

COGNITIVE APPROACH COPING STYLE AS A FUNCTION OF HAPPINESS, SEX AND NEUROTICISM IN MEDICAL PROFESSIONALS

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Abstract : The present study attempted to explore the effect of Happiness and Neuroticism on cognitive approach coping style of Medical professionals. A sample of 160 medical professionals (80 male & 80 female) were taken from 5 government hospitals of Uttarakhand and 4 private hospitals of Uttarpradesh. The age ranges from 25 to 35 years. Analysis of variance was used to analyze the data. Results indicated that the neuroticism demotes adoption of cognitive approach coping in medical professionals and male in comparison to female medical professionals adopt more cognitive coping style. While happiness promotes cognitive approach coping in medical professionals having neurotic tendency.

Key words: Happiness, Neuroticism, Cognitive approach coping style.

INTRODUCTION

In today's hyper competitive and busy world, we all lead incredibly stressful lifestyles. We experience stress due to a multitude of reasons. Some of these factors include financial problems, difficult boss, unsatisfying job, relationship problems or even hardships faced while one is in medical profession. Medical profession is a stressful and challenging branch, because of the psychological pressure inherent to this process. Alexandros Stamatios G. Antoniou, Marilyn J. Davidson, Cary L. Cooper, (2003) stated that doctors have significantly higher levels of sources of pressure than the normative population and other comparative occupational samples. Riley (2004) proposed that stress in doctors is a product of the interaction between the demanding nature of their work and their often obsessive, conscientious, and committed personalities.

The task of managing or coping with stress is an important determinant of happiness (positivity) and personality traits in individual's life. The role played by the individual in the coping process is a matter of great concern. Neuroticism (an important factor of Big-5 personality trait) also plays a big role in choosing coping style. If a person is unable to cope well effectively with stress, there are chances that he/she may develop certain psychosomatic symptoms, which in turn hamper the efficiency and effectiveness of his personal adjustment. It is argued that a maladaptive coping style with lack of positivity predict increased occupational stress.

Keeping in mind the current perspective of stress and importance of positivity in this profession such as medical with its coping styles this research took the Initiative to study and compare variables for male and female both medical professionals in Indian context.

1.1 Major Objectives of the Present Study

- To determine the effect of positivity (Happiness) on coping style (Cognitive approach) of Medical professionals,
- To determine the effect of Personality (Neuroticism) on coping style (Cognitive approach) of Medical professionals.

1.2 Hypotheses of the study

- Positivity (Happiness) will affect the coping style (Cognitive Approach) of medical professionals.
- Personality trait (Neuroticism) will affect the coping style (Cognitive Approach) of medical professionals.
- Personality traits, positivity, and gender will affect mutually each other in determining coping styles of medical professionals.

2. Review of literature

2.1 Coping related reviews

Eslami Akbar (2017) explored the experiences of the nurses in order to reveal the original coping process of the 15 clinical nurses and four directors of nursing in the case of encountering occupational stress. The findings revealed that Nurses adopt context-based coping (avoidance coping) to cope with job stress which could help in lighten up the grey consequences of job stress in nurses whereas in contrast **Jan, Kour, and Para (2017)** studied the coping styles of 120 staff nurses working in emergency and general wards of SKIMS Hospital Soura Srinagar and found that staff nurses of both emergency and general wards adopt more frequently problem solving, and positive re-appraisal coping strategy.

2.2 Neuroticism related reviews

Sobowale, Ham, Curlin and Yoon (2018) studied the personality traits that are associated with academic achievement in 474 third-year medical students. The aim of study is to determine whether Big Five personality traits were associated with receiving honors/highest grade in clinical clerkships, failing a course or rotation, and being selected for the Alpha Omega Alpha or Gold Humanism Honor Society. The findings were personality trait conscientiousness is important, in predicting success during the clinical years of medical school. In contrast, students high in neuroticism were less likely to do well in most specialties. Students with higher conscientiousness were more likely to be inducted into the Alpha Omega Alpha Honor Society, while students high in openness or agreeableness traits were more likely to be inducted into the Gold Humanism Honor Society.

Knipp, Lee and Elizabeth (2017) examined the relationships among personality traits, perception of workplace stress and coping mechanisms among experienced 50 US emergency department nurses (ED nurses). The findings revealed that Nurses who scored high in openness, agreeableness, conscientiousness utilized problem focused coping mechanisms. The ED nurses scored low at neuroticism domain because the personality domain of neuroticism is associated with an individual that is tense, irritable, shy, impulsive, vulnerable, and self-conscious. A personality like this would not be suitable for the ED as this type of personality may fail under the ED time and pressure constraints. This is why nurse participants scored the lowest in this personality domain.

2.3 Happiness related reviews

Jouybari, Sharifi, Sanagoo, Saeedi, Saeedi and Kalantari (2017) studied the Happiness and its related factors among 238 Students in Golestan University of Medical Sciences Out of 238 students, 56.7% were female. Findings revealed significant relationship between age and happiness was significant. There were no significant relationships between happiness and the field of study, academic average, ethnicity, marital status, and students' economic status. High happiness was found in the Laboratory Sciences students.

Rahighee (2015) evaluated happiness in nurses in a general hospital. Methods: In this descriptive cross-sectional study, the subjects included 73 randomly selected nurses at Said Sadoughi Hospital. Findings revealed that relationship between happiness and workplace was significant. Nurses were shown to have a good state of happiness while it was affected by their workplace as nurses of intensive units were less happy, that represents a possible impact of working place on the morale of nurses

3. Materials and Methods

3.1 Sample

Present study was conducted on 80 medical professionals (doctors, nurses and pharmacists) of different government and private hospitals of Uttarakhand and Uttarpradesh. Participant's age varying between 25 to 55 years.

3.2 Design

The present investigation was design in 2x2x2 factorial settings. Three independent and one dependent variable was used. The dependent variable was cognitive approach coping style. The independent variables: Gender, Happiness and Neuroticism were varied at two levels.

3.3 Tools used

- Oxford Happiness Questionnaire of Hills and Argyle M. (2002),
- NEO-five factor Inventory (NEO-FFI, 1992),
- Coping Scale (A. K. Srivastav; 2001).

3.4 Procedure

Participants were contacted personally and requested to respond on above mentioned measures. They were asked to read carefully the instructions given in the questionnaires. Participants were allowed to take their own time to complete the questionnaire. All above mentioned psychometric devices were simultaneously administered to the selected participants.

4. Results and Discussion

In order to study the effect of gender, gratitude and neuroticism on cognitive coping style mean and ANOVA were calculated. Sum, Mean scores and standard deviations are shown in Table No. 1. ANOVA is shown in Table No.2.

Table 1: Research paradigm with Sum of scores, Mean and Standard deviation on Cognitive Coping Style

			Neuroticism				Σ
			Male		Female		
			High	Low	High	Low	
Happiness	High	SS	329	318	270	305	1222
		M	16.45	15.9	13.5	15.25	
		S.D.	3.0	2.0	2.8	2.0	
	Low	SS	254	351	265	297	1167
		M	12.7	17.55	13.25	14.85	
		S.D.	2.5	3.3	3.3	3.0	
		Σ	583	669	535	602	2389

SS - Sum of scores, M - Mean, S.D. - Standard Deviation

Table 2: Summary of Analysis of Variance for Cognitive Approach Coping Style

Source of variance	SS	df	MS	F
Neuroticism	146.31	1	146.31	19.2**
Happiness	18.91	1	18.91	2.48
Sex	82.66	1	82.66	10.85**
Neuroticism × Happiness	68.91	1	68.91	9.04**
Neuroticism × Sex	2.26	1	2.26	0.3
Happiness × Sex	5.26	1	5.26	0.69
Neuroticism × Happiness × Sex	76.98	1	76.98	10.1**
Error	1158.95	152	7.62	
Total	1560.24	159		

**p<.01

F_{.05} (1, 152) = 3.91;F_{.01} (1, 152) = 6.81

Table-2 indicates that for:

- Equation (1) Neuroticism, 'F' value for 'Neuroticism' is (1,152) = 19.2, p <.01 is highly significant.
- Equation (2) Happiness, 'F' value for 'Happiness' is (1, 152) = 2.48, p >.05 is insignificant.
- Equation (3) Sex, 'F' value for 'Sex' (1, 152) = 10.85, p <.01 is highly significant.
- Equation (4) Neuroticism × Happiness, 'F' value for interaction effect of Neuroticism × Happiness is (1, 152) = 9.04, p <.01 is highly significant.
- Equation (5) Neuroticism × Sex 'F' value for the interaction effect of Neuroticism × Sex is (1, 152) = 0.3, p >.05 is insignificant.
- Equation (6) Happiness × Sex, 'F' value for Happiness × Sex is (1, 152) = 0.69, p >.05 is also insignificant
- Equation (7) Neuroticism × Happiness × Sex, 'F' value for the interaction effect of Happiness Neuroticism and Sex is (1, 152) = 10.1, p <.01 is highly significant. Here the result is interpreted in light of break up further and the further breakup of results shows the significance as given below (Table 3):

Table 3: Breakup of 2×2×2 trivariate interaction (Neuroticism × Happiness × Sex)

S.No.	Variable (constant)	Variable (varying)	Interaction	N	M	S.D.	t	P
1.	High Neuroticism	High Happiness	Male	20	16.45	3	3.215	<0.01
			Female	20	13.5	2.8		
2.	High Neuroticism	Low Happiness	Male	20	12.7	2.5	0.594	
			Female	20	13.25	3.3		
3.	Low Neuroticism	High Happiness	Male	20	15.9	2	1.028	
			Female	20	15.25	2		
4.	Low Neuroticism	Low Happiness	Male	20	17.55	3.3	2.7	<0.01
			Female	20	14.85	3		
5.	High Happiness	Male	High Neuroticism	20	16.45	3	0.68	
			Low Neuroticism	20	15.9	2		
6.	High Happiness	Female	High Neuroticism	20	13.5	2.8	2.27	<0.05
			Low Neuroticism	20	15.25	2		
7.	Low Happiness	Male	High Neuroticism	20	12.7	2.5	5.24	<0.01
			Low Neuroticism	20	17.55	3.3		
8.	Low Happiness	Female	High Neuroticism	20	13.25	3.3	1.60	
			Low Neuroticism	20	14.85	3		
9.	Male	High Neuroticism	High Happiness	20	16.45	3	4.29	<0.01
			Low Happiness	20	12.7	2.5		
10.	Male	Low Neuroticism	High Happiness	20	15.9	2	1.9	
			Low Happiness	20	17.55	3.3		
11.	Female	High Neuroticism	High Happiness	20	13.5	2.8	0.258	
			Low Happiness	20	13.25	3.3		
12.	Female	Low Neuroticism	High Happiness	20	15.25	2	0.5	
			Low Happiness	20	14.85	3		

t_{.01} (df=38) = 2.70,t_{.05} (df=38) = 2.02

Interpretation of significant results of 2×2×2 bivariate interactions:

Table-3 indicates that for:

- Equation 1 High N (High H): (Male > Female), 't' value is (df=38) = 3.215, p <.01 is significant.
- Equation 4 Low N (Low H): (Male > Female), 't' value is (df=38) = 2.7, p <.01 is significant.
- Equation 6 High H (Female): (Low N > High N), 't' value is (df=38) = 2.277, p <.05 is significant.
- Equation 7 Low H (Male): (Low N > High N), 't' value is (df=38) = 5.24, p <.01 is significant.
- Equation 9, Male (High N): (High H > Low H), 't' value is (df=38) = 4.29, p <.01 is significant.

Coping with stress is considered as an effort by a person to manage and overcome demands and critical events that pose a challenge, threat, harm or loss to that person or the person's normal functioning.

Findings of the present study, shows that main effect of happiness is not significant but in interaction with neuroticism it shows an influencing effect and in trivariate interaction (Neuroticism × Happiness × Sex) happiness promotes adoption of cognitive approach coping style in highly neurotic male medical professionals. It means we can say that happiness is playing a dominant role in adoption of cognitive approach coping style while medical professionals have high neuroticism personality trait. There is no literature available to promote this interactional effect but we can say in nutshell that high level of happiness promotes adoption of approach coping in medical professionals. However, there is limited literature, available on relation between happiness and coping strategies. Some of the studies were done by various researchers as Donya Kiadaliri and Shahnam Abolghasemi (2016) found that approach coping styles were positively correlated with happiness and avoidance coping style had a negative correlation with happiness and Rim (1993) found that both happy men and women adopted more approach coping style. However some researchers found different results in their studies on happiness in correlation with age and gender. Carlos Salavera, Pablo Usan, Silvia Perez, Andrea Chato and Raquel Vera (2017) found that happiness reduced as age increased while Khodarahim (2014) found that males have high level of happiness in comparison to females, regardless of age but Shojaei et al. (2012) found no significant association between the level of happiness and gender of nursing staff.

The second finding of present study, shows that neuroticism is an independent influencing factor to affect the adoption of cognitive approach coping style in medical professionals and even in interaction with gender and positivity (Happiness), Neuroticism independently promotes adoption of cognitive approach coping style medical professionals. Although there is no study available in which neuroticism in interaction with happiness and gender is studied but some researchers as Leonardo de Souza et.al (2014), Costa P.T. (1996), O'Brien T. B., (1996) found that Neuroticism influenced negatively the use of problem-focused strategies (cognitive approach), and positively emotion-focused coping (cognitive avoidance) in individuals with bipolar disorder. Igor kardum and Nada Krpic (2001) told that neuroticism and psychoticism have direct positive effects on avoidance coping style of early adolescence (11-14 years). Studies have shown individuals with neuroticism use passive coping (behavioral / cognitive avoidance) strategies but extravert individuals utilize active copings i.e. cognitive & behavioral approach (Vollrath M. et. al. (2000), Watson D. et.al (1996), Lee-Baggeley et.al. (2005), Parkes K.R. (1986), Bakker AB (2006). High neuroticism in individuals creates difficulty in coping the situation and to be adaptive in the environment. It can be elucidated that neuroticism has been associated with more subjective reports of stress symptoms and the occurrence of stressful life events (Magnus 1996, Ebstrup, 2011). Individuals with high neuroticism are susceptible to psychological helplessness and irrational thoughts and have less ability to control their impulses (Costa P.T., 1992) They have a tendency to experiencing negative emotions (McCrae RR, 1987) and, therefore, may be to direct their coping efforts toward managing those painful emotions (Lee-Baggeley D, 2005) So, it is more possible that these individuals get involved in passive and maladaptive coping styles Behavioral / Cognitive avoidance (Vollrath M, 2000). Malone L. D. (2010) and Bolger N. (1990) assume that coping styles can directly be derived from personality traits, indeed, coping is personality in action. So, it is supposed that personality traits may influence the effectiveness of coping styles.

The third finding of present study, shows that gender is an independent influencing factor to affect the adoption of cognitive approach coping style in medical professionals and even in interaction with personality trait (neuroticism) and positivity (Happiness), Neuroticism independently promotes adoption of cognitive approach coping style in medical professionals. Although there is no study available in which gender in interaction with happiness and neuroticism is studied but independently some researchers as Mataud (2004), Pearlman and Schooler (1978), and Ptacek et al. (1992) supported these findings i.e. men uses Active / approach coping style than women. Yeh, Huang, Chou, and Wan (2009) point out the reason that why gender effects coping style because the two genders regularly operate in different social contexts, and therefore tend to develop different responses. Feminine roles are defined by their ability to experience, express, and communicate their emotions to other people, and also to empathize with the feelings of others. Conversely, masculine roles are defined by one's ability to suppress and control his emotions Ptacek et al, 1992; Vingerhoets & Van Heck, 1990. Similarly, Kirchner, Forn, Munoz, and Pereda (2008) posit that while men tend to regulate their emotional states by using more problem - focused or approach coping styles than emotion-focused or avoidance coping styles. Specifically, Tamres et al. (2002) report that women are more likely to use strategies that involve verbally expressing themselves, seeking emotional support, ruminating about their problems, and positive self-talk.

Goddard (2006) report that the use of one type of strategy or another is associated with the stress level to which one is exposed, with certain types of activities being more or less stressful than others. Nevertheless, authors such as Felsten (1998) assert that gender differences in coping strategy use may decrease due to social changes related to gender roles, given that some of the differences observed can be explained contextually (Emslie et al., 2002)

From the obtained results and discussion at above, it is clear that neuroticism and gender are significant variables to influence adoption of coping styles in medical professionals, but gender and happiness in interaction not influence the adoption of cognitive approach coping style in medical professionals and happiness in male medical professionals with high neuroticism promotes adoption of cognitive approach coping style. Findings suggest that doctors called Healers also need counseling about their stress coping styles to lessen the adverse effects of stress.

Commented [d1]:

5. Conclusions

The main findings related to cognitive approach coping style are summarized as follows:

- (1) Happiness promotes adoption of cognitive approach coping style in highly neurotic male medical professionals.
- (2) Neuroticism, independent of gender and happiness demotes cognitive approach coping style in medical professionals.
- (3) Sex also has an independent and important role in adoption of cognitive approach coping style in medical professionals as male in comparison to female medical professionals adopt more cognitive approach coping style and even its interaction with neuroticism and happiness also have same results i.e. male in comparison to female medical professionals independent of neuroticism and happiness adopt more cognitive approach coping style.

References

- [1] Alexandros, S. G. A., Davidson M. J. and Cooper C. L. 2003. Occupational stress, job satisfaction and health state in male and female junior hospital doctors in Greece. *Journal of Managerial Psychology*, 18(6): 592 – 621.
- [2] Bakker A. B., Van der Zee K. I., Lewig K., A. and Dollard M. F. 2006. The relationship between the Big Five personality factors and burnout: A study among volunteer counselors. *J Soc Psychol.*, 146:31–50.
- [3] Ball S, Goddard A, Shekhar A. Evaluating and treating anxiety disorders in medical settings. *J Postgrad Med* 2002;48:317
- [4] Bolger N. and Zuckerman A. 1995. A framework for studying personality in the stress process. *J Pers Soc Psychol.*, 69:890–902.
- [5] Costa P. T., McCrae R. R. and Odessa, F. L. 1992. *Psychological Assessment Resources; NEO-PI-R: Professional Manual.*
- [6] Costa P. T., Somerfield M. and McCrae R. 1996. Personality and coping: A reconceptualization. In: Zeidner M, Endler NS, editors. *Handbook of Coping.* New York: John Wiley & Son. 44–61.
- [7] Ebstrup J. F., Eplöv L. F., Pisinger C., Jørgensen T. 2011. Association between the Five Factor personality traits and perceived stress: Is the effect mediated by general self-efficacy?. *Anxiety Stress Coping.* 24:407–19.
- [8] Emslie, C., Fuhrer, R., Hunt, K., Macintyre, S., Shipley, M., & Stansfeld, S. (2002). Gender differences in mental health: evidence from three organizations. *Social Science & Medicine.* 54. 621-624
- [9] Felsten, G. (1998). Gender and coping: use of distinct strategies and associations with stress and depression. *Anxiety, Stress, and Coping.* 11, &289–309.
- [10] Hills, P., & Argyle, M. 2002. "The Oxford Happiness Questionnaire: a compact scale for the measurement of psychological well-being. *Personality and Individual Differences*, 33(2): 1073–1082.
- [11] Jan, F., Kour, S., & Para, M. A. 2017. Coping Strategies Used by Staff Nurses Working in Emergency and General Wards of SKIMS Hospital; A Comparative Study. *Ann Med Health Sci Res.*, 7(1): 106-112.
- [12] Jouybari, L., Sharifi, A. N., Sanagoo, A., Sayeedi, S.,.....Soheyla, S. 2017. Happiness and its related factors among Students in Golestan University of Medical Sciences. *Journal of Nursing Education*, 5: 40-45.
- [13] Kardum I. and Krapic N. 2001. Personality traits, stressful life events, and coping styles in early adolescence. *journal Personality of Individual Difference*, 30:503–15.
- [14] Khodarahim, S. 2014. The role of gender on positive psychology constructs in a sample of iranian adolescents and young adults. *Applied Research in Quality of Life*, 9(1): 45-61.
- [15] Kiadaliri D. and Abolghasemi S. 2016. The Relationship among Family Function, Coping with Stress and Happiness of Pre-University Students in the City of Chalus. *J. Psych. Beh. Stud.*, 4 (9): 321-327.
- [16] Kirchner, T., Forns, M., Muñoz, D., & Pereda, N. (2008). Psychometric properties and dimensional structure of the Spanish version of the Coping Responses Inventory Adult Form. *Psicothema*, 20, 902–909.
- [17] Knipp, B., Lee, Y. M., and Elizabeth, F. 2017. Personality Traits, Perceived Stress, and Coping Mechanisms of Emergency Department Nurses. *The Grace Peterson Nursing Research Colloquium*, 22 (1): 341-50.
- [18] Lee-Bagglely, D., Preece, M. and Delongis, A. 2005. Coping with interpersonal stress: Role of big five traits. *J Pers.*, 73: 1141–80.
- [19] Leonardo de Souza, E., Rodrigo Grassi-Oliveira, Elisa Brietzke, Breno Sanvicente-Vieira, Ledo Daruy-Filho, Ricardo Alberto Moreno. 2014. Influence of personality traits in coping skills in individuals with bipolar disorder. *Rev Psiq Clín.*, 41(4):95-100.
- [20] Malone, L. D. 2010. Individual differences and stress reactions as predictors of Performance in pilot trainees, Kansas State University, Manhattan, Kansas, 38.
- [21] Mataud, M. P. (2004). Gender differences in stress and coping styles. *Personality and Individual Differences*, 37, 1401–1415. <http://dx.doi.org/10.1016/j.paid.2004.01.010>
- [22] McCrae, R. R. and Costa, P. T. 1987. Validation of the five-factor model of personality across instruments and observers. *J Pers Soc Psychol.*, 52: 81–90.

- [23] O'Brien, T. B. and DeLongis, A. 1996. The interactional context of problem-, emotion-, and relationship-focused coping: The role of the big five personality factors. *J Pers.*, 64: 775–813.
- [24] Parkes, K. R. 1986. Coping in stressful episodes: The role of individual differences, environmental factors, and situational characteristics. *J Pers Soc Psychol.*, 51:127.
- [25] Pearlin, L. I., & Schooler, C.(1978).The structure of coping. *Journal of Health and Social Behavior*, 19, 2–21.
<http://dx.doi.org/10.2307/2136319>
- [26] Ptacek, J. T., Smith, R. E., & Zanas, J. (1992). Gender, appraisal, and coping: A longitudinal analysis. *Journal of Personality*, 60, 747–770. <http://dx.doi.org/10.1111/j.14676494.1992.tb00272.x>
- [27] Rahighee, F. 2015 A Descriptive Study of Nurses' Happiness at Shahid Sadoughi Hospital. Iran. *J Ment Disord Treat*, 1: 102.
- [28] Riley, G. J. 2004. Understanding the stress and strains of being a doctor. *medical journal of Australia*, 181(7): 350-353.
- [29] Rim, Y. 1993. Happiness and coping styles. *Personality and Individual Differences*, 14: 617-618.
- [30] Salavera, C., Usan, P., Perez, S., Chato, A. & Vera, R. 2017 Differences in Happiness and Coping with Stress in Secondary Education Students. *Procedia - Social and Behavioral Sciences*, 237: 1310-1315.
- [31] Shojaei, F., Ebrahimi, S. M., Parsa Yekta, Z., and Nikbakht, N. A. 2012. The Study of Nursing Students' Happiness As A Mental Health Index. *Iranian Journal Of Nursing Research Spring*, 7(24): 16- 22.
- [32] Sobowale, K., Ham, S. A., Curlin, F. A., and Yoon, J. D. 2018. Personality Traits Are Associated with Academic Achievement in Medical School: A Nationally Representative Study. *Acad Psychiatry*, 42(3): 338-345.
- [33] Srivastava, A. K. 2001. Coping strategies scale. Published by Rupa psychological center, Varanasi.
- [34] Tamres, L. K., Janicki, D., & Helgeson, V. S. (2002). Sex differences in coping behavior: A meta-analytic review and an examination of relative coping. *Personality and Social Psychology Review*, 6, 2–30.
http://dx.doi.org/10.1207/S15327957PSPR0601_1
- [35] Vingerhoets, A. J., & Van Heck, G. L. (1990). Gender, Coping and Psychosomatic Symptoms. *Psychological Medicine*, 20, 125-135. <http://dx.doi.org/10.1017/S0033291700013301>
- [36] Vollrath, M. and Torgersen S. 2000. Personality types and coping. *Pers Individ Dif.*, 29: 367–78.
- [37] Watson, D. and Hubbard, B. (1996). Adaptational style and dispositional structure: Coping in the context of the five-factor model. *Journal of Personality*, 64: 737-774.
- [38] Yeh, S. J., Huang, C., Chou, H., & Wan, T. T. H. (2009). Gender differences in stress and coping among elderly patients on hemodialysis. *Sex Roles*, 60, 44–56. <http://dx.doi.org/10.1007/s11199-008-9515-2>