

Prevalence of Burnout in Iran: A Systematic Review and Meta-Analysis

Ehsan Bastami^{1*}, Kourosch Sayehmiri², Tahereh Bastami³, Behzad Cheraghizadegan⁴

¹ Psychosocial Injuries Research Center, Ilam University of Medical Sciences, Ilam, IR Iran

² Department of Biostatistics, Psychosocial Injuries Research Center, Ilam University of Medical Sciences, Ilam, IR Iran

³ Research Committee, Psychosocial Injuries Research Center, Ilam University of Medical Sciences, Ilam, IR Iran

⁴ Psychosocial Injuries Research Center, Ilam University of Medical Sciences, Ilam, IR Iran

Abstract

Introduction: Burnout is considered to be a job related problem that is associated with complications including decreased job performance, and physical and psychological disorders. Burnout dimensions include the emotional exhaustion (EE), depersonalization (DP) and personal accomplishment (PA). Due to the importance of burnout and its negative impacts on individual and organization, the present study would evaluate the prevalence of burnout in Iran using systematic review and meta-analysis.

Materials and Methods: The present study has been done based on PRISMA protocol for Systematic Reviews and Meta-Analyses. The information was obtained from searching standard Persian and English keywords in accessible databases including: Scopus, Magiran, SID, Science Direct, Google scholar and PubMed from database commencement to April 2017. The metaregression was performed to evaluate the relationship between the year of the study and burnout. Data Analysis was performed using Stata software version 11.1., and p value was considered less than 0.05.

Results: In the systematic review 43 studies met the inclusion criteria, and 9456 people were evaluated. The prevalence of burnout was calculated in any of the three dimensions of burnout. The prevalence of the Emotional Exhaustion (EE) dimension of burnout was 36% (95CI: 29-42), the Depersonalization (DP) dimension was 23% (95CI: 18-29) and the Personal Accomplishment (PA) dimension was 46% (95CI: 39-53). Based on the type of the job, the maximum prevalence of the EE, DP and PA dimensions was in librarians 67% (95CI:40-93), university staff 51% (14-88) and dentists 72%(95CI:65-79), respectively. Meta regression results showed that there was no significant relationship between the year of publication and the prevalence of burnout.

Conclusion: According to the prevalence of burnout in Iran and the high prevalence of the PA dimension, it is recommended to consider mediating strategies for reducing and controlling stressful occupational events and burnout in organizational schedule.

Keywords:

Burnout, Maslach Burnout Inventory (MBI). Iran, Meta-Analysis, Systematic Review, Prevalence.

*Corresponding author: Jalil Nazari

Email Address: nazari_j@yahoo.com

1. Introduction

Burnout is a psychosocial phenomenon in response to chronic stressors in the work environment. The most widely used definition has been introduced by Maslach & Jackson [1]. Burnout is a psychological syndrome emerging as a prolonged response to chronic interpersonal stressors in the job. The three key dimensions of this response are an overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment [2]. Emotional exhaustion (EE) refers to feeling of being emotionally overextended and depleted of one's emotional resources. Depersonalization refers to negative, callous or excessively detached response to other people, which often includes a loss of idealism. Reduced personal accomplishment refers to a decline in feeling of competence and productivity at work [3]. The development of BS is related to an imbalance of personal characteristics of the employee and work related issues or other organizational factors [4]. Burnout may be associated with decreased quality of life of health care professionals causing anxiety, irritability, mood disturbances and even depression, as well as decreased occupational performance, altered provider-patient relationship and stress-related health problems [5]. Information about prevalence of burnout is needed to prevent this syndrome and to determine the most appropriate clinical interventions. Due to the importance of burnout and its negative impacts on individual and organization, the present study aims to evaluate the prevalence of burnout in Iran using systematic review and meta-analysis.

2. Methods

Maslach Burnout Inventory (MBI) was used to develop criteria for inclusion. This questionnaire which is considered as the main instrument in burnout studies due to its adequate validity and reliability, measures all the three dimensions of burnout, i.e. Emotional exhaustion (EE), Depersonalization (DP) and Personal accomplishment (PA). Each subscale is interpreted separately. High levels of burnout

manifest as higher scores in EE and DP subscales, and lower scores in the PA dimension [6-8]. In the present study, the eligible studies were those reporting burnout prevalence and all the researches that were not based on MBI, those that had not reported burnout prevalence or had not reported each subscale prevalence in percent were excluded, as well as review articles, qualitative studies, letter to editor and brief reports. Search terms were determined through the examination of key words used in the relevant literature. Five databases including Scopus, PubMed, Science Direct, Wiley Online Library and Springer were searched with regard to supplementary internet search of Google and Google scholar. Consistent with the PRISMA statement, the identification, screening and eligibility assessment process was applied to select studies for inclusion. Removing the duplicates, two authors independently screened titles and abstracts to exclude the articles that did not meet the inclusion criteria. In order to identify studies for inclusion, full texts of remaining publications were reviewed. A standard template was developed to collate data relating to study methods and results. Data extraction was completed by one author and checked by a second author. The prevalence of burnout for each study was considered to be a number between 0 and 1. Burnout prevalence had a binomial distribution and the variance of the sample proportion was. The Chi-squared based Q test and I-squared statistics were used to examine the heterogeneity of the reported prevalence among the studies. Due to the significant results of Tau-squared, the random-effects model was applied to estimate the overall prevalence of burnout. Meta regression was used to evaluate relationship between year of publication and burnout prevalence. Publication bias was measured by Begg's and Egger's tests. Subgroup analysis was done based on the continent of the study. Data analysis was performed using Stata statistical software (Version 11.1)

3. Results and Discussion

In the systematic review 43 studies met the inclusion criteria, and 9456 people were evaluated

(fig1). The prevalence of burnout was calculated in any of the three dimensions of burnout. The prevalence of the Emotional Exhaustion (EE) dimension of burnout was 36% (95CI: 29-42), the Depersonalization (DP) dimension was 23% (95CI: 18-29) and the Personal Accomplishment (PA) dimension was 46% (95CI: 39-53). Based on the type of the job, the maximum prevalence of the EE, DP and PA dimensions was in librarians 67% (95CI:40-93), university staff 51% (14-88) and dentists 72%(95CI:65-79), respectively. The results of the prevalence of the three dimensions of burnout based on job are summarized in table 1. Meta regression results showed that there was no significant relationship between the year of publication and the prevalence of burnout. The result of the egger test indicates that the publication bias was not statistically significant.

4. Conclusions

According to the prevalence of burnout in Iran and the high prevalence of the PA dimension, it is recommended to consider mediating strategies for reducing and controlling stressful occupational events and burnout in organizational schedule. Furthermore, it is recommended to take into account the factors related to burnout in order to enhance the job satisfaction and quality of work and to increase the productivity.

5. Acknowledgment

The study was funded by Ilam University of Medical Sciences .

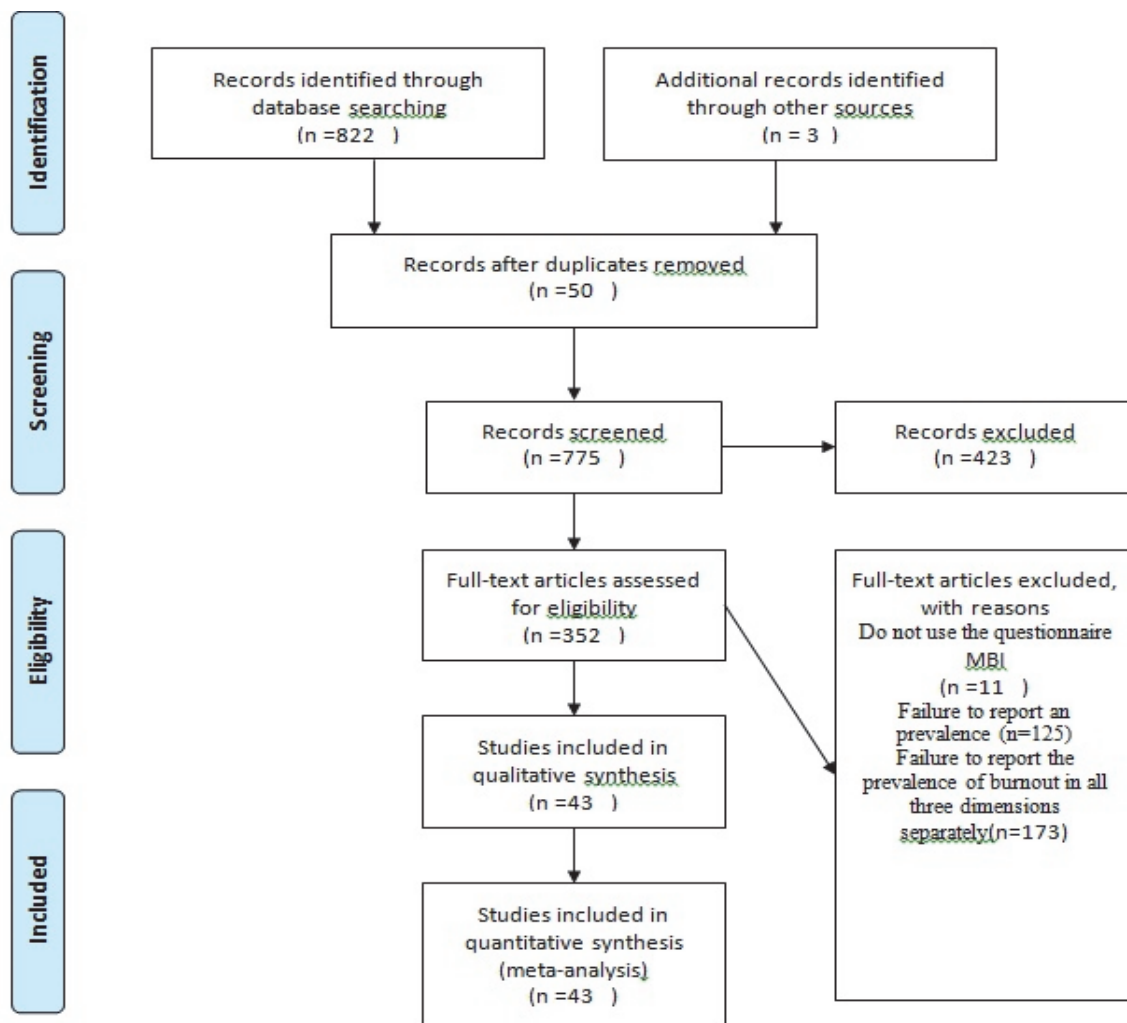


Fig 1. Diagram The process of selecting articles entered into the meta-analysis process

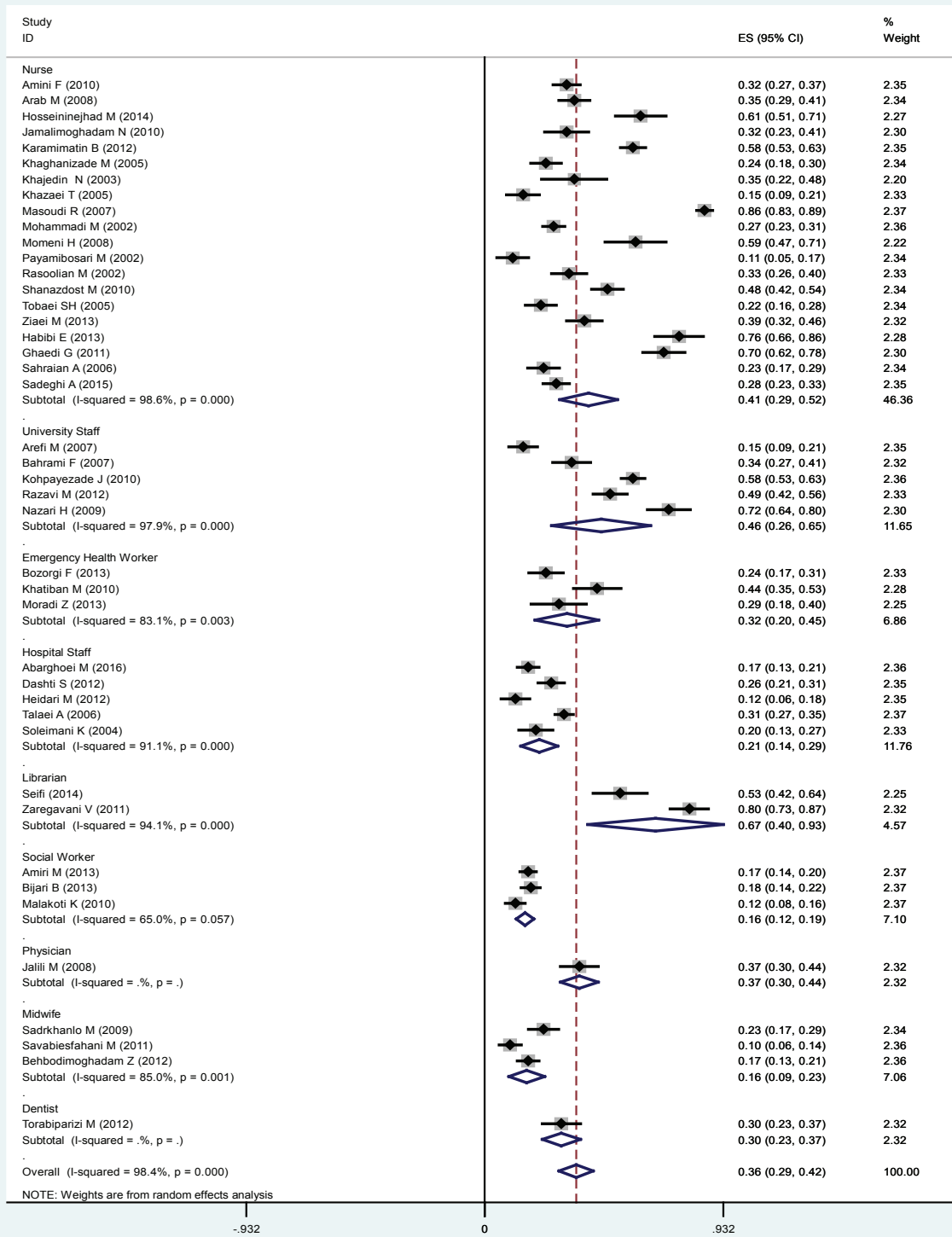


Fig. 2. prevalence of burnout dimension EE in Iran

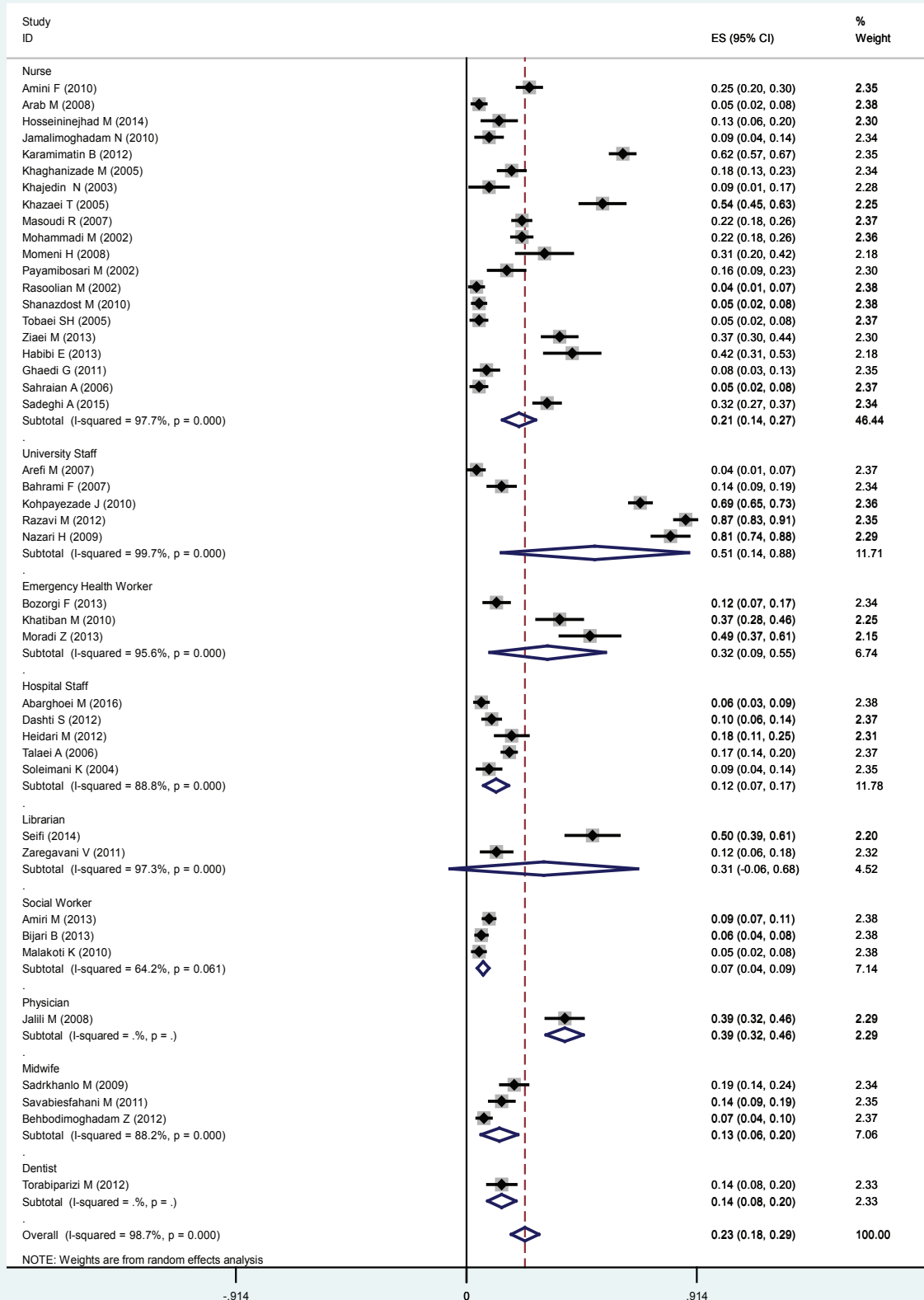


Fig. 3. prevalence of burnout dimension DP in Iran

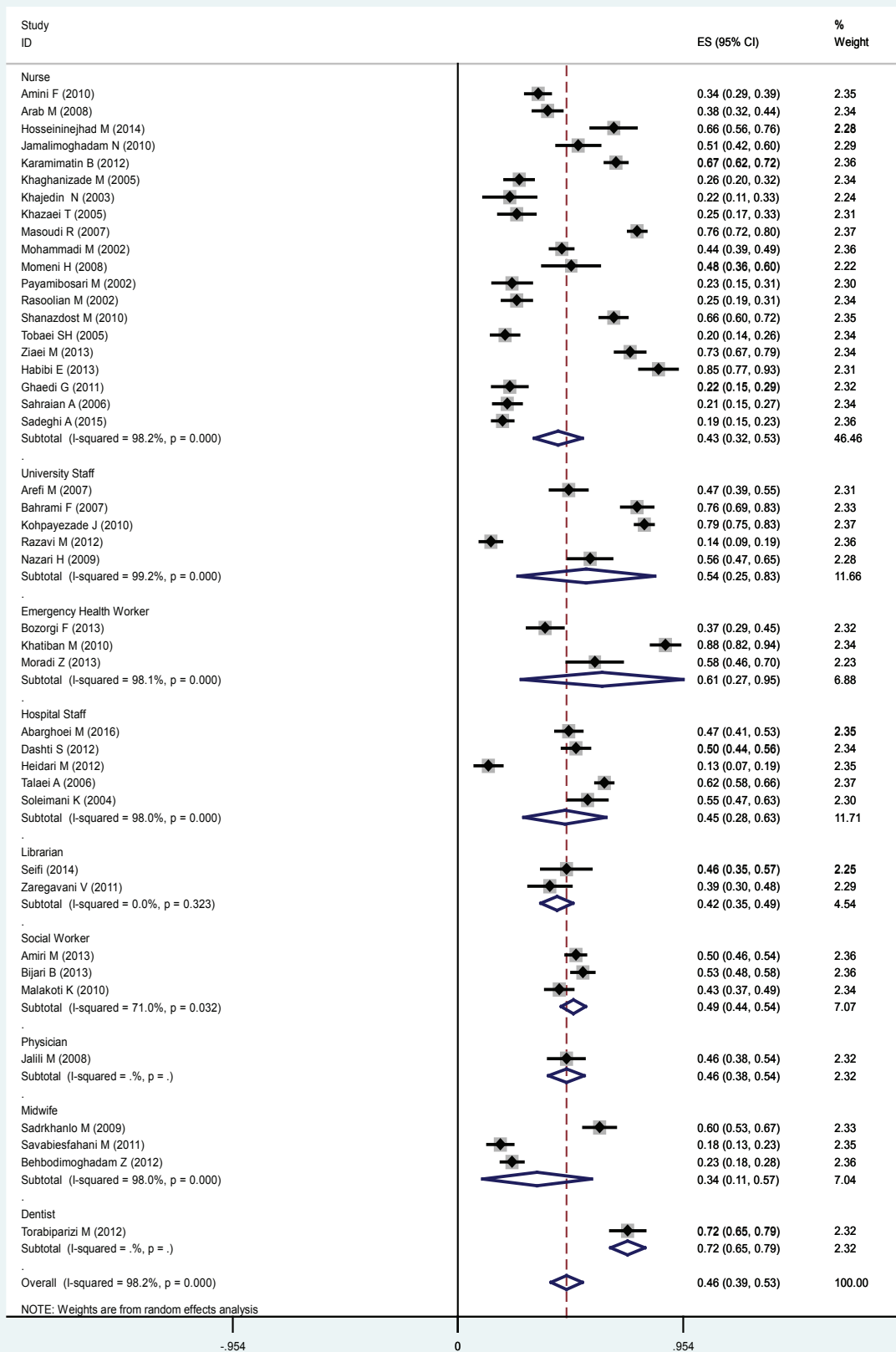


Fig. 4. prevalence dimension of burnout PA in Iran

Table.1 Prevalence of burnout in Iran based on job

JOB	EE		DP		PA	
	Prevalence	CI*	Prevalence	CI	Prevalence	CI
Nurse	41	29-52	21	14-27	43	32-53
University staff	46	26-65	51	14-88	54	25-83
Emergency staff	32	20-45	32	09-55	61	27-95
Hospital staff	21	14-29	12	07-17	45	28-63
Liberian	67	40-93	31	06-68	42	35-49
Behvarz	16	12-19	07	04-09	49	44-54
Doctor	37	30-44	39	32-46	46	38-57
Midwife	16	09-23	13	06-20	34	11-57
Dentist	30	23-37	14	08-20	72	65-79
Total	36	29-42	23	18-29	46	39-53

%95CI

6. References

- [1] Zanatta AB, Lucca SR. [Prevalence of burnout syndrome in health professionals of an onco-hematological pediatric hospital]. *Rev Esc Enferm USP*. 2015;49[2]:253-60.
- [2] Maslach C, Leiter MP. Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry*. 2016;15[2]:103-11.
- [3] Maslach C, Goldberg J. Prevention of Burnout: New Perspectives. *Applied and Preventive Psychology*. 1998;7:63-74.
- [4] Moss M, Good VS, Gozal D, Kleinpell R, Sessler CN. An Official Critical Care Societies Collaborative Statement: Burnout Syndrome in Critical Care Healthcare Professionals: A Call for Action. *Crit Care Med*. 2016;44[7]:1414-21.
- [5] Trufelli DC, Bensi CG, Garcia JB, Narahara JL, Abrao MN, Diniz RW, et al. Burnout in cancer professionals: a systematic review and meta-analysis. *Eur J Cancer Care (Engl)*. 2008;17[6]:524-31
- [6] Maslach C, Jackson SE, Leiter MP. *The Maslach Burnout Inventory manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press. 1996.
- [7] Yates M, Samuel V. Burnout in oncologists and associated factors: A systematic literature review and meta-analysis. *Eur J Cancer Care*. 2019;28:e13094.
- [8] Aguayo R, Vargas C, Fuente EIdl, Lozano LM. A meta-analytic reliability generalization study of the Maslach Burnout Inventory1. *International Journal of Clinical and Health Psychology*. 2011;11(2):343-61.