

## **Occupational injuries in Welders — Perspective from Faisalabad**

Madam, Injuries are common in non-industrial welding workers, working in construction or automobile repair shops.<sup>1-4</sup> A study in 2001, conducted in Islamabad and Rawalpindi reported 9 out of 208 welders having been injured in the past three months; with injury defined as requiring physician or self prescribed treatment.<sup>3</sup> While an earlier study conducted in Karachi, among 36 welders reported 340 injuries in the past three months among welders; however, no definition of injury was provided.<sup>4</sup>

A cross-sectional survey with convenience sampling was conducted among welding workers in the city of

Faisalabad from March to July 2011, to study occupational injuries; attitudes, opinions and practices of welders about various issues pertaining to injuries and their work. A trained interviewer, using a pre-tested questionnaire with both open and close-ended questions; visited markets where welding shops were present, and interviewed welders and recorded their responses after obtaining their verbal informed consent and ensuring complete confidentiality. Only those welders were interviewed who were working for at least one full year. An injury was defined as requiring a visit to a doctor or self-treatment with medication/ointment/bandage. Data were

**Table: Injury and other characteristics disaggregated by two age groups.**

Characteristic	N = 130 Age: <= 25	N = 171 Age > 25
Age (mean)	20.4 ± 4.3 (Range: 12-25)	33.4 ± 12.8 (Range: 26-60)
<b>Education</b>		
No formal education	22	32
1 - 5 years	70	76
6 - 10 years	38	57
>10 years	0	6
<b>Welding profession is dangerous for health</b>		
Yes	129	169
No	1	2
<b>I was injured in the past three months</b>		
Yes	130	171
No	0	0
<b>The body part involved in the most severe injury sustained in the past three months was:</b>		
Eyes	87	92
Face (except eyes)	26	58
Limbs	17	21
<b>The injury sustained in the past three months resulted in taking at least one full day off from work</b>		
Yes	72	97
No	58	74
<b>The injury sustained in the past three months resulted in some permanent partial/complete physical disability</b>		
Yes	3	7
No	127	164
<b>While welding I use:</b>		
<b>Hand Gloves</b>		
Always	1	2
Often	5	6
Sometimes	11	21
Never	113	142
<b>Reason for 'never' using hand gloves</b>		
Do not think there is a need to use	113	142
<b>Goggles</b>		
Always	130	171
<b>Regularly clean gas cylinder and other welding equipment</b>		
Yes	1	2
No	129	169
<b>Fire extinguisher available in the welding shop</b>		
Yes	1	2
No	129	169
<b>First-Aid kit available in the welding shop</b>		
Yes	18	24
No	112	147
<b>There is a need for legislation to protect welding workers from injuries/accidents at work</b>		
Yes	129	169
No	1	2
<b>There is a need to provide information to welders on how to protect their health and safety at work</b>		
Yes	129	169
No	1	2
<b>The reason for getting injured at work:</b>		
Carelessness/fate	116	166
Being in a hurry	11	4
Defective tools	3	1

analyzed using STATA version 10 for frequencies and counts.

Cumulatively, 301 welders were approached, and participated in this study. Table shows the responses to questions, disaggregated by two age groups i.e. 25 and under, and over 25 years old. The most striking finding of this study

was all that respondents reported having sustained multiple injuries in the past three months, which were serious enough to warrant at least one full day off from work in 169 (56.1%); with 10 (3.3%) respondents having sustained some permanent partial/complete physical disability. The body part

involved in the most severe injury sustained at work in the past three months involved eyes; reported by 179 (59.5%). Against this backdrop, only 42 (14%) respondents had access to a first-aid kit in their welding shop. Fate and carelessness was the oft cited reason for injuries at work; reported by 282 (93.7%). The need for legislation to protect welders at work and to provide information to welders on how to protect their health and safety at work was almost universally expressed.

There were 18 (6%) welders under the age of 16, who had been working for the past one year. Results augur for the need to study occupational injuries among welders in the country, and to enact and enforce legislation for the occupational safety of welding workers, coupled with health education; to protect from, and prevent injuries by ensuring

adoption of safety regulations and practice measures.

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