



Effect of Hardiness, Resilience on Occupational Stress among Female Doctors

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ABSTRACT

The first objective of the present study was to assess hardiness, resilience and occupational stress in female doctors. Secondly to find whether hardiness and resilience have an effect on occupational stress among female doctors. The study was conducted on a total of 60 Female Doctors in Maharashtra, Karnataka and Kerala selected by convenient sampling method. The data of the study were collected through the Hardiness Scale, The Resilience Scale and Occupational Stress Index . In this study, there is one dependent variable (Occupational Stress) and two independent variables (Hardiness and Resilience), the research design is Two into Two research design. To find the effect of Hardiness and Resilience on Occupational Stress, two way ANOVA was used. The findings of the study indicated that Hardiness and Resilience doesn't have an effect on Occupational Stress among Female Doctors. In conclusion, this study shows that Hardiness and Resilience doesn't have a particular role in Occupational Stress among Female Doctors

Key Words: Hardiness, Resilience, Occupational Stress, Female Doctors.

INTRODUCTION

Hardiness: Hardiness is a combination of attitudes that provides the courage and motivation to do the hard, strategic work of turning stressful circumstances from potential disasters into growth opportunities. Research conducted by Yousaf Jamal (Department of Psychology, Government College Township) Yasmin Nilofer Farooqi (Department of Psychology, University of the Punjab) investigated relationship of hardiness and coping as predictor and professional life stress as outcome variable among house-job doctors in five teaching hospitals of Lahore, Pakistan. The basic conclusion is that the results of the Hierarchical Multiple Regression performed in the study indicated that hardiness and problem-focused coping accounted for 26 % of the variance in professional life stress. Hardiness was the significant predictor of professional life stress.

Resilience: Zautra, Arewasikporn, and Davis (2010) defined resilience as “adaptive responses to adversity” In research by Diane Reed D. and Jerry Patterson in 2007 April on Voices of Resilience from Successful Female Superintendents. This qualitative research study was based on interviews of 15 female superintendents in New York State. The results of this study provide female superintendents and aspiring leaders with both a conceptual framework for understanding the dimensions of resilience and also concrete strategies to become more resilient during tough times. In addition, the study underscores the need for school superintendents who stand for values and demonstrate personal resilience. We can learn much from those female superintendents who have demonstrated success in these areas and drawn upon their proactive strategies to help other females not only break the superintendence's glass ceiling, but be successful, highly effective contributors to this nation's schools.

Occupational Stress: Occupational stress is stress related to one's job. Occupational stress often stems from unexpected responsibilities and pressures that do not align with a person's knowledge, skills, or expectations, inhibiting one's ability to cope. Occupational stress can increase when workers do not feel supported by supervisors or colleagues, or feel as if they have little control over work processes. A study conducted by G. Mark and A. P. Smith*

School of Psychology, Cardiff University, UK on Occupational stress, job characteristics, coping, and the mental health of nurses revealed that job demands, extrinsic effort, and over-

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commitment were associated with higher levels of anxiety and depression. Social support, rewards, and skill discretion were negatively associated with mental health problems. Few interactions were found between the variables. Coping behaviours significantly added to the explanation of variance in anxiety and depression outcomes, over and above the use of demand–control–support, and effort–reward factors alone.

Statement of the Problem –

This study will explore Effect of Hardiness and Resilience on Occupational stress among Female Doctors through a review of research concerning the background of hardiness, Resilience and Occupational Stress.

Need for the Study –

Female Doctors have many obstacles to overcome in order to achieve optimal work performance. There are no researches looking at the effect of hardiness and resilience on occupational stress among Female Doctors particularly. Aim of this study is to benefit various parties in the institutions in planning and conducting necessary programs for the female doctors so that stress related factors could be reduced and better work performance could be achieved by the Female Doctors.

A study conducted by Xiaojun Chen, Xuerui Tan, Liping Li, from- chinese medicine, 2013, 4, 1-6. On the topic of “Health problem and occupational stress among Chinese doctors”. They found that In health care practice, patients have limited medical knowledge but impose high expectation in treatment effect. It could possibly lead to tensional doctor-patient relationship, driving doctor more frustrated. The literature review shows that studies reveal a high prevalence of stress-related and mental disorders among doctors, and their physical health is not as good as people regarded. Doctors participating in the life-threatening major public health events should therefore be ensured psychiatric treatment afterward.

Research problem:

1. This study will examine the effect of hardiness and resilience among female doctors.

Research question:

Is there an effect of hardiness and resilience on occupational stress among female doctors

Objectives:

- To assess hardiness, resilience and occupational stress in female doctors.
- To find whether hardiness and resilience have an effect on occupational stress among female doctors.

Hypotheses:

- There is an effect of hardiness on occupational stress among female doctors.
- There is an effect of resilience on occupational stress among female doctors.
- There is interactive effective of hardiness and resilience on occupational stress on female doctors.

METHOD**Participants**

The sample consists of 60 Female Doctors belonging to different parts of India (Maharashtra, Karnataka, Kerala). The participants were drawn based on convenient sampling method from different Hospitals in and around Maharashtra, Karnataka and Kerala.

Research Design

The research design is the detailed plan of the investigation. In fact, it is the blueprint of the detailed procedures of testing the hypotheses and analyzing the obtained data.

This study was done by taking the Two into Two research design, as the study aims at delineating the relationship between the three variables Hardiness, Resilience and Occupational

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Stress, where Hardiness and Resilience are the independent variable and Occupational Stress is dependent variable.

Inclusion criteria:

Only female doctors 23 and above were chosen both married and unmarried female doctors are included.

Exclusion criteria:

Male doctors.

Those are unwilling to participate.

Those who are below 22 years of age.

Those diagnosed with any psychiatric conditions.

Those who currently practicing yoga, meditation, or any relaxation technique.

Measures

The variables mentioned in the study have been measured using quantitative scales. Following are the operational definitions of the variable under measure;

There are three variables in this study. They are mentioned and described briefly below;

1. Hardiness
2. Resilience
3. Occupational Stress

Operational definition of Hardiness

The term hardiness was introduced by Kobasa (1979) to refer to the personality style which keeps the person healthy even after prolonged exposure to stress.

Three general characteristics:

Commitment-hardy individuals are committed to their work and families. They believe that what they are doing is important.

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Control-They perceive themselves as having control over their outcomes instead of feeling powerless to influence events.

Challenge -They view the demands of the situation as a challenge or opportunity instead of a threat. As a result, the situation is seen as less stressful and provided an opportunity to excel.

Operational definition of Resilience:

The positive psychology constitutes a fertile field to study qualities that “*improve quality of life and prevent pathologies that arise when life is barren and meaningless.*” (Seligman & Csikszentmihaly, 2000). This stream conveys the idea that stressful experiences are not only automatic antecedents of physical or mental illness, but also catalysts for positive personal change. In this frame, research on resilience is a vibrant area. Zautra, Arewasikporn, and Davis (2010) defined resilience as “adaptive responses to adversity”

Operational definition of Occupational Stress:

Occupational or workplace stress can be defined as the change in one’s physical or mental state in response to workplace that pose an appraised challenge or threat to that employee. Stress has been defined as the change in one’s physical or mental state in response to situations (stressors) that pose challenge or threat. Stress is divided into two categories: eustress also known as good stress and distress is the stress reactions to those stressors appraised as being negative. In general individuals will can see a cognitive, behavioral, emotional, and physical response to both eustress and distress.

1) Personal Data Sheet

- The personal data sheet was developed by the investigator to gather data regarding the participants gender, age, educational qualification, experience (in years).

2) Hardiness Scale

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- Eighteen item Hardiness questionnaire developed by Maddi and Kobasa 1984, was used to measure hardiness personality (ability of individuals to turn stressful circumstances into growth inducing experiences).

3. Occupational stress index (shrivastava & singh)

- This test has total 46 statements
- The score for the statements are - 5 for absolutely true,
4 for almost true,
3 for partially true,
2 for almost false and
1 for absolutely false.

The statement with asterix

- Should be scored inversely, e.g, 5 for absolutely false and 1 for absolutely true.
 - Reliability is 0.935 and 0.90
 - Validity of the scale is 0.59 and had been measured by correlation method.
4. The Resilience Scale (Gail M. Wagnild & Heather M. Young.)
- This test includes 25 statements
 - Ranging from "1" (Strongly Disagree) on the left to "7" (Strongly Agree)

Data Analysis

Descriptive statistics used are Mean and Standard Deviation to describe the sample distribution. For testing the hypotheses, the most appropriate statistical analysis for this study is Two-way ANOVA. Using this Two-way ANOVA, the hypotheses were tested and accepted or rejected based on the statistical level of significance.

In this study, Hardiness and Resilience are the independent variable whereas Occupational Stress is the dependent variable. Using Two-way ANOVA, the main effects of Hardiness and Resilience on Occupational Stress can be found out and compared. Thus hypothesis can be tested.

Procedure:

To collect the required data, all female doctors were approached and the purpose of the research was explained. Following which the researcher was able to obtain the required data. Appropriate

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instructions were given and queries on the study and questionnaire were clarified. Respondents were first asked to fill Occupational Stress Index (shrivastava & singh) followed by The Resilience Scale and The hardiness scale. It was emphasized that confidentiality would strictly be maintained.

In this way the above chapter deals with the variables of the study, the psychological tools used, the details of the analysis, and the sample. The next chapter will deal with the results of the analysis based on the scores obtained.

RESULT

This chapter deals with the statistics part of the research study and the tables of the analysis that was done are included in this part. The analysis is done in order to find the relationship between the variables and the degree to which the variables influence each other. There were 60 female doctors are involved in the present study and the statistical tool used was mean, standard deviation, and two-way ANOVA. Thus, as the hypothesis stated, the analysis was done to check whether there is an Effect of Hardiness, Resilience on Occupational stress among Female Doctors and the following table show the respective results of the analysis computed. The following pages will deal with the discussion and explanation for the above obtained results, along with the implications, limitations and scope for further research.

Table 1

Mean and standard deviation of hardiness, resilience on occupational stress among female doctors.

Hardiness					
			High	low	Total
Resilience	high	M	134.96	137.11	132.06
		SD	10.14	20.37	12.98
		N	22	9	29
	low	M	130.50	132.89	135.58
		SD	12.77	13.37	13.55
		N	10	19	31
Total		M	133.56	134.25	
		SD	11.01	15.69	
		N	32	28	

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This table contain the mean, standard deviation of hardiness, resilience on occupational stress among female doctors.

At stated in table 1, total 29 female doctors are high on resilience with the mean score of 132.06 the SD is 12.98 and 31 female doctors are low on resilience with the mean score of 135.58 the SD for them is 13.55 Total 32 female doctors are high on hardiness with mean score of 133.56 the SD is 11.01 and total 28 female doctors have shown low hardiness with the mean score of 134.25 the SD is 15.69

Table 2

Enrollment in local colleges, 2005

Scores	Type of three sum of squares	D f	Me an Squ are	F	Sig.
HLHT	66.99	1	66. 99	0.36 9	0.54 6
HLRT	243.16	1	243 .16	1.33	0.25 2
HLHT * HLRT	0.183	1	0.1 83	0.00 1	0.97 5
ERROR	10166. 13	5 6	181 .53		
TOTAL	108590 3.00	6 0			
CORRECTED TOTAL	104118 .18	5 9			

a. R Squared= .024 (Adjusted R Squared= -.028)

Table no 2 shows result of ANOVA. The table has three types of *sum of square (SS)*, *degree of freedom (df)*, *mean square (MS)*, *F ratio (F)* and *level of significance (Sig)*.

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The F ratio, $F = 0.369$, $p < 0.5$ is not significantly significant at 5% level, thus the hypothesis-1 that, “There is an effect of hardiness on occupational stress among female doctors.” is rejected.

The F ratio, $F = 1.33$, $p < 0.5$ is not significantly significant at 5% level, thus the hypothesis-2 that, “There is an effect of resilience on occupational stress among female doctors” is rejected.

The value of interactive effect of Hardiness and Resilience on Occupational Stress are sum of square is 0.183, $df = 1$ and *mean square* is 183.53. The $F = 0.001$, $p < 0.05$ is statistically not significant at 5% level. Therefore, the hypothesis-3 that, “There is interactive effective of hardiness and resilience on occupational stress on female doctors” is rejected.

Discussion

The purpose of the study is, as mentioned before, to find out the Effect of Hardiness, Resilience on Occupational stress among Female Doctors.

The first hypothesis of the study was, “there is an effect of hardiness on occupational stress among female doctors”. Yousaf Jamal Department of Psychology, Government College Township and Yasmin Nilofer Farooqi Department of Psychology, University of the Punjab conducted a study in the year 2015 August, on Hardiness and Coping as Predictors of Professional Life Stress among House-job Doctors and they found Hardiness and coping strategies significantly predicted professional life stress of house-job doctors. The main findings indicated that hardiness and problem-focused coping strategy were negatively correlated with professional life stress; hardiness accounting for 8% and problem-focused, emotion focused, and avoidance coping accounted for 26% of variance in professional life stress scores of house-job doctors. The findings further suggest that none of the demographic variables (age, gender, marital status, duration of house job, no of children and monthly income; accounted for 2% variance) significantly predicted professional life stress of house-job doctors. The present study revealed that Hardiness has no effect on Occupational Stress among Female Doctors, thus hypothesis-1 is rejected.

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The second hypothesis of the study was, “there is an effect of resilience on occupational stress among female doctors”. A study conducted by Clare M. McCan. et al in the year 2013. On Resilience in health profession; A review of recent literature. Findings- female maintaining and work life balance have been found to confidently related to resilience across 5 profession (Nursing, Social work, Psychology, Counselling, Medicine). Present result of the study revealed that Resilience has no effect on Occupation Stress among Female Doctors, thus the second hypothesis is also rejected.

The third hypothesis of the study was, “there is interactive effective of hardiness and resilience on occupational stress on female doctors”. This was totally biased on the assumptions made on basis of existing literature which state that the Hardiness and Occupational stress are connected also Resilience and Occupation Stress are connected. The findings shows that Hardiness, Resilience has no effect on Occupational Stress among Female Doctors, thus the third hypothesis has been rejected.

Thus there is no effect of Hardiness, Resilience on Occupational Stress among Female Doctors. Researcher assumed that the insignificance of result may due to the busy schedule of Female Doctors. The duties assigned to doctors are always change, so the same with female doctors. It affected their time management and personal life. Whenever the researcher went to collect the filled copy of questionnaire female doctors would be busy there with patients

LIMITATIONS AND FURTHER SCOPE OF THE STUDY

- In the present study, the sample was only pertaining to the Female Doctors, whereas in further studies researchers can include Male Doctors also, it will helps find effects of Hardiness and resilience on Occupation Stress.
- The sample size was 60, which can be increased, to get more accurate result.
- Doctors who has atleast one year experience participated in this study, it will be better to include people who have minimum 3 year experience
- The measurements used for this study was in English Language, it will be better if it was in the Mother tongue of the population, it will help them to comprehend.

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- The busy schedule of the Female Doctors also affected the result; they find it very difficult to do the questionnaires within time, so it will be better giving questionnaire when they are free and insist them to fill in that moment only.

SUMMARY

Hardiness, Resilience and Occupational Stress, the three concepts in positive psychology has very huge impact on a person. In this study it was hypothesized that

H1= There is an effect of hardiness on occupational stress among female doctors.

H2= There is an effect of resilience on occupational stress among female doctors.

H3= There is interactive effective of hardiness and resilience on occupational stress on female doctors.

To test all three hypothesis, the study included 60 Female Doctors from Maharashtra, Karnataka and Kerala were selected on the basis of convenient sampling method and the questionnaire such as Hardiness Scale, Occupational Stress Index and The Resilience Scale were administered. The obtained data from the above mentioned tools were analysed using Two-Way ANOVA. Other descriptive statistics used were Mean and Standard Deviation. The analysis that was done in the SPSS showed that the H1, H2 and H3 all three are rejected. That means there are no effects of Hardiness, Resilience on Occupational Stress among Female Doctors.

Though the study has few limitations, there are lot of areas of implications and further scope of research is highlighted in the present study.

CONCLUSION

The aim of the study was to find the effect of Hardiness and Resilience among female Doctors. The results are not significant thus it shows that Hardiness and Resilience does not have an effect on Occupational Stress among Female Doctors.

REFERENCE

- Aflakseir A, Safoora N. & Mohd Ali, G. (2016). The Role of Psychological Hardiness and Marital Satisfaction in Predicting Posttraumatic Growth in a Sample of Women With Breast Cancer in Isfahan. Retrieved on 5 January 2018, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5055761/>
- Beazley C. (2010). Resilience and Positive Psychology. Retrieved on 30th March 2018, from <http://positivepsychology.org.uk/on-resilience/>
- Chen X, Xuerui T., Liping L. (2013). Health Problem and Occupational Stress among Chinese Doctors. *Chinese Medicine*. Vol. 4, 1-6
- Eley et al. (2013), *The relationship between resilience and personality traits in doctors: implications for enhancing well being*. 2-16.
- Elqerenawi AY, Abdel A and Vostanis P (2017). Job Stressors, Coping and Resilience among Nurses in Gaza Strip. Retrieved on 27th Feb 2018, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5485691/>
- Harvey, J., Delfabbro, P.H., (2004). Psychological resilience in disadvantaged youth: A critical overview. *Australian Psychologist*, 39 (1), 3 – 13
- Jamal Y, Yasmin N F. (2015) Hardiness and Coping as Predictors of Professional Life Stress among House-job Doctors. Retrieved on 23rd Feb 2018, From <https://lirias.kuleuven.be/bitstream/123456789/481179/1/Lo+Bue%2C+S.+%282015%29.+Hardiness+in+the+Heart+of+the+Military.pdf>
- Joelson B R. (2017). Hardiness and Grit; Why are some people successful in achieving their goals in life?. Retrieved on 15 march 2018, from <https://www.psychologytoday.com/us/blog/moments-matter/201704/hardiness>.

Hardiness, Resilience on Occupational Stress among Female Doctors

Khaledian M (2016). The relationship of psychological hardiness with irrational beliefs, emotional intelligence and work holism. Retrieved on 22nd January 2018, from <https://pdfs.semanticscholar.org/f812/5339cd1c0b877d893ba59340919b32e40521.pdf>

Kobasa, S. C. (1982). Stressful life events, personality, and health: An inquiry into hardiness. *Journal of Personality and Social Psychology*, 37, 1-11.

Krishnan R(2014). The Impact Of Emotional Intelligence On Hardiness Organizational Commitment And Burnout Among Scientists And Engineers. Retrieved on 12 march 2018, from <http://hdl.handle.net/10603/88821>.

Kruger L & Christie B. (2015). Factors influencing female doctors. Retrieved on 13th April 2018, from <https://www.alleydog.com/glossary/definition.php?term>

Kumar A & Meenakshi Y. (2014). OCCUPATIONAL STRESS AMONG WORKING WOMEN: AN EMPIRICAL ANALYSIS. Retrieved on 22 January 2018, from <http://www.eecmbajournal.in/issue3/Article19.pdf>

Lo Bue S. (2013). HARDINESS IN THE HEART OF THE MILITARY. Retrieved on 2nd march 2018, from <https://lirias.kuleuven.be/bitstream/123456789/481179/1/Lo+Bue%2C+S.+%282015%29.+Hardiness+in+the+Heart+of+the+Military.pdf>

Maddi S R. (2006). Hardiness: The courage to grow from stresses. Retrieved on 18 February 2018, from <https://www.tandfonline.com/doi/abs/10.1080/17439760600619609?src=recsys&journalCode=rpos20>

Mark G. and A. P. Smith (2011). Occupational stress, job characteristics, coping, and the mental health of nurses. *British Journal of Health Psychology*, 14-17.

McCann G · Elizabeth B, McCormick K · Peter H. Sally K. · C. Adamson · Jayne H. (2013). Resilience in the health professions: A review of recent literature, *International Journal of Wellbeing*, Vol. 3(1), 60-81.

Hardiness, Resilience on Occupational Stress among Female Doctors

- MILLS H. (2005). Emotional Resilience. Retrieved on 19 January 2018, from <https://www.mentalhelp.net/articles/introduction-to-emotional-resilience/>
- Mohajan, H.K. (2012), The Occupational Stress and Risk of it among the Employees, *International Journal of Mainstream Social Science*, Vol 2(2): 17–34.
- Mustafa M, Illzam EM, Muniandy RK, Hashmi MI, Sharifa SH, Nang MK. (2017). Causes and Prevention of Occupational Stress. *Journal of Dental and Medical Sciences* Vol. 14 (11), 98-104
- Narban S J, Singh B P. Narban, J S (2016). A Conceptual Study on Occupational Stress (Job Stress/Work Stress) and its Impacts. Retrieved on 29th January 2018, from http://ijariie.com/AdminUploadPdf/A_Conceptual_Study_on_Occupational_Stress__Job_Stress_Work_Stress__and_its_Impacts__ijariie1544.pdf
- Nathawat S. (2009). HARDINESS AS PREDICTOR OF MENTAL HEALTH IN WOMAN EXECUTIVES. Retrieved on 3rd march 2018, from https://www.ufhrd.co.uk/wordpress/wp-content/uploads/2010/08/5_12.pdf
- Nezhad Z. and Ali Mozami (2010). Occupational stress and Family difficulties of Working Women. Retrieved on 29th January 2018, from <file:///C:/Users/Dell/Downloads/crsp.2010.75.81.pdf>
- OCCUPATIONAL STRESS DEFINATION. Retrived on January 25, 2018, from https://en.wikipedia.org/wiki/Occupational_stress
- Petkov S, M. Shoshev (2017) STUDY OF FEMALE STUDENTS RESILIENCE. Retrieved on 5th January 2018, from <http://www.ijmrhs.com/medical-research/relationship-between-psychological-resilience-female-a-communicative-approach.pdf>
- Rani R U, K Bhuvaneswari (2014). An Analysis on the Main Factors of Occupational Stress among Indian Women – A Soft Computing Approach. Retrieved on 26th January 2018, from <http://onlinelibrary.wiley.com/doi/10.1111/inm.12080/pdf>

Hardiness, Resilience on Occupational Stress among Female Doctors

Rashid I, Parvaiz Talib (2008). Occupational Stress and Coping Styles among Doctors: Role of Demographic and Environment Variables. Retrieved on 27th December 2017, from <http://journals.sagepub.com/doi/pdf/10.1177/0972262915599473>

Reed D. and Jerry Patterson (2007). Voices of Resilience from Successful Female Superintendents. Retrieved on 17th February 2018. From <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1043&context=jwel>

Rich VL and Alexander R. Rich (1999). Personality Hardiness and Burnout in Female Staff Nurses. Retrieved on 29th January 2018 from, <https://www.sciencedirect.com/science/article/pii/S0924933813774649>

Safi N, Yasmin Parpio (2016). Exploring Female Physicians' Resilience Regarding Post Graduate Residency Program in Afghanistan. Retrieved on 29th December 2017, from file:///C:/Users/Dell/Downloads/89135-161989-1-SM.pdf

Schutte N, John MM,et al,.(2007). A meta analytic investigation of the relationship between emotional intelligence and occupational stress. Retrieved on 14 march 2018 from <https://www.sciencedirect.com/science/article/pii/S0191886906003539>

Seligman & Csikszentmihaly, (2000). Definition of Resilience Retrieved on 24th December 2018, from <https://positivepsychologyprogram.com/resilience-in-positive-psychology/>

Shepperd JA and Javad H. Kashani (1998). The Relationship of Hardiness, Gender, and Stress to Health Outcomes in Adolescents. *Journal of Personality* 59(4), 747-768.

Sinha S, Vinita(2009). Resilience and social support on certain psychological problems. Retrieved on 18 march 2018, from <http://hdl.handle.net/10603/167539>

Stamatios S. and G. Antoniou (2003). Occupational stress, job satisfaction and health state in male and female junior hospital doctors in Greece. Retrieved on 25th December 2017 , from <https://pdfs.semanticscholar.org/249d/baf4d8f47a9b52edd69a4f4ca5bb0461ca07.pdf>
Stress Hardiness. Retrieved on 19th march 2018, from <http://stresscourse.tripod.com/id106.html>

Hardiness, Resilience on Occupational Stress among Female Doctors

Subramanian S. and M.Vinothkumar (2009). Hardiness Personality, Self-Esteem and Occupational Stress among IT Professionals. Retrieved on 16th April 2018, from <https://sigmapubs.onlinelibrary.wiley.com/doi/pdf/10.1111/j.1547-5069.1987.tb00592.x>

Tsirigotis K and Joanna Łuczak (2017). Resilience in Women who Experience Domestic Violence. Retrieved on 15 January 2018, from <https://link.springer.com/article/10.1007/s11126-017-9529-4>

Tür C, İbrahim Toker, Cafer Tayyar Şaşmaz, Serkan Hacı and Burcu Türe (2016) Occupational stress experienced by residents and faculty physicians on night shifts. Retrieved on 6th march 2018, from <http://psych.cf.ac.uk/home2/smith/203.pdf>

Victoria L. Rich and Alexander R. Rich (1997). Personality Hardiness and Burnout in Female Staff Nurses. Retrieved on 26th February 2018, from <https://sigmapubs.onlinelibrary.wiley.com/doi/pdf/10.1111/j.1547-5069.1987.tb00592.x>