THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGANCE, COPING AND POST TRAUMATIC STRESS DISORDER

(On the sample of internally displaced persons in Georgia)

A Dissertation submitted for earning Ph. D. in Psychology

at the Faculty of Social and Political Sciences of

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2010

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ABSTRACT

The goal of presented study is (I) adaptation of Trait Emotional Intelligence Questionnaire (TEIQue) (Petrides, 2009) on Georgian population and (II) investigation of relationship between emotional intelligence (EI), coping and post traumatic stress disorder (PTSD).

In total, 1048 individuals participated in adaptation process: questionnaire try-out (111 participants); questionnaire piloting (115 participants) and questionnaire standardization (922 participants, 267 male and 652 female, from 17 to 70 years). Result showed that the Georgian version of TEIQue replicates UK factor structure. Principle axis factoring revealed four main factors: Emotionality, Sociability, Self-control and Well-being. These factors explain 49.88% of total variance. The reliabilities of the TEIQue factors and facets get the recommended significance level. TEIQue scores were globally normally distributed. There was no gender difference in global TEI scores, but findings revealed significant gender differences for some TEI factors and facets. One way ANOVA showed that TEIQue scores were relatively independent of age but there was significant difference for some TEI facets and factors.

(II) 200 Georgian internally displaced persons (100 male and 100 female) (as a group who have experienced potentially traumatic events such as war, death of close relatives and losing the houses) were administered with Trait Emotional Intelligence Questionnaire (TEIQue) (Petrides, 2009) along with The Ways of Coping Questionnaire (WCQ) (Lazarus & Folkman, 1988) and The Impact of Events Scale - Revised (IES_R) (Weiss & Marmar, 1997). The result showed that (1) TEI global score is the predictor for PTSD (R^2_{ADJ} = .024, F (1,198)=5.88, p<.05) (ß = .17, p<.05). TEI factors, specifically, self-control has the predictive value for PTSD (R^2_{ADJ} =.065, F(4,195)=8.20, p<.001) (ß = -.28, p<.01). TEI facets also have the predictive value for PTSD (R^2_{ADJ} = .152, F(15,184) = 3.37, p < .001), specifically, self-esteem (ß = .22, p<.01) and emotion regulation (ß = -.25, p<.01). (2) TEI global score is a predictor for coping (R^2ADJ=12.6, F(1,199)=29.68, p<.001) (ß = .36, p<.001). (3) Coping strategies (R^2_{ADJ} =.07, F (7,192) =2.21, p<.05), specifically, positive reappraisal (ß = -.303, p = .00) problem solving coping (ß = .22, p <.05) are predictors for PTSD. (5) The results show that PTSD symptoms are effected by trauma character, specifically,

people who experienced death of family members report more PTSD symptoms (M=7.39, SD=2.46) then those ones who had not such experience (M=5.95, SD=2.02) $t(198)=-2.76$, $p<.01$. Result showed that the level of trauma exposure (number of days spent in a war situation) was not correlated with PTSD severity. (6) Multiple hierarchical regression analyze, controlling the variables: age and coping, showed that TEI global score is a predictor for PTSD ($R^2ADJ = .04$, $F(1,196)=5.42$, $p<.05$) (ß = -.173, $p = .05$).

Trait Emotional Intelligence Questionnaire has theoretical as well as practical implication: the adapted questionnaire is a valuable inventory for professionals working in different fields of Psychology (educational, human reassure and clinical psychology). Georgian version of questionnaire gives possibility to be involved in international emotional intelligence research space and to study the relatively new construct of EI on Georgian population too. The findings give possibility to work out the recommendations for developing coping strategy and EI training-modules and psychological service projects for IDPs.

INTRODUCTION

There is enormous number of traumatic situations (war, natural disasters, auto and air catastrophes and etc) all over the world and because of that it's very important in clinical psychology to identify personal factors that helps person to cope with trauma effectively. There are an estimated 26 million IDPs around the world [1]. In fact, to be fled to foreign or to be fled to the own country is quite different stressful situations and demands and challenges are quite different, but in spite of that there are thousands of studies about refugees (persons who have fled from their own country to the foreign one) while there are small number of studies about internally displaced persons (people who have fled to the own country). Especially, number of studies about mental health and coping mechanisms of IDPs is too small and there is no information in those studies about the role of EI as a personal factor in trauma coping. So, the presented paper deals with the identification of trait EI function and role in coping with trauma. Specifically, the research goal is to investigate relationship between EI, coping and PTSD on the sample of internally displaced persons[2] as a group who experienced potentially traumatized event (war, death of close relatives, losing the houses and etc).

It's not simple to define a traumatic situation, because one event may be traumatized for one individual but not for another one. In spite of that it's possible to identify potentially traumatized situations. According DSM-IV a traumatic event is an experience that causes physical, emotional, psychological distress, or harm. It is an event that is perceived and experienced as a threat to one's safety or to the stability of one's world. The range of symptoms includes re-experiencing, avoidance and hyper arousal. These symptoms are quite normal at the beginning stage of trauma coping, and are normal reactions in response to abnormal events and are emotionally challenging and individuals cope with them in different ways. Sometimes people have poor coping resources and they have problems with coping, in this case, post traumatic stress disorder (PTSD) is developed. Using one or another coping strategy in response to traumatic situation depends on a range of factors. These factors include personal as well as situational factors: trauma situation specificity, personal traits,

[1] The United Nations High Commissioner for Refugees, 2008. www.unhcr.org

[2] These people became internally displaced after the Georgia – Russia conflict 2008

person's life experience or trauma related experience, cognitive ability and so on and so on (McFarlane.1992; Heszen-Niejodek 1997; Parkes, K. R. 1986; Rentoul and Ravenscroft. 1993; Regehr., Hill & Glancy. 2000). Unfortunately, the research regarding these factors is not consistent, and PTSD is not linked directly with any particular general personality characteristic. It's still unknown which personal trait determine persons' resilience to traumatic stress disorder. If we take into account the nature of traumatic situation, it sounds logical to assume that emotion regulation, emotion expression and emotion management is essential for processing the emotional information. Perception, expression, understanding, managing of one's own and other's emotion is called Emotional Intelligence (EI), merging these aspects into the whole unified construct is a contribution of the last decades research (Bar-On, R. 2006, Goleman, D. 1995,1998; Mayer & P. Salovey, 1997; Petrides, & Furnham, 2001). So, if we consider that EI is constellation of these aspects, it makes sense to assume that those aspects of EI help individuals to process traumatic experience.

According trauma literature specificity of traumatic event is very important for coping with trauma and may determine the outcome. Coping strategies are changed if the situation is changed. Furthermore, coping strategies change on the different stage of stressful situation, the strategy that is adaptive on the beginning stage of the stressful situation may be maladaptive on the next stage (Lazarus, & Folkman, 1984; Folkman, & Lazarus, 1985, 1986). If we think about the internally displacement as a specific traumatic situation we can assume that characteristic of traumatic situation should influence on coping process and outcome (the severity of PTSD). The presented research considers two characteristics of stressful situation: trauma exposure – number of days spent in a war situation and trauma specificity (death of close relatives or family members).

Thus, summarizing what we have already mentioned, the research goal is to identify the personal factors that help person to cope with trauma effectively and determines person's resilience towards the post traumatic stress disorder. Specifically, the research goal is to investigate the relation between trait emotional intelligence, coping and post traumatic stress disorder on the example of Georgian internally displaced persons as a group who experienced potentially traumatic event.

CHAPTER 1. EMOTIONAL INTELLIGANCE

Models of Emotional Intelligance

Concept of emotional intelligence has risen in popularity over the last decade when Daniel Goleman's bestseller *Emotional intelligence: why it matters more than IQ* was published. According the definition, emotional intelligence is a dispositional characteristic defined as the ability to understand, accurately perceive, express, and regulate emotions (Mayer & Salovey, 1997).

At the present time, there are three main models of emotional intelligence (Emmerling, Shanwal, & Mandal, 2008):

(1) The ability-based model – Salovey and Mayer's conception of emotional intelligence strives to define emotional intelligence within the confines of the standard criteria for a new intelligence. According their definition of emotional intelligence is: "the ability to perceive emotion, integrate emotion to facilitate thought, understand emotions and to regulate emotions to promote personal growth." Emotional intelligence refers to an ability to recognize the meanings of emotion and their relationships, and to reason and problem-solve on the basis of them. Emotional intelligence is involved in the capacity to perceive emotions, assimilate emotion-related feelings, understand the information of those emotions, and manage them (Mayer & Salovey, 1997).

(2) The Emotional Competencies model (Goleman, 1998) – this model includes a number of interpersonal and emotional competencies (Hay Group, 2005), some of which have been derived from leadership competency model. According this model EI is not an inherent talent but learnt competency that should be worked on and can be developed to achieve outstanding performance. In fact, Goleman believe that emotional intelligence is one of the most importanant predictors of success in the workplace. The model claims that individuals are born with a general emotional intelligence that determines their potential for learning emotional competencies.

(3) Trait emotional intelligence models – Trait Emotional Intaligance Model (Petrides & Furnham, 2001, 2007) and Emotional-Social Intelligence Model (Bar-On, 2006).

According the model of Emotional-Social Intelligence emotional intelligence and cognitive intelligence contributes equally to a person's general intelligence, which

then offers an indication of one's potential of life success and emotional intelligence is defined as a capability of effectively understanding oneself and others, relating well to others, to adapt and to cope with the immediate surroundings, to be more successful in dealing with environmental demands.

Trait EI model focuses on the personality framework and Emotional intelligence is defined as "a constellation of emotion-related self-perceptions and dispositions located at the lower levels of hierarchical personality taxonomies (Petrides & Furnham, 2001). An alternative label for the construct is trait emotional self-efficacy. This is a constellation of behavioural dispositions and self-perceptions concerning one's ability to recognize, process, and utilize emotion-laden information. The definition underlies self-perceived abilities and behavioral tendencies which are measured through self-report. The conceptualization of EI as a personal trait separates EI from human cognitive ability taxonomy.

CHAPTER 2. COPING

Theoretical and methodological approaches

As we go through life, we can resist temptation, exercise to deal with depression, reinterpret loss, talk ourselves through challenges, avoid confronting an opponent, seek help, etc. Coping with an adversity includes innumerous ways of dealing with diverse person-environment transactions. Thus, coping does not represent a homogeneous concept. Instead, it is a diffuse umbrella term. Coping can be described in terms of strategies, tactics, responses, cognitions, or behavior (Schwarzer, & Schwarzer, 1996). Actual coping is a phenomenon that can be noticed either by introspection or by observation, and it includes internal events as well as overt actions. There are three basic theoretical and methodological approaches to coping:.

1) Psychoanalytic approach –N. Haan, (1977) describes coping in terms of ego-dynamic, as the one way of psychological defense, which used to reduce tension.

Crammer (2000) compared the similarities and differences between defense mechanisms and coping processes. Defense mechanisms are unconscious, nonintentional, hierarchical, and associated with pathology, while coping processes are conscious, used intentionally, situationally determined, nonhierarchical, and associated with normality. Defense mechanisms, especially in the classical definition, are designated a *priori* as maladaptive, and are not consciously chosen. In contrast, coping processes are thought to be consciously chosen and are responsive to environmental demands.

2) Personality trait approach – some of researchers (Billings, & Moos, 1984) describe coping in terms of personality traits. In their opinion, coping is the person's consistent, stable predisposition to response stress event in particular way.

The conception of coping styles borrowed some of its language from psychoanalysis but focused more on how people process information. The earliest typology was repression-sensitization (Burne, 1964). Repressors avoid or suppress information, while sensitizers seek or augment information. This dichotomy has reappeared in many different guises over past 30 years, with blunting-monitoring and approach-avoidance being the current manifestations of the dichotomy. Researches rarely

provide empirical evidence supporting stability of coping strategies, so, this approach could not gain popularity among researchers.

3) Coping process approach – approach, drawing upon the cognitive behavioral perspective, argues that coping is dynamic process; it is flexible and responsive to environmental demands, as well as personal preferences.

The theory which argues that coping is the process is known as the cognitive theory of stress and coping has been developed by Lazarus and his colleagues (Lazarus, & Folkman, 1984). Within this framework, stress is defined as a relationship between the person and the environment that is appraised by the person as relevant to his or her well-being and in which the person' resources are taxed or exceeded. The theory identifies two processes, cognitive appraisal and coping, as critical mediators of stressful person-environment relationships and their immediate and long-term outcomes.

Cognitive appraisal is a process through which the person evaluates whether a particular encounter with the environment is relevant to his or her well-being and if so in what way. There are two kinds of cognitive appraisal; primary and secondary. In primary appraisal, the person evaluates whether he or she has anything at stake in this encounter. For example, is there potential harm or benefit to self-esteem? Is the health or well-being of a loved one at risk? In secondary appraisal the person evaluates what, if anything can be done to overcome or prevent harm or to improve the prospects for benefit. In any words, primary appraisal essentially poses the question - is there a problem? secondary appraisal asks - if there is a problem , what can I do about it? It is at this point that coping comes into play.

Thus, Coping refers to the person's cognitive and behavioural efforts to manage (reduce, minimize, master, or tolerate) the internal and external demands of the person-environment transaction that is appraised as taxing or exceeding the person's resources (Lazarus, & Folkman, 1984).

CHAPTER 3. POST TRAUMATIC STRESS

According DSM _IV essesntial feature for Post traumatic disorder is the development of symtoms following exposure to an extrame traumatic stressor. It is difficult to define what could be a traumatic situation, because one event may be traumatized for one individual but not for another one. In spite of that it's possible to identify potentially traumatized situations. According DSM-IV a traumatic event is an experience that causes physical, emotional, psychological distress, or harm. It is an event that is perceived and experienced as a threat to one's safety or to the stability of one's world. The range of symptoms includes: (1) re-experiencing, (2) avoidance and (3) hyper arousal. Following a traumatic event, almost everyone experiences at least some of these symptoms.

(1) re-experiencing - individuals re-experience the traumatic event or events in some way, they may have upsetting memories of the traumatic event. These memories can come back when they are not expecting them. At other times the memories may be triggered by a traumatic reminder. These memories can cause both emotional and physical reactions. Sometimes these memories can feel so real it is as if the event is actually happening again. This is called a "flashback." Reliving the event may cause intense feelings of fear, helplessness, and horror similar to the feelings they had when the event took place. re-expriencing of traumatic event includes the following

- ✓ Intrusive, upsetting memories of the event
- ✓ Flashbacks (acting or feeling like the event is happening again)
- ✓ Nightmares (either of the event or of other frightening things)
- ✓ Feelings of intense distress when reminded of the trauma
- ✓ Intense physical reactions to reminders of the event (e.g. pounding heart, rapid breathing, nausea, muscle tension, sweating)

(2) Avoidance and Numbing Symptoms – individuals who suffer from PTSD tend to avoid places, people, or other things that remind them of the event, that trigger memories of the traumatic event. They may avoid going near places where the trauma occurred or seeing something about similar events. They may avoid other sights, sounds, smells, or people that are reminders of the traumatic event. Some people find that they try to distract themselves as one way to avoid thinking about the traumatic event. Avoidance and Numbing includes several indications.

Numbing symptoms are another way to avoid the traumatic event. Individuals with PTSD may find it difficult to be in touch with their feelings or express emotions toward other people. For example, they may feel emotionally "numb" and may isolate from others. They may be less interested in activities you once enjoyed. Some people forget, or are unable to talk about, important parts of the event. Some think that they will have a shortened life span or will not reach personal goals such as having a career or family

- ✓ Avoiding activities, places, thoughts, or feelings that remind you of the trauma
- ✓ Inability to remember important aspects of the trauma
- ✓ Loss of interest in activities and life in general
- ✓ Feeling detached from others and emotionally numb
- ✓ Sense of a limited future (you don't expect to live a normal life span, get married, have a career)

(3) hyper arousal symptoms - individuals are exquisitely sensitive to normal life experiences. People with PTSD may feel constantly alert after the traumatic event. This is known as increased emotional arousal, and it can cause difficulty sleeping, outbursts of anger or irritability, and difficulty concentrating. They may find that they are constantly 'on guard' and on the lookout for signs of danger. They may also find that they get startled

- ✓ Difficulty falling or staying asleep
- ✓ Irritability or outbursts of anger
- ✓ Difficulty concentrating
- ✓ Hypervigilance (on constant "red alert")
- ✓ Feeling jumpy and easily startled

There are other common symptoms of post-traumatic stress disorder, that includes: Anger, Guilt, shame, or self-blame, Substance abuse , Depression and hopelessness ,Suicidal thoughts and feelings , Feeling alienated and alone ,Feelings of mistrust and betrayal, Headaches, stomach problems, pain of chest etc.

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CHAPTER 4. DEFINING RESEARCH QUESTIONS

Thus, the main issues were discussed and the variables were defined which are targeted in presented research. These are as follows: TEI, Coping and PTSD. Accordingly, the goal of the research is to investigate the relation between trait emotional intelligence, coping and post traumatic stress disorder on the example of internally displaced persons in Georgia as a group who experienced potentially traumatic event. The specific objectives are: (1) Investigation relation between EI, coping, and PTSD; (2) Adaptation of TEIQue on Georgian population.

The research question is as follow: If there is correlation between IE and coping then individuals with different EI score should have the different severity of PTSD.

The specific predictions are as follow:

(1) If there is correlation between EI and PTSD, then participants with higher EI scores will be less likely to experience PSTD symptoms;

(2) It there is correlation between EI and coping then participants with higher EI scores will be more likely to use positive coping strategies;

(3) If there is correlation between Coping and PTSD, then participants with positive coping strategies will be less likely to experience PTSD symptoms;

(4) If there is correlation between trauma situation character and PTSD then: (a) high level of trauma exposure (number of days spent in an armed conflict zone) should be correlated with high level of PTSD and (b) trauma specificity (experience death of family members) should influence on coping process and outcome.

According the research objectives and specific predictions the research tasks are:

I. TEIQue adaptation on Georgian population:

(1) translation the inventory; (2) back-translation; (3) experts assessment; (4) questionnaire piloting; (5) questionnaire revision; (6) questionnaire standardization; (7) analysis of psychometric properties of TEIQue.

II. Investigation of relation between IE, Coping and PTSD:

(1) To determine global EI, main factors and 15 facets indications; (2) The identification of stressful situation characteristics; (3) To determine each coping strategy as well as positive – negative strategy group indications; (4) To determine separate PTSD symptom as well as the global PTSD indications; (5) EI, Coping, trauma exposure and trauma specificity relation with PTSD.

CHAPTER 5. RESEARCH METHOD

The presented thesis could be devided into two parts: (1) part – adaptation of TEIQue on Georgian population; (2) Investigation of relation between EI, coping and PTSD.

5.1. The adaptation of Trait Emotional Intelligence Questionnaire on Georgian population

According the Test translation and adaptation guidelines (Hambleton, 2001) the TEIQue adaptation process includes several steps: (1) questionnaire translation into Georgian - three independent translations were prepared. After the experts discussion and combining three translated versions, the first Georgian version of TEIQue was done; (2) back-translation – questionnaire was back- translated, the translation quality was checked by author K.V. Petrides and number of items were changed; (3) experts assessment – 7 experts assessed the content validity of 153 items, the items which assessment was highly distributed were revised again; (5) after the questionnaire try out (111 participants) 47 items were revised or changed (the process was supervised by the author); (6) after piloting the questionnaire (115 participants) 17 items were revised or changed and the final Georgian version of TEIQue was done; (7) questionnaire final version was again revised by Georgian language specialist.

Research participants

922 individuals participated in the questionnaire standardization.

Sample description:

- ✓ Gender – 267 (28.95%) male and 655 (71.05%) female;
- ✓ Age – from 17 to 70 (M=25.22, St=11.47);
- ✓ Education – 2% - with primary (elementary) education, 9.3% - with secondary education, 0.9% with incomplete secondary education, 17.2% with higher education and most of participants were students (70.6%) of Tbilisi State University.
- ✓ Marital status – 75.8% of participants are singles, 18.4% - married, 2.5% - divorce, 1.4% - widow (1.9% - unreported).

- ✓ Occupation – 9.4% is employed in a private sector, 2.5% - state sector, 0.2% - armed forces, 1.0% - academic/teaching; 1.1% - self-employed, 19.6% unemployed, 61.1% - students and at the same time unemployed (5.1% - unreported).
- ✓ Place of living– 50% live in a large city, 19.3% - town, 28.5% - village (2.2% - unreported).

Procedure

922 individuals participated in the questionnaire standardization. The participants filled in questionnaires individually or in groups. The standard verbal instruction - provided the information about research goal, questionnaire and instruction how to fill in questionnaire - was read to participants. The standard instruction was also written at the beginning of the questionnaire.

Research instrument

Trait Emotional Intelligence Questionnaire (TEIQue v 1.5) (Petrides, K. 2009) is a self- report inventory that covers trait EI sampling domains. It comprises 153 items, measuring 15 distinct facets, 4 factors, and global TEI[3]:

Facets :	High scorers view themselves as. . .
1. Adaptability	. . .flexible and willing to adapt to new conditions
2. Assertiveness	. . .forthright, frank, and willing to stand up for their rights
3. Emotion expression	. . .capable of communicating their feelings to others
4. Emotion management (others)	. . .capable of influencing other people's feelings
5. Emotion perception (self and others)	. . .clear about their own and other people's feelings
6. Emotion regulation	. . .capable of controlling their emotions
7. Impulsiveness (low)	. . .reflective and less likely to give in to their urges
8. Relationships	. . .capable of maintaining fulfilling personal relationships
9. Self-esteem	. . .successful and self-confident
10. Self-motivation	. . .driven and unlikely to give up in the face of adversity

[3] Interpreting subscale scores are extracted from *Psychometric Properties of the Trait Emotional Intelligence Questionnaire* (TEIQue) (Petrides, 2009) in Stough, Saklofske, Parker, 2009) *Assessing Emotional Intelligence: Theory, Research, and Applications*

11. Social awareness	. . .accomplished networkers with superior social skills
12. Stress management	. . .capable of withstanding pressure and regulating stress
13. Trait empathy	. . .capable of taking someone else's perspective
14. Trait happiness	. . .cheerful and satisfied with their lives
15. Trait optimism	. . .confident and likely to ''look on the bright side'' of life

Factors:

1.Well-being	. . . generalized sense of well-being, extending from past achievements to future expectations
2. Self-control	. . . a degree of control over individuals urges and desires
3. Emotionality	. . . belief of having a wide range of emotion-related skills
4. Sociability	. . . successful social relationships and social influence skills

5.2. Relation between EI, Coping and PTSD

Research participants

200 internally displaced persons participated in the study. Description of sample:

- ✓ Gender – 100 male da 100 female;
- ✓ Age - participants age varied from 17 to 70 (M=38.15, St=14.70)[4];
- ✓ Education - 38.0% of participants are with secondary education, 33.0% - with higher education, 8% of participants are with incomplete secondary education, 16.5% with collage education and 4.5% of them are students;
- ✓ Marital status - 61.5% of participants are married, 30.0% - single, 5.5% - divorced, 3.0% - widow;
- ✓ Place of Living - 50% of participants live in so called IDP new Settlements (small houses or cottages that government built for IDPs) and 50% live in IDPs Collective Centers (some abandon old buildings). They came from different Georgian villages from Shida Kartli;

[4]Age groups - participants were selected equally from four age groups: (1) from – 17 to 24; (2) from 25 to 35; (3) from 36 to 45; (4) 45 and up.

✓ Occupation - 90% of participants are unemployed, 3.5% works at state sectors, 3.0% at private sector, 2.5% - academic/teaching, 1.0% armed forces

Procedure

The questionnaires were administered individually at the living place of internally displaced persons. The standard instruction was read to participants: "I'm conducting the survey about internally displaced persons to study emotional state and coping strategies used by IDPs to deal with stress. Let me ask you several questions. It will take around forty five minutes or an hour. Participation is volunteered and you can quit the survey any time you like without any explanation. All your answers will be confidential. Your name will not be written anywhere. Your participation is very important and we really appreciate that." 200 IDPs who volunteered participated in the study.

Research instruments

(1) EMOTIONAL INTELLIGANCE

The theoretical framework. The theoretical framework for the study is Trait Emotional Intelligence model. According this model emotional intelligence is "a constellation of emotion-related self-perceptions located at the lower levels of personality" (Petrides & Furnham, 2001). An alternative label for the same construct is *trait emotional self-efficacy*.

The Measurement. Trait Emotional Intelligence Questionnaire (TEIQue v 1.5) (Petrides, 2009). This is a self- report questionnaire and measures 15 facets of emotional intelligence.[5]

(2) COPING

The theoretical framework. The theoretical framework for given research is cognitive theory of coping by Lazarus and Folkman (1984). According this theory coping is a dynamic process, the specificity of which is defined not only by the situation but also by the stage of the conflict development between the subject and the environment. According to this theory, stress is defined as an interaction between an individual and the environment, where the environment is perceived by him or her as a something

[5] Description of TEQue facets and factors is provided in previous section.

threatening to his/her well-being. While shaping this kind of relationship the central role is attributed to the concept of coping.

The Measurement . The measurement of coping in presented study is self-report questionnaire *The Ways of Coping* by Lazarus and Folkman (1988). The WAYS can assess and identify thoughts and actions and feelings that individuals use to cope with stressful encounters. There are eight coping factors measured by *The Ways of Coping*[6]*:*

1. Confrontive Coping — aggressive efforts to alter the situation and some degree of hostility and risk-taking.
2. Distancing — cognitive efforts to detach oneself and to minimize the significance of the situation.
3. Self-Controlling — efforts to regulate one's feelings and actions.
4. Seeking Social Support — efforts to seek informational support, tangible support, and emotional support
5. Accepting Responsibility — acknowledges one's own role in the problem with a concomitant theme of trying to put things right.
6. Escape-Avoidance — wishful thinking and behavioral efforts to escape or avoid the problem.
7. Planful Problem Solving — deliberate problem-focused efforts to alter the situation, coupled with an analytic approach to solving the problem.
8. Positive Reappraisal — efforts to create positive meaning by focusing on personal growth. It also has a religious dimension.

[6] The internal consistencies for Coping questionnaire in our sample are as follows: (1) Confrontive coping (6 items; $\alpha = .60$); (2) Distancing (6 items; $\alpha = .60$); (3) Self-Controlling (7 items; $\alpha = .70$); (4) Seeking Social Support (6 items; $\alpha = .70$); (5) Accepting Responsibility (4 items; $\alpha = .60$); (6) Escape-Avoidance (8 items; $\alpha = .60$); (7) Planful Problem Solving (6 items; $\alpha = .80$); (8) Positive Reappraisal (7 items; $\alpha = .70$).

(3) SHORT QUESTIONNAIRE ASSESSING TRAUMA EXPOSURE AND SPECIFICITY

The questionnaire blocks are as follows:

- ✓ Demographic information (Gender, age, education, marital status etc);
- ✓ Changes in the life (changes according the personal or professional life)
- ✓ Health – self-perception of psychical health condition
- ✓ Economic state – self-perception of current, past and future conditions of economical state.
- ✓ Stressful situations characteristics
  - trauma exposure (number of days spent in an armed conflict zone)
  - trauma specificity (death of family members)

(4) TRAUMA INFLUENCE AND POST TRAUMTIC STRESS SYMPTOMS

The theoretical/clinical approach. According DSM-IV there are three main symptom groups of post traumatic stress: 1) Re-experience of traumatic event; 2) Avoidance; 3) Hyper arousal.

The Measurement. The measurement of post traumatic symptoms is *The Impact of event Scale -revised (IES-R)* (Weiss & Marmar, 1997). It is a self-report measure designed to assess current subjective distress for any specific life event and taps three subscales (Horowitz, Wilner, & Alvarez, 1979): (1) Avoidance - efforts to avoid talking, thinking and having feelings about the traumatic event and to avoid any reminders of the event *("I tried not to think about it");* (2) Intrusion – unpleasant images, thoughts about trauma, when the traumatic experience comes back to mind. "Flashbacks" *("I thought about it when I didn't mean to");* (3) Hyper arousal - physical changes that make the body react as if danger is still present *("I had trouble falling asleep").*[7]

[7] The internal consistencies for the questionnaire in our sample are as follows: (1) Avoidance (8 items; α = .74); (2) Intrusion (8 items; α = .74); (3) Hyper arousal (6 items; α = .83); (4) Global PTSD index (3 scales; α = .84).

CHAPTER 6. RESULTS

6.1. Psychometric analysis

1. Factor analysis – principle axis Analysis

TEIQues structure is 15-4-1 not 153-14-1 (Petrides, 2009), as the author agree with Teng and Bernstain (1989) that the factor analysis of an individual item is problematic due to unreliability, especially, when the distribution is not normal. 15 facets tap the TEI domains but don't represent the factors in the statistical sense. Accordingly, author applies the principle axis analysis, we did the same. A principle axis factoring, based on the Scree plot and Kaiser criterion four factors extracted and rotated to simple structure via the Promax algorithm with the Kappa parameter set to 4 (eigenvalues for the first six factors were 5.34, 1.62, 1.24, 1.16, 0.90, 0.60).

The four factors collectively explain 49.88% of the variance in the 15 facets. All facets were represented in TIE factor space, with an average communality .51. The best represented facets were happiness (h^2 = .70), optimism (h^2 = .69), Stress management (h^2 = .68), Social awareness (h^2 = .64); the least well represented facets are empathy (h^2 = .30), adaptation (h^2 = .32) emotion perception (h^2 = .42).

Table N 1. Factor Pattern Matrix for the 15 TEQue Facets

	Sociability	Emotionality	Self-control	Well-being
Assertiveness	.837			
Emotion management	.648			
Social awareness	.565			
Self -esteem	.444			
Relationships		.623		
Trait Empathy		.616		
Emotion perception	.	.530		
Self- motivation		.499	322	
Impulsiveness (low)		.480	.424	
Emotion Expression	.	.458		
Stress management			.805	
Emotion regulation			.715	
Adaptability			.300	
Trait optimism				.834
Trait happiness				.829

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization.

Georgian version of TEQue replicates four factor structure of original version with small exception factor loading point of view. Specifically, (1) Self-motivation facets – in Georgian version loads on emotionality factor, in UK verson - on self-control; (2) Impulsiveness – in the Georgian version of the questionnaire loads on Emotionallity and in original version – on self-control factor. Both factors have "secondary" loading on self –control factor as it is in original version; (3) Self-esteem - in Georgian version it works for Sociability factor unlike the original version where the facets loads on well-being scale and this is the largest difference in factor loading point of view.

Table N 2. Factor Pattern Matrix for the 15 TEQue Facets for Georgian and UK versions

	Sociability		Emotionality		Self-control		Well-being	
	Geo	UK	Geo	UK	Geo	UK	Geo	UK
Assertiveness	.837	.724						
Emotion management	.648	.694						
Social awareness	.565	.654						
Self -esteem	.444	.419						.350
Relationships			.623	.595				
Trait Empathy			.616	.638				
Emotion perception	.		.530	.680				
Self- motivation			.499		322	.380		
Impulsiveness (low)			.480		.424	.618		
Emotion Expression	.		.458	.597				
Stress management					.805	.726		
Emotion regulation					.715	.859		
Adaptability					.300	.418		
Trait optimism							.834	7.41
Trait happiness							.829	.923

2. TEIQues factors and facets intercorrelations

The four factors were intercorrelated. Table 3 represents the intercorrelation between the main factors of TEIQue.

Table N 3. TEIQue factor intercorrelations

	Well-being	Self_control	Emotionality	Sociability
Self_control	.375 **	-		
Emotionality	.527 **	.381 **	-	
Sociability	.519 **	.297 **	.499 **	-
Well-being	-			

** $p \leq .01$; * $p \leq .05$

Intercorrelations between the TEIQue facets can be seen in Table 4.

Table N 4. TEIQue facet intercorrelations

	Self-esteem	Emotion expression	Motivation	Emotion regulation	Trait happiness	Empathy	Social awareness	Impulsiveness	Emotion perception	Stress management	Emotion management	Trait Optimism	Relationships	Adaptability	Assertiveness
Self-esteem	-														
Emotion expression	.375**	-													
Motivation	.391**	.297**	-												
Emotion regulation	.245**	.100**	.262**	-											
Trait happiness	.418**	.342**	.213**	.189**	-										
Empathy	.215**	.286**	.223**	.108**	.233**	-									
Social awareness	.566**	.478**	.383**	.253**	.392**	.355**	-								
Impulsiveness	.266**	.096**	.478**	.332**	.080*	.221**	.258**	-							
Emotion perception	.396**	.462**	.331**	.277**	.292**	.399**	.408**	.319**	-						
Stress management	.382**	.191**	.411**	.595**	.303**	.140**	.403**	.388**	.300**	-					
Emotion management	.402**	.341**	.077*	.178**	.331**	.328**	.528**	.073*	.361**	.190**	-				
Trait Optimism	.384**	.353**	.250**	.248**	.699**	.230**	.334**	.165**	.268**	.356**	.319**	-			
Relationships	.361**	.382**	.432**	.232**	.361**	.326**	.428**	.363**	.371**	.393**	.180**	.363**	-		
Adaptability	.351**	.332**	.265**	.377**	.385**	.181**	.382**	.155**	.358**	.391**	.318**	.408**	.275**	-	
Assertiveness	.437**	.280**	.161**	.143**	.226**	0.017	.451**	0.04	.238**	.202**	.440**	.189**	.065*	.255**	-

** $p \leq .01$; * $p \leq .05$

3. Reliability

Internal consistency

The widest spread statistic for assessing the reliability of scale is Cronbach's α (alpha). It is commonly used as a measure of the internal consistency or reliability. According the Peterson (1994) the recommended minimum significance level for Cronbach's α is .7

It can be seen that TEIQue variables have adequate internal consistency (Table 5).

Table N 5. Descriptives and internal consistencies For the TEQue variables

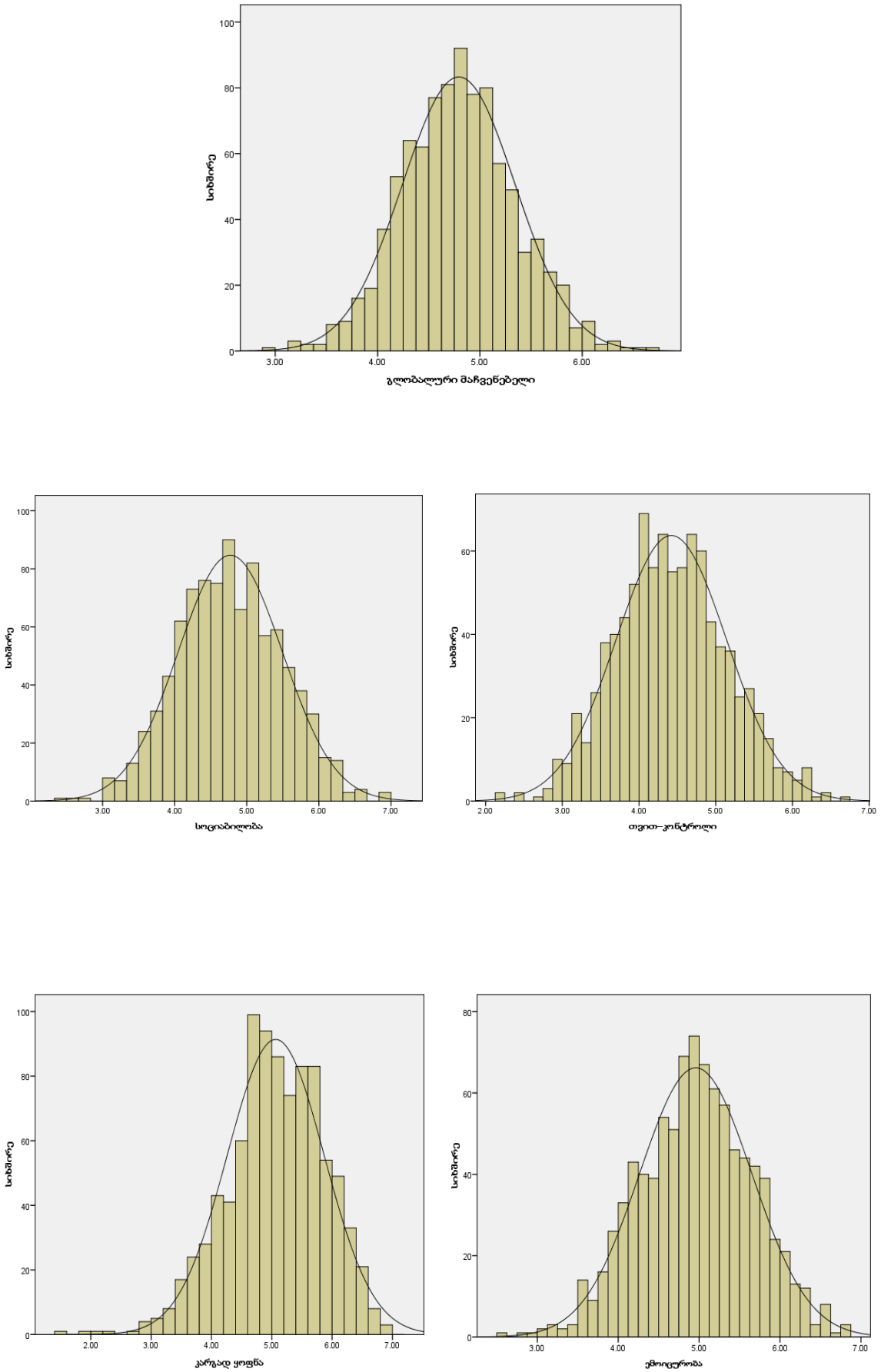
	M	SD	Cronbach's a	No. of	Skewness	Kurtosis
Adaptability	4.45	0.93	.68	9	-.294	.240
Assertiveness	4.49	0.94	.62	9	-.091	.012
Emotion expression	4.55	1.19	.81	10	-.120	-.509
Emotion	4.92	0.92	.67	9	-.067	-.297
Emotion perception	4.81	0.95	.74	10	-.227	-.131
Emotion regulation	4.32	0.90	.72	12	-.008	-.229
Impulsiveness (low)	4.54	0.93	.63	9	-.168	-.146
Relationships	5.31	0.80	.60	9	-.278	-.147
Self-esteem	5.04	0.84	.71	11	-.293	.006
Motivation	4.85	0.88	.66	10	-.133	-.241
Social awareness	4.90	0.84	.70	11	-.215	.009
Stress management	4.40	0.91	.64	10	-.101	-.252
Empathy	5.16	0.86	.64	9	-.284	-.087
Trait happiness	5.06	1.03	.77	8	-.505	.122
Trait Optimism	5.09	1.06	.77	8	-.487	.115
Emotionality	4.95	0.69	.69	4 scale	-.079	-.125
Well-being	5.06	0.80	.82	3 scale	-.427	411
Sociability	4.77	0.72	.78	3 scale	.037	-.193
Self_control	4.42	0.72	.71	3 scale	.114	-.111
Global TEI	4.7	0.55	.87	15 scale	.077	.113

** $p \leq .01$; * $p \leq .05$

4. Distribution of the Global and TEIQue factor scores

TEIQue Global scores were normally distributed (KS (922) = .20, *p*s = .20). The four main TEIQue factors were also normally distributed: (1) emotionality (KS (922) = .20, *p*s = .20); (2) Self-control (KS = .20, *p*s = .20); (3) well-being (KS (922)= .20, *p*s = .05) and sociability (KS(922) = .20, *p*s = .20).

Figure 1 **Distribution of Global EI and factor scores**



5. Gender differences

There was no gender difference in global TEI scores, but findings revealed significant gender differences in TEI factors and facets. Means and standard deviations, with *t* statistic and Cronbach's alpha, for 15 facets, 4 scores and global trait EI score can be seen in Table N6 .

Table N 6. Descriptives and Internal Consistencies For the TEQue Variables Broken Down Across Gender

	Female (n = 655)			**Male** (n = 267)			
	M	**SD**	**α**	**M**	**SD**	**α**	**t**
Adaptability	4.45	0.93	.68	4.48	0.93	.69	0.46
Assertiveness	4.40	0.95	.63	4.71	0.86	.60	4.45 **
Emotion expression	4.55	1.23	.82	4.58	1.06	.78	0.41
Emotion management	4.92	0.93	.67	4.95	0.91	.67	0.39
Emotion perception	4.81	0.97	.74	4.82	0.92	.74	0.13
Emotion regulation	4.25	0.91	.72	4.52	0.83	.67	4.23 **
Impulsiveness (low)	4.55	0.92	.63	4.52	0.96	.66	-0.37
Relationships	5.35	0.80	.60	5.21	0.80	.60	-2.33 *
Self-esteem	5.05	0.85	.71	5.03	0.84	.72	0.40
Motivation	4.84	0.89	.67	4.89	0.84	.64	0.80
Social awareness	4.88	0.85	.71	4.97	0.81	.69	1.38
Stress management	4.32	0.91	.64	4.63	0.86	.61	4.79 **
Empathy	5.23	0.86	.65	4.96	0.81	.61	-4.38 **
Trait happiness	5.15	1.04	.78	4.84	0.98	.72	-4.09 **
Trait Optimism	5.19	1.05	.77	4.85	1.05	.75	-4.45 **
Well-being	5.13	0.81	.76	4.91	0.78	.75	-3.83 **
Self-control	4.37	0.72	.69	4.56	0.70	.71	3.59 **
Emotionality	4.98	0.71	.70	4.89	0.65	.69	-1.80
Sociability	4.73	0.73	.72	4.87	0.70	.74	2.61 *
Global TEI	4.80	0.55	.86	4.80	0.55	.88	0.04

** $p \leq .01$; * $p \leq .05$

5. Difference between age groups

TEIQue scores were relatively independent of age but there was significant difference in some TEI facets and factors (Table 7). Participants were divided into four groups according their age: (1) from 17 to 25; (2) from 26 to 35; (3) from 36 to 45; (4) from 46 and up.

Table N7. Descriptives and internal consistencies for the TEQue variables broken down across age groups

	I		II		III		IV		
	M	SD	M	SD	M	SD	S M	SD	F
Self-esteem	5.02	0.87	5.27	0.82	5.11	0.74	4.99	0.70	2.15
Emotion expression	4.52	1.25	4.74	1.04	4.69	0.94	4.58	0.86	1.17
Motivation	4.68	0.86	5.31	0.68	5.43	0.67	5.46	0.68	42.70 **
Emotion regulation	4.31	0.91	4.36	0.78	4.40	0.96	4.42	0.87	0.52
Trait happiness	5.16	1.04	5.07	0.94	4.68	0.90	4.42	0.91	15.01 **
Empathy	5.15	0.88	5.13	0.83	5.20	0.77	5.17	0.75	0.09
Social awareness	4.86	0.86	5.05	0.82	5.05	0.71	5.02	0.78	2.65
Impulsiveness (low)	4.46	0.94	4.59	0.91	4.89	0.76	4.84	0.90	7.99 **
Emotion perception	4.80	0.97	4.84	0.92	4.91	0.90	4.79	0.88	0.36
Stress management	4.34	0.91	4.66	0.83	4.57	0.87	4.71	0.84	6.88 **
Emotion management	5.07	0.90	4.70	0.94	4.46	0.80	4.31	0.75	25.72
Trait Optimism	5.19	1.05	4.98	1.00	4.74	0.93	4.64	1.11	9.71 **
Relationships	5.26	0.80	5.51	0.80	5.48	0.73	5.49	0.85	4.90 **
Adaptability	4.51	0.92	4.54	0.81	4.24	1.03	4.21	0.95	3.96 *
Assertiveness	4.55	0.96	4.59	0.86	4.17	0.86	4.09	0.78	8.53 **
Well-being	5.12	0.82	5.10	0.76	4.84	0.70	4.68	0.69	8.57 **
Self-control	4.37	0.73	4.54	0.61	4.62	0.68	4.65	0.66	6.40 **
Emotionality	4.93	0.71	5.05	0.68	5.07	0.63	5.01	0.59	1.61
Sociability	4.82	0.73	4.78	0.74	4.56	0.63	4.47	0.60	7.53 **
Global TEI	4.79	0.56	4.89	0.55	4.80	0.51	4.74	0.46	0.92

** $p \leq .01$; * $p \leq .05$

6.2. Relation between IE, Coping and PTSD

(1) Relation between EI and PTSD

(a) Correlation analysis - The correlation analysis (Pearson *r*)[8] showed the there is correlation between global EI score , TEI factors , facets and PTSD (Table N8).

Table N8. Correlation between PTSD and TEIQue variables

	Avoidance	Intrusion	Hyper arousal	PTSD
Self-esteem	.086	.021	-.004	.036
Emotion expression	-.146*	-.103	-.140*	-.148*
Motivation	.055	.047	-.011	.033
Emotion regulation	-.067	-.333**	-.395**	-.317**
Trait happiness	-.057	-.212**	-.196**	-.184**
Empathy	-.045	.011	-.053	-.032
Social awareness	-.048	-.003	-.012	-.023
Impulsiveness (low)	-.033	.007	-.075	-.039
Emotion perception	.018	.022	-.031	.002
Stress management	-.044	-.238**	-.264**	-.218**
Emotion management	-.137	-.061	-.131	-.124
Trait Optimism	-.015	-.194**	-.143*	-.141*
Relationships	.025	.040	-.020	.016
Adaptability	-.055	-.220**	-.162*	-.173*
Assertiveness	-.106	-.185**	-.217**	-.199**
Well-being	-.002	-.173*	-.152*	-.132
Self-control	-.061	-.237**	-.310**	-.242**
Emotionality	-.054	-.015	-.085	-.059
Sociability	-.123	-.111	-.158*	-.150*
Global TEI	-.065	-.160**	-.205**	-.170*

** $p \leq .01$; * $p \leq .05$

[8] From *r* =.10 to *r* =.29 or from *r* = -.10 to *r* = -.29 weak (positive/negative) correlation between variables

From *r* = .30 to *r* = .49 or from *r* = -.30 to *r* = -.49 moderate (positive/negative) correlation between variables

From *r* =.50 to *r* = 1.0 or from *r* = - 50 to *r* = -1.0 strong (positive/negative) correlation between variables

(b) Regression

- Global TEI

Standard multiple regression showed that Emotional intelligence global score explains 2.9%-of variability (R^2_{ADJ}=.024, F(1,198)=5.88, p<.05) and is a predictor for PTSD (ß = .17, p<.05).

- TEI factors

EI 4 factors combination explains 8.3% of variability (R^2_{ADJ}=.065, F(4,195)=8.20, p<.000) and only Self –esteem factor is the predictor for PSTD (ß = -.28, p<.01)

- TEI facets

EI 15 facets explains 21.6% of variability (R^2_{ADJ} = .152, F(15,184) = 3.37, p < .001) Self-esteem (ß = .22, p<.01) and emotion regulation (ß = -.25, p<.01) were the predictors for PTSD.

(2) Relation between EI and Coping

(a) Correlation analysis

The correlation analysis (Pearson *r*) showed the there is correlation between global EI score , TEI factors , facets and Coping strategies (Table N9).

Table N 9. Correlation between Coping and TEIQue variables

	Confrontive Coping	Distansing	Self-control	Seeking Soc. Support	Accepting Responsibility	Avoidance	Planful Problem Solving	Positive Reinterpretation	Negative Coping	Positive Coping
Self-esteem	.015	-.186**	.094	.049	.100	-.367**	.253**	.085	-.302**	.302**
Emotion expression	.096	-.148*	.047	.059	-.034	-.335**	.147*	.183**	-.227**	.227**
Motivation	-.022	-.173*	.170*	-.070	.159*	-.414**	.346**	.068	-.300**	.300**
Emotion regulation	-.031	-.150*	.225**	-.128	.083	-.322**	.229**	.164*	-.202**	.202**
Trait happiness	-.029	-.081	.021	.079	-.158*	-.085	.051	.195**	-.121	.121
Empathy	-.005	-.169*	.064	.007	.008	-.157*	.242**	.048	-.192**	.192**
Social awareness	.071	-.211**	.021	.080	.149*	-.366**	.314**	-.018	-.326**	.326**
Impulsiveness (low)	-.116	-.122	.190**	-.095	.171*	-.261**	.250**	.051	-.218**	.218**
Emotion perception	.065	-.192**	.074	-.017	.043	-.320**	.310**	.078	-.257**	.257**
Stress management	-.111	-.198**	.222**	-.016	.065	-.304**	.303**	.104	-.281**	.281**
Emotion management	.137	-.193**	-.036	.011	.068	-.202**	.160*	.093	-.204**	.204**
Trait Optimism	-.040	-.029	.013	.044	-.101	-.174*	.070	.204**	-.145*	.145*
Relationships	-.052	-.200**	.053	.037	.016	-.364**	.327**	.220**	-.377**	.377**
Adaptability	.109	-.107	-.029	-.014	.018	-.226**	.116	.149*	-.165*	.165*
Assertiveness	.218**	-.206**	-.084	.073	-.036	-.144*	.119	.079	-.154*	.154*
Well-being	-.026	-.112	.047	.071	-.080	-.243**	.142*	.207**	.222**	-.222**
Self-control	-.110	-.199**	.270**	-.102	.136	-.376**	.331**	.134	.297**	-.297**
Emotionality	.040	-.236**	.079	.030	.009	-.399**	.338**	.180*	.351**	-.351**
Sociability	.181*	-.248**	-.046	.065	.064	-.276**	.229**	.069	.268**	-.268**
Global TEI	.035	-.246**	.107	.011	.049	-.422**	.333**	.188**	.361**	-.361**

** $p \leq .01$; * $p \leq .05$

(b) Regression

- Global TEI

Emotional Intelligence global score explains 13% of variability (R^2ADJ=12.6, F(1,199)=29.68, p<.001) and is a predictor for positive coping strategies (ß = .36, p<.001). Global EI score predicts the following strategies: distancing (ß = -.25, p<.001); Avoidance (ß = -.42, p<.001); Planful Problem Solving (ß = .33, p<.001); Positive reinterpretation (ß = .18, p<.01);

- TEI factors

TEI factors combination explains 14.4% of variability (R^2_{ADJ}=12.6, F(4,195)=8.20, p<.001) and from four 4 main factors only Emotionality (ß = .23, p<.01) and self-control (ß = .15, p=.05) is a predictor for positive coping.

TEI factor predictive values for specific coping strategies:

- Self-control is predictor for: Planful Problem Soliving coping (ß = .24, p=.05), Avoidance (ß = -.23, p<.01), Accepting resopnsiblity (ß = .23, p=.05), Seeking Social Support (ß = -.19, p<.01), Self-control (ß = .33, p<.01), Confrontive Coping (ß = -.17, p<.05).
- Emotionality is predictor for: Planful Problem Soliving coping(ß = .24, p<.05) and Avoidance (ß = -.26, p<.01).
- Sociability is a predictor for: Confrontive Coping (ß=-.32, p<.01) and Distancing (ß = -.21, p<.05).

- TEI facets:

EI 15 facets explains 19.6% of variability (R^2_{ADJ}= 13.1, F(15,184) = 2.99, p < .001) and the only facet (relationship) is the predictor for positive coping (ß = .25, p<.01).

TEI facet redictive values for specific coping strategies:

- Assertiveness is a predictor for confrontive coping (ß = .22, p<.05)
- Emotional regulation is a predictor for avoidance (ß = -.21, p<.05)
- Social awareness is a predictor for seeking social support (ß = .35, p<.01) and confrontive coping (ß = .27, p<.05),
- Trait optimism is a predictor for positive reinterpretation (ß = .18, p<.05).
- For sel-control coping strategy the predictors are: motivation (ß = .22, p<.05), self-esteem (ß = .23, p<.05) and emotion expression (ß = .20, p<.01)

(3) **Relation between Coping and PTSD**

(a) Correlation analysis

The correlation analysis (Pearson *r*) showed the there is correlation between coping and PTSD (Table N10).

Table N 10. Correlation between Coping and PTSD

	Avoidance	Intrusion	Hyper arousal	PTSD
Negative Coping	.117	-.057	.033	.031
Positive Coping	-.117	.057	-.033	-.031
Confrontive Coping	-.062	-.056	-.024	-.053
Distancing	.198**	-.014	.101	.103
self-controling	-.060	-.055	-.164*	-.109
Seeking Social Support	-.077	.044	.016	-.002
Accepting responsibility	-.055	.097	.067	.048
Avoidance	.061	.035	.106	.078
Planful problem solving	.039	.125	.096	.352**
Positive reinterpretation	-.095	-.174*	-.231**	-.196**

** $p \leq .01$; * $p \leq .05$

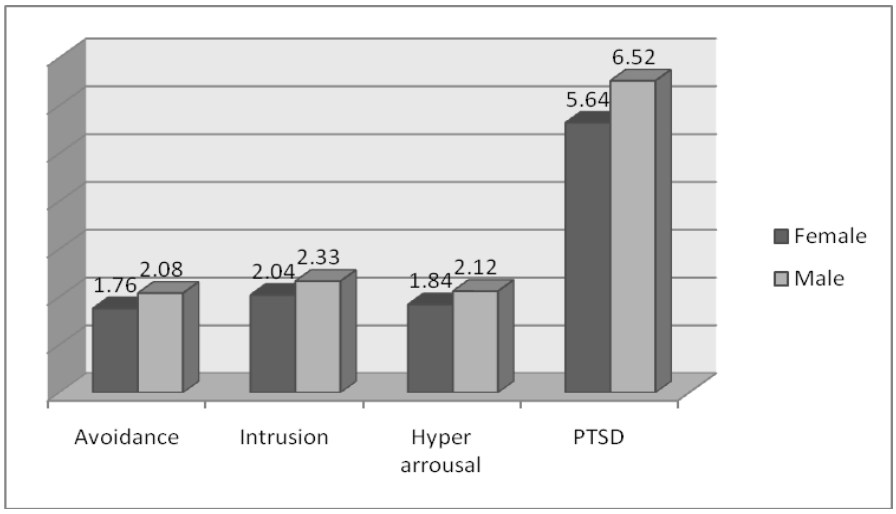
(b) Regression

Standard multiple regression showed that coping is a predictor for PTSD (R^2=.07, $F(7,192)=2.21$, $p < .05$). Specifically, positive reinterpretation (ß = -.303, $p = .00$) and planful problem solving (ß = .22, $p < .05$) have a predictive value for PTSD.

(4) Gender difference in PTSD

The result revealed that traumatic event had a greater impact on females than males (Figure N5), the difference between mean scores were statistically significant for all subscales and for total PTSD score.

Figure N 2. Gender difference in PTSD



(5) Relation between trauma character and PTSD

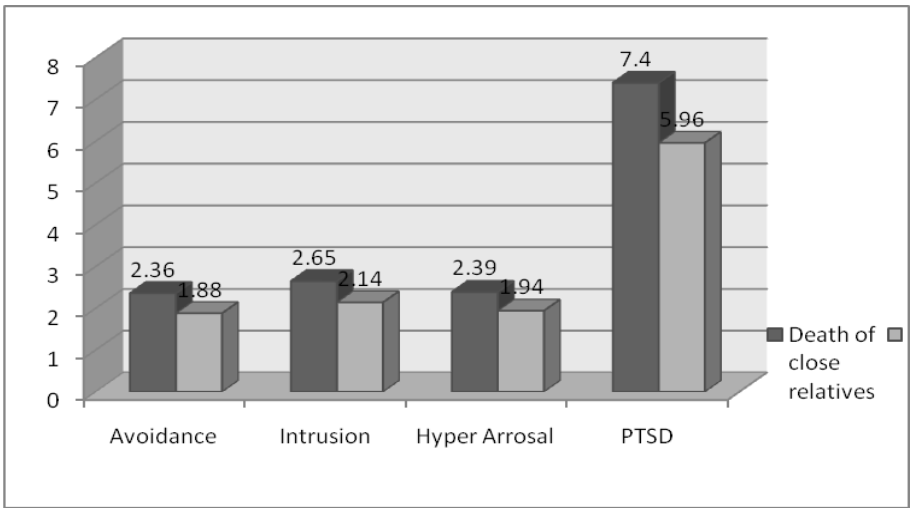
- Trauma exposure – number of days spent in a war situation.

Results revealed that number of days spent in a war situation is not correlatied with PSTD severity, but high level of trauma exposure (number of days spent in a war situation) was negatively associated with utilization of Escape _ avoidance (Pearson's r (200) = - .18, p= .00) and positive reappraisal coping strategy (Pearson's r (200) = - .16, p= .02).

- Trauma specificity

Individuals who experienced death of family members report more PTSD symptoms (M=7.19) then those ones who had not such experience (M=5.97) t= -2.47 df=198 p=0.01. The differences were statistically significant for all PTSD scales (Figure N8)

Figure N 3 PTSD differences according the trauma specificity



(6) Multiple hierarchical regression

The goal of the study is to investigate if EI predicts Post Traumatic Stress, but correlation analysis revealed that PTSD correlates with different variable: age, coping and EI. So, that should be logical to examine controlling that variables if EI predicts PTSD

(a) Multiple hierarchical regression showed that global EI score can predict PTSD after controlling the following variables: age and positive/negative coping.

Results showed that this combination of factors explains 5.8% of variability (R^2_{ADJ} = .04, F (1,196)=5.42, p<.05). EI global score has the higher predictive validity (ß = -.173, p = .05) than age (ß = .167, p = .05) and controlling these variables coping doesn't have statistically significant predictive value

(b) multiple hierarchical regression to define TEI facets predictive value for PTSD controlling the age and coping, showed that factors combination (TEI facets, age and coping strategies) explains 27.3% of variability (R^2_{ADJ} = .18, F(8,15)=2.96 p<.001), controlling age and coping variables, only TEI facets explain 18.4% of variability (R^2_{ADJ} = .18, F(8,15)=2.96 p<.001) and the model is statistically significant (F(23,176)=2.87, p<.001).

The only facet of TEI – emotion regulation (ß = -.24, p = .007) have the predictive value for PTSD and that value was higher than age (ß = .17, p = .04) and planful problem solving (ß = .20, p = .05), which was the only coping strategy that had a statistically significant predictive value for PTSD.

(c) multiple hierarchical regression to define TEI factors predictive value for PTSD controlling the age and coping, showed that factors combination (TEI factors, Coping and age) explains 18.7% of variability (R^2_{ADJ} = .13, F(8,4)=2.96 p<.001). controlling age and coping TEI factor combination explains 9.8% of variability (R^2_{ADJ} =.18, F(8,15)=2.96 p<.001) and the model is statistically significant (F(12,187)= 3.58, p<.001).

Only self-control factor (ß = -.41, p = .000) had a predictive value for PTSD which was higher than predictive value of age (ß = .20, p = .001) and planful problem solving (the only strategy that had a statistically significant predictive value).

CHAPTER 7. DISCUSSION

7.1. TEIQue adaptation on Georgian population

Georgian version of TEQue virtually duplicates four factor structure of British version (Sociability, Emotionality, Self-control, Well-being) (Petrides, 2009) with some exception factor loading point of view. Specifically, (1) Self-motivation facet – in Georgian version loads on emotionality factor, in the original version - on self-control; (2) Impulsiveness – in the Georgian version of the questionnaire loads on Emotionality and in original version – on self-control factor, although the facet has the secondary loading on self-control factor. It should be mentioned that these both factors have "secondary" loading on self –control factor as it is in original version; (3) Self-esteem - in Georgian version it works for Sociability factor unlike the original version where the facets loads on well-being scale and this is the largest difference in factor loading point of view.

It's quite normal for self-esteem facet to work for well-being scale but for Georgian population it works for Sociability, maybe that's the sample case. Our sample is too young (M=25.22, SD=11.47, Min=17, Max=70) and it's possible that for young generation that self-esteem is focused on social sides of life. We rechecked the result on the sample of second part of our study where all age (M=38.15, St=14.70) groups are equally represented and received the same results, but in that case number of participants is to small for Factor analysis and it's impossible to make any conclusion. We can assume that it's Georgian cultural characteristic, in collective culture social assessment is more important for self-esteem then it is in individualistic cultures. Although we can answer on that question when the future researches are conducted

7.2. Relationship between EI, Coping and PTSD

Regression analysis showed that EI global score as well as EI facets and factors have predictive value for PTSD. Theoretically it's very logical and expected result, if rely on EI models (Bar-On, 2006; Goleman, 1998; Mayer, & Salovey 1997; Petrides, & Furnham, 2001), actually any of these models somehow implicates that individuals with high EI can deal with environment demands effectively and cope with emotional information easily.

From TEI factors the only factor had a predictive value for PTSD was - self-control, which according the trait EI model implicates emotion regulation, resistance with temptations and

stress management. From 15 facets emotional regulation had a predictive value for PTSD. Theoretically it would be logical if the highest predictive value had other facet, e.g. stress management, but it was not like that. We come up to the issue of operational definition, because stress management items in the questionnaire are formulated in that ways that implies how well person deals with pressure or work load more than how well person process emotional information with traumatic content which is the most important for dealing with trauma.

All our participants have the same traumatic experience although with different severity but all of them have lost their houses and became internally displaced in their own country, if we have participants with other traumatic experience which is different with its nature we could compare the results but as it's impossible, we can assume that in that case other EI facet or factor will have predictive value not the emotion regulation. The result again proves our opinion that deferent EI component should have different predictive value for dealing with trauma. And if we could also measure in your study other mental disorders different TEI variable would have predictive value for disorder, but in our case that wasn't possible to assess all those variables so we can do that in our future researches.

Regression Analysis showed that Trait EI is a predictor for coping. Research literature proves that personal factors play important role in coping (Lasazurus, & Folkamn, 1984, Parkes, 1984, 1986). Our study also proves that it's possible to predict coping using personal factors. Although only one factor never determines anything. Using one or another coping strategy in response to situation depends on a range of factors. These factors include personal as well as situational factors: personal traits, cognitive ability, trauma situation specificity, person's life experience or trauma related experience and so on and so on. This list is too long and if EI (the only factor) can explain 13% of variability for positive coping (and this value is higher for TEI facets) I think that it's quite high result for only one factor.

There are many researches about relation of coping with EI (Gohm & Clore, 2002; Gohm et al, 2005 ; Matthews & Zeidner, 2000; Mikolajczak & Lumminet, 2008; Mikolajczak et al., 2006; Mikolajczak, Nelis, Hansenne & Quoidbach, 2008; Petrides, Perez, Gonzalez & Furnham 2007; Ramos et al. 2007; Saklofske, Austin, Galloway & Davidson 2007; Salovey et al. 2002; Salovey et al. 1999,2002) and the results are quite various depending on coping definitions or classification principles, but all of these studies have some common tendency that individuals with high EI prefer using active, positive, problem

focused or effective coping more than passive, emotion focused, negative or maladaptive coping. This tendency was proved by the presented research.

Positive reinterpretation and planful problem solving are predictors for PTSD. It's possible to explain why only these two strategies have predictive value for PTSD. Trauma literature indicates that after traumatic event often takes place reinterpretation of values ("I understand what is the most important thing in my life" and so on), for IDPs - individuals who have experienced war and could survive - quiet normal to reinterpret values and use positive reinterpretation as coping to deal with traumatic experience.

Why planful problem solving and not other strategy - because the study is conducted during the time period when it was the anniversary of war. Trauma literature indicates that this period of time (12-13 months) person needs to grieve a loss. The grief is over and individual begin to think about what she or he could do to continue life. Coping literature says that coping strategies change on different stage of stressful situation, the strategy that is adaptive on the beginning stage of the stressful situation may be maladaptive on the next stage, so one year after trauma, when the grief is overcome, the effective coping that helps individual is to plan and think about what to do. If our research was conducted after one or three months after the war has happened other coping would be effective for dealing with post traumatic stress.

Individuals who experienced death of family members report more PTSD symptoms then those ones who had not such experience, but number of days spent in a war situation was not correlated with PSTD severity. That was logical to assume that as more days persons spent in a war and armed situation the more sever PTSD should be, as individuals have more traumatic events experienced but that was not case - the indicator was wrong. The traumatic event classification divides events in two types: events that are abrupt, often lasting a few minutes or a few hours and chronic, repeated, ongoing exposure, PTSD could be developed as a response to both type of event, so, number of encounter with traumatic event is not connected with PSTD severity. Result showed that number of days was just formal indicator of trauma, we should choose more relevant indicator to show connection with PTSD (e.g. was the participant witness of killing someone, was he under bombing or not and etc.). It also should be mentioned that our participants are residents of Georgian villages and that villages from the 90s (after Georgia - Ossetia conflict) have never lived in peace.

CHAPTER 8. CONCLUSIONS

As a conclusion we can resume the psychometric properties of TEIQue: (1) The Georgian version of Trait Emotional Intelligence Questionnaire replicates UK factor structure of TEIQue: Well-being, Emotionality, Sociability, Self-control; (2) Principle axis factoring revealed four main factors explaining 49.88% of the total variance; (3) TEIQue factors and 15 facets reliabilities get recommended significance level; (4) TEIQue global scores as well as main factors were normally distributed; (4) There was no gender difference in global TEI scores, but findings revealed significant gender differences for some TEI factors and facets; (5) TEIQue scores were relatively independent of age but there was significantly difference for some facets and factors.

Resuming psychometric properties we can conclude that the Georgian version of TEIQue may definitely be used for future researches – the culturally universal factor structure, internal consistency, logical correlation with other constructs – gives possibly to make very optimistic prognosis for using TEIQue on a Georgian population.

Resuming the second part of the research we can make a conclusions: (1) TEI is a predictor of PTSD - participants with higher EI scores are less likely to experience PSTD symptoms, TEI components have different predictive value for PTSD. Emotion regulation is the essential for dealing with PSTD symptoms for IPDs. (2) TEI is a predictor for PTSD - participants with higher EI scores are more likely to use positive coping strategies. (3) There is correlation between Coping and PTSD - participants with positive coping strategies are less likely to experience PTSD symptoms. (4) there is correlation between trauma specificity (experience death of family members) - people who experienced death of family members report more PTSD symptoms then those ones who had not such experience and PTSD, but the level of trauma exposure (number of days spent in an armed conflict zone) was not correlated with PTSD severity.

THEORETICAL AND PRACTICAL IMPLICATION. Trait Emotional Intelligence Questionnaire has theoretical as well as practical implication: the adapted questionnaire is a valuable inventory for professionals working in different fields of Psychology (educational, human reassures and clinical psychology). Georgian version of questionnaire gives possibility to involve in international Emotional intelligence research space and to study properties of EI on Georgian population too. EI is relatively new concept and number

of researches is not too large,[9] there is the only published research (Hunt & Evans., 2004), about the relation of EI with PTSD (Stough et al. 2009) but the study is not connected to specific stressful situation and there is no information in the study which components of EI implicates in developing PTSD. So, our assumption that EI should have the predictive value for PTSD was based on EI theories. Accordingly, if study result proves the theory the study has theoretical value too.

The study findings identify personal factors and coping strategies that are effective to deal with trauma.That gives possibility to work out recommendations for developing coping strategy, EI training-modules and psychological service projects for IDPs. As the result shows TEI is a predictor for coping and PTSD, this information is valuable for professionals working on personnel selection for positions that are characterized with high tension and stress (military, police officers, firemen and etc), it is possible to use TEQue together with other inventories for personnel selection.

LIMITATION AND DELIMITATION. Adaptation process has two limits. One is connected with sample - mostly participants are students because of easy accessibility of sample but that's quite common practice to use students as a research sample. The second limit is relation with other inventories - with our study we began that process but in frame of one research it's was impossible, so, that's our future goal.

In case of the second part of the thesis (relation between TEI, coping and PSTD) – it covers only one specific stressful situation, so we can't generalizes findings on other stressful situations as we can't predict which component of TEI implicates to deal with other stressful situation. It's just possible to assume in general that individuals with higher EI will be more likely to cope with any type of trauma effectively, but it also should be mentioned that investigation of other traumatic situation was not our goal.

The second limit is that the sample isn't clinical. If we have clinical sample it would give us possibility with more probability speak about EI predictive value for PTSD, but IDP population is a group who experience potentially traumatic experience and probability of PTSD symptoms is high.

FUTURE RESEARCHES AND RECOMMENDATIONS. It's would be desired to plan researches in two directions: (a) to define EI and its components predictive value for

[9] It should be mentioned that number of resurches on EI is increasing. For 1995 number of publication was around 14, for 2006-2010 it reached to 13000 (Stough et al. (eds.), 2009)

PTSD and coping for different traumatic situations and (b) to investigate EI as a predictor role for other mental disorder (e.g. anxiety, depression) on a clinical sample.

To get the completed final Georgian version of TEQue: (1) it's planned to investigate different type of validity to see connection with other instruments and (2) to get the normative data – tt's planned to cover all age groups (as our sample was young and there was significant differences between the age groups we delayed to make the norms for TEQue for a while).

REFERENCES

American Psychiatric Association (APA). (1994) *Diagnostic and statistical manual of mental disorders (4th ed.).* Washington, DC.

Bar-On, R. &. Parker, J. M., (Eds.), (2000) *Handbook of Emotional Intelligence.* NY: Jossey-Bass.

Bar-On, R. (2006),. The Bar-On model of emotional-social intelligence (ESI). *Psicothema, (18 supl)* pp. 13-25.

Bernstein, I. H., & Teng, G. (1989). Factoring items and factoring scales are different: Spurious evidence for multidimensionality due to item categorization. *Psychological Bulletin, 105*, 467- 477.

Billings A. G., & Moos, R. H. (1984). Coping, stress, and social resources among adults with unipolar depression. *Journal of Personality and Social Psychology. 46,* 877-891.

Burne, D. (1964). Repression-sensitization as a dimension of personality. In B.A.M aher (Ed.), *Progress in experimental personality research, Vol. 1* (pp.169-220). New York: Academic Press.

Crammer, P. (2000). Defense mechanisms in psychology today: Furder processes for adaptation. *Amerikan Psychologist, 55,* 637-646.

Emmerling, R. J., Shanwal, V. K., & Mandal, M. K. (Eds.) (2008). *Emotional intelligence: Theoretical and cultural perspectives.* Nova Science Publishers.

Folkman, S., & Lazarus, R. S. (1985). If It Changes It Must Be a Process: Study of Emotion and Copind During Three Stages of a College Examination. *Journal of Personality and Socail Psychology. 48 (1),* 150-170.

Folkman, S., & Lazarus, R. S.(1988). *Manual for the ways of coping quaestionnaire*. Palo Alto, CA: Consulting Psychologist Press.

Folkman, S., & Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. J. (1986). Dynamics of a Stresful Encounter: Cognitive Appraisal, Coping, and Encounter Outcomes. *Journal of Personality and Socail Psychology. 50 (5),* 992-1003.

Gohm, C. L., & Clore, G. L. (2002). Four emotion traits and their involvement in attributional style, coping, and well-being. *Cognition and Emotion, 16,* 495-518.

Gohm, C. L., Corser, G. C., & Dalsky, D. J. (2005). Emotional intelligence under stress: Useful, unnecessary, or irrelevant? *Journal of Personality and Individual Differences,* 39, 1017-1028.

Goleman, D. (1995). *Emotional intelligence: why it matters more than IQ*. New York: Bantam Books

Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books

Haan, N. (1977) Coping and Defending: Processes of Self Environment Organization. New York: Academic Press.

Hambleton, R. K. (2001). The next generation of the ITC Test translation and adaptation guidelines. *European Journal of Psychological Assessment,17,* 164–172.

Hay Group McClelland Center for Research and Innovation (2005) *Emotional Competence Inventory (ECI) Technical Manual*.

Heszen-Niejodek, I. (1997). Coping style and its role in coping with stressful encounters. *European Psychologist, 2(4),* 342–351.

Horowitz, M., Wilner, N., & Alvarez, W. (1979). Impact of Event Scale: a measure of subjective stress. *Psychosomatic Medicine, 41(3),* 209–218.

Hunt, N., and Evans. D. (2004) Predicting traumatic stress using emotional intelligence. *Behaviour Research and Therapy, 42,* 791–798

Lazarus, R. & Folkam. S. (1988) *The Ways of Coping Scale*. Consulting Psychologists Press

Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal, and coping.* New York: Springer.

Folkman S, Lazarus R S. (1985). If it changes it must be a process: study of emotion and coping during three stages of a college examination. *Journal of Personality and social Psychology*. 48150–170

Matthews, G., & Zeidner, M. (2000). Emotional intelligence, adaptation to stressful encounters, and health outcomes (pp. 459-489). In R. Bar-On, & J. M. Parker (Eds.), *Handbook of Emotional Intelligence.* NY: Jossey-Bass.

Mayer, J. D. & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds). *Emotional Development and Emotional Intelligence: Implications for Educators* (pp. 3-31). New York: Basic Books.

McFarlane, A. C. (1992). Avoidance and intrusion in post-traumatic stress disorder. The *Journal of Nervous and Mental Disease, 180(7),* 439–445.

Mikolajczak, M., & Luminet, O. (2008). Trait emotional intelligence and the cognitive appraisal of stressful events: an exploratory study. *Personality and Individual Differences, 44,* 1445-1453.

Mikolajczak, M., Luminet, O. & Menil, C. (2006). Predicting mental and somatic resistance to stress: the incremental validity of trait emotional intelligence over alexithymia and optimism. *Psicothema, 18 [Special issue on Emotional Intelligence]*, 79-88

Mikolajczak, M., Nelis, D., Hansenne, M., & Quoidbach, J. (2008). If you can regulate sadness, you can probably regulate shame: associations between trait emotional intelligence, emotion regulation and coping efficiency across discrete emotions. *Personality and Individual Differences, 44,* 1356-1368.

Pallant, J. (2003) SPSS *Survival Manual: A Step by Step Guide to Data Analysis.* Philadelhpia: Open University Press.

Parkes, K. R. (1984). Locus of control, cognitive appraisal, and coping in stressful situations. *Journal of Personality and Socail Psychology. 46*. 655-668.

Parkes, K. R. (1986). Coping in stressful episodes: The role of individual differences, environmental factors, and situational characteristics. *Journal of Personality and Socail Psychology. 51 (6),* 1277-1292.

Peterson, R.A. (1994). A meta-analysis of Crobach's alpha. *Journal of consumer Research, 21*, 381-391

Petrides, K. V. & Furnham, A. (2001). Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. *European Journal of Personality, 15,* 425-448

Petrides, K. V., & Furnham, A. (2000). On the dimensional structure of emotional intelligence. *Personality and Individual Differences, 29,* 313–320.

Petrides, K. V., Pérez-González, J. C., & Furnham, A. (2007). On the criterion and incremental validity of trait emotional intelligence. *Cognition and Emotion, 21,* 26-55.

Petrides, K. V., Pita, R., Kokkinaki, F. (2007). The location of trait emotional intelligence in personality factor space. *British Journal of Psychology, 98,* 273-289

Petrides, K. V., Furnham, A., & Mavroveli, S. (2007). Trait emotional intelligence. Moving forward in the field of EI. In G. Matthews, M. Zeidner, & R. Roberts (Eds.), *Emotional intelligence. Knowns and unknowns (Series in affective science).* Oxford: Oxford University Press.

Petrides, K.V. (2009). *TEIQue technical manual*. University College of London

Ramos, N., Fernandez-Berrocal, P., Extremera, N. (2007) Perceived emotional intelligence facilitates cognitive-emotional processes of adaptation to an acute stressor *Cognition & Emotion, 21 (4),* 758 – 772

Regehr, C., Hill, J., & Glancy, G. D. (2000). Individual predictors of traumatic reactions in firefighters. *Journal of Nervous and Mental Disease, 188(6),* 333–339.

Rentoul, R., & Ravenscroft, T. (1993). Managing post-traumatic stress in the emergency services. *Disaster Management, 5(4),* 199–201.

Saklofske, D. H., Austin, E. J., Galloway, J., & Davidson, K. (2007). Individual difference correlates of health-related behaviours: preliminary evidence for links between emotional intelligence and coping. *Personality and Individual Differences, 42,* 491-502

Salovey, P., Bedell, B.T., Detweiler, J.B., & Mayer, J.D. (1999). Coping intelligently: Emotional intelligence and the coping process. In C.R. Snyder (Ed.), *Coping: The psychology of what works* (pp. 141-164). New York: Oxford University Press.

Salovey, P., Stroud, L.R., Woolery, A., & Epel, E.S. (2002). Perceived emotional intelligence, stress reactivity and symptom reports: further explorations using the Trait Meta-Mood Scale. Psychology and Health, 17, 611-627.

Schwarzer, R., & Schwarzer, C. (1996). A Critical Survey of Coping Instruments. In M. Zeidner & N. S. Endler *Handbook of Coping*. New York: Wiley

Stough. C., Saklofske,D.H., Parker, J.D. (2009) Assessing Emotional Intelligence: Theory, Research, and Applications (The Springer Series on Human Exceptionality)

Weiss, D. & Marmar, C. (1997). The Impact of Event Scale -Revised. In J. Wilson & T. Keane (Eds), *Assessing psychological trauma and PTSD*. New York: Guildford.