

Daem Initiative by the SCFHS: Perceived Effectiveness and Resident Awareness to Reduce Burnout among Saudi Residents

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Research submitted in partial fulfillment of the requirements of the SCFHS

Abstract: ***Introduction:** The Saudi Commission for Health Specialties provides academic and psychological support system called Daem which ensure the help with maintain of privacy and confidentiality. They provide interactive guidance to the residents during their training stage to improve psychological health and prevent burnout. This study aimed to conduct the first comprehensive evaluation of the psychological support system daem and its association with work burnout among medical residents in Saudi Arabia. **Methods:** This a cross-sectional study recruited resident who are actively enrolled in any of SCFHS accredited programs. For at least 9 months. The sample was a convenient sampling technique using online link that was sent to the phones of the residents containing a self-administered questionnaire. The non-respondents were reminded every week and the online link was sent again. If they won't respond, they were phoned and interviewed through telephone. We used a self-administered questionnaire to collect data about study variables. The questionnaire consists of two sections, section A focused on socio-economic characteristics of the participants and section B contained questions about awareness of daem service, while section C is Maslach Burnout Inventory (MBI) for burnout assessment. **Results:** A total of 356 residents, who have been enrolled in the SCFHS accredited programs, were included in this study. More than a half of the respondents were male (63.5%) and about three quarters aged 25-30 years old. Although low awareness, utilization, and satisfaction with daem system, a high awareness about burnout was reported in this study, as 94.4% believed that residents should be screened for symptoms of burnout. This study found that 17.1% of the residents had a documented history of burnout. Furthermore, the findings revealed that 66.2%, 70.2%, and 3.8% had a high emotional exhaustion, high depersonalization, and low personal accomplishment, respectively. The mean score of emotional exhaustion was 31.1±12.2 while the mean score of personalization was 12.4±5.8. Age, presence of a chronic disease, working in night shift, history of burnout, and availability of burnout support system were found significantly related to high emotional exhaustion. **Conclusions:** A high prevalence of burnout was found among residents who have been enrolled in the SCFHS accredited programs. About two thirds of the residents suffered emotional exhaustion or depersonalization. Moreover, low awareness, utilization and satisfaction rates towards daem system, were reported among the residents. However, most of the residents were aware about the importance of screening for work burnout.*

Keywords: burnout, resident, prevention, Daem

1. Introduction

1.1 Background

Burnout syndrome is a work-associated problem which can seriously influence the social, mental, and physical health as well as the quality of life of the workers world widely ⁽¹⁾. Burnout is a real threat for occupational health of the workers and a potential obstacle for the organizational efficiency ⁽²⁾. It is characterized by low adaptive capacity to the chronic work stress with inability to deal with emotional tensions ⁽³⁾. The main feature of burnout is emotional exhaustion which is a situation when a worker feels emotionally consumed by others and has no time to recover from work stress and conflicts.

In Saudi Arabia, about 70% prevalence of burnout was reported among physicians in a tertiary hospital located in Riyadh city. Factors significantly associated with burnout among physicians were sleep deprivation, occurrence of back pain, and negative impact on the family life ⁽⁴⁾. Similar

findings were reported in training stage among family medicine residents in Almadina city with 65% complaining of high or moderate burnout ⁽⁵⁾. The risk factors associated with burnout during training stage were exams, large scientific content, work load, and lack of support system.

High levels of burn out reported in a study recruited residents of emergency and internal medicine, surgery, obstetrics and gynaecology (OBGYN), and paediatrics in King Fahad National Guard Hospital, King Faisal Hospital and Research Centre, Riyadh Military Hospital and King Fahad University Hospital ⁽⁶⁾. The investigators found overall 70% of residents with criteria of burnout. In regards to depersonalization and emotional exhaustion subscales, 69% and 54% of the residents found to have a high burnout level, while only 23.9% had a high level of depersonalization ⁽⁶⁾. A slightly lower level of burnout was found among physicians in National Guard Health Affairs in Dammam city. About 46% of physicians met the criteria of burnout and 34.4% of them had a high level of emotional exhaustion. ⁽⁷⁾

Volume 11 Issue 3, March 2022

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Burnout is a multifactorial problem which resulted from interactions between individual and organizational characteristics. The individual factors include personality, social status, psychological status, gender, age, educational level, familial and genetic predisposing factors. Moreover, several organizational factors can lead to burnout such as workload, work insecurity, financial issues, lack of feedback, and quick structural changes in the organization⁽⁸⁾. The common complains of affected workers are usually expressed as psychosomatic symptoms including headache, sleep disturbances, lack of appetite, obesity, anxiety, depression, and tiredness⁽⁹⁾. In a long-term effect, burnout could be linked to increased risk of cardiovascular diseases, peptic ulcer, and alcoholism⁽¹⁰⁻¹²⁾.

Medical practitioners are subjected to the stressed working environment with high workload, intensive emotional tragedies, high expectations, increased risk of workplace violence, and high stress associated with medical errors. The establishment of the interventions that can mitigate the effect of burnout among medical practitioners is essential to improve occupational health and increase work productivity.

2. Literature Review

The impact of burnout on the health of medical practitioners is significantly severe and can influence the safety of the patients. The awareness about work-related burnout is low in the most of the developing countries where workers have high levels of work stress. However, even in the developing countries, the literature is overwhelmed by studies which highlighted the magnitude of the burnout among medical practitioners⁽¹³⁾.

Many tools have been developed to assess burnout but the most commonly used tool is called Maslach Burnout Inventory (MBI)⁽¹⁴⁾. It is a questionnaire consists of 22 items distributed on three domains of emotional exhaustion, depersonalization and personal accomplishment. The reliability of the MBI was assessed in 84 studies and found in the range of 0.70 to 0.80 which consider higher than other burnout questionnaires⁽¹⁵⁾.

A proper evaluation of burnout among medical practitioners will enhance the planning and execution of the intervention programs. A systematic review, included 6 RCTs and 13 cohort studies, assessed the effectiveness of several interventions such as work hours restriction, self-care workshops, stress management training, and mediation⁽¹⁶⁾. They found that the restriction of work hour recommended by Accreditation Council for Graduate Medical Education (ACGME) is the best intervention to improve either on overall burnout level or at level of subscales including emotional exhaustion, depersonalization and personal accomplishment. Moreover, self care workshops were found to improve depersonalization, while mediation decreased emotional exhaustion⁽¹⁶⁾. A continuous evaluation of these intervention will enhance the adjustment of the current programs or even the development of new strategies.

Rationale

In Saudi Arabia, the awareness of burnout among medical practitioners is low despite of high prevalence rate and

significant impact on occupational health either in training or working status.

The training stage is essential stage in the medical practitioner academic life which frequently associated with stress, anxiety, burnout and sometimes depression. The Saudi Commission for Health Specialties provides academic and psychological support system called Daem which ensure the help with maintain of privacy and confidentiality. They provide interactive guidance to the residents during their training stage. Additionally, daem conducts periodic surveys to assess the magnitude and determinants of burnout among trainees. The effectiveness of this program has not been evaluated. This study aims to conduct the first comprehensive evaluation of the psychological support system daem. This evaluation will enhance the efforts of development and improve efficiency of this program.

Aim (s) of the Study

This study aimed to conduct the first comprehensive evaluation of the psychological support system daem and its association with work burnout among medical residents in Saudi Arabia.

Objectives

- To assess the prevalence of burnout among medical residents in Saudi Arabia.
- To evaluate the perceived effect of the institution support program daem among medical residents in Saudi Arabia.
- To assess the residents' awareness level about the daem support program.

3. Methodology (Materials and Methods)

3.1 Study Design

This is a cross-sectional study design.

3.2 Study Population

Resident who are actively enrolled in any of SCFHS accredited programs.

3.3 Study Area

Hospitals approved as training centers of SCFHS in Saudi Arabia.

3.4 Inclusion criteria

- Resident who are actively enrolled in any of SCFHS accredited programs and completed 9 months in the academic year.
- Residents who provided an informed consent to participate in the study.

3.5 Exclusion criteria

- Residents with underlying psychiatric condition.
- Residents who freeze their program.
- R1 residents who didn't complete 9 months since enrollment.

3.6 Sample Size

The number of participants required to estimate the level of awareness about daem program is calculated using this equation:

$$n = \frac{(1 - P)z^2}{d^2}$$

The expected level of residents' awareness is approximately 70% based on the level of burnout reported in the previous studies. Thus, at the confidence level of 95% and estimation error of 0.03, the sample size is calculated as following:

$$n = \frac{0.70(1-0.70)1.96^2}{0.03^2} = 323 \text{ participants}$$

After adding of 10% to compensate for non-response rate, the final sample size will be 355 participants.

3.7 Sampling Technique

The sample was a convenient sampling technique using online link that was sent to the phones of the residents containing a self-administered questionnaire. The non-respondents were reminded every week and the online link was sent again. If they won't respond, they were phoned and interviewed through telephone.

3.8 Data Collection Tool (Instrument)

We used a self-administered questionnaire to collect data about study variables. The questionnaire consists of three sections, section A focused on socio-economic characteristics of the participants and section B contained questions about awareness of daem service among residents, while section C is Maslach Burnout Inventory (MBI) for burnout assessment.

3.9 Data Collection Technique

The data were collected electronically through self-administered questionnaire and data were received in the excel sheet (google forms).

3.10 Study Variables

a) Dependent variable:

- Level of residents' awareness regarding daem program.
- Level of residents' satisfaction of daem services.

b) Independent variables:

- Age
- Gender
- Marital status
- Nationality
- Level of training
- Specialty
- Work shifts
- Medical history
- Previous history of burnout

3.11 Data Entry and Analysis

The data were entered and analyzed by Statistical Package of Social Science SPSS, version 26. The descriptive statistics such as frequencies, percentages were calculated to summarize nominal and ordinal data, while mean, median and standard deviation or the range to describe numerical variables. Chi-squared test was to evaluate the association between the predictor variables and the level of burnout. Any P-value < 0.05 was considered as an indication for a statistically significant association or difference.

3.12 Pilot Study/ Pretesting

The questionnaire was piloted in 20 residents to identify the difficulties and the time required to finish the questionnaire. Then the questionnaire was revised by two experts, an epidemiologist to revise the methodological quality of the questionnaire and a consultant to revise the scientific component of the questionnaire.

3.13 Ethical Considerations:

The author described the aim and objectives of the study for the residents and asked them to provide a written consent. No names required to assure confidentiality of data and all information was kept confidential only for this study purposes. The study protocol should be approved by the ethical committee.

3.14 Budget, Fund or Grant

The study is self-funded.

4. Results

A total of 356 residents, who have been enrolled in the SCFHS accredited programs, were included in this study. more than a half of the respondents were male (63.5%) and about three quarters aged 25-30 years old. The residents were mainly distributed over single and married marital status with a percentage of about 48% for each category. About two thirds of the respondents had no children while 19.4% had two or more children. Almost all the residents were Saudi as only 1.4% were non-Saudis. Regions of training were different since the residents were distributed over 12 regions, however, the majority of the respondents (55.6%) were from Eastern province. Riyadh region is ranked the second followed by Makkah region with 18.9% and 8.5% of the respondents, respectively. More than a third of the respondents were living away from the family which may indicates that they are originated from other region than training region (table 1).

Table 2 demonstrates clinical and work-related characteristics of the respondents. A history of chronic physical diseases and psychiatric conditions was reported by 11.3% and 9.3%, respectively. Furthermore, 2.5% of the residents reported to have both chronic and psychological conditions. The majority of the respondents were at first four levels of training (R1-R4), while only 5.1% were from R5-R6. Working in night shift was common among the residents as about three quarters reported working at night shift.

Regarding the specialty of the training program, 28% of the respondents were from family medicine program followed by 11.4% who were being trained at ER program. Other respondents were distributed over 17 training programs such as internal medicine, ophthalmology, general surgery, pediatric, obstetrics and gynecology, and radiology.

Regarding factors related to reporting of burnout, only 20.8% said that there is encouragement to report work burnout in their institutes. In the other hand, only 10% claimed that there is a system for burnout support in their institutes. The previous documented prevalence of work burnout among the respondents was 17.1%. Despite 94.4% believed that residents should be screened for symptoms of burnout, only 19.8% knew how to get help when they have work burnout (table 3).

Distribution of factors related to daem initiatives among the respondents are illustrated in table 4. Awareness rate about daem initiative by the SCFHS was low as only a quarter of the respondents were aware and only 14.5 have ever tried to contact daem support program. Among the users of daem program, the feasibility to use the system was considered as very-easy to easy among 33.4% of the respondents while 28.6% found the use of the system difficult to very difficult. The delay in response from daem program varied widely as 20.5% reported one day of delay whereas 35.9% and 23.1% reported a delay of 5-10 days and >20 days, respectively. Among the daem users, 46% reported that they have taken 0-1 sessions in the daem program, whilst about 46% reported 2-4 sessions as an intervention for burnout support. Satisfaction about daem was inadequate as only 28.9% were either satisfied or very satisfied of daem services. Despite the low satisfaction rate, the majority of the respondents 56.1% would recommend daem program for a friend.

The distribution of the residents over the components of Maslach Burnout Inventory (MBI) scale is presented in table 5. Regarding emotional exhaustion, the majority (66.2%) had a high level, while 16.3% had a low level of emotional exhaustion. A higher percentage (70.2%) of the respondents had a high level of depersonalization. In the other hand, 83.3% of the respondents considered themselves to have a high level of personal accomplishment.

The findings of logistic regression modeling are demonstrated in table 6. The models aimed to identify significant predictors of each component of burnout scale including emotional exhaustion, depersonalization and personal accomplishment. As stated in the literature, each component of MBI scale should be interpreted separately. All demographic factors and those related to daem factors were introduced to a logistic regression. Predictors selected by backwards step-wise selection. After exclusion of non-significant factors, only certain factors were found associated with burnout scale components.

Age, presence of a chronic disease, working in night shift, history of burnout, and availability of burnout support system were found significantly related to high emotional exhaustion. Regarding depersonalization, factors such as age, nationality, and availability of burnout support system were found significantly related to high depersonalization

among the residents. Only one predictor was found significantly associated with personal accomplishment after exclusion of other variables that were introduced into the model.

5. Discussion

The stress and work load among caregivers were found to be high either in the training or in the working stages⁽¹⁷⁾. A recent review, which included 20 studies, postulated that burnout influences commonly frontline caregivers such as nurses and physicians⁽¹⁸⁾. The prevalence of burnout among health workers peaks to the level of epidemic with more than 50% affected health workers⁽¹⁹⁻²¹⁾.

This study aimed to conduct an evaluation of the psychological support system daem that have been implemented in Saudi Arabia, as well as, to determine its association with work burnout among medical residents in Saudi Arabia. This study is important because it included residents from 12 different regions in Saudi Arabia, while in the literature only one or few regions were included. Moreover, residents from 19 training programs were surveyed unlike previous studies where assessments of psychological support systems were restricted to certain training programs.

The present study found that only 25% of the residents were aware of daem initiative by the SCFHS and only 14.9% have ever tried to contact daem support program. These low awareness and utilization rates are pointing to a window of improvement in support programs of medical professionals. As 28.6% of daem users found it difficult or very difficult to use the system, development of a user-friendly platform will enhance the usability of the system. The majority of the daem users reported >5-day delay in the response from the system team. This highlights the need for introducing a monitoring unit that report and intervene in case of unexplainable delay.

Although low awareness, utilization, and satisfaction with daem system, a high awareness about burnout was reported in this study, as 94.4% believed that residents should be screened for symptoms of burnout. Improvement of daem initiative in terms of accessibility, feasibility, and capacity is important for promotion of occupational and psychological health of the residents. Burnout is prevalent among medical practitioners and it needs a lot of efforts to be diagnosed and managed. This study found that 17.1% of the residents had a documented history of burnout. Furthermore, the findings revealed that 66.2%, 70.2%, and 3.8% had a high emotional exhaustion, high depersonalization, and low personal accomplishment, respectively. The mean score of emotional exhaustion was 31.4 ± 12.2 while the mean score of personalization was 12.4 ± 5.8 .

The level of emotional exhaustion is much higher than that reported by family medicine residents recruited from Madinah city by Aldubai e al.⁽⁵⁾ as only 33.3% had high emotional exhaustion with mean score of 22.5 ± 12.8 . Similarly, lower levels of emotional exhaustion and depersonalization were reported among orthopedic residents in different regions in Saudi Arabia with 50% and 39.4%

had high emotional exhaustion and depersonalization, respectively ⁽²²⁾. Depersonalization was lower than emotional exhaustion among a sample of ophthalmologists in Saudi Arabia as 37.6% and 17.9% has high levels of these domains, respectively ⁽²³⁾. The present study conducted more comprehensive assessment, in terms of regions and specialty associated with training programs. This was also clear in the findings of a cross-sectional study included physicians with different specialties who were working in a tertiary hospital in Riyadh region ⁽⁴⁾. They found an overall burnout prevalence of 70% based on the presence of one or more domains of MBI with high scores. However, they reported a prevalence of 54%, 35%, 33% for each domain of high emotional exhaustion, high depersonalization, and low professional accomplishment. Using an aggregated score of all domains are not recommended in the literature.

Age, presence of a chronic disease, working in night shift, history of burnout, and availability of burnout support system were found significantly related to high emotional exhaustion. Residents aged more than 35 were 11.1 times less likely to have a high level of emotional exhaustion when compared to those who aged 25-30 years old. Residents without a history of chronic diseases were 2.5 times less likely to have a high level of emotional exhaustion when compared to those who had chronic diseases. Absences of a previous history of burnout or awareness about how to get help for burnout were associated with 4 times lower risk of being highly emotionally exhausted. Residents who reported unavailability of a burnout support system were 3.9 times more likely to have a high level of emotional exhaustion, in comparison to those who reported availability of the system.

Regarding depersonalization, factors such as age, nationality, and availability of burnout support system were found significantly related to high depersonalization among the residents. Residents aged more than 35 were 6.3 times less likely to have a high level of depersonalization when compared to those who aged 25-30 years old. Non-Saudi residents were 16.7 times less likely to have a high level of depersonalization when compared to Saudi residents. Residents who reported unavailability of a burnout support system were 6.4 times more likely to have a high level of depersonalization, in comparison to those who reported availability of the system. Only one predictor was found significantly associated with personal accomplishment after exclusion of other variables that were introduced into the model. Awareness about how to get help for burnout was associated with 2.5 times more likability to have high personal accomplishment. All domains are not recommended in the literature.

Limitations in the present study are mainly related to a cross-sectional design, as an alternative prospective design is recommended to assess the variation in the burnout status with time. In the future, a surveillance data from daem program could be used to assess the incidence and determinants of burnout among residents in the training programs. Moreover, testing the appropriate methods for intervention would be conducted using data of case management in the daem program.

6. Conclusions

A high prevalence of burnout was found among residents who have been enrolled in the SCFHS accredited programs. About two thirds of the residents suffered emotional exhaustion or depersonalization. Despite this high burnout, personal accomplishment was high among the majority of the residents. Moreover, low awareness, utilization and satisfaction rates towards daem system, were reported among the residents. However, most of the residents were aware about the importance of screening for work burnout. Based on these results, improvement of daem initiative in terms of accessibility, feasibility, and capacity is essential for promotion of occupational and psychological health of the residents.

Age, presence of a chronic disease, working in night shift, history of burnout, and availability of burnout support system were found significantly related to high emotional exhaustion. Regarding depersonalization, factors such as age, nationality, and availability of burnout support system were found significantly related to high depersonalization among the residents. Only one predictor was found significantly associated with personal accomplishment after exclusion of other variables that were introduced into the model.

Table 1: Demographic characteristics of the respondents

Variables	Frequency	Percent (%)
Gender		
Male	224	63.5
Female	129	36.5
Age		
25-30	275	77.2
31-35	72	20.2
>35	9	2.5
Marital status		
Single	171	48
Married	173	48.6
Divorced	11	3.1
Widow	1	0.3
Number of children		
No children	233	66.6
One child	49	14
Two Children	56	16
> 2 children	12	3.4
Nationality		
Saudi	346	98.6
Non-Saudi	5	1.4
Region		
Eastern Province	197	55.6
Northern Borders Region	6	1.7
Riyadh Region	65	18.4
Makkah Region	30	8.5
Jizan Region	9	2.5
Qasim Region	9	2.5
Madinah region	14	4
Tabuk Region	5	1.4
Ha'il Region	9	2.5
Asir Region	6	1.7
Najran region	2	0.6
Al Jawf	2	0.6
Do you live away from the family?		
Yes	127	35.7
No	229	64.3

Table 2: Distribution of the clinical and work-related characteristics of the respondents

Variables	Frequency	Percent (%)
Do you have chronic diseases?		
Yes	40	11.3
No	315	88.7
Do you have psychological conditions?		
Yes	33	9.3
No	323	90.7
What is your level of training		
R1	89	25
R2	93	26.1
R3	69	19.4
R4	87	24.4
R5	17	4.8
R6	1	0.3
Do you work in night shifts?		
Yes	271	76.6
No	83	23.4
Current training track		
General surgery	18	5.1
Family medicine	98	28
Ophthalmology	25	7.1
Pediatric	19	5.4
ER	40	11.4
Obstetrics and gynecology	24	6.9
Psychiatry	9	2.6
Urology	19	5.4
Internal medicine	23	6.6
Anesthesia	14	4
Neurology	4	1.1
Orthopedic	11	3.1
Forensic medicine	5	1.4
Radiology	17	4.9
Community medicine	1	0.3
ENT	10	2.9
ICU	7	2
Dermatology	4	1.1
Pediatric surgery	2	0.6

Table 3: Distribution of factors related to reporting of burnout among the respondents

Factors	Frequency	Percent (%)
Is there encouragement to report if you have work burnout in your institute?		
Yes	74	20.8
No	281	79.2
Do you have previous history of documented burnout?		
Yes	61	17.1
No	295	82.9
Is there a system for burnout support in your institute?		
Yes	35	9.9
No	133	37.8
I don't know	184	52.3
Do you believe that residents should be screened for symptoms of burnout?		
Yes	334	94.4
No	20	5.6
Do you know how to get help when you have work burnout?		
Yes	70	19.8
No	284	80.2

Table 4: Distribution of factors related to daem initiatives among the respondents

Factors	Frequency	Percent (%)
Are you aware of daem initiative by the SCFHS?		
Yes	89	25
No	267	75
Have you ever tried to contact daem support program?		
Yes	21	14.9
No	120	85.1
If you used daem support program, how easy was it to use daem support program?		
Very Easy	7	16.7
Easy	7	16.7
Moderate	16	38
Difficult	5	11.9
Very Difficult	7	16.7
If you used daem support program, how long did it take to get back to you?		
1 day	8	20.5
10-20 days	1	2.6
2-5 days	7	17.9
5-10 days	14	35.9
More than 20 days	9	23.1
If you used daem support program, how many sessions did you took?		
0-1 sessions	17	46
2 sessions	8	21.6
3 sessions	4	10.8
4 sessions	5	13.5
More than 4 sessions	3	8.1
If you used daem services, are you satisfied with the support services provided by daem		
Very satisfied	4	10.5
Satisfied	7	18.4
neutral	11	29
Unsatisfied	10	26.3
Very unsatisfied	6	15.8
If you used daem support program, would you recommend it to a friend?		
Yes	23	56.1
No	18	63.9

Table 5: Distribution of the Maslach Burnout Inventory (MBI) scale components among the respondents

Components	Frequency	Percent (%)		
Emotional exhaustion				
Low	56	16.3		
Moderate	60	17.5		
High	227	66.2		
Personal accomplishment				
Low	13	3.8		
Moderate	44	12.9		
High	284	83.3		
Depersonalization				
Low	46	13.3		
Moderate	57	16.5		
High	243	70.2		
Maslach Burnout Inventory (MBI) scale				
Scale components	Minimum	Maximum	Mean	Std. Deviation
Emotional exhaustion	2	54	31.1	12.2
Personal accomplishment	6	48	27.6	6.6
Depersonalization	0	30	12.4	5.8

Table 6: Findings of logistic regression model for predictors of the components of Maslach Burnout Inventory (MBI) scale

Predictors	Categories	Reference group	Lower limit (95% C. I)	Odds Ratio	Upper limit (95% C. I)	p value
Predictors of high emotional exhaustion						
Age	31-35	25-30	0.42	0.81	1.6	0.533
	>35	25-30	0.02	0.09	0.5	0.006*
Presence of chronic diseases	No	Yes	0.16	0.4	0.99	0.047*
Working in night shift	No	Yes	0.29	0.52	0.94	0.031*
Do you have previous history of documented burnout?	No	Yes	0.1	0.25	0.59	0.002*
Is there a system for burnout support in your institute?	No	Yes	1.44	3.86	10.35	0.007*
	I don't know	Yes	0.53	1.31	3.23	0.565
Do you know how to get help when you have work burnout?	No	Yes	2.22	4.33	8.44	<0.001
Predictors of high depersonalization						
Age	31-35	25-30	0.88	1.85	3.9	0.105
	>35	25-30	0.04	0.16	0.72	0.017*
Nationality	Non-Saudi	Saudi	0.01	0.06	0.72	0.027*
Is there a system for burnout support in your institute?	No	Yes	2.64	6.35	15.26	<0.001*
	I don't know	Yes	1.39	3.15	7.13	0.006*
Predictors of high personal accomplishment						
Do you know how to get help when you have work burnout?	No	Yes	1.32	2.53	4.84	0.005*

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