The Study of Statistical Survey and Decision-making Analysis of Disabled Persons from Occupational Disasters Returning to Work in Taiwan

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Abstract. After occupational disasters happen to laborers, the minor injury may cause temporary disability or temporary total disability. After treatment and rehabilitation, they can return to work. However, those with serious conditions, such as mild or severe disability, will be less capable of work, resulting in income reduction. In order to assist the disabled in shaking off the difficulty in economy and life, returning to workplace is the core issue. This study collects and analyzes the international community's literature on the development of maternity leave. By referring to the documents and practices of the International Labour Organization (ILO) Convention, this study explores the causal relationship and importance between government departments and enterprises in decision-making assessment factors, and assist with quantitative research methods such as questionnaire survey, etc. to provide specific suggestions for relevant policies. The study has found that 53.33% of the disabled workers had their wages lowered, and 52.85% of the disabled workers failed to return to work, which really reflected the barriers of employment discrimination for the disabled workers who had suffered from occupational disasters to return to work. In addition, the greatest difficulty faced by disabled workers in finding mainly lies in two factors, namely, “lack of local employment opportunities” and “lack of employment information channels”, which account for 66.22%. The discussion in this study shows that the biggest problem encountered when returning to the workplace is the economic aspect, with the main factor being the daily basic expenses accounting for 61.82%. Comprehensive statistical survey and decision-making analysis are used to explore the current demand situation of the disabled due to occupational disasters, and to study the decision-making analysis on rehabilitation and returning to work of the disabled in job-related disasters, so as to provide specific suggestions for government departments and enterprises to make decisions:

Introduction

According to the data of Bureau of Labor Insurance, the number of cases of payment for occupational disaster disability was 2,556 by Wu[1], and the survey regarding the employment of the disabled suffering from occupational disasters shows that 34.4% of the disabled laborers are out of job currently, 24.2% of whom have not returned to workplace. In order to assist the disabled in shaking off the difficulty in economy and life, returning to workplace is the core issue. In particular, occupational disasters are detrimental to the working ability of disabled workers, and will cause inconvenience in life, resulting in salary reduction and even the poor motivation to return to workplace.

Research Process

This study focuses on the current mechanism and practice of workers suffered from occupational disaster returning to work as well as its effectiveness to review the situation and the current mechanism and practice of assisting the disabled in employment, and reconstructs resources. The study conducts literature search and analyses and discussion through two parts of effectiveness and review of the situation. Through the quantitative method of questionnaire survey, the study has
chosen subjects such as administrative authorities, rehabilitation units, vocational reconstruction service units, employment service centers and vocational training units, employers, injured or disabled laborers due to occupational disasters, etc., to describe the situation of occupational reconstruction of disabled workers in Taiwan and the satisfaction of users in need, discuss the causal relationship and importance between government departments and enterprises in decision-making assessment factors, and use quantitative research methods such as questionnaire and statistical survey to provide specific suggestions as references for relevant policies.

The Current Situation of Disabled Workers Suffering from Occupational Disasters Returning to Work

The current manpower application mechanism for occupational disasters is based on the level of disaster relief for workers, medical rehabilitation, physical and mental conditions, and the communication and coordination between the previous work unit and the employer. Besides, the current mechanism involves public and private medical units, civil society, labor health service centers and occupational injury prevention and treatment center, all of which provide job-related psychological counseling and social adaptation-related assistance. If workers suffering from occupational disasters do not intend to return to the original workplace for re-employment, they are assisted through the employment safety system that includes vocational training, entrepreneurship counseling and employment services. The mechanism also emphasizes that the workforce suffering from occupational disasters is the most important asset of the employer, and the provision of the auxiliary facilities necessary for work is a legal obligation of the employer. In addition, one of the keys to enabling the disabled laborers to return to workplace is the opportune recommendation and assistance provided by the original employer by Lee and Kuo [2], as explained below:

Status Quo of Medical Rehabilitation Practice

The occupational injury treatment centers are distributed in 1. North District Occupational Injury Treatment Center; 2. Central District Occupational Injury Treatment Center; 3. South District Occupational Injury Treatment Center; 4. East District Occupational Injury Treatment Center, a total of 4 areas.

Status Quo of Functional Rehabilitation Practice

The career reconstruction of disabled laborers suffering from occupational disasters can be divided into six parts, namely psychological counseling and social adaptation, work ability assessment and reinforcement, job re-design, career counseling assessment, vocational training and employment services, track and counseling and re-employment. At present the functional rehabilitation service is provided by the service personnel responsible for individual laborer, disabled laborers suffering from occupational disasters and employers, who jointly negotiate the relevant working conditions, working environment and auxiliary facilities.

Status Quo of Social Rehabilitation Practice

At present, social rehabilitation can provide various social welfare subsidies, bonus and links to relevant economic or material resources. In the future, it can also improve the quality of welfare services for the disabled, accompanying medical services and transportation support services.

Questionnaire Survey and Analysis

The results of validity analysis of the questionnaire on the mechanism of returning to work for the disabled suffering from occupational disasters show that the KMO value of the whole questionnaire and the KMO value of the four dimensions are all greater than 0.5, and the cumulative explanatory variables of the Bartlett spherical test results are all above 60%, which indicates that the questionnaire has excellent validity and explanatory ability. The validity analysis of the questionnaire is shown in Table 2.
Table 1. Reliability Analysis of Questionnaire on Returning to Work Mechanism of Disabled Persons suffering from Occupational Disasters.

| Question classification | Cronbach's α coefficient | Number of items | Results  |
|-------------------------|--------------------------|-----------------|----------|
| Full scale questionnaire| 0.885                    | 35              | Excellent|
| Rehabilitation situation| 0.734                    | 4               | Acceptable|
| Functional reconstruction (psychological, social, medical, functional reconstruction) | 0.856 | 9 | Good |
| Return to work           | 0.811                    | 17              | Good     |
| Work safety knowledge    | 0.792                    | 5               | Acceptable|

Source: [2]

Table 2. Validity Analysis of Questionnaire for Injured and Sick Workers (Insurance Benefits Paid).

| Question classification | KMO value | Cumulative Explanatory Variation of Bartlett Spherical Test | Results  |
|-------------------------|-----------|----------------------------------------------------------|----------|
| Full scale questionnaire| 0.86      | 60.95%                                                   | Good     |
| Rehabilitation situation| 0.712     | 70.46%                                                   | Good     |
| Functional reconstruction (psychological, social, medical, functional reconstruction) | 0.855 | 62.44% | Good |
| Return to work           | 0.764     | 64.29%                                                   | Good     |
| Work safety knowledge    | 0.844     | 62.4%                                                    | Good     |

Source: [2]

Analysis of Questionnaire Survey Results

Based on the survey results, the survey can be roughly divided into two stages to discuss, namely the returning to work stage and returning to job title stage. The returning to work stage can be divided into three phases: social rehabilitation, medical rehabilitation and functional rehabilitation to carry out discussion, while the returning to job title stage is discussed from the dimension of reconstruction of occupation.

In the aspect of social rehabilitation, there are two questions that need to be further explored. For example, workers suffering from occupational disasters have family and environmental adaptation problems, as well as huge living expense problems in terms of economy, which require the government and employers to provide much important assistance. In the aspect of medical rehabilitation, there are two questions that need to be further explored. For example, workers suffering from occupational disasters have financial burden problems and they cannot work for a long time physically, which all need important assistance provided by the government and employers. In the aspect of functional rehabilitation, there are two questions that need to be further explored. For example, workers suffering from occupational disasters cannot return to original job position due to problems of job skills decline and they get lower salary and position after returning to their original workplace, which all need important assistance provided by the government and employers.
Conclusion

It is much more difficult for disabled workers with occupational disasters to return to work than other workers with occupational disasters. The disabled workers suffer from a much more serious injury than that of ordinary workers with occupational disasters, which increases the difficulty in rehabilitation. In this survey, 52.85% of disabled workers failed to return to work, which really reflects the obstacles for disabled workers with occupational disasters to return to work. In addition, the greatest employment difficulties of the disabled workers are “lack of local employment opportunities” and “lack of employment information channels”, accounting for 66.22%. Therefore, it is more beneficial for the disabled workers to return to the workplace if the employment service resources can be integrated. The study provides suggestions from two aspects of returning to work and returning to job status for the disabled workers as follows:

Return to Work

The rate of disabled workers returning to their original jobs is low. It is suggested that functional rehabilitation be strengthened. The government's assistance programs most satisfied by the disabled workers are legal consultation, labor dispute coordination, employment services and strengthening of work skills. Therefore, the proportion of returning to their original work position is very high. It is suggested that government departments should continuously improve the service quality. The most unsatisfactory government assistance programs for the disabled are job redesign, health arrangement, environmental improvement and economic assistance, which are the same as those for the sick and injured employees. It is suggested that government departments should establish an “all-in-one” service mode that provides active care.

Return to Job Position

The reasons why the disabled workers did not return to the workplace are that they are looking for jobs, their mobility is not convenient and their work skills are reduced. It is suggested that government departments should use the employment safety system model to strengthen their work ability. The main reasons for disabled workers to change jobs are that they want to change different job contents and that they cannot accept the positions offered by their original employers. It is suggested to help them find new jobs through the vocational training system model. After returning to the original workplace, the disabled workers found that their position, salary, workload and working hours were lower than those before they suffer vocational disaster. It is suggested that supplementary social relief measures should be implemented to strengthen their employability.

Acknowledgement

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References

[1] Wu, S.F.. Brief Introduction of Assistance for Career Reconstruction of Laborers Suffering from Occupational Disasters, Taiwan Laborer Quarterly (55), (2018)52-55.

[2] Lee, C.J., Kuo, J.Y.. A Study on Status Quo of Occupational Disasters and Occupational Rehabilitation, 7-11. New Taipei City: Institute of Labor, Occupational Safety and Health, MOL (2017).