The relation between environmental training and social responsibility with proactive environmental strategy

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Abstract

Today, the hospital waste is one of the worst environmental problems because it contains dangerous, toxic and pathogenic contaminants such as waste in infection, medical instrument which are dangerous for personnel, patients and others. So, ignoring the management of hospital waste related to the collection type, and their transportation not only can affect the society and environmental health but also burden the health system with more cost. These days, with regard to the serious threatened of the environmental contaminants, the importance of some issues like the social responsibility, environmental training, proactive environmental strategies have been increased rather than before. So, paying attention to these issues for some organizations, hospitals, gas and oil industries, has more importance rather than other organizations. This research is an applied research and its data collection is based on a descriptive and survey research. The structural equations have been used to analysis the relation between variables. Statistical population of this research has been chosen from the hospital personnel (Doctors, nurses, hospital manager, Technical personnel, procurement personnel of HaftomTir Hospital. The sample selected with Cochran formula is about 132 persons. The result of the research suggested that there is a positive and meaningful relation between environmental training and proactive environmental strategies, also between social responsibility and the proactive environmental strategies and between environmental training and social responsibility. According to the research result, it is considerable that holding environmental training in hospital can result in increasing the social responsibility of hospital personnel. In the other hand by holding the environmental training, performing the proactive environmental strategies are more successful in an organization. In this research, it was found that if there is any social responsibility in some organizations (ShohadayeHaftomeTir in this research), The proactive environmental strategies will be performed there, successfully. Also, it is possible to add the proactive environmental strategies to the main strategies of the organization.

Keywords: social responsibility, proactive environmental strategies, Environmental training, ShohadayeHaftomeTir Hospital

Introduction

In the last decade, some new cultural values have been represented by gaining the knowledge about the relation between organizations, Society and environment. People found that the strategies of the organization have some advantages and also disadvantages for society. So, they paid more attention to the effect of organizations on the society. In other words, Society expects to gain more benefit from organizations which is distributed fairly in the society (Irannejadparizi and Tavasoli, 2010). Among all organizations, Hospital play a crucial role compared with health product manufacturers or health services centers (Irannejadparizi and Tavasoli, 2010). Due to the crucial role of hospitals among all organizations, providing the best services by health and medical institutes is the most important issue considered in health department (Upshur et al., 2005; Sadaghiani, 1998).

Theoretical foundation of the study

Social responsibility: social responsibility in related to the behaviors and decisions based on acceptable values of society. Organizations shall allocate financial resources to improve welfare of society. Also, social responsibility is related to the performance of organization in some affairs like environmental contamination, discrimination, poverty, increasing the price is considerable (Bozorgi, 2004; Ghaferi, 2010). Social responsibility is considered in some organizations and organs which are working on the control and management of their effect on the society beyond the borders of their legal rules and...
regulations. Social responsibility specially above the relation between the organizations with personnels, providers, clients and socialies which has an activity in it includes the level of attempt that each organization is made to protect the environment(Shahini, 2011). Social responsibility includes the undertakings of an organization about its society. There are some suggestions about the organization’s policy to donate their undertakings and determine the mutual benefits of organization and society. In conclusion, Social responsibility emphasizes on the relation between the organization and its beneficiaries(Shahini, 2011). Most of the studies about society responsibility which have been published before are out of health section(Panwar et al., 2010). So, very few studies are about investigating the concept of social responsibility of hospitals to achieve a foundation for making a pattern relation to the social responsibility of hospitals. As a result, the role of managers in donating their obligations, outside factors, social performance of hospital and paying attention to human values on making this pattern have been cleared(Abreu et al., 2005; Kakabadse and Rozuel, 2006).

The other studies have been performed to determin the social tasks and responsibilities of the hospitals which declared that having knowledge about the social conditions, clearance of hospitals, performances for patients, participation of the hospitals in social programs and cooprating with related organs to prevent damaging the environment(participation in the environmentally-friendly programs) are some issues that all organization shall pay more attention to. It is obvious that all events in a hospital is related to the outside conditions. So, all hospitals have to accept the social responsibility(Griffiths, 2006; Kreisberg, 2007; BaratiMarnani et al., 2010). The result of a study in Portugal approved this hypothesis and suggested that all hospitals shall give the priority to the strategies of social responsibilities and environmental protection(Abreu et al., 2005).

Environmental training

The researches declared that in these days giving some knowledge and information to the personnel about consuming the energy and the way of reducing their consumption and its positive effect results in a revolution in their behavior. Lack of knowledge about the level of consumption and the correcting of using the energy carries can cause wasting the energy which can have a bad effection natural and financial resources. Gas consumption by heating and cooling instruments, consumption of electricity by lightening systems, media instruments, copy, fax machines, computers and their utilities like scanner and printer are some examples. So, if organizations can train the personnel about the correct way of using these instruments, and inform them about the positive effect of saving the energy property, a big revolution will be occurred in the behavior of them(Shafizadeh and Falakdoost, 2011). As a result, paying attention to the environmental problems and being informed about the consequence of environmental problms makes people to find a suitable solution for them. One of the solutions for preventing the environmental not to be destroyed is changing the behavior of people to be environmentally-friendly(Salehi and Ghaemiasl, 2012;Quimbita&Pavel, 2005). With this regard, having knowledge about environmental issues and problems is a background of environmental concerns and the behavior of environmentally-friendly(Hungerfod& Volk, 1990). The definitions of environmental training has been described as follow.

Hasgin(1991) suggested that environmental training is a plan for extending the scientific and management and technical solutions of environmental problems(Kopnina, 2011). Environmental training can result in revising and changing of environmental approaches(Sammalisto and Brorson, 2008), and also increasing the knowledge about it to make a stable environment(Sarkis et al., 2010). Training shall be entered among with the responsibility of the people against the environment(Palmer, 2003). Research about environmental training has been developed in this decades and the importance of it has been increased(Salehi and Ghaemiasl, 2012).

With regard to the environmental training in the hospitals and among hospital’s personnel, it is considered that these days, one of the important contaminants of environment is hospital wastes which shall be source seprated by producers(Asrari and Rahbari, 2012). Medical wastes are a small amount of the management is one of the important issues relative to the public health(Mokhtari and Zarei, 2012). The studies suggested that by ignoring
the hospital wastes and also training of hospital’s personnel about it in Iran. Most part of environment will be full of hospital wastes which are not recoverable in the near future (Banan, 2007). It is necessary to provide some suitable training courses about waste management in order to implement the waste management plans, completely and precisely. The main purpose of this training courses is to increase the level of knowledge of the personnel about bad effect of hospital waste on the health and environment and also to determine their tasks about the hospital waste management plans (..). These training courses shall arranged in some workshops and the participants shall be evaluated at the end of each course. The maximum member of participants in each course is about 20-30 persons, because there is no opportunity for discussion and scientific works in the larger classes (Gholami and Yaghmaeeyan, 2012). The problem of separating, collecting and excreting of hospital wastes is important from three aspects: First. To be sure about the health of personnel which are providing sanitary services which is not dangerous for people’s health, Second, to be sure about the health of personnel which are providing these services and third, to prevent all environmental consequence of collecting and excreting of Insanitary hospital wastes (Omran and Alavi, 2010).

**The proactive environmental strategies**

These strategies included all targets and plans of an organization or company related to the environment. By using these strategies, the non-conformity of the organization’s production performances with environment can be determined to prevent damaging the natural resources. Putting more pressure from clients, governments and other beneficiaries makes the companies to change their plans related to the production processes and also to revise their strategies to be compatible with proactive environmental strategies (Salomone, 2008). These kinds of pressures mean that all organizations shall choose proper environmental behavior to be able to compete with their competitors in the future because of the organizations can perform those strategies, properly there is no need to make reaction strategies. Some samples of such strategies are: Revising the characteristic of the job, Rearranging physical space, determining the expectations, Revising the time schedule of activities, changing the social communications, giving more opportunity in critical times, and finally increasing the ability of forecast in the organization (Dolores vidal et al., 2012).

These strategies are related to an organized environmental approach that all companies are spreading them voluntarily among their strategies. However, They are beyond the borders of legal rules and regulations (Aragon & Sharma, 2003). The target of these strategies is to prevent polluting the environment and to decrease the impact of companies and their waste and finally to conserve the energy consumption by using clean technology (Dolores vidal et al., 2012). So many researches have been performed with regard to the environmental training and hospital waste management. On the other hand, a lot of researches have been published about the proactive environmental strategies in abroad. Among these researches mentioned in the following, there is no research to investigate the relation between environmental training, Social responsibility and the proactive environmental strategies of hospital. However, in this research the effect of social responsibility on the proactive environmental strategies has been investigated in addition to the effect of environmental training on social responsibility and the proactive environmental strategies. According to the Tudor research about the recognition of hospital motivations for accepting social responsibilities, it was found that manager’s support and also some benefits such as saving money result from accepting the social responsibilities can motivate the hospital’s managers to change their strategies (Tudor et al., 2008). Also, the relation between the level of social responsibility acceptance and the ownership or the type of hospital as a variable has been investigated. These two variables have been chosen. According to the De George researches, there is a position relation between the hospital type and the level of social responsibility acceptance and also the Acar’s research which found a significant difference between the social responsibility in different organizational departments (Acar et al., 2001; De George, 1982). In the study of Donohe the necessity of accepting this responsibility has been mentioned, which is important for preventing the environmental damage and its social consequences.
that have the worst effect on the social health specially the doctors which have an special economical and social situation (Donohoe, 2003).

Asrari and Rahbari (1391) investigated the effect of environmental training on the improvement of hospital waste separation in Ahmadnejad hospital at Katalem. This study was through census and single group of 49 personnel of hospital. The results suggested that the level of knowledge and performance of personnel has been increased to a good level after participating in a training course and the T-student test declared that the level of waste separation increased by 100% after this course. According to those results, environmental training related to the hospital waste management for hospital personnel has a positive effect on the level of waste separation. Mehshimokhtari et al., (2012) investigated the effect of personnel knowledge about hospital waste management on 180 personnel of Yazd hospital. According to the result of this research, it was suggested that all hospitals shall provide training course and also some strategies about management and separation of hospital wastes. Dolores Vidal et al., (2012) studied about the relation between environmental training and organizational learning with proactive environmental strategies and also the relation between creativity on environmental training and organizational learning in the hotel industry of Spain. As a result, it was found that the organizational learning and environmental training has a positive and meaningful relation with the proactive environmental strategies and also the creativity has a positive and meaningful relation with environmental training and organizational learning.

Asgarian and Vakili (2001) investigated the status of hospital wastes excreting in a university hospital of Fars state and found that the excreting of these hospital wastes in that hospital is completely non-hygienic and without considering the proper standards and technical issues. They suggested that lack of training caused this problem. The developed countries provided some organized training courses for all personnel with different content for different type of personnel.

Methodology

The studied population and the sample

The questionare related to the mentioned topic has been distributed among doctors and nurses of surgery, internal and etc and also departments and also the administrative and procurement personnel of ShohadayehaftomeTir hospital after getting permission from authorities at the winter of 1393. The population society of this research included 200 persons and the sample has been chosen which Cochran formula contained 132 persons. This research is an applied research according to its result and target. The data collection of this research is an survey type. The simple random sampling has been used in this research with this assumption that all population societies have a relative homogeneity. It means that all persons have a same and independent opportunity to be chosen in the simple random sampling (Hafeznia, ?).

Questionare structure: The data collection mentioned in this research is a standard questionare contained 4 parts: The first part included the general questions which is about the whole information of all population society such as age, sex, position and experience in current job. The second part is related to the environmental training with 6 questions. The third part is related to the social responsibility variable with 19 questions and finally the last part is related to the proactive environmental strategies with 7 questions. In this research, the cronbachalpha has been used to investigate the stability of th research. This method can be used to evaluate the internal compatibility of the measurement instrument like questionares or tests which are measuring different characteristics. So, in order to have a trustable measurement, The Cronbach's alpha has been used with SPSS 19 software. This variable can be measured by bellow method: An initial sample included 20 questionare has been distributed and the collected data was used in SPSS statistical software to evaluate the trusability coefficient with Cronbach'salphamethod for the research’s variables. This results are as follow:

<table>
<thead>
<tr>
<th>Variables</th>
<th>The amount of Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental training</td>
<td>0.8</td>
</tr>
<tr>
<td>Social Responsibility</td>
<td>0.88</td>
</tr>
<tr>
<td>Proactive environmental strategies</td>
<td>0.79</td>
</tr>
</tbody>
</table>
Table 1: The amount of variables's Cronbach's alpha

The Cronbach's alpha for all variables was more than 0.7, so the stability of questionnaire is acceptable. Ethical considerations: All questionnaires have been distributed among doctors, nurses and personnel after getting permission from the Shohadaye Haftome Tir Hospital manager. It was mentioned in the questionnaires that all information are private and secure and will just be used in the research also there is not any side effect for them in case of refusing from answering the questions.

Data Analysis

Descriptive part: The result of explanatory statistic suggested that 50.8 percent of participants are men and 49.2 percent are women. The age of 0.8 percent is less than 20 years old, 48.5% are between 21 to 30 years old, 45.5% are between 31 to 40, 4.5% between 41-50, 0.8% are between 51 to 60 years old and 1.5% are more than 60 years old. With regard to the job position, 19.7 % of participants were doctors 3.8% were working at management department, 25% were nurses, 6.1% were from technical department, 18.2% from procurement department and 27.3 % had another positions. The work experience of 42.4 % of participants are less than 5 years, 36.4 % are between 5 to 10 years, 6.8% are between 11 to 20 years, 10.6 % are between 21 to 30 years and 3.8 are more than 30 years.

Inferential Part

Checking the normality of variables distribution

The Kolmogorov-Smirnov method has been used to check the normality of variable’s distribution. The result is as following:

Table 2: The result of investigating the normality of variables (KS test)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Kolmogorof-smirnof</th>
<th>Sig</th>
<th>Situation</th>
<th>Test type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental training</td>
<td>1.063</td>
<td>0.29</td>
<td>Normal</td>
<td>Parametric</td>
</tr>
<tr>
<td>Social responsibility</td>
<td>1.209</td>
<td>0.107</td>
<td>Normal</td>
<td>Parametric</td>
</tr>
<tr>
<td>Proactive environmental strategies</td>
<td>1.050</td>
<td>0.198</td>
<td>Normal</td>
<td>Parametric</td>
</tr>
</tbody>
</table>

Table 3: Fit indices of the model

<table>
<thead>
<tr>
<th>Index</th>
<th>Allowable tolerance</th>
<th>Obtained amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2/df$ (chi-squared distribution for freedom degrees)</td>
<td>Less than 3</td>
<td>2.45</td>
</tr>
<tr>
<td>NFI (Normed Fit Index)</td>
<td>More than 0.9</td>
<td>0.93</td>
</tr>
<tr>
<td>NNFI (Non-Normed Fit Index)</td>
<td>Less than 0.08</td>
<td>0.94</td>
</tr>
<tr>
<td>IFI</td>
<td>More than 0.9</td>
<td>0.95</td>
</tr>
<tr>
<td>CFI (Comparative Fit Index)</td>
<td>More than 0.9</td>
<td>0.95</td>
</tr>
<tr>
<td>GFI (Goodness of Fit Index)</td>
<td>More than 0.9</td>
<td>0.90</td>
</tr>
<tr>
<td>RMSEA (The Root Mean Square Error of Approximation)</td>
<td>More than 0.9</td>
<td>0.078</td>
</tr>
</tbody>
</table>

The research Assumption

1. There is a positive and meaningful relation between environmental training and the proactive environmental strategies.
2. There is a positive and meaningful relation between social responsibility and the proactive environmental strategies. With regard to the path coefficient equals to 0.28 and also to the t variable equals to 2.4, it is suggested that the environmental training with 95% trustability has a positive and meaningful relation with the proactive environmental strategies. So, the first assumption is confirmed. With regard to the path coefficient equals to 0.41 and the t variable equals to 2.06, it was found that the social responsibility with
trustability level of 95% has a positive and meaningful relation with the proactive environmental strategies. So, the second assumption in confirmed. Coefficient of multiple determination ($R^2$) was equal to 0.42. This coefficient can determine the ability of prediction of dependable variables according to independable variables.

3. There is a positive and meaningful relation between environmental training and social responsibility. With regard to the path coefficient equal to 0.82 and the t variable equal to 8.70, it was found that the social responsibility with trustability level of 99% has a positive and meaningful relation with environmental training. So, the third assumption in confirmed. Coefficient of multiple determination ($R^2$) is equal to 0.66 which indicates the ability of prediction of dependable variables according to the independable variables. So, the environmental training variable can predict 66% of the changes made in the proactive environmental strategies.

Results and Discussion

As mentioned in the result section, there is a positive and meaningful relation between environmental training and social responsibility, also between environmental training and the proactive environmental strategies and also between social responsibility and the proactive environmental strategies. As a result it was suggested that the social responsibility of the hospital personnel can be increased by holding some environmental training courses. On the other hand, holding these courses in an organization can make personnel to enforce the proactive environmental strategies. In this research it was found that if social responsibility spreads in an organization (here ShohadayeHaftomeTir Hospital), the proactive environmental strategies can be existed there and the organization can put these strategies (like green strategies and recycling strategies among its policy).

Investigating the result of the research compared to previous researchs: Rezaei Rad and Ronasi (2011) has been investigated the relation between training programs at work and personnel responsibility related to the environmental protection. They found that training programs for human resource and science management play a crucial role an social responsibility in four categories include the training about determining organized strategies in case of environmental emergency, training about environmental responsibility in the job position, training about the environmental rules and regulations and also training about making a culture in an organization for environmental protection.

Asrari and Rahbar (2012) investigated the effect of environmental training on the important of hospital wastes separation Ahmadnejad Hospital of katalm. The result of their research about the relation between environmental training and important of environmental protection behaviors (Hospital waste separation) was the same as our research. Salehi and Ghaemianasl (2013) suggested that a new approach about the environment has not any effect on making a new behavior for environmental protection. In this research the new approach about the environment has a same concept with the proactive environmental strategies in our research. So, the result of our research is different from theirs. In our research, the environmental training has a positive effect on the proactive environmental strategies. Also, Dolores and Vidal et al (2012) found that the proactive environmental strategies has a positive and meaningful relation with environmental training at Hotel industry of Spain.

The result of our research is the same.

Suggestions

With regard to the mentioned results, environmental knowledge and as a result the social responsibility and the proactive environmental strategies can be increased by holding environmental training courses. So, there are some suggestions about improving the environmental training, social responsibility and the proactive environmental strategies as following:

1. It was suggested that the managers of ShohadayeHaftomeTir Hospital allocate proper budget to environmental training in the organization.
2. The managers of different departments shall provide enough information about environmental training in other part of the organization and
encourage them to participate in the environmental training courses. This encouragement can be provided by publishing some brushes or information notes with high quality design.

3. All managers of the organization (specially manager of environment, society and hygienic departments) shall follow up the enforcement of environmental training programs and cooperate with the organization to hold these courses.

4. All managers shall provide suitable information for all personnel about waste recycling by publishing proper posters or holding environmental training courses or giving enough information to all personnel about the current programs related to the protection and improving them.

5. The most important behavior relative to the environment from the green consumers side is to Excrete the waste property. According to the previous studies, it was obvious that even the green consumers were not sensitive to separating the waste property. So, all authoriticos have to fill this descriptancy in the training part in order to turn people to separate the wastes, initially. Another suggestion is to provide proper environmental training courses to change the consumer’s behavior and also proposing encouraging programs.

6. All managers shall allocate more resources to the social responsibility. Because, paying attention to the environment issues can increase the reliability of an organization and also the social and customer trustability.

7. The hospital manager shall be ensured that the hospital waste management is performing under his supervision and according to the national rules and regulations and the last instructions of society.

8. The hospital manager shall inform all nurses and medical personnel about the necessity of waste separation and also, the cleaning services personnel shall be trained to carry the full trash bags in hand.

9. The procurement manager shall be in contact with waste department authority to be sure about providing special plastic bags with suitable color and also high quality container and other equipment. They have to provide the material which are environmentally friendly with maximum impact on the environment.

With regard to all mentioned points it is concluded that cooperation and supervision of the manager to improve the training level of personnel is very important for improving the social responsibility among them and increasing the reliability of the organization in the society.

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