

Occupational Health and Safety Services for Immigrant Workers in Japanese Workplaces

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Abstract: The objective of this study was to clarify the status of occupational health and safety services for immigrant workers, the barriers to employing immigrant workers and the needs of the managers in workplaces to keep immigrant workers healthy and safe. This study was a cross-sectional survey. We sent self-administered questionnaires to 126 workplaces in the western part of Shizuoka Prefecture, Japan in August 2006. The questionnaire included the characteristics of the workplace, barriers to employing immigrant workers, current actions to keep immigrant workers healthy and safe, the implementation rate of health checkups and important issues to keep immigrant workers healthy and safe. Implementation rates of health and safety education, creating job instruction manuals written in their native languages, creating safety signs written in their native languages, and the use of translators were 62.5%, 50.0%, 41.1% and 37.5%, respectively. Implementation rates of general health checkups, special health checkups and follow up after health checkups were 80.8%, 73.6% and 67.3%, respectively. The most important issue which the managers considered kept immigrant workers healthy and safe was health checkups (69.6%). In conclusion, several occupational health and safety services were conducted for immigrant workers without a margin to compare with Japanese workers.

Key words: Immigrant workers, Occupational health and safety service, Workplace, Cross-sectional survey, Questionnaire, Small and medium-sized enterprises (SMEs)

Introduction

At the end of 2005, the number of immigrants living in Japan was about 2,010,000, of which 800,000 were estimated to be employed, as reported by The Ministry of Health, Labor and Welfare in the “Foreigner Employment Status Reporting System” regarding the employment status of immigrant workers¹). Immigrant workers were at high risk with respect to occupational exposure, injuries, and illnesses²). Previous studies in Western countries have suggested a lack of safety training and use of personal protective equipment for immigrant workers^{3–6}). In Japan, few studies have investigated only the health status of immigrant workers and health insurance for

them^{7–9}). In these studies, the sample size was very small and the sites and participants were extremely limited. Furthermore, to our knowledge, no studies have investigated occupational health and safety services for immigrant workers in Japan. Keeping immigrant workers healthy and safe may be important for the following reasons. First, the managers in workplaces have a duty to keep workers healthy and safe, not only Japanese workers but also immigrant workers. They are obligated to implement health checkups and follow-ups, educate how to work healthy and safe and use the safety manuals for all employees in Japanese industrial safety and health law. Second, the demand for manpower by immigrant workers is increasing with the declining birthrate and increase of elderly people in Japan. So this study investigated the status of occupational health and safety services for immigrant workers, the barriers to employing immigrant work-

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ers and the needs of the managers in workplaces to keep immigrant workers healthy and safe.

Method

The study design was a cross-sectional survey and descriptive epidemiology using a self-administrated questionnaire. From workplaces which conducted health checkups at Seirei Center for Health Promotion and Preventive Medicine in Tokai in mid-Japan, we selected 126 workplaces which employed immigrant workers. We confirmed the employment of immigrant workers at these workplaces by interviewing staff at the center. We originally developed a questionnaire with reference to the report of immigrant employment status by the Ministry of Health, Labor and Welfare¹⁾. According to the report, of all immigrant workers in the Tokai area, 82.7% were manufacturing workers and 7.5% were in specialized, technical, or management positions. Also, 69.0% originated from Latin America and 16.2% from East Asia¹⁾. Another national report indicated the characteristics of industry in the Tokai area¹⁰⁾. The proportion of employees in the manufacturing industry in the Tokai area was higher in comparison with all over Japan, including automobile manufacturing. The questionnaire included the type of industry, number of employees and immigrant workers, type of employment (employees, contract, temporary), barriers to employing immigrant workers, actual occupational health and safety considerations to keep immigrant workers healthy and safe, the implementation rate of health checkups (general health checkups, special health checkups, follow-up rate after health checkups), and important issues to keep immigrant workers healthy and safe.

The anonymous questionnaire was sent to those in charge of the workplaces in August 2006 and was collected by September 2006. The responsible person gave written informed consent. All workplaces which employed immigrant workers were eligible. Of 126 workplaces, 65 responded, and the response rate was 52%. Of these, 56 (86%) employed immigrant workers. We conducted descriptive analysis of each item. Furthermore, we compared each implementation rate in small and medium-sized enterprises (SMEs) with large-scale enterprises using the χ^2 test or Fisher's exact test. Only one small-scale enterprise was eligible in this study, so it was analyzed as a mass of SMEs with medium-sized enterprises. We regarded p values <0.05 as significant and used SPSS ver. 12.0 for statistical analysis.

Results

Table 1 showed workplace characteristics. In terms of

Table 1. Characteristics of workplaces

Industry type	
Automobile	37 (66.1%)
Electric manufacturing	4 (7.1%)
Other manufacturing	3 (5.4%)
Others	12 (21.4%)
Size (number of total workers in the workplace)	
<300	26 (46.4%)
≥ 300	30 (53.6%)
Proportion of immigrant workers to total workers	
<25%	33 (59%)
25–50%	14 (25%)
50–75%	9 (16%)
Type of employment	
Employee	9 (16.1%)
Contract	15 (26.8%)
Temporary	8 (14.3%)
Employee + Contract	12 (21.4%)
Employee + Temporary	3 (5.4%)
Contract + Temporary	2 (3.6%)
All	6 (10.7%)
Unknown	1 (1.8%)

Table 2. Barrier to employing immigrant workers

	Total (n=56)	SMEs (n=26)	Large (n=30)	p value
Language ^a	51 (91.1%)	23 (88.5%)	28 (93.3%)	0.431
Culture and customs ^a	37 (66.1%)	17 (65.4%)	20 (66.7%)	0.571
Overtime work ^a	15 (26.8%)	9 (34.6%)	6 (20.0%)	0.176
Procedure ^b	6 (10.7%)	3 (11.5%)	3 (10.0%)	0.593
Housing ^b	5 (8.9%)	4 (15.4%)	1 (3.3%)	0.135
Occupational injury ^b	6 (10.7%)	2 (7.7%)	4 (13.3%)	0.407
Disease ^b	7 (12.5%)	5 (19.2%)	2 (6.7%)	0.156

Statistical analyses were conducted comparing each rate in SMEs with that in large-scale enterprises.

^a: χ^2 test, ^b: Fisher's exact test.

the type of industry, the car automobile industry had the largest proportion (66%). Thirty-three (59%) workplaces employed fewer than 25% immigrant workers as total workers. In terms of the type of employment of immigrant workers, 27% were on a contract basis. Trainees were included as employees.

Table 2 showed the barriers to employing immigrant workers. The managers of 91.9%, 66.1%, and 26.8% recognized to be barriers of the employment for immigrant workers of language, culture and custom differences and overtime work to increase income, respectively.

Table 3 showed current actions to keep immigrant workers healthy and safe. 62.5% of managers educated how to work healthy and safe for immigrant workers. 50.0% and 41.1% of them created job instruction manu-

Table 3. Actions to keep immigrant workers healthy and safe

	Total (n=56)	SMEs (n=26)	Large (n=30)	p value
Education	35 (62.5%)	18 (69.2%)	17 (56.7%)	0.245
Job manual	28 (50.0%)	5 (19.5%)	23 (76.7%)	<0.001
Safety signs	23 (41.1%)	7 (26.9%)	16 (53.3%)	0.045
Translator	21 (37.5%)	6 (23.1%)	15 (50.0%)	0.038

χ^2 tests were conducted to compare each rate in SMEs with that in large-scale enterprises.

Table 4. Implementation rates of health checkups

	Total (n=56)	SMEs (n=26)	Large (n=30)	p value
General health checkups	42 (80.8%)	19 (82.6%)	23 (79.3%)	0.525
Special health checkups	14 (25.0%)	9 (37.5%)	5 (17.2%)	0.096
Follow-up	33 (67.3%)	13 (65.0%)	20 (69.0%)	0.771

χ^2 tests were conducted to compare each rate in SMEs with that in large-scale enterprises.

Table 5. Important issues for the managers to keep immigrant workers healthy and safe

	Total (n=56)	SMEs (n=26)	Large (n=30)	p value
Checkups ^a	39 (69.6%)	19 (73.1%)	20 (66.7%)	0.772
Follow-up after checkups ^a	27 (48.2%)	11 (42.3%)	16 (53.3%)	0.436
Education ^a	23 (41.1%)	8 (30.8%)	15 (50.0%)	0.179
Law ^a	20 (35.7%)	9 (34.6%)	11 (36.7%)	1.000
Health insurance ^a	16 (28.6%)	11 (42.3%)	5 (16.7%)	0.043
Health system ^b	8 (14.3%)	6 (23.1%)	2 (6.7%)	0.127

χ^2 tests^a or Fisher's exact tests^b were conducted to compare each rate in SMEs with that in large-scale enterprises.

als and safety signs written in their native language, respectively. 37.5% of them used the translators. Comparing these rates between SMEs and large-scale enterprises, the rates of creating job manuals and safety signs and using translators in SMEs were significantly lower than in large-scale enterprises, respectively.

The managers of 80.8%, 25.0% and 67.3% implemented general health checkups, special health checkups and follow up after health checkups for immigrant workers, respectively (Table 4). These rates were not different between SMEs and large-scale enterprises.

Health checkups (69.6%), follow-up after health checkups (48.2%) and occupational safety and health education (41.1%) were more likely to be important issues for managers to keep immigrant workers healthy and safe. Innovations in occupational safety and health law (35.7%), full health insurance for immigrant workers (28.6%) and innovations in the health system (14.3%) were the following important issues for them. These rates

were not different between SMEs and large-scale enterprises except for full health insurance (Table 5).

Regarding whether they want to accept immigrant workers in the near future, 'yes' was 40.0%, 'no' was 23.1% and 'do not know' was 36.9%.

Discussion

This study clarified the status of occupational health and safety services for immigrant workers in Japanese workplaces. To our knowledge, there have been no previous studies on these issues in Japan. In a few previous Japanese studies, the subjects were immigrant workers themselves and the issues were only the health status, including health checkups for immigrant workers^{7, 8)}. Miyashita *et al.* have reported on insurance for immigrant workers in Japanese workplaces⁹⁾.

Our study indicated that health and safety education were implemented in 62.5% workplaces to keep immigrant workers healthy and safe. Kameda *et al.* reported that the implementation rate of health and safety education for Japanese temporary workers was approximately 60%¹¹⁾, and another previous study reported that the implementation rates of health and safety education were from 55% to 85% in SMEs^{12, 13)}. The rates of safety training for immigrant workers in USA were approximately 30% to 70%³⁻⁵⁾, similar to our results. We considered that these services were conducted for immigrant workers without a margin for comparing with Japanese and American workers. However, O'Connor *et al.* suggested that safety training time for immigrant workers was only one hour³⁾. Though we could not investigate the context of health and safety education, it in the present study might be insufficient.

The rate of education was not different between SMEs and large-scale enterprises; however, the rates of creating job manuals and safety signs written in the native languages and using translators in SMEs were lower than in large-scale enterprises. We considered that health and safety education for immigrant workers might be conducted all together during work training. On the other hand, the rate of creating job manuals and safety signs in the native languages and using translators are not always necessary for employers, especially SMEs might have time and economic burdens.

The implementation rate of general health checkups was 80.8%. Miyashita *et al.* reported that the implementation rate of general health checkups for immigrant workers was about 30%⁹⁾, and Chins *et al.* reported that it was about 70% for Chinese⁸⁾, although it was lower for workers of South American ancestry⁸⁾. According to the national statistics, the implementation rate of general health checkups among workplaces which hired more than

50 employees in Japan was over 95%¹⁴). Compared with these reports, we thought that the implementation rate of health checkups for immigrant workers in this study was not much lower; however, the workplaces in this study had already implemented general health checkups, so the implementation rate might have been high. Care is therefore necessary when interpreting this result.

In this study, language problems and difference of culture and customs were serious barriers to accepting immigrant workers. Previous studies indicated that language was a problem for employing immigrant workers^{15, 16}). This study indicated that 40% of subjects will accept immigrant workers in the future. It was therefore thought that in spite of the language barrier, immigrant workers can not be ignored as a valuable workforce.

Health checkups, follow-up after health checkups and occupational safety and health education were more likely to be important issues for managers to keep immigrant workers healthy and safe. These services were already conducted in many workplaces. Innovations in occupational safety and health law, full health insurance for immigrant workers and innovations in the health system were the following important issues for them. These services were hardly conducted yet. Recently, several new approaches to keep immigrant workers healthy and safe have been taken. In Japan, the Ministry of Health, Labor and Welfare has made guidelines concerning appropriate approaches to improving the management of foreign workers for employers¹⁷). This guideline indicated measures to be taken by employers, which included appropriate recruitment and employment, securing appropriate working conditions, assurance of health and safety, use of insurance, appropriate personnel management, and prevention of dismissal in new employment. We consider that this guideline is ideal to keep immigrant workers healthy and safe, and implementation of the guideline is needed in many workplaces. On the other hand, action was found using private corporations and local governments. The NPO corporation, a private volunteer group and local governments consulted regarding occupational injuries, work environment, health care and so on for immigrant workers¹⁸). Occupational health and safety service institutions in Japan offered several occupational health and safety services including health checkups and follow-ups for the workplaces. These institutions may contribute to keep immigrant workers healthy through the health checkups and follow-ups using medical leaflets written in the native languages. To keep immigrant workers healthy and safe, approaches from various aspects may be needed.

In this study, the automobile industry was the dominant type of industry, and contract workers were dominant in this field. The characteristics of the subjects in

this study were therefore similar to the general characteristics in the Tokai area¹) so the results did not reflect the whole of Japan. Furthermore, this study has several limitations. Because the subjects of this study were workplaces which accept contract or temporary workers, it was limited to this type of workplace. Finally, the response rate was 52%, which was not particularly high.

Conclusion

Implementation of health checkups and health and safety education were conducted for immigrant workers without a margin for comparing with Japanese workers; however, other occupational and safety services were insufficient. To keep immigrant workers healthy and safe, implementation of the guideline concerning Appropriate Approaches to Improving Management of Foreign Workers for Employers is needed.

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