

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).

( Perkiio 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*

---

/	/	/	/	/	/
/	/	/	/	/	/
/	/	/	/	/	/
/	/	/	/	/	/
/	/	/	/	/	/
/	/	/	/	/	/
/	/	/	/	/	/
/	/	/	/	/	/
/	/	/	/	/	/ /

---

/...

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

**OWAS**

*P value*

< /	/	/	/	/	/	/	/	/	/	/	)
< /	/	/	/	/	/	/	/	/	/	/	)
/	/	/	/	/	/	/	/	/	/	/	)
/	/	/	/	/	/	/	/	/	/	/	)

---

**OWAS**


---

P value

---

/	/	/	/	/	/	/	/	/	/	/	(	)
/	/	/	/	/	/	/	/	/	/	/	(	)
/	/	/	/	/	/	/	/	/	/	/	(	)
/	/	/	/	/	/	/	/	/	/	/	(	)

---

**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 OWAS method. *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 review of 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.