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Research Paper

The Relationship Between Coping Styles and Temperament and Character Traits in Nurses

Medical Science

KEYWORDS : personality, temperament, character, coping, cloninger

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ABSTRACT

Background: Coping style and personality are related with stress management and became intriguing subjects for different disciplines, which interact with stress, as psychiatry, psychology, occupation management, business, economics etc. | Aim: This study aims to investigate the relationship between coping styles, temperament and character traits and anxiety and depression scores in nurses. | Study Design: The study is designed to be conducted with nurses working at a training and research hospital in a cross-sectional model with self report forms. | Methods: 94 nurses are included to the study. Sociodemographical data form, Temperament and Character Inventory by Cloninger, Coping Styles Scale and Hospital Anxiety and Depression scale are performed. | Results : Lower harm avoidance scores and higher persistence and cooperativeness scores were predictors of self confident style. Lower harm avoidance and higher Cooperativeness scores were predictors of optimistic style. Higher harm avoidance, reward dependence and self transcendence scores were predictors of helpless style. The only predictor for submissive style was higher harm avoidance scores and for social support seeking style was higher reward dependence. | Conclusion: This study presents temperament and character traits as predictors of coping styles. Especially harm avoidance was high lightened in this study with its relation to unsatisfactory coping styles as submissive and helpless style and so anxiety and depression scores. Investigation of different dimensions of the relations between personality and coping may be subject for further studies. |

INTRODUCTION

Coping style and personality are related with stress management and became intriguing subjects for different disciplines, which interact with stress, as psychiatry, psychology, occupation management, business, economics etc.

In general terms, coping is a strategy that helps people reduce stress and solve problems(1). Folkman et al define coping as "the person's cognitive and behavioral efforts to manage the internal and external demands in the person-environment transaction"(2) coping styles were assessed as mature-immature, adaptive-maladaptive in different studies but it does not seem possible to completely associate a style with a result(3). Recognition of coping styles which result in better or worse results and determination of which factors they are associated with can be useful in promoting and transforming these styles.

Different character traits can contribute to the formation of the coping styles(3). Cloninger developed a general psychobiological theory to define the structure and development of personality (4, 5) . This model contains four temperament dimensions which are assumed to be genetically independent from each other, stable in the middle level during life and unchanged in the face of cultural effects (novelty seeking (NS), harm avoidance (HA), reward dependence (RD)and persistence(P)) and three character dimensions (self directedness (SD), cooperativeness (C) and self transcendence (ST)) which are assumed to mature in the adulthood and affect selfhood concepts. It was shown in the previous studies that the stress detected was associated with personality structure (6) Furthermore, some coping styles and some character traits are known to constitute tendency to anxiety and depression. However, there is limited information about the relationship between the coping styles and character traits.

Nursing is shown as one of the occupations with high stress. Job stress in any period of life is chronic unlike a short-term stressor and it paves the way for both psychological-physical diseases and reduction in job efficiency and imperfect practices. Ways of coping with stress can give different results in different circumstances and environments. The assessment of the coping styles used by nurses is important in terms of understanding in which fields they should be supported (7)

This study researches the relationship between the coping styles, temperament and character traits of nurses and their connection with anxiety and depression levels.

METHODS

This study was performed with 94 nurses who are working at a training and research hospital.

Volunteer nurses without any organic diagnosis or psychological diagnosis, anamnesis or ongoing psychiatric treatment that may affect their cognitive functions were included in the study. An approval of the local ethic committee is obtained for the study and all participants are included upon a written informed consent.

Sociodemographic data form is the form prepared by us in compliance with the purpose of the study which contains information such as the age, sex, marital status and the unit of employ-

ment of the participants.

Coping Styles Scale (CSS): The CSS, which was created by Sahin et.al (1992) with reference to Folkman and Lazarus' Coping Ways Inventory, is a 4-option self-report scale which consists of 30 items and 5 subscales. The subscale "self confident style (SCS)" consists of 7, "optimistic style (OS)" consists of 5, "helpless style (HS)" consists of 8, "submissive style (SS)" consists of 6 and "social support seeking style (SSS)" consists of 4 items. The subscale weighted score is obtained by dividing the total score which is taken from each subscale into the number of subscale items. While answering each item, from the answers given to the question "how does it define you, how suitable is it?", 0, 1, 2 and 3 points will be given to 0%, 30%, 70% and 100% respectively (8).

Temperament and Character Inventory (TCI): The inventory is a self-report style scale which consists of true/false filled 240 items. It measures four temperament and three character dimensions based on Cloninger's psychobiological personality trait theory (9).. 2 separate validity and reliability study of the Turkish Form was made by Arkar et.al as well as Köse et.al (10, 11)

The Hospital Anxiety and Depression Scale (HADS): It is a self-report scale which was developed specifically for individuals with physical diseases by Zigmond and Snaith (1982)(12) and consists of anxiety and depression subscales with 7 items; and validity and reliabilities studies were done in major depression and adaptation disorders (13, 14). The scale was also used in field studies and out-of-clinic groups later (15, 16). It was asserted that the sum of anxiety and depression scores of the scale showed the psychological distress in the individual (17).

Statistical analysis: SPSS 17.0 was used for statistical evaluations. Student t test was used for comparing means and correlation analysis and linear regression analysis were conducted for the relationship between lineer parameters.

RESULTS

Total 94 nurses - 76 (80.9%) female, 18 (19.1%) male - participated in the study. Nurses were minimum high school graduates (n: 19; 20.2%) or had higher educational level. The age average was 33.44 ±5.48 and between 22-49.

When the coping styles of the participants were assessed, it was observed that the self-confident style subscale received the highest scores while submissive style subscale received the lowest scores. (Figure 1)

Correlation analysis was made in order to assess the relationship between the participants' coping styles and temperament and character traits. A negative correlation between harm avoidance and self confident style and optimistic style and a positive correlation between helpless style and submissive style were determined. Self directedness was positively correlated with self-confident and optimistic style and negatively correlated with helpless an submissive style Other correlations are shown in Table 1.

Linear regression analysis was made in order to understand if temperament character traits are predictor for coping styles. Lower harm avoidance scores and higher persistence and cooperativeness scores were predictors of self confident style. Lower HA and higher C scores were predictors of optimistic style. Higher HA, RD and ST scores were predictors of helpless style. The only predictor for submissive style was higher HA scores and for social support seeking style was higher RD. (Table 2, Figure 2)

Temperament and character traits were sought as predictors of HADS and higher HA scores were predictors of higher HADS scores (beta: 0.520 t:4.618 p:0.00). Also coping styles were sought as predictors of HADS scores and helpless style was a significant predictor for anxiety and depression($p<0.05$). Optimistic style and social support seeking had borderline significance for lower scores of HADS ($p=0.051$). (Table 3, Figure2)

DISCUSSION

This study examined the relationship between the coping styles and personality traits in nurses.

In this study, while SCS received the highest scores in the coping styles of the nurses, SS received the lowest scores. In a previous study on patients who were hospitalized in internal medicine and surgical clinics, it was shown that optimism and self confident style were associated with lower anxiety and depressions scores while HS was associated with higher anxiety and depression scores and SS was associated with higher anxiety scores (18). In another study which was done with the families of disabled children, it was determined that HS scores showed positive correlation with the depression scores. In the same study, depression scores showed negative correlation with SSS (19). In our study, on the other hand, SCS, OS and SSS scores showed negative correlation with HADS scale scores while HA and SS showed positive correlation in the coping styles. Based on all these results, while self-confident style, optimistic style and social support seeking style were coping styles with better functionality, helpless style and submissive style are supposed to be associated with depression and anxiety symptoms.

In the study, no significant relationship could be determined between the personality traits and novelty seeking scores of the nurses. No consistent data accumulation has been generated in relation to the relationship of NS scores with anxiety and depression, yet (20). Likewise, in this study, no relationship could be determined between the NS scores and coping styles as well as HADS scores.

HA was previously found associated with higher anxiety and depression scores in many studies (21). Various results support four types of potent relationships between Harm Avoidance and depression: an influence of state on trait measure, a pathoplastic effect of Harm Avoidance on depressive expression, a vulnerability model (Harm Avoidance representing a susceptibility factor for depression), and a scar model with elevated Harm Avoidance scores even after remission of acute depressive symptoms(20). Likewise, in this study, positive correlation was determined between higher HA scores and HADS scores. And, positive correlation was shown with SCS and OS among the coping styles, and positive correlation was shown with HS and SS which show more frequent relationship with depression.

There are studies which show the relationship between lower RD scores and anxiety and depression (22). One study showed that lower RD scores were associated with resistance to treatment in MDD (23). In this study, RD levels showed positive correlation both with SSS and HS, and no relationship was determined with the HADS scores. In their study, Çelikel et.al. examined subscales of RD and determined opposite relationships with depression (22) In this study, the character trait, persistence, showed correlation with self-confident style. SCS is a way of coping which results in more satisfactory results. The number of studies which show the relationship between persistence scores and depression and anxiety are not too many in number and a study examined the pre-therapy and post-therapy TCI scores of the depressive patients and showed that persistence scores increased as depression was recovered along with the changes in other scores (24)

SD became prominent with HA in the previous studies which researched the relationship between the TCI scores and anxiety

and depression. While lower SD scores suggested tendency to anxiety and depression, they were also shown to create resistance to depression therapy (20). In this study, SD scores showed negative correlation with HAD scores in concordance with the previous data. As for their relationship with coping styles, on the other hand, SCS and OS have positive correlation while HS has negative correlation with SD.

Cooperativeness is one of the important personality traits for our sample considering the working conditions. Cooperativeness scores were previously shown to have had negative correlation with anxiety scores (25). In another study, depressive symptoms were shown to be associated with an inability to sustain reciprocal cooperation(26). While no relationship could be determined between cooperativeness and HADS in this study, positive correlation was determined in SSS, OS and negative correlation was determined in helpless style. Cooperativeness was the only trait which showed correlation with SSS coping style in the personality traits.

While no relationship could be found between self transcendence and HADS in this study, it showed positive correlation with optimistic coping style and higher scores of self transcendence predicted helpless style. Is seems as a conflict in instance but Self-transcendence is an interesting character trait which needs soul of having ideals which are more important and transcendent than well being of self. So it contains the wishes and feeling of responsibility for high levels of well-being for others, world etc but it also opens a gate for bigger disappointments. In depressive patients HA and ST scores are shown to have decreased post therapy, while C scores were shown to have increased (24) In another study, relationship was determined between lower SD and C scores and higher HA scores with higher ST scores in patients who developed PTSD (27). This study was executed with a limited sampling of a certain occupation group. However, it researched both the relationship between coping styles and temperament and character traits and the relationship between all these traits and HADS. Coping styles of nurses is important as they show their functionality and personality traits they are associated with.

CONCLUSION

This study presents temperament and character traits as predictors of coping styles. Lower HA scores and higher persistence and cooperativeness scores were predictors of self confident style. Lower HA and higher C scores were predictors of optimistic style. Higher HA, RD and ST scores were predictors of helpless style. The only predictor for submissive style was higher HA scores and for social support seeking style was higher RD. In this study, higher scores of helplessness as a coping style predicted higher anxiety depression scores.

DECLERATOIN OF INTEREST:

Authors declare no conflicts of interest for this study.

FUNDING:

None

ABBREVATATIONS

NS: novelty seeking

HA: harm avoidance

RD: reward dependence

P: persistence

SD: self directedness

C: cooperativeness

ST: self transcendence

SCS: self confident syle

OS: optimistic style

HS: helplessness style

SS: submissive style

SSS: social support seeking style

FIGURES

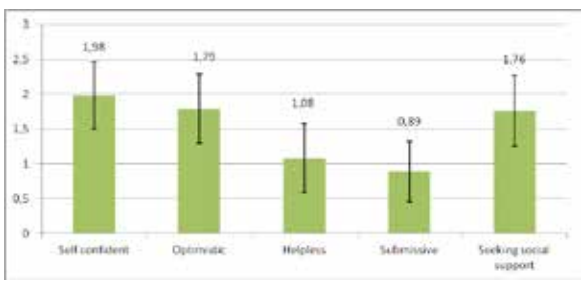

Figure 1: Coping style scores of nurses

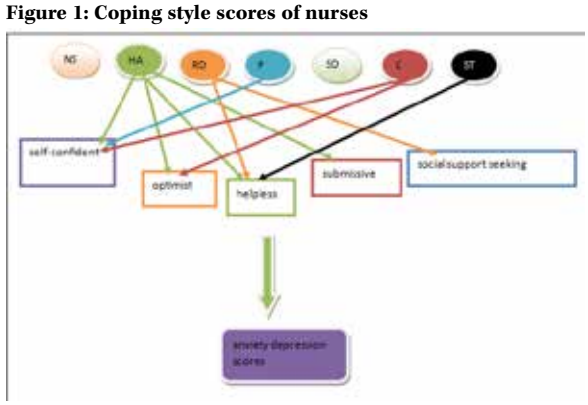

Figure 2: A schema of predictors of coping styles and anxiety and depression scores.

TABLES

Table 1: Correlations Between Coping Styles And Temperament And Character Traits.

	SCS	OS	HS	SS	SSS	
NS	0,02	-0,05	-0,12	-0,01	0,07	t
	0,86	0,62	0,23	0,90	0,51	p
HA	-0,45	-0,48	0,64	0,33	-0,12	t
	0,00	0,00	0,00	0,00	0,23	p
RD	0,00	0,16	0,22	0,02	0,34	t
	0,97	0,13	0,04	0,82	0,00	p
P	0,30	0,14	-0,15	-0,18	-0,05	t
	0,00	0,18	0,14	0,09	0,64	p
SD	0,41	0,30	-0,44	-0,22	0,03	t
	0,00	0,00	0,00	0,03	0,79	p
C	0,32	0,46	-0,21	-0,18	0,21	t
	0,00	0,00	0,04	0,09	0,04	p
ST	0,00	-0,02	0,25	0,14	0,07	t
	0,99	0,85	0,02	0,19	0,48	p

NS: Novelty Seeking, HA: Harm Avoidance, RD: Reward Dependence, P: Persistance, SD: Self Directedness, C: Cooperativeness, ST: Self Transendence SCS: Self Confident Style, Optimistic Style, Helpless Style, SS: Submissive Style, SSS: Social Support Seeking Style

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Table2: Regression Analysis For Temperament And Character Traits And Coping Styles

SCS	OS	HS	SS	SSS		
NS	0.12	-0.01	-0,12	-0.05	0.05	beta
	1.21	-0.17	-1,37	-0.50	0.49	t
	0.22	0.86	0.17	0.61	0.62	p
HA	-0.26	-0.40	0.51	0.30	-.17	beta
	-2.39	-3.71	5.50	2.44	-1.38	t
	0.01	0.00	0.00	0.02	0.17	p
RD	-0.19	-0.05	0.27	0.06	0.38	beta
	-1.62	-0.49	2.70	0.47	2.81	t
	0.10	0.62	0.008	0.64	0.006	p
P	0.26	0.09	-0.16	-0.20	-0.04	beta
	2.64	0.98	-1.95	-1.80	-0.34	t
	0.01	0.32	0.05	0.07	0.73	p
SD	0.11	-0.13	-0.03	0.09	-0.08	beta
	0.93	-1.11	-.33	0.66	-0.57	t
	0.35	0.26	0.74	0.51	0.57	p
C	0.28	0.42	-0.21	-0.15	-0.10	beta
	2.10	3.14	-1.82	-1.01	-0.06	t
	0.03	0.002	0.07	0.31	0.95	p
ST	0.05	-0.05	0.20	0.17	-0.40	beta
	0.50	-0.58	2.39	1.50	-0.35	t
	0.61	0.56	0.02	0.13	0.72	p

Dependent variables are coping styles as SC, O, H, S, SSS NS: Novelty Seeking, HA: Harm Avoidance, RD: Reward Dependence, P: Persistance, SD: Self Directedness, C: Cooperativeness, ST: Self Transendence SCS: Self Confident Style, Optimistic Style, Helpless Style, SS: Submissive Style, SSS: Social Support Seeking Style

Table 3: Regression Analysis For Coping Styles And HADS Scores

	SCS	OS	HS	SS	SSS	
HADS scores	0.040	-0.252	0.510	-0.074	-0.172	beta
	0.313	-1.977	4.840	-0.761	-1.981	t
	0.755	0.051	0.000	0.449	0.051	p

Dependent variable: HADS scores

HADS: Hamilton Anxiety Depression Scale, SCS: Self Confident Style, Optimistic Style, Helpless Style, SS: Submissive Style, SSS: Social Support Seeking Style

REFERENCE

1. Chang E, Tugade M, Asakawa K. Stress and Coping Among Asian Americans: Lazarus and Folkman's Model and Beyond. In: Wong PP, Wong LJ, editors. Handbook of Multicultural Perspectives on Stress and Coping. International and Cultural Psychology: Springer US; 2006. p. 439-55. | 2. Folkman S, Lazarus RS, Gruen RJ, DeLongis A. Appraisal, coping, health status, and psychological symptoms. Journal of personality and social psychology. 1986 Mar;50(3):571-9. PubMed PMID: 3701593. | 3. Lazarus RS. Coping theory and research: past, present, and future. Psychosomatic medicine. 1993 May-Jun;55(3):234-47. PubMed PMID: 8346332. | 4. Cloninger CR. A systematic method for clinical description and classification of personality variants. A proposal. Archives of general psychiatry. 1987 Jun;44(6):573-88. PubMed PMID: 3579504. | 5. Cloninger CR, Svrakic DM, Przybeck TR. A psychobiological model of temperament and character. Archives of general psychiatry. 1993 Dec;50(12):975-90. PubMed PMID: 8250684. | 6. Burgess L, Irvine F, Wallymahmed A. Personality, stress and coping in intensive care nurses: a descriptive exploratory study. Nursing in critical care. 2010 May-Jun;15(3):129-40. PubMed PMID: 20500651. | 7. Gholamzadeh S, Sharif F, Rad FD. Sources of occupational stress and coping strategies among nurses who work in Admission and Emergency Departments of Hospitals related to Shiraz University of Medical Sciences. Iranian journal of nursing and midwifery research. 2011 Winter;16(1):41-6. PubMed PMID: 22039378. Pubmed Central PMCID: 3203298. | 8. Şahin NH, Durak A. Stresle Başa Çıkma Tarzları Ölçeği: Üniversite öğrencileri için uyarlanması. Türk Psikoloji Dergisi. 1995;10(34):56-73. | 9. Cloninger CR, Przybeck, T.R., Svrakic, D.M., Wetzel, R.D. . The Temperament and Character Inventory (TCI): A guide to its development and use. In: Center for Psychobiology of Personality. Department of Psychiatry, editor. St Louis, Missouri, USA: Washington University School of Medicine, ; 1994. | 10. Arkar H, Sorias O, Tunca Z, Safak C, Alkin T, Binnur Akdede B, et al. [Factorial structure, validity, and reliability of the Turkish temperament and character inventory]. Turk psikiyatri dergisi = Turkish journal of psychiatry. 2005 Fall;16(3):190-204. PubMed PMID: 16180152. Mizac ve Karakter Envanteri'nin Turkce Formunun Faktor Yapisi, Gecerlik ve Guvenilirligi. | 11. Köse S, Sayar K, Ak I, Aydin N, Kalelioglu Ü, Kirpinar İ, et al. Turkish version of the Temperament and Character Inventory (TCI): Reliability, validity, and factorial structure. BCP. 2004;14(3):107-31. | 12. Zigmond AS, Snaith RP. The hospital anxiety and depression scale. Acta psychiatrica Scandinavica. 1983 Jun;67(6):361-70. PubMed PMID: 6880820. | 13. Aydemir O. Validity and Reliability of Turkish Version of Hospital Anxiety and Depression Scale. Turkish Journal of Psychiatry. 1997;8 (4):280-7. | 14. Ozguven HD, Koker, S., Canat, S. The validity and reliability of the Hospital Anxiety and Depression Scale in a sample from Ankara. 3P Dergisi. 1997;5(3):197-201. Tr. | 15. Dagnan D, Chadwick P, Trower P. Psychometric properties of the Hospital Anxiety and Depression Scale with a population of members of a depression self-help group. The British journal of medical psychology. 2000 Mar;73 (Pt 1):129-37. PubMed PMID: 10759056. | 16. Lisspers J, Nygren A, Soderman E. Hospital Anxiety and Depression Scale (HAD): some psychometric data for a Swedish sample. Acta psychiatrica Scandinavica. 1997 Oct;96(4):281-6. PubMed PMID: 9350957. | 17. Smith AB, Selby PJ, Velikova G, Stark D, Wright EP, Gould A, et al. Factor analysis of the Hospital Anxiety and Depression Scale from a large cancer population. Psychology and psychotherapy. 2002 Jun;75(Pt 2):165-76. PubMed PMID: 12396762. | 18. Kayahan M, Sertbas, K. The relationship between anxiety-depression level and manners overcoming stress in hospitalized patients at clinics internal and surgical. Anatolian Journal of Psychiatry. 2007;8:52-61. | 19. Bahar A, Bahar, G., Savaş, H.A., Parlar, S. Determining the Ways of Coping with Stress with Depression and Anxiety Levels of the Mothers of Handicapped Children. Fırat Sağlık Hizmetleri Dergisi. 2009;4(11):97-112. | 20. Pelissolo A, Corruble E. [Personality factors in depressive disorders: contribution of the psychobiologic model developed by Cloninger]. L'Encephale. 2002 Jul-Aug;28(4):363-73. PubMed PMID: 12232546. Facteurs de personnalite dans les troubles depressifs: apports du modele psychobiologique de Cloninger. | 21. Mochcovitch MD, Nardi AE, Cardoso A. Temperament and character dimensions and their relationship to major depression and panic disorder. Revista brasileira de psiquiatria. 2012 Oct;34(3):342-51. PubMed PMID: 23429781. | 22. Celikel FC, Kose S, Cumurcu BE, Erkorkmaz U, Sayar K, Borckardt JJ, et al. Cloninger's temperament and character dimensions of personality in patients with major depressive disorder. Comprehensive psychiatry. 2009 Nov-Dec;50(6):556-61. PubMed PMID: 19840594. | 23. Takahashi M, Shirayama Y, Muneoka K, Suzuki M, Sato K, Hashimoto K. Personality traits as risk factors for treatment-resistant depression. PloS one. 2013;8(5):e63756. PubMed PMID: 23717477. Pubmed Central PMCID: 3661718. | 24. Hruby R, Nosalova G, Ondrejka I, Preiss M. Personality changes during antidepressant treatment. Psychiatria Danubina. 2009 Mar;21(1):25-32. PubMed PMID: 19270618. | 25. Kahraman H, Orhan FO, Sucakli MH, Ozer A, Koksal N, Sen B. Temperament and character profiles of male COPD patients. Journal of thoracic disease. 2013 Aug;5(4):406-13. PubMed PMID: 23991295. Pubmed Central PMCID: 3755663. | 26. Brendan Clark C, Thorne CB, Hardy S, Cropsey KL. Cooperation and depressive symptoms. Journal of affective disorders. 2013 Sep 25;150(3):1184-7. PubMed PMID: 23726777. | 27. North CS, Cloninger CR. Personality and Major Depression among Directly Exposed Survivors of the Oklahoma City Bombing. Depression research and treatment. 2012;2012:204741. PubMed PMID: 23008763. Pubmed Central PMCID: 3449105. |