Differences in Academic Specialization regarding Stressor Perception, Coping and Stress Effects Perception in Young Students

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Abstract

This study aims to highlight how academic specialization influences the variables: self-perception of stress, coping mechanisms in students at the Faculty of Psychology and students from the Faculty of Chemistry. This study involved 63 subjects, final year undergraduate students at two universities, with different profiles. Hypothesis 1 was supported by the data. Research results have shown that academic specialization significantly influences self-perception of stressors in students of Psychology and students of the Faculty of Chemistry observing that students from the Faculty of Chemistry have significantly higher stress levels than the students from the Faculty of Psychology.

Keywords: stress, educational psychology, coping, perceived stress

1. Introduction

According to Selye (1956) stress is defined as a general nonspecific response of the body to the external factors action, called stressor agents, which can be varied (physical, chemical, biological and psychological). Selye (1956) insists that stress does not have an independent existence, so stress state cannot exist in the absence of specific stress agents actions. Lazarus and Folkman (1984) define stress as "the cognitive and behavioral effort to reduce, rule or tolerate any external or internal solicitations that exceed personal resources (Lazarus and Folkman, 1984 cited Iamandescu, 2002). The cognitive theory of stress and coping process (Lazarus, 1966, Lazarus & Folkman, 1984)

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was and continues to be a model based on evaluation. The early formulation implies that the evaluation process was most heavily involved at the start of the event in terms of evaluating its personal significance (first evaluation) and assessment of options for coping (secondary assessment). Together these two forms of assessment determined the extent to which the transaction was considered a threat or challenge. Bad evaluations were accompanied by negative emotions such as sadness or anger and threatening assessments were accompanied by negative emotions such as anxiety or fear. Positive emotions such as excitement, desire and confidence have occurred in connection with the reference to the challenge.

Academic stress is the culmination in student activity, both because different workloads as well as due to the fact that during this period, students are in a stage of their lives when they are facing various changes such as college admission, separation from family, entering labor market, adapting to an environment less common. Possible causes of stress are extremely numerous. The authors mention sources such as fear of lagging behind, finding the motivation to learn, time pressure, financial worries, concerns about the academic skills that they lack (cited Jayakumar and Sulthan, 2013). Exhaustion leads in turn to psychological stress, depression, suicidal ideation, anxious behavior and other personal and professional difficulties (Pope & Tabachnick, 1994; Smith & Moss, 2009).

The faculty-student interactions rate showed a similar association, recent data suggesting that constant, reliable, supportive interactions between faculty and student can help the student to effectively manage stress (Clark Murdock, & Koetting, 2009; Inman et al., 2011). Often coping is understood as the relationship of interaction between people and the stressor. According to Lazarus & Folkman (1984), cited Kepalaité, (2013) this depends on how the person perceives the importance of the situation and the way it uses personal, cognitive and behavioral its resources as ways of managing the problem to resolve the stressful situation.

Anitei & Chraif (2013a) were interested to highlight possible gender differences in measuring positive and negative emotions among Romanian high school students, Anitei & Chraif (2013b) studied the relationship between perceived stressors and positive and negative emotions at young Romanian students, Anitei & Chraif (2013c) were involved in a Validation study regarding coping styles and emotions at psychology students, Anitei, Chraif & Minea (2013) studied influence of fatigue on aspiration level, performance motivation and frustration at young students, Chraif, Anitei & Marin (2013) showed possible correlations between reaction time, performances in competition and motivation from competition differences at psychology students and Dumitru, Chraif & Anitei (2014) highlighted possible correlations between motivation and cognitive tasks at psychology students.

2. Objectives and hypotheses

2.1. Objectives

• Highlighting how academic specialization affects self-perception of stressors in students of the psychology faculty and students of the faculty of chemistry.

• Highlighting how academic specialization influence coping mechanisms in students of the faculty of psychology and students of the faculty of chemistry.

2.2. Hypotheses

• Specialization significantly influences academic self-perception of stressors in students of the psychology faculty and students of the faculty of chemistry.

• Specialization significantly influences academic coping mechanisms in students of the psychology faculty and students of the faculty of chemistry.
3. Method

3.1. Participants

The data come from 63 subjects, undergraduate students in the last year at two different profiles faculties namely Faculty of Psychology and Faculty of Chemistry. 34 subjects are students of the Faculty of Psychology and subjects are students of the Faculty of Chemistry. Of these, 6 were male and 57 were female, with ages scales running between 20 and 33 years ($M = 21.7; SD = 1.93$).

3.2. Measures

In order to obtain data, subscales of Professional Self-Assessment and Stress Questionnaire CAPES adapted for undergraduate students from Occupational Stress Inventory Pitariu (2008) were used.

Subscales used to measure the dependent variables are:

- Chapter 4 "sources of tension" variable measuring the self-perception of stressors; The chapter refers to assessing possible sources of tension in service, depending on the intensity of pressure that people think they can exercise and comprises 40 items which subjects may respond to on a six-levels Likert scale: 1 - Definitely not a source of tension 6 - Definitely a source of tension.

- Chapter 5 "How do you handle stress to which you are subjected", variable determining coping mechanisms. This chapter allows studying alternatives to combat stress and the extent to which people use them as a way to solve a stressful situation. It includes 13 items which subjects may respond on a six-level Likert scale: from 1 to 6 never use - I use very often. Chapter 7, Section 6 "Your health" and section 7 "Measuring labor emotions", which measures the self-perception of the effects of stress. Section 6 of the questionnaire allows assessing the extent to which, in the past four weeks, people had medical problems; employment health assessment and comprises 20 items which subjects may respond on a four levels Likert scale: 1 - Not at all 4 - Much more than usual.

3.3. Procedure

The results of researches are strongly influenced not only by the characteristics of the instruments used, but also by how one carries out their application. The questionnaire was applied in a laboratory at the Faculty of Psychology, individually and collectively, according to the available time of the subjects. Testing was conducted in a quiet academic area with optimal light. Subjects were told to answer truthfully. The subjects had to choose the answer that fit them best, without fear, as there are no good or bad, right or wrong answers. Before the questionnaires were administered to subjects a short training, which ensured them that the data and their answers are confidential, asking them to be seriousness and objective in completing the questionnaires. Participants also completed an informed consent form.

4. Results

To test the research hypothesis the non-parametric Man-Whitney U test was used. The Mann-Whitney test is used to test the difference between independent groups, being the test equivalent of the parametric t test.

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<th>Stres</th>
<th>Coping</th>
<th>WAI_total</th>
</tr>
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<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>255,000</td>
<td>438,000</td>
<td>460,000</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>850,000</td>
<td>873,000</td>
<td>895,000</td>
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<tr>
<td>Z</td>
<td>-3.286</td>
<td>-.760</td>
<td>-.456</td>
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<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.001</td>
<td>.447</td>
<td>.648</td>
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Table 1 shows the results of the test Man-Whitney U non-parametric test according to the profile of the faculty. Specialization significantly influence academic self-perception of stressors in students of psychology and chemistry students. Hypothesis 1 of the study is confirmed. Thus, it appears that there is a statistically significant difference between the stress according to faculty profile (U = 255, Z = -3.28, p = .001 <0.01), observing that chemistry students have a level of stress significantly higher than psychology students (M3 = 25 <M4 = 40.21). Academic specialization statistically significant influences coping mechanisms in psychology students and chemistry students. Hypothesis 2 is not confirmed. There is no statistically significant difference between coping mechanisms depending on faculty, (U = 438, Z = -.76 p = .447> 0.01), so that students from psychology and chemistry students have the same level of coping mechanisms M3 = 33.62, M4 = 30.1.

5. Discussion

After processing all the obtained data, three hypotheses are taken into consideration namely verifying that academic specialization statistically significant influences variables self-perception of stressors, coping mechanisms and self-perception of the effects of stress on psychology students and chemistry students. After statistical analysis only one hypothesis was supported, hypothesis 1: academic specialization significantly affects self-perception of stressors in psychology students and chemistry students. The difference is that chemistry students had stress levels significantly higher than psychology students. The similarities of the two samples on which the research was conducted could be a factor that led to the rejection of hypothesis 2. Both groups of students were in the final undergraduate, of the same age, and the majority of participants in both samples were females. Students that took part in the study are in the final undergraduate year. It is a moment of existence full of pressures, both external and internal, coming from all directions. On the academic front they face the most difficulties.

Priorities are different from one student to another during this period. They differ depending on the event which the student feels to be the most stressful, depending on how each manages to adopt a coping mechanism to reduce pressure. Authors like Brandi, Koon, Mewaldt and O’Connor (2011) argue that organic chemistry is perceived traditionally as a challenging course where the success rate is 30% -40%. The findings of this study strengthen current research results which confirm that chemistry students have a higher level of perceived stress. Failure is rather a stressful factor that disrupts academic activity. El-Ghoroury, Galper, Sawaqdeh, Bufka (2012) argue that there is no published empirical research demonstrating that stress leads to psychology graduates having low performance and being inadequate or that stress management skills will prevent future issues of competence.

References


