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Original Investigation

Depression and Burnout Frequency in Nurses Working in Tertiary Intensive Care Units

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Abstract

Objective: Emotional and physical burden is heavy in the intensive care unit (ICU) employees, and the risk of burnout has significantly increased. The purpose of this study is to determine the frequency of burnout and depression in nurses serving in tertiary ICUs in a university hospital by questionnaire.

Material and Methods: The questionnaire study was conducted on nurses studying actively in Dokuz Eylül University School of Medicine Anesthesia and Internal Medicine ICU between 22-26 August 2016. Burnout was assessed by Maslach Burnout Scale (MBS) and depression with Beck Depression Scale (BDS).

Results: According to the BDS score, 29 nurses (58%) noted various degrees of depression from mild mood to severe depression. According to MBS, 6 of the nurses (12%) had a moderate risk of emotional exhaustion (DT) while 43 (86%) had a high risk. In terms of depersonalization (D), it was found that nurses had a moderate risk of 15 (30%) and a high risk of 22 (44%). There was a positive but weak correlation between duration of study and D in ICU (r=0.349, p=0.014). Nurses with no depression were found to have a a statistically significantly lower risk for DT (p=0.006) and personal failure (PF) (p=0.022).

Conclusion: In this study, it was seen that the questionnaire evaluation of nurses working in the tertiary ICU showed a great deal of risk of depression and burnout. We believe that taking environmental, managerial and institutional measures and regular monitoring to reduce occupational risks and improve working conditions will reduce both depression and burnout frequency in this profession group.

Keywords: Intensive care unit, nurse, burnout, depression

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Informed Consent: The nurses who participated in the study filled in the questionnaires and agreed to volunteer.

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Introduction

Just like other people, healthcare workers have to work to sustain their lives. This necessity exposes the individual to the positive and negative effects of internal and external factors in the working environment and brings along the necessity of combating these effects; while positive emotions and environments cause an increase in pleasure from work, adverse situations, environments, and atti-

tudes can push individuals to stress, dissatisfaction, unhappiness, and burnout (1).

Freudenberger described burnout as an occupational disease in 1974 and defined it as emotional exhaustion, personal failure, problems in relations and a painful situation (2). In 1981, Maslach and Jackson updated this definition and interpreted it as emotional collapse in the working environment, the person's breaking away from the primary meaning and purpose of the profession due to introversion and the sense of failure when compared to his/her friends, becoming unable to deal with the people he/she serves. They defined burnout also as the development of feelings like chronic fatigue, helplessness, loss of self-esteem, and hopelessness which cause negative consequences in the working life and human relationships, as a result of the answer given to chronic stressors in the working environment, and as a psychological syndrome characterized by physical, intellectual and emotional exhaustion (3). The definition of burnout as an occupational disease is the person's feeling not being able to make any changes and differences despite his/her effort in his/her job and current environment, and the sense of surrender (4, 5). The concept of burnout is discussed scientifically in three sub-dimensions as emotional exhaustion (EE), depersonalization (D), and the sense of personal accomplishment (PA) (1).

Depression is considered to be one of the most important outcomes of burnout. Basically, it is defined as reluctance towards the duties and functions which the person has been performing willingly and lovingly before, and the situation of not enjoying life. In depression, in a mentality fixed with regard to past and future, the individual experiences negative assessments, pessimistic thoughts, and the sense of guilt and punishment by addressing the negative and bad aspects of what was experienced in the past. By seeing the future pessimistic and hopeless, the thoughts of helplessness for the future come to the forefront. The enjoyment from life decreases, and there may be a state of collapse that extends to the thought that life is meaningless. As a result, interpersonal relationships can be affected and cause to a significant decrease in the work and social life performance (6).

It is supported by studies that healthcare workers experience the feeling of burnout intensively (6-9). The studies conducted on health occupation groups state that the burnout rate is the highest among nurses (6). As a result of this, along with depression, they experience a decrease in work efficiency, and negative impacts on social and spiritual life (10, 11). The decrease in work efficiency leads to an increase in occupational accidents and causes the patients cared for to be exposed to risk directly (1, 9).

Intensive care units (ICUs) are special units in which clinically critical patients are monitored and treated. The emotional and physical load is severe in healthcare workers serving patients, who are monitored in the ICU and are usually critical and at high death risk, and this situation increases the risk of burnout significantly (12-15).

The causes of emotional exhaustion and depersonalization can be described as heavy workload due to patients who are in severe condition or at a high risk of death, monitorization, laboratory and imaging examinations, frequent drug administration and invasive-noninvasive interventions, multi-step, detailed, and frequent care practices, and intensive infection control rules (16). Furthermore, the insufficient nursing staff-bed ratio, frequent nurse turn over in the ICU, necessity of communicating with too many people, a closed working environment open to conflicts, low exposure to sunlight, night and day biorhythm disruption as a result of working in shifts in many centres, frequent occurrence of emergency situations, the lack of participation in decisions, professional role ambiguity in some cases, the lack of psycho-social support, bureaucracy, shortage of salary and other payments, and not ensuring the status and prestige of the profession can also be listed (17). Relatively more frequent encountering death compared to other services, the feeling of responsibility for the the patient under care, and the mood state in case of the loss of that patient can challenge nurses emotionally. Furthermore, giving care to chronic patients and in some cases to patients who will not benefit from intensive care treatment during their stay in ICUs is questioned by some nurses after some period. As a result of this, they may move away from the unity of target and purpose with the doctors they work with. Besides stress and tension caused by this, factors such as an insufficient number of the support staff contribute to the high level of EE and D in intensive care nurses. Accordingly, the loss of motivation, a decrease in body resistance, weakness, stubborn head and muscle aches, intrafamilial and social problems, negative behaviors, an increase in making mistakes, alcohol-smoking addiction, insomnia, problems in human relations, increased accident and injury rates, the loss of idealism and interest in work, a desire to quit the job, and individual-sectoral problems may emerge (1, 3, 7, 8, 18-21).

It is critical to determine the current situation of burnout and depression in ICU nurses, who are mentioned as the group with the highest risk of occupational burnout and depression in previous studies. In our study, it was aimed to determine the prevalence of burnout and depression in nurses who are serving in tertiary ICUs in a university hospital through a survey.

Material and Methods

This study was conducted in the Anesthesiology and Internal Medicine ICUs of Dokuz Eylül University School of Medicine after obtaining approval from Dokuz Eylül University Non-invasive Research Ethics Committee dated 11.08.2016, with 2729-GOA protocol number, and 2016/23-27 decision number. Actively working nurses were invited to the survey study, and the survey forms were distributed to those who volunteered to participate in the study between August 22-26, 2016, and in the preliminary explanation in which information about the survey was given, the volunteers were asked to fill in the survey form in writing. No time and place restriction was imposed for filling the forms, and the participants were asked to fill in the forms in an environment in which they felt comfortable. The survey forms were filled in within working hours but out of the medical visit, operation, care, and patient visit hours, in such a way that the work order in the ICU would not be disturbed.

The content of the survey was created from three parts: questions to determine socio-demographic characteristics, the Maslach Burnout Inventory (MBI), and the Beck Depression Inventory (BDI). Socio-demographic characteristics were evaluated with 24 questions prepared considering the data of previous studies (5), and questions about the personal and professional characteristics of nurses, their general health conditions and working conditions were included.

Assessment of Burnout

The MBI was developed by Maslach and Jackson (1, 3) in 1981 to measure the burnout level, and its validity and reliability study in Turkish was performed by Ergin (22). This inventory consists of three sub-sections and a total of 22 items. There are nine items related to EE, eight items related to PA and five items related to D. Although the inventory in original is a seven-point Likert-type scale, since it is not suitable for Turkish culture, Taycan et al. (6) arranged it as a five-point Likert-type scale (Appendix 1).

Assessment of Depression

BDI was developed by Beck et al. (23) in 1961 to measure the behavioral findings of depression in adolescents and adults. The inventory measures vegetative, emotional, cognitive and motivational symptoms observed in depression with 21 items. The Beck Depression Inventory (BDI), of which validity and reliability study in Turkish was performed by Hisli, is a rating scale consisting of 21 questions (24). In the assessment of the inventory, the limits determined in the study of Taycan et al. (6) were taken into account. The points between 0 and 3 corresponding to each answer were summed, and the total scores between 1-10 were evaluated as normal, between 11-16 as mild mood disturbance, between 17-20 as clinical depression, between 21-30 as moderate depression, between 31-40 as severe depression, and between 41-63 as extreme depression (Appendix 2).

Table 1. General characteristics of the study participants

Age * (years)	31 (26-35)
Gender	
Female	47 (94)
Male	3 (6)
Marital status	
Married	28 (56)
Single	22 (44)
Children	
No	26 (52)
One child	18 (36)
> 1 child	6 (12)
Educational status	
Vocational High School	49 (58)
University	1 (2)
Time after graduation	
Less than one year	3 (6)
Between 1-5 years	16 (32)
Between 6-10 years	15 (30)
More than ten years	16 (32)
Chose the profession willingly	37 (74)
Total nursing duration	
Less than three years	10 (20)
4 to 6 years	9 (18)
7-9 years	14 (28)
Ten years and over	7 (14)
Monthly income	
1000-2000 TL	1 (2)
2000-3000 TL	20 (40)
3000-4000 TL	29 (58)
Presence of physical illness	16 (32)
Presence of psychiatric illness	8 (16)

Values are presented as n (%)

Statistical Analysis

Values for categorical variables are presented as number (percentage) and for continuous variables as median value (interquartile range-IQR). The groups were compared using the Chi-square test (and if required Fisher's exact test) for categorical variables, and the Mann-Whitney U test for continuous variables. Correlation evaluation between continuous variables was performed with the Spearman correlation analysis. The value of $p<0.05$ was considered statistically significant. All analyses were performed with the Statistical Program for Social Sciences version 17 (SPSS Inc., Chicago, IL, USA).

Results

Twenty one of the 24 nurses in the Anesthesiology ICU and 29 of the 34 nurses in the Internal Medicine ICU were included in the study; since eight nurses were on leave, they could not be reached within the study period. All of the 50 accessed nurses agreed to fill in the survey (100% response rate). The general characteristics of the nurses who participated in the study are presented in Table 1. Forty seven (94%) of the nurses were female, and their median age was 31 years. When their educational status was examined, 49 nurses (98%) were vocational high school graduates. Thirty seven nurses (74%) stated they had chosen their profession willingly. Sixteen nurses (32%) had a physical, and eight nurses (16%) had a psychiatric illness.

According to the results of the survey, the working conditions are presented in Table 2. Upon examining the ways of working, it was observed that there were not nurses working in the night shift continuously, there were four nurses (8%) working in the day shift continuously, and 46 (92%) nurses were working in shifts.

The BDI results of the study are presented in Table 3. According to the BDI score, while 21 (42%) of the nurses were found to be normal, the remaining 29 nurses (58%) were found to have various degrees of depression, ranging from mild mood disturbance to extreme depression.

The results of the MBI are presented in Table 4. According to the MBI results, regarding EE, 6 (12%) of the nurses carried a moderate risk, while 43 (86%) of the nurses were at a high risk. EE was detected only in one nurse. In terms of PA, moderate-high, and low-risk groups were equal to 50%. Regarding D, 13 (26%) of the nurses had low, 15 (30%) had moderate, and 22 (44%) had a high risk.

The depression, EE, D, PA scores and general characteristics of the study participants are presented in Table 5. Accordingly, no statistically significant difference was found between the MBI and BDI scores regarding the general characteristics of the study participants ($p> 0.05$). The depression, EE, D, PA success scores and working conditions of

the study participants are presented in Table 6. Accordingly, a positive but weak correlation was found between the ICU working time and D (r=0.349, p=0.014). The relationship between depression and EE, D, and PA is presented in Table 7. The EE median values (IQR) of the nurses without and with depression were found to be 22 (18-24) and 28 (23-31.5), respectively (p=0.006), and the PA median values (IQR) were found to be 29 (23-32.5) and 28 (20-27), respectively (p=0.022), which refers to a statistically significantly lower risk. No significant difference was found in terms of D.

Discussion

In the present study, the rate of depression in nurses working in a tertiary university hospital ICU was determined as 58% with the inventory assessment. In the evaluation of the MBI results, it was observed that most of the nurses (86%) were at a high risk in terms of EE, and about half of them (44%) were at a high risk in terms of D. These findings in intensive care workers are very remarkable and reveal the need for urgent initiatives.

In nurses working in the intensive care unit, EE was highly observed, and this result supports data in the literature. In their study conducted on 84 intensive care nurses, Dizer et al. (12) found out that the mean EE score was 22.7±7.3 and the nurses were in the high-risk group when they examined the sub-dimension of burnout. Tunçel et al. (5) also determined a similar (82.9%) EE level in their study on the burnout syndrome of nurses working in an oncology hospital ICU. This study was carried out in different geographical regions including Ankara and Izmir, and the types of hospitals to which the intensive care units are affiliated are also different as university and oncology hospital. Therefore, the characteristics of the patients admitted to ICUs also vary. Despite these differences, the similarity of the EE levels suggests that burnout may be independent of the geographical region and the type of the hospital being studied.

In the study, it was determined that most of the nurses were at a medium-high risk in terms of the D level. D levels were found to be medium-high in various studies. Tunçel et al. (5) determined the D level as 51.4% in their study, while Dizer et al. (12) found out that the average D score was 27.5±7.3, which indicates a high level. In our study additionally, a positive but weak correlation was found between the working period in the ICU and D. In other words, as the working period increased, depersonalization also increased. According to the Maslach burnout model, during the burnout development process, as the initially occurring emotional exhaustion advances, the depersonalization stage begins to manifest itself in the person (5, 25). Determining high D levels in nurses who are in the high-risk group regarding EE can be explained by this burnout model of Maslach. Accordingly, the development of EE in this group of nurses might have led to the development of D by following a process.

Table 2. Working conditions of the participants

Anesthesia Intensive Care Unit	21 (42)
Internal Medicine Intensive Care Unit	29 (58)
Working period in the intensive care unit	
≤Three years	11 (22)
4-6 years	14 (28)
7-9 years	12 (24)
≥Ten years	13 (26)
The way of working	
Continuously in the daytime	4 (8)
Continuously at night	-
In shifts (mixed day and night shifts)	46 (92)
Total working hours per week	48 (35-48h)
Night working hours	16 (12-57h)
Being able to change the working hours arbitrarily	29 (58)
Number of patients cared for	
Day	2
Night	3
Ability to use the annual leave	48 (96)
Ability to go on annual leave at the desired time	28 (56)
Having problems in relations with doctors	18 (36)
Having problems in relations with support staff	25 (50)
Sleep duration (per day)	
8 hours	7 (14)
6-8 hours	27 (54)
<6 hours	16 (32)
Doing regular physical exercise	9 (18)

Values are presented as n (%)

Table 3. Beck Depression survey results

Normal (10 points)	21 (42)
Mild mood disturbance (11-16 points)	12 (24)
Clinical depression (17-20 points)	8 (16)
Moderate depression (21-30 points)	5 (10)
Severe depression (31-40 points)	2 (4)
Extreme depression (41-63 points)	2 (4)

Values are presented as n (%)

Table 4. Maslach Burnout survey results

Emotional exhaustion (Questions 1, 2, 3, 6, 8, 13, 14, 16 and 20)	
Low risk (0-11 points)	1 (2)
Moderate risk (12-17 points)	6 (12)
High risk (18 points and over)	43 (86)
Personal accomplishment (Questions 4, 7, 9, 12, 17-19 and 21)	
High risk (0-21 points)	16 (32)
Moderate risk (22-25 points)	9 (18)
Low risk (26 points and over)	25 (50)
Depersonalization (Questions 5, 10, 11, 15, 20 and 22)	
Low risk (0-5 points)	13 (26)
Moderate risk (6-9 points)	15 (30)
High risk (10 points and over)	22 (44)

Values are presented as n (%)

Upon examining the level of depression, it is remarkable that more than half of the nurses experience depression of various degrees from mild mood disturbance to extreme depression. According to the BDI results, the rate of depression was determined as 58% (from mild mood disturbance to extreme depression). It was observed that in the nurses without depression there was also a low risk in EE scores. Our results were consistent with previous studies and revealed the relationship between depression and EE (5, 26). Firth et al. (26) reported that depression and EE are similar phenomena and that there is a statistically significant correlation between them. It was also reported in the literature that depressive temperament emerges in burnout (26, 27). In the light of all these data, it can be deducted that burnout in ICU nurses provides a basis for clinical depression.

There are environmental, administrative and institutional measures for the prevention of burnout and depression that we can frequently encounter in intensive care units. We believe that the appointment of nurses who want to work in the ICU (28, 29), increasing satisfaction with workplace (5), giving training on conflict resolution skills and burnout coping (30-32), performing the nursing workload TISS-28 scoring or similar assessments at certain intervals for the heavy workload, examining the factors which increase the workload especially the insufficient number of nurses, performing assessments periodically with the burnout and depression inventories, and providing professional psychological support when necessary are necessary measures (16).

Study Limitations

The main limitations of this study are being single-centered, providing access to a limited number of nurses, being conducted in the anesthesia and internal medicine ICUs and not involving other ICUs (cardiovascular surgery, coronary, pediatric and neonatal), assessing with the MBI and BDI, and not performing a psychiatric evaluation for clinical diagnosis.

The strong aspects of the study are the facts that all nurses working actively were reached, and the results revealed the need for a quick arrangement in this area. The study can be a guide in determining the working conditions of ICU nurses.

Conclusion

Intensive care unit nurses carry a high occupational risk for depression and burnout. Therefore, it should not be overlooked that environmental, administrative, and institutional measures need to be reviewed periodically.

Table 5. Depression, emotional exhaustion, depersonalization, personal accomplishment scores and general characteristics of the study participants

General characteristics of the study participants	Depression	Emotional exhaustion	Depersonalization	Personal accomplishment
Marital status				
Married	12.5 (9-19)	28 (22-29.8)	9.5 (7-29.8)	23.5 (21-28.8)
Single	10 (6-15)	23 (19-26.5)	7 (4.8-11)	26.5 (20-32)
Time after graduation				
Less than 1 year	13 (12-13)	22 (20-22)	7 (5-7)	23 (19-23)
1-5 years	10 (4.5-17)	22.5 (17.5-30.5)	7.0 (4.3-12.8)	29 (10.3-32.8)
6-10 years	12 (6-19)	28 (22-29)	8 (7-13)	21 (20-26)
10 years and over	12 (9-18.8)	25.5 (22-29.8)	9 (5.8-13.8)	26 (23-10.8)
Chose the profession willingly				
Yes	12 (8-18)	24 (20.5-29.0)	8 (6-11)	25 (21-2.5)
No	11.5 (6.3-15.8)	27 (20.5-32.5)	13 (5-16)	26 (20.5-32)
Total nursing duration				
Less than 3 years	9 (3.8-15)	20.5 (16.5-24)	6 (3.8-10)	27 (19.8-29.4)
4-6 years	12 (10-17)	22 (19.5-29.5)	8 (6-12.5)	21 (20-33.5)
7-9 years	13.5 (6-19.5)	29 (23.5-33.0)	11.5 (7-14.3)	26 (23.5-33)
10 years and over	9 (6-13.5)	24 (22-29)	9 (6-13)	26 (23-31)
Monthly income				
2000-3000 TL	10.5 (6-16.3)	21 (17.5-28)	7 (4-11)	29 (21.2-32)
3000-4000 TL	13 (8-19)	26 (22-31.5)	10 (7.5-14)	23 (21-26)
Physical illness				
Present	18 (11-21)	29 (22.5-36)	12.5 (7.3-18.5)	24 (21-29.5)
Absent	10 (6-13)	22 (19.5-27.5)	8 (5-11)	26 (21-31)
Psychiatric illness				
Present	26 (19-33)	32 (28-32.3)	16 (10-20.5)	20 (17.3-25.5)
Absent	11 (6-14.5)	23 (10-28.7)	8 (5-11)	26 (21.3-31)

Values are presented as median value (interquartile range)

Table 6. Depression, emotional exhaustion, depersonalization, personal accomplishment scores and working conditions of the study participants

	Depression	Emotional exhaustion	Depersonalization	Personal accomplishment
ICU worked				
Anesthesia ICU	11 (7-16)	24 (20.5-28.5)	8 (6-13.5)	26 (23.5-30.5)
Internal Medicine ICU	12.5 (6.8-18.8)	24 (20.5-30)	9 (5-12)	23 (19.5-30.5)
Working duration in the ICU				
3 years	9 (2.8-15)	20.5 (16.5-24)	6 (3.8-10)	27 (19.8-29.5)
4-6 years	13.5 (10-18.5)	23 (19.8-31)	7.5 (4.8-13)	22.5 (19.3-32)
7-9 years	8 (3-15.8)	27.5 (22-29)	10.5 (7.3-13.5)	24.5 (21-26)
10 years	12.5 (9.5-20.5)	28 (24-31)	9 (8-16)	27 (22.5-31.5)
The way of working				
Continuously daytime	12.5 (4.3-17.8)	22 (22-26)	8.5 (5-9.8)	24 (21.5-28.8)
In shifts	12 (7-18)	24 (20-29.3)	8.5 (5-13)	26/21-31)
Being able to change the working hours arbitrarily				
Yes	12 (7.3-17.8)	24 (19.8-28)	8 (5-11)	25.5 (20-31)
No	13.5 (6.5-20.3)	28 (21.5-31)	11 (6-14)	23 (21-28)
Being able to go on annual leave at the desired time				
Yes	12 (8-18)	22 (19-27.8)	8 (5-10.8)	26 (22.3-31.8)
No	13 (6-19)	28.5 (23.5-31)	11.5 (6.5-15.59	23 (20.8-28)
Having problems in relations with doctors				
Yes	12 (6-18)	24 (17-30.5)	7 (4.3-13.5)	27 (20.3-30.5)
No	12 (7.5-17.3)	24 (22-29)	9.5 (7-13)	24.5 (21-29.5)
Having problems in relations with support staff				
Yes	8 (5-14)	24 (20-29)	8 (5-14)	26 (21-31)
No	12 (6-17)	24 (22-29)	9 (7-13)	23 (21-29.5)
Sleep duration				
8 hours	11.5(6.5-18)	26.5 (22.8-33.8)	11.5 (6.5-18)	28.5 (21-34)
6-8 hours	13 (9-18.3)	26 (20-29)	9 (5-13)	26 (22-30)
<6 hours	10 (2-19)	24 (20.3-29)	7.5 (5-12)	23 (18.5-29)
Doing regular physical exercise				
Yes	7.5(2-14.3)	22 (19.5-25)	5 (4-8.5)	27 (25.5-30.5)
No	12 (9-19)	24(20.5-30.5)	10 (7-13.5)	24 (20.5-30.5)

Values are presented as median value (interquartile range)

Table 7. The relation between the Beck Depression Inventory score and Maslach Burnout Inventory emotional exhaustion, depersonalization, and personal accomplishment scores

	Emotional exhaustion	Depersonalization	Personal accomplishment
Beck Depression Inventory score			
1-10	22 (18- 24)*	7 (5-9,5)	29 (23-32.5) **
>10	28 (23-31.5)	11 (7-14)	28 (20-27)

Values are presented as median value (interquartile range)
*p=0.006 **p=0.022

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APPENDIX 1. Maslach Burnout Inventory

1. I am alienated from my job.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

2. I feel spiritually exhausted after work.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

3. When I get up in the morning, I feel that I cannot handle with this work one more day.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

4. I am easily able to understand what the people I encounter as a part of my job feel.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

5. I feel that I behave some people I encounter as a part of my job as if they are not human.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

6. Dealing with people all day is really very tiring for me.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

7. I find the most appropriate solutions to the problems of the people I encounter as a part of my job.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

8. I feel like my work is breaking me down.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

9. Through my work, I believe that I contribute to people's life.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

10. I have become harder for people since I have been working in this business.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

11. I am afraid that this job is toughening me up.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

12. I am strong enough to do many things.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

13. I feel my job restricting me.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

14. I feel that I work hard in my job.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

15. I do not care what happens to the people I encounter as a part of my job.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

16. It stresses me too much to work in direct contact with people.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

17. I create a relaxed atmosphere between and the people I encounter as a part of my job.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

18. I feel myself refreshed after working close to people.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

19. I accomplish many worthwhile things in this job.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

20. I feel like I am at the end of the road.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

21. In my work, I approach the emotional problems very calmly.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

22. I feel that the people I encounter as a part of my job behave as if I have created some of their problems.
( ) Never ( ) Very rarely ( ) Sometimes ( ) Most of the time ( ) Always

APPENDIX 2. Beck Depression Inventory

1.
( ) I am not sad and troubled.
( ) I feel sad and troubled.
( ) I am sad and troubled all the time, and I cannot snap out of it.
( ) I am so sad and troubled that I cannot stand it anymore.

2.
( ) I am not desperate and pessimistic about the future.
( ) I feel pessimistic for the future.
( ) I have nothing to look forward to.
( ) I am desperate about the future, and it feels like nothing is going to get better.

3.
( ) I do not see myself as a failure.
( ) I feel like I am failing more than others.
( ) As I look back, I feel full of failures.
( ) I see myself as a complete failure.

4.
( ) I enjoy everything as much as I used to.
( ) I cannot enjoy many things as I used to.
( ) Nothing gives me pleasure anymore.
( ) I am bored with everything.

5.
( ) I do not feel guilty in any way.
( ) I feel guilty from time to time.
( ) I feel guilty most of the time.
( ) I feel guilty all of the time.

6.
( ) I am happy with myself.
( ) I am not so happy with myself.
( ) I am angry at myself.
( ) I hate myself.

7.
( ) I do not feel I am any worse than anybody else.
( ) I think I have mistakes and weaknesses.
( ) I blame myself for my faults.
( ) I feel like I am doing everything wrong, and I always find myself guilty.

8.
( ) I do not have any thoughts of killing myself.
( ) I have thoughts of killing myself from time to time, but I would not carry them out.
( ) I would like to kill myself.
( ) I would kill myself if I had the chance.

9.
( ) I do not feel like quite to cry.
( ) I feel like to cry from time to time.
( ) I cry most of the time.
( ) I used to be able to cry, but now I cannot cry even though I want to.

10.
( ) I am no more depressed and nervous than I used to.
( ) I am getting bored and angry more easily than before.
( ) Everything is boring me, and I always feel nervous.
( ) I cannot even get angry at things that bother me anymore.

11.
( ) I have not lost my desire to meet and speak with others.
( ) I do not want to be with people as I used to be.
( ) I do not feel like meeting and talking to anyone.
( ) I do not want anyone around me anymore.

12.
( ) I do not have much difficulty when deciding as I used to.
( ) I cannot decide as easily as before.
( ) I have greater difficulty in making decisions more than I used to.
( ) I cannot make decisions on anything anymore.

13.
( ) I do not feel that I look any different than I used to.
( ) In the mirror, I look worse than ever.
( ) When I look in the mirror, I feel that I have aged and got ugly.
( ) I find myself very ugly.

14.
( ) I can work as well as before.
( ) It takes an extra effort to get started at doing something.
( ) I have to push myself very hard to do any small thing.
( ) I cannot do any work at all.

15.
( ) I can sleep as well as usual.
( ) I do not sleep as well as I used to.
( ) I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
( ) I wake up very early and cannot get back to sleep.

16.
( ) I do not get more tired than usual.
( ) I get tired more easily than I used to.
( ) I get tired from doing almost anything.
( ) I felt so tired and exhausted that I cannot do anything.

17.
( ) My appetite is as usual.
( ) My appetite is not as good as it used to be.
( ) My appetite is much worse now.
( ) I cannot eat anything.

18.
( ) I have not lost weight recently
( ) Even though I am not trying to lose weight, I have lost at least 2 kg.
( ) Even though I am not trying to lose weight, I have lost at least 4kg.
( ) Even though I am not trying to lose weight, I have lost at least 6 kg.

19.
( ) I am not worried about my health.
( ) I am worried about physical problems like aches, pains, upset stomach, or constipation.
( ) I am anxious about physical problems, and it is hard to think of much else.
( ) I am so worried about the physical problems that I cannot think of anything else.

20.
( ) I have not noticed any recent change in my interest in sex.
( ) I am less interested in sex than I used to be.
( ) I have almost no interest in sex.
( ) I have lost interest in sex completely.

21.
( ) I do not think I do things that need to be punished.
( ) I think I can be punished for what I have done.
( ) I am waiting for my punishment.
( ) It feels like I have got my punishment.