:

OWAS

```
f.ghamari@gmail.com:
                                               // :
                                                                 / / :
Abdoli Eramaki )
                                                                          .(2000
                       (Kuorinka and Forcier 1995)
                                                                    OWAS
                     % /
                                       OWAS
                                                .(p< / )
                               % / (OWAS )
   (OWAS
                                                              % /
                           (OWAS
                                     )
                                                          (OWAS
                                                     % /
                                       .(p</
                                                              /
                                                          (MSDs)
```

```
/
```

```
.(Ardakani et al. 2005)
                                                              (Choobineh 2008)
                                                     (Jafari and Bathaei 2004)
                      (
                           )
                                                ( NIOSH 1997).
                                                .( Perkio and kela 2005)
                                                         . (Choobineh et al. 2004)
                                                                   %
                                           .(Fouladi Dehghi et al. 2008)
```

(% /) (%) (% /) :

/...

```
post
                  t-test
            SPSS
                  (
                         hoc
 ) % /
                 ) % /
( )% / ( )% /
( )%/ ( )%/
 ± /
(BMI)
                                                      )
. / ± /
                                                      R250
                                                     SPSS
                                                   WINOWAS
                      .(p< / )
                                               (Risk level)
               (MSDS)
                                                      OWAS
                   % /
                         % /
                                   (Ghasemkhani and booya 2003)
       (
                )
OWAS
```

```
(p</
                                                    .(p> / )
                                                                   OWAS
                                                       ( )
                                                (% / )
                                           (% / )
% /
           % /
                    % /
                                                          (% / )
                                                                    (% / )
      )
                 (
%
                                                        OWAS
%
               %
         %
                      %
                             %
      (Nasl Saraji et al. 2005)
                                       % /
                                             % /
                                                     % /
                                                                 % /
                                       Nasl Seraji and )
                                                                 % /
   )
```

.(Kachoian 1999

```
)
                                                                            (OWAS
                                                                   (
                                  OWAS
 (
                                                       %
                                   % /
                                                                               % /
     % /
                     )
                                                                      % /
Hassanzade)
                  ( and Nasl Seraji 2004
                                                                     OWAS
                                            % / (OWAS
                                                            )
                                                                              % /
                                                  % (OWAS
                                                                 )
                                                                (OWAS
                                                           % /
                                                                  (OWAS
                                                                               )
                                                                     OWAS
                                                           % / :
Nasl Saraji et al.)
                                            % /
                                                                          % /
                                   .(2005
                                                              % /
                                                          .(Habibi and Zohre 2004)
Kivi and Mattila 1991; ).
        (Fang et al. 2004; Wang et al. 2000
```

% /

. RULA

.

.

Pvalue						
	/	1	1	/	/	
1	/	1	/	1	/	
1	/	1	1	1	/	
1	1	1	1	1	1	
1	1	1	1	1		
1	1	/	1	1	1	
1	1	/	1	1	1	
1	/		1	1	1	
1	/	1	1	1	1 1	

/...

OWAS		MSDS							
()	()	()	()						
1	1	1		1					
	1	1	1	1					
1	1	1	1	1					
/	1	1	1	1					
	1	1	1	1					
/	1	1		1					
/	1	1	1	1					
/	1	1	1	1					
/	1	1	1	/					

OWAS

OWAS

P value											_	
1	1	1	1	1	1	1	1	1	1	1	()
1	1	1		1	1	1		1	1	1)
1	1		1	1	1	1		1	1	1	()
1	1	1		1	1	1			1	1)

References

Abdoli Eramaki, M., 2000. Biomechanics and workstation designing, first issue, *Tehran, omide majd press* [In Persian].

Choobineh, A., 2008. The methods Evaluation of Posture in occupational Ergonomics, Second issue, *Hamdan Fanavarn press* [In Persian].

Choobineh, A., Tosianb, R. and Alhamdic, Z., 2004. Ergonomic intervention in carpet mending operation. *Appl Ergon*, **35**, pp.493–496 [In Persian].

Ardakani, F., Haerian Ardakani, A., Akhavan Karbasi, MH., Dehghan and Tezerjani, Kh., 2005. Assessment of musculoskeletal disorders prevalence among dentists. Journal of Dentistry Tehran University of Medical Sciences. 41(17), pp. 52 -60 [In Persian].

Fang, D., Wu, S., Wong, F. and Shen, Q., 2004. A comparative study on safety and use of bamboo and metal scaffolding in Hong Kong. In: Rowlinson, S. (Ed.),

Construction Safety Management Systems. *Spon Press, London*, pp. 373–385.

Fouladi Dehghi, B., Dehghan, H., Ebrahimi Ghavam Abadi, L., 2008. Evaluation of Exposure to Risk Factor Associated with Musculoskeletal Disorders in a House Hold goods assembling Company. *Journal*

of Medical Faculty Guilan University of Medical Sciences, **64**(16), pp. 97-105

Ghasemkhani, M., Booya M.,2003. Ergonomic situations of Pars switch factory workers analyzed by OWAS method, Zanjan 2001. *Journal Of Zanjan University of Medical Sciences and Health Services*; **41**(10), pp. 43-39 [In Persian].

Habibi, E. and Zohre, F., 2004. Evaluation of ergonomic position during work IN Mahyaman factory workers esfahan-iran. Fourth congress of occupational health in iran-hamadan [In Persian].

Hasanzadeh, M.A., Nasle saraji, J., 2004. Evaluation of Musculoskeletal Disorders Risk factors Among the Crew of the

- Iranian Ports. *Acta Medica Iranica*, **42**(5), pp.350-354 [In Persian].
- Jafari, MJ. and Bathaei, A., 2004. Associations of Awkward postures with musculoskeletal symptoms among assembling unit workers in an automobile industry. Fourth congress of occupational health in iran-hamadan [In Persian].
- Kivi, P. and Mattila, M., 1991. Analysis and improvement of work postures in the building industry: application on the computerized OWASmethod. *Applied Ergonomics*. **22**(1), pp. 43–48.
- Kuorinka, I. and Forcier, L., 1995. Work related musculoskeletal disorders (WMSDs), A reference book for prevention. *London, Taylor and Francis*.
- Nasl Saraji, J., Hoseini, M., Shahtaheri, SJ. and Ghasemkhani M., 2005. Evaluation of ergonomic postures of dental professions by Rapid Entire Body Assessment

- (REBA), in Birjand, Iran.. *Journal Of dental Medicine*.**1**(18),pp.61-6[In Persian].
- Nasl Seraji, J. and Kachoian H., 1999. Ergonomics evaluation of work posture in OWAS method in Ballast mines. *The Journal of Tehran Faculty of Medicine*. **3**(57). pp, 58-52 [In Persian].
- National Institute for Occupational Safety and Health (NIOSH).,Musculoskeletal disorders and workplace factors: A critical reviewof epidemiologic evidence for work-related disorders of the neck,upper extremity, and low back. USA: DHHS (NIOSH) Publication;1997, pp. 97-141.
- Perkio, M. and kela, M., 2005. Physical workstrain of dairy farming in loose housing barns. *International Journal of Industrial Ergonomics*. **35**, pp.57-65.
- Wang, Z., Dongxue, Y.u. and Kejun, Jia., 2000. Work-related Disorders in Steel Industry. Ind Health and Occup Dis., **26**(4),pp.216-223.