standards", deals with the concept of "Defining the environmental standards".

"We have a lot of standards for our professional tasks that we routinely perform. If the staff know there are certain standards in the environment around them in the whole hospital and if they understand why and how to comply with standards, they will definitely implement them" (Participant No.16, an educational supervisor, the women's ward).

"Electronic work process" is another concept, which is hardly mentioned by the participants.

"To do things in an environmentally-friendly way, appropriate facilities are required; for example, we have no electronic devices that reduce paper consumption, neither do we have enough computers for nurses to be able to record documents electronically. Moreover, the nursing station is half the size of a room, where there might be an ICU too, practically it is not possible for every nurse to get in line to enter the reports into the only computer system that exists in such a limited space. Therefore, we have to use papers again" (Participant No.9, a female head nurse, the women's ward).

The other sub-theme is "Green nursing services", in which the concept of "Application of green requirements" is proposed.

"Sometimes, the equipment we are using is not suitable and it automatically causes a lot of extravagances. For example, if we could provide equipment made specially to prevent wasting water while bathing hospitalized patient, the water consumption for washing the ground and replacing bed sheets would be saved. I searched for such thing and it sounds like it is designed and manufactured before, but we do not have it in our hospitals" (Participant No.11, a female nurse, the medical ward).

Green Screening

The "Green screening" theme includes two sub-themes: "Green sociability indices" and "Environmental criteria for choosing nurses". Participants considered this theme equivalent to "prevention is better than cure". The first sub-theme, "green sociability indices", is associated with the concept of "pre-entrance institutionalization process".

"Now students are being sent to the Infectious Diseases Control Unit or Environmental Health Unit to learn a series of tutorials, so that they obtain skills when working in the ward. Green human resource headlines can be taught earlier to prepare students mentally. In this way, environmental sensitivity may be institutionalized for them "(Participant No.6, a male head nurse).

The next sub-theme is "Environmental selection criteria". Participants refer to the concept of "Assessing the environmental attitude of the nurses when recruiting them".

"If we accept that prevention is better than cure, such environmental questions can be added to nurses' recruitment tests in the ministry of health. In the end, those who have the appropriate knowledge regarding the nature and the environment will be selected from the very beginning" (Participant No. 15, a male head nurse).

Discussion

The findings of this study included interrelated themes and concepts that showed the views and perceptions of nurses and nurse managers on green human resource management in hospitals. From the perspective of the participants in this study, human resource management processes can be used as a powerful tool to lead the human resources into empowering and institutionalizing environmental behaviors. Analysis of the views and statements of the participants led to the emergence of six themes: "Green Culture Management", "Green Education", "Green Performance Management", "Green Empowerment", "Green Structure", and "Green Screening". Since green human resource management is a new topic and no research has been done comprehensively in hospitals or healthcare centers, the researchers compared their findings with the results of the researches on green human resource management in other departments.

According to a study by Harris and Crane, the success of green human resource management depends on the existence of green organizational culture as a prerequisite for other measures (14). Mohammadnejad Shourkaei et al. conducted a study to present a framework for the green human resource management. They showed that in addition to strategic and process considerations, the content of green human resource management paid attention to soft dimensions of the human resource management, i.e. culture creation and employees' support (15). Jabbour and Jabbour studied green human resource management and green supply chain and found that green human resource management techniques with support of the green organizational culture, were the basis for sustainable change and the establishment of green values and principles in the organization (16). Seyedjavadein et al. studied the green human resource management through an investment and sustainable development approach and concluded that organizational culture, the green human resources, and the support of top managers were the first three priorities in ranking green organizational thinking factors (17). Environments providing healthcare services

such as hospitals can ensure the growth, promotion and continuity of their green activities with the implementation of green organizational culture management (18).

The existence of appropriate tools and infrastructure as well as the definition of goals are necessary in the implementation of any plan and program. The green human resource management can be achieved if a "green structure" is available. Haddock et al. pointed in their study that providing appropriate structures based on the organizational vision and main mission was one of the first steps in establishing the green human resource management and achieving environmental goals (19). In their research, Masri et al. argued that the green structure, green policy, and implementation of the activities helped organizations achieve the green goals (20).

Another theme in the findings of this study was "green screening", which was also mentioned in the study of Abbasi et al. They believed that selection of the eligible staff is important because employees who are environmentally aware and committed from the beginning appear to be more active and willing to act voluntarily in the next steps i.e. education and development (21). Farokhi et al. in their study suggested the socialization course for the novice staff, pre-employment testing using the environment-related questions, and the addition of environmental interviews as ways to select potentially green employees (22).

On the other hand, education is particularly important after the nurses enter the hospital environment. In the findings of this study, "green education" was extracted based on the viewpoints of most participants. If the goal of clinical nursing education is to acquire technical skills and develop

professional responsibilities (23), green education can independently help the staff achieve individual competencies, perform green social responsibility, and promote green attitudes (24). Ragas et al. mentioned that the green education empowered the staff to achieve the goals of green management programs (25). Furthermore, Subramanian et al. concluded in their study that the green education predisposed to change individual behavior and caused green thinking at all levels (26). Fayazi studied green human resource education in the oil industry and argued that organizations should assess educational needs before implementing the green educational programs. Managers can create green teams to study and design the educational needs according to their viewpoints (27).

The role and importance of "green performance management" has been emphasized in the studies related to the green human resource management. According to Roy et al., green education will create value in the organization if its results are continuously evaluated and are available to all people (28). Kapil believed that sharing the results of evaluation with employees improves their green performance and motivates them to participate more in solving environmental problems (29). Ahmad's study showed that the efforts made to protect environmental issues could be measured through the performance evaluation. The findings of this study indicated that in the performance evaluation section, green evaluation indices should be developed in both general and specialized ways proportional to each job, so that the staff and managers of different departments know what is expected of them (30).

Renwick et al. identified performance management as an important tool in the

green human resource management to coordinate the staff with the organization regarding green human resource strategies. They also believe that the human resource performance management should lead to favorable green performance management (31).

On the other hand, the results of the researches by Jabbour et al. and Renwick et al. highlighted "green empowerment" as a factor in increasing the implicit knowledge of the employees and their involvement in finding creative and practical solutions (32, 31). Harvey et al. referred to the project of employees' engagement in the NUMMI car factory in the US, which was carried out by Rothenberg. This project has shown that active participation and involvement of employees in environmental issues has led to important measures and useful initiatives in solving environmental problems (33). According to Tavakoli et al., human resource development should predispose to green empowerment, green learning, employee's development, and the growth of green talents and innovations. Development and empowerment are key elements of sustainable environmental management (34).

Conclusion

The results of this study based on the experiences of nurse managers and nursing staff of the hospitals affiliated to Kerman University of Medical Sciences showed that the green human resource management included a set of cultural, organizational and individual factors, which strengthen the environmental attitude and performance in hospitals. In this regard, implementation of green culture management in hospitals

together with the managers' extensive support can lead to providing a context for environmental activities of nurses.

In case of using environmentally-friendly facilities, the required green structures will systematically accelerate the move towards hospital green management goals. Therefore, if green standards and green sociability programs are applied in the selection of nurses upon their arrival, novice nurses will enter the hospitals with potentially environmental attitudes and sensitivities. These measures will facilitate further steps in the field of the environmental management. It seems necessary to train and improve the level of tacit knowledge and specialized information of nurses to overcome the environmental and pollution challenges. Green pervasive education can turn environmental issues into an opportunity for the green management in hospitals, and the green performance management is a potential factor for the successful implementation of the green management activities. Therefore, nurses will feel empowered if they participate in valuable environmental targeting, which in turn allows them to participate in the hospital green programs voluntarily and to consider themselves green citizens of the organization.

Applying the findings of this study paves the way for strengthening the green values of the nursing profession and the working methods based on minimum energy consumption, reducing wastes, sharing knowledge, and strengthening environmentally- friendly behaviors, which in addition to improving the green performance of hospitals, increase staff motivation to participate in green activities.

It is hoped that health policymakers and

decision makers be aware of the effective performance of the green human resource management, and use its processes to achieve green sustainable development.

Limitations

The limitations of this research are as follows:

- Lack of national and international research due to the novel topic of green human resource management and nurses' unfamiliarity with this topic

- Participants' time limitation during their shift work and even before or after it.

Conflict of Interest: In the present study, the authors declared no conflict of interest.

References

1.

Heal GM, Barbier EB, Boyle KJ, Covich AP, Gloss SP, Hershner CH, et al. Valuing Ecosystem Services: Toward Better Environmental Decision-Making. USA: National Academies Press; 2005.

2. Iranian Society for Green Management. Green Management Certificate (Green Office). [cited 2019 Oct 11] Available from: http://www.iran-gma.com/awards-and certificates/greenoffice/ 1895/. [In Persian]

3. Iranian Green Management Association. Green Hospitals with Accreditation Approach. Tehran: Iranian Green Management Association; 2009. [In Persian]

4. Riahi M. Establishment of green management system in executive agencies as a tool for national and transnational environmental actions. The 5th National Conference of the Iranian Environmentalists Association; 2005 Mar 6-7; Tehran; CIVILICA; 2005. [In Persian]

5. Gowan Ch, Stefenson K, Shabman L. The role of ecosystem valuation in environmental decision making: Hydropower relicening and dam removal on the Elwha River. Ecological Economics 2006; 56(4):508-23.

6. Jabbour CJ, Jabbour AB, Teixeira AA, Freitas WR. Environmental development in Brazilian Companies: the role of human resource management. Environmental Development 2012; 3:137-47.

7. Sharma R, Gupta N. Green HRM: an innovative approach to environmental sustainability. [cited 2019 Jun 12] Available from: http://www.aims-international.org/aims12/12A-CD/PDF/K723-final.pdf.

8. Cherian JP, Jacob J. A study of Green HR practices and its effective implementation in the organization: a review. International Journal of Business and Management 2012; 7(21):25-33. doi:10.5539/ijbm.v7n21p25.

9. Sriram PV, Suba M. Impact of green human resource management (G-HRM) practices over organization effectiveness. Journal of Adv Research in Dynamical & Control Systems 2017; 7:386-94.

10. Sudin S, Saad ZM. Exploring the relationship of green HRM, EMS and corporate environmental citizenship behavior. 5th International Conference on Education and Social Science; 2018 Feb 5-7; Istanbul: Proceedings of INTCESS; 2018.

11. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse Education Today 2004; 24(2):105-12. doi:10.1016/j.nedt.2003.10.001.

12. Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. Qualitative Health Research 2005; 15(9):1277-88. doi: 10.1177/1049732305276687.

13. Creswell JW, Creswell JD. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 5th ed. USA: SAGE Publications; 2018.

14. Harris LC, Crane A. The greening of the organizational culture, management views on the depth, degree and diffusion of change. Journal of Organizational Change Management 2016; 15(3):214-23. doi:10.1108/09534810210429273.

15. Mohammadnejad Shourkaei M, Seyed Javadein SR, Shahoseini MA, Haj Heidari A. Providing a framework for Green HRM. Journal of Public Administration 2016; 8(4):691-710. doi:10.22059/jipa.2017.62183. [In Persian]

16. Jabbour CJ, Jabbour1 AB. Green human resource management and green supply chain management: linking two emerging agendas. Journal of Cleaner Production 2016; 112(3):1824-33. doi:10.1016/j.jclepro.2015.01.052.

17. Seyedjavadein SR, Roshandel Arbatani T, Nobari A. Green human resource management: an approach to investing and sustainable development. Investment Knowledge Research Quarterly 2016; 5(20):297-327. [In Persian]

18. Paille P, Chen Y, Boiral O, Jin J. The impact of human resource management on environmental performance: an employee-level study. Journal of Business Ethics 2013; 121(3):451-66.

19. Haddock-Millar J, Sanyal C, Muler-Camen M. Green human resource management: a comparative qualitative case study of a United States multinational corporation. The International Journal of Human Resource Management 2015; 27(2):192-211. doi:10.1080/09585192.2015.1052087.

20. Masri HA, Jaaron AM. Assessing green human resource management practices in palestinian manufacturing context: an empirical study. Journal of Cleaner Production 2017; 143:474-89. doi:10.1016/j.jclepro.2016.12.087.

21. Abbasi T, Jamali G, Azari H. The role of governmental organizations in green productivity; green human resource management point of view. Third International Green Economy Conference; 2016 May 6; Babolsar: Civilica; 2016. [In Persian]

22. Farokhi M, Nasrisfahani A, Sfafri A. Proposing a green human resource management framework for steel industry. Journal of Human Resource Management Researches at Imam Hossein University 2018; 9(4):153-79. [In Persian]

23. Pazokian M, Rassouli M. Challenges of nursing clinical education in world. Journal of Medical Education Development 2012; 5(8):18-26. [In Persian]

24. Jabbour CJ. Environmental training in organizations: from a literature review to a framework for future research. Resources, Conservation and Recycling 2013; (74):144-55.

25. Ragas SF, Tantay FM, Chua LJ, Sunio CM. Green lifestyle moderates GHRMs impact to job performance. International Journal of Productivity and Performance Management 2016; 66(7):857-72. doi:10.1108/IJPPM-04-2016-0076.

26. Subramanian N, Abdulrahman M, Wu L, Nath P. Green competence framework: evidence from China. The International Journal of Human Resource Management 2016; (27)2:151-72. doi:10.1080/09585192.2015.1047394.

27. Fayazi M. Green training of human resources in oil industry. Journal of Educational sciences in Law Enforcement 2015; 3(3):1-20. [In Persian]

28. Roy M, Khastagir D. Exploring role of green management in enhancing organizational efficiency in petro-chemical industry in India. Journal of Cleaner Production 2016; 121:109-15. doi:10.1016/j.jclepro.2016.02.039.

29. Kapil P. Green HRM- Engaging Human Resource in reducing carbon footprint and enhancing environment sustainability: a case study based approach. International Journal of Engineering Technology Science and Research 2015; 2(Special Issue):5-14.

30. Ahmad S. Green human resource management: policies and practices. [cited 2019 Feb 14] Available from: https://www.cogentoa.com/ article/10.1080/ 23311975.2015.1030817. doi: 10.1080/23311975.2015.1030817.

31. Renwick DW, Jabbour CJ, Muller-Camen M, Redman T, Wilkinson A. Contemporary developments in Green HRM scholarship. The International Journal of Human Resource Management 2015; 27(2):1-15. doi: 10.1080/ 09585192.2015.1105844.

32. Jabbour CJ, Santos FC. Relationships between human resource dimensions and environmental management in companies: proposal of a model. Journal of Cleaner Production 2008; 16(1):51-8. doi:10.1016/j.jclepro.2006.07.025.

33. Harvey G, Williams K, Probert J. Greening the airline pilot: HRM and the green performance of airlines in the UK. The International Journal of Human Resource Management 2013; 24(1):152-66. doi:10.1080/09585192.2012.669783.

Pr34. Tavakoli A, Hashemi A, Sabet A, Razeghi S.ovide a Green Human Resource Management Model based on human resources management systems. Journal of Human Resource Management Researches at Imam Hossein University 2018; 10(1):77-103. [In Persian]