A comparison of Type-A and Type-B Learners in the perception of stress level and use of coping responses in the Campus

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Abstract

The purpose of this study was to determine if there were differential approach and avoidance coping responses between Type-A and Type-B personality students when confronted with a stressful situation in the campus. Participants were Iranian undergraduate students who were divided into Type-A and Type-B groups of 75 students per group according to scores on the Type-A Behavior Inventory (TABI). The results for the ANOVA indicated a significant main effect for coping responses, a significant interaction type A/B behavior and coping responses, but the main effect for type A/B behavior not significant. A significant simple effect for Type A/B in avoidance coping responses was found. These results also showed approach coping responses were a better predictor than avoidance coping responses when predicting perceived stress of the students. The results of this study indicated Type-A’s students who use avoidance coping responses perceive higher level of stress than others so, it is important that university teachers should be sensitive to the needs of diversity learners.

Keywords: Diversity learners, Type-A/B learners, Coping Responses, Stress

1. Introduction

The importance of personality diversity in university is hidden under discussion on traditional learners which is relatively dominating. Considering open admission policy in university and development of a life-long learning society, personality diversity in university is seemed to increase in the future. Thus, a bigger attention on learner diversity in university is needed. The concept of learner diversity has expanded to the extent to consider learning style, learning ability, learning demand, personality, and furthermore, life style of an individual learner beyond culture, ethnicity, language, and religion (CEEL, 2010). It is a significantly treated issue to apply diversity learner’s personality. Learner diversity significant difference between learners in particular dimensions, and its research has
been conducted in aspects of personality with regard to learner diversity. In the previous studies, it was argued that Type A/B personality is the resource on which people’s ability to develop self-efficacy, obtain social support and diversity in learning (Chida & Hamer, 2008; Chida & Steptoe, 2008; Lyubomirsky, King & Diener, 2005; Pressman & Cohen, 2005).

The literature on the association between personality and coping as a part of an adaptation continuum in which there are structural similarities between the two concepts has grown (Ferguson, 2001; Maltby, Day, McCutcheon, Gillett, Houran & Ashe, 2004). Some findings have integrated personality and coping theory, and have given the strong theoretical and empirical support that personality and coping styles underlie mental health (Carver, & Connor-Smith, 2010; Hull, Tedie & Leho, 1995; Lazarus & Falkman 1984, Matthews, Gump, Harris, Haney & Barefoot, 2006; Moraddi & Farzad, 2007). The association between psychosocial factors and the physical responses to mental stress could be mediated principally through behavioral pathways (Brotman, Golden & Wittstein, 2007). Thus, focusing on individuals whose personalities put them at risk and showing them how to cope with their stress is probably the best way to prevent future health problems. Therefore, the present study gives an overview of personality (type behavior patterns) and coping responses that help to combat encounters and daily stress. College counseling professional may benefit from increased understanding of the personalities’ aspect and relationship between perceive stress and college adjustment skills such as efficiency coping responses.

2. Method

2.1. Research Procedure

This study used survey method to collect data from the sample of Iranian students. As such, data was collected only at one point throughout the study. A set of questionnaire (Coping Responses Inventory, CRI, Type-A Behavior Inventory, TABI, and Undergraduate students Stress Inventory, USSI) was administered on the sample of undergraduate students during a class session conducted at universities in Iran. Students were given 45 minutes to response to questionnaires.

2.2. Population and Sample

A total of three hundred and twenty-six students were selected randomly to participate in the study (male = 112, female = 214). Their ages ranged from 18 to 35 years with a mean 18.7 years. Participants were enrolled during the 2008 spring semester.

2.3. Tools

2.3.1. The Coping Responses Inventory (CRI) developed by Moos (2004) was selected to assess participant coping responses. The coping responses inventories assessed two different types of coping responses related to stressful life circumstances and consisted 48 items (α=.89). The Coping Responses Inventory divides coping responses into approach and avoidance responses and each of two categories reflects cognitive and behavioral coping strategies. For example, "Did you think of different ways to deal with the problem" and "Did you try to forget the whole thing". When responding to the CRI, individuals select a four-point scale varying from “not at all” to “fairly often” to rate their reliance on each of 48 coping response items.

2.3.2. The University Student Stress Inventory (USSI) was designed to identify and assess specific sources of intra/inter-personal (eg. I am confident in my ability to make choices consistent with my value) and academic stress (eg. I am able to organize my time effectively) that affects mental health in association with poor health and physical pain (α=.87). Students completed the 20-item USSI, checking items that made them “feel stressed, upset or worried at least two or three times a week for the past one month.” Students rated how much each checked event “bothered” them (from not at all to always).

2.3.3. The Type-A behavior inventory is a 20-item Likert-scale measurement that developed by researchers to assess Type-A behavior (eg. I will complete all tasks given to me for the day even if I have to put in extra hours, I am aware of things or events that occur around me, and I become very impatient when I have to wait for something or someone). Responses were recorded on a five-point Likert scaled labeled "too many to nothing" and scored as such from 1 to 5. Cronbach alpha analysis was conducted to examine its reliability over time (α= 0.83).
3. Results

To address the research question "Is there any difference between type-A and type-B individuals when they use approach or avoidance responses faced with stress?", a 2×2 between-subjects ANOVA was conducted comparing the total stress level scores for type-A and type-B participants who either had used approach responses or avoidance responses. The means and standard deviations for stress level as function of the two factors are presented in Table 1. The results for the ANOVA indicated a significant main effect for coping responses (F [1, 94] =14.350, p=.000, η² =.14). Participants who had used avoidance responses had higher total stress level scores (M=51.55, SD=8.84) than who had used approach responses (M=34.18, SD=11.24). A significant main effect for type-A and type-B behavior (F [1, 94] =.713, p=.41, η² =.007 was not found. A significant main effect for the interaction coping responses, type-A, and type-B behavior was found (F [1, 94] =12.137, p=.001, η² =.12). Because the interaction between coping responses and type A-B behavior was significant, the main effect of coping responses was ignored and instead examined the simple main effect of coping responses which showed the differences of coping responses for type-A and type-B separately. To control the Type-I error across the two simple main effects, level of significant (alpha) was set at .025. There was no significant difference between type-A and type-B for approach responses (t [51] =-1.83, p=.074), but there was significant difference for avoidance responses (t [39] =3.314, p=.002). Type-A students who had used avoidance coping responses had total stress level scores higher than other groups.

4. Conclusion

The aim of this study was to examine the level of stress across the type-A and type-B students with regard to approach and avoidance responses. The study examined the difference in the means on changes in stress among type-A and type-B vary as a function of coping responses. The results indicated a significant main effect for coping responses, no significant main effect for type A-B behavior, as well as a significant interaction between coping responses and type A-B behavior. These results supported the aforementioned hypothesis. In fact, the findings showed that individuals with the type-A behavior pattern were associated with higher level of reported stress in relation to avoidance responses, compared with those with type-B behavior pattern in relation to avoidance responses.

These findings are consistent with some studies that showed associations between psychosocial factors and physical responses to mental stress were changed by the context of mental stressors (Chida & Harmer, 2008; Chida & Steptoe, 2008; Ham, 2003; Lyubomirsky, King & Diener, 2005; Pressman & Cohen, 2005). More importantly, some stressors seem to have a more robust detection power on such associations, compared with the other stressors. For example, cognitive tasks exhibited a strong association between decreased cardiovascular reactivity and anxiety, neuroticism, or negative affect, but the other stressors did not (Brotman, Golden & Wittstein, 2007; Chida & Hamer 2008). Although type-A individuals have higher level of perceived stress, they can reduce stress level by using approach responses when confront of stressful situations. These findings are in agreement with Maltby and his colleague (2004) and Ho.Janice's study (1995) which found that personality plays a role in stress but, other factors
such as an individual's support system of friends and relatives as well as effective coping responses, and how much control one has over one's life play significant roles in stress. Maltby, Day, McCutchen, Gillett, Houran & Ashe (2004) suggested that psychosocial characteristics influence the cognitive appraisal process, mediating the transaction between life stressors and stress responses.

Universities are recognizing increase in learner diversity, but lacks specific and positive discussion. According to discoveries of this study, personality diversity in university consists of diversity in culture and learning properties as well as demographic diversity. Therefore, a positive study is necessary and should be followed by development of personality diversity and teaching strategies. College counselling professional may benefit from increased understanding of the relationship between perceive stress and college adjustment skills to guide them for their learning. Councillors may be able to support and guide students who are struggling to reduce stress but are preoccupied with their maladjustment skills. Students who are too disengaged from their personality may also need help because of not having learned some of the skills necessary for problem solving, personal caretaking and effective decision making.

Acknowledgements
The author would like to thank the Islamic Azad University-Arsanjani Branch for financial support. The author is grateful to the all of students and staff who participated in this study.

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