

의원방문 근로자들의 업무상 사고 · 부상 실태에 관한 연구

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A Study on Industrial Safety Accidents Treated at A Primary Care Clinic

Park, Jae-Hong¹ · Kim, Jeong-Won² · Kim, Jong-Eun² · Cho, Young-Ha³ · Moon, Deog-Hwan^{3‡}

¹Department of Occupational and Environmental Medicine, Graduate School, Inje University

²Department of Occupational and Environmental Medicine, Faculty of Medicine, Kosin University

³Graduate School of Public Health, Inje University

This study was surveyed to assess the status of safety accidents occurred in work-places and prepare the fundamental data and prevent the safety accidents.

The authors reviewed and analysed the charts of accident cases treated at a primary care clinic in A city from January 1991 to December 2006. The data were classified according to the USA Standards Institute and International Labour Organization method. We analyzed the data using SPSS program.

The results were as follows :

1. The total cases of accidents were 455 for 8 years.
2. Accidents were mostly common in the workers who are in thirties and forties age(84.4%).
3. As season variation, spring and summer were common than others, but there was no statistical significance on season, month and weekday.
4. The most frequent injured part of the body were hand and finger, which was 36.0% among total cases.

5. According to the accidents type, cases of caught in, under or between were most frequently observed as 53.9% of the total cases.

6. The most common source of injuries was power machine(50.5%).

7. According to the unsafe acts, cases of carelessness and unsafe information were most frequently observed as 71.2% of the total cases.

8. Admission rate(5.5%) and official report rate(2.2%) were very low rate.

As above results, the authors recommend to prepare the systemic control programs on environmental and human factors of safety accidents such as improving the working conditions, working facilities, working methods and safety education, and control of working time for working day.

Key Words : Safety Accident, Primary Care Clinic

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‡ : (,
Tel: 051-890-6741, Fax:051-896-7066, E-mail: iimmdh@inje.ac.kr)

I . 서 론

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가 .
(Kulhmann ,1977).

II . 연구 대상 및 방법

가.

(,1987).

(455 430)

1999 1 1 2006 12 31

가
가
(,1989).

1. 일반적 특성

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가
4

가 (,1985, ,2007.)

2. 재해분석요인 및 재해원인

(USASI, 1963) (ILO,
(Injury Analysis Factors)

1963) 4가
(Accident Causes)

(1985) 가

1)

(1999)
가
(2002)
가
(2006)
가
(,2006)

2)

가 , 가 ,
9
3)

가 4

8 () 455

4) (430) 가 1

가 , (404 , 88.8%), 30 40 가

4 (384 , 84.4%).

5) 2

, 3 8 62%

4 , , .

3 (21.1%) (20.1%) ,

3. 비교분석

4 12

2005 18 가 255 , 56%

SPSS(Version10.0)

5 25 (5.5%)

10 , 2.2% 445

Table 1. Distribution of accident cases by gender and age group

Age	Male	Female	Total
under 29	45	12	57 (12.5%)
30-39	145	17	162 (35.6%)
40-49	202	20	222 (48.8%)
over 50	12	2	14 (3.1%)
total	404(88.8%)	51(11.2%)	455 (100%)

Table 2. Distribution of accident cases by Months

month	1	2	3	4	5	6	7	8	9	10	11	12	total
accident cases (%)	36 (7.9)	23 (5.1)	30 (6.6)	50 (10.9)	45 (9.9)	52 (11.4)	58 (12.7)	45 (9.9)	32 (7.0)	36 (7.9)	19 (4.2)	29 (6.4)	455 (100)

Table 3. Distribution of accident cases by weekdays

weekdays	Mon	Tue	Wed	Thu	Fri	Sat	Sn	Total
accident cases (%)	75 (16.5)	96 (21.1)	83 (18.2)	95 (20.1)	72 (15.8)	28 (6.2)	6 (1.3)	455 (100)

Table 4. Distribution of accident cases by working times

working time	24:00~05:59	06:00~11:59	12:00~17:59	18:00~23:59	total
accidents cases (%)	27 (6)	118 (26)	255 (56)	55 (12)	455 (100)

(97.8%)

10 40.0%가

6 (18.0%)

(20.9%), 가 (57.9%), (19.8%)

(p<0.05).

7 (32.7%) (p<0.05).

(42.0%), (22.0%)

(39.0%), (32.7%)

가 . (p<0.05)

8 ,

가 가

(p<0.05).

9 (23.7%)

(53.9%), (39.0%),

가

10 ,

가 가

가

Table 5. Admission rates and report rates for occupational injuries of safety accidents

Variables	Numbers	%
Admission/Total cases	25 / 455	5.5%
Reported cases/Total cases	10 / 455	2.2%
Reported cases/Admission cases	10 / 25	40.0%
No admission/No report	430 / 445	96.6%

Table 7. Comparisons between study population and National occupational injury statistics(NOIS) by injury types.

Types of injury	Study population (Number, %)	NOIS (Number, %)
Fractures	73(16.9%)	2860(39.0%)
Superficial wound and Contusion	68(15.0%)	286(3.9%)
Laceration and Abrasion	191(42.0%)	462(6.3%)
Sprain and Tearing	100(22.0%)	1331(18.1%)
Others	23(5.1%)	2399(32.7%)
Total	455(100.0%)	7338(100.0%)

Table 8. Comparisons between study population and National occupational injury statistics(NOIS) by injury types. injury sites.

Sites of injury	Study population (Number, %)	NOIS (Number, %)
Hands and Fingers	164(36.0%)	2201(30.0%)
Arms	45(9.9%)	628(8.6%)
Foots and Toes	73(16.0%)	565(7.7%)
Legs	49(10.8%)	1271(17.3%)
Trunk and Spine	76(16.7%)	1463(19.9%)
Head and Face	14(3.1%)	715(9.7%)
Neck	9(2.0%)	102(1.4%)
Shoulders	4(0.9%)	139(1.9%)
Unclassified	21(4.6%)	254(3.5%)
	455(100.0%)	7338(100.0%)

Table 6. Comparisons between study population and National occupational injury statistics(NOIS) by industries

Industries	Study population (Number, %)	NOIS (Number, %)
Construction	73(16.0%)	1,453(19.8%)
Lodging and Restaurant	23(5.1%)	340(4.6%)
Wood, Paper, Furniture	95(20.9%)	295(4.0%)
Metal Manufacturing	82(18.0%)	445(6.1%)
Non-metal Mineral Manufacturing	23(5.1%)	167(2.3%)
Textile, Clothing	23(5.1%)	146(2.0%)
Rubber and Plastic Manufacturing	73(16.0%)	239(3.3%)
Other Manufacturing	13(2.9%)	5(0.1%)
Other Industries	50(11.0%)	4,248(57.9%)
Total	455(100.0%)	7,338(100.0%)

Table 9. Comparisons between study population and National occupational injury statistics(NOIS) by accidents types.

Types of Accidents	Study population (Number, %)	NOIS (Number, %)
Fall from elevation, Fall on the same level	61(13.4%)	2683(36.6%)
Struck against, Struck by, Struck down	108(23.7%)	2218(30.2%)
Caught in, under or between	245(53.9%)	1476(20.1%)
Others	41(9.0%)	961(13.1%)
Total	455(100.0%)	7338(100.0%)

Table 10. Comparisons between study population and National occupational injury statistics(NOIS) by Sources of injury.

Sources	Study population (Number, %)	NOIS (Number, %)
Power Machines	230(50.6%)	2538(34.6%)
Moving machine. Tool	117(25.7%)	2385(32.5%)
Building construction	36(7.9%)	2001(27.3%)
Others	72(15.8%)	414(5.6%)
Total	455(100.0%)	7338(100.0%)

Table 11. Unsafe acts by industry

	Careless, Unsafe information	Defect of Agencies	Inadequate supervision	Unclassified	Total
Total	324 (71.2)	44 (9.7)	16 (3.5)	71 (15.6)	455 (100)

가 . , . . . 1960 , . . . , . . . , . . . 가 , 가 , , (, 가 2.2%(40%) . 40 가가 30, 40 (88.8%) , (1996) 가 , . 20 30 가 가 , 가 (62%) (1995) 가 71.2% (2006) , 66.7% , 가 가 , 가 (1995) 가 , 5 가 가 15%가 가 85% (, 1995) 24 12 18 (1996) 가 (1995) 2005 가 가 , 가 42.0% 가 . 가 22.0%, 16.9% , (5.5%) 39.0% 가 . 가 (2.2%) (40.0%) 18.1%, 6.3% . (1996) (9.2%) (4.3%)

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