Psychological features of emotional intelligence of employees of an emergency service

DannaNaurzalina [a]∗, Aliya Tolegenova [b], Aksaule Karabalina [a], Gulmira Bekeshova [c], Ainura Sissenova [c], Gulmira Zhumalieva [c]

[a] K. Zhubanov Aktobe Regional State University, A.Moldagulova Str., Aktobe 030000,Kazakhstan
[b] al-Farabi Kazakh National University, al-Farabi ave.71, Almaty 050038, Kazakhstan
[c] M. Ospanov West Kazakhstan State Medical University, Maresyeva Str. 68, Aktobe 0030019, Kazakhstan

Abstract

EI plays a major role in the most widespread types of coping strategy which helps to reduce the stress. The employees of emergency work are in condition of high anxiety. We investigated psychological aspects of EI and coping strategies in emergency employees' everyday work. Emergency work is considered to be one of the most demanding occupations with significant social, physical and psychological consequences for the well-being of the emergency worker. Purpose of study is an investigation of emotional intelligence and coping strategies in emergency situations emergency employees. In our study, we used the following methods: The Big Five personality test, TMMS (TraitMeta-Mood Scale) questionnaire of Emotional Intelligence, "Ways of coping" questionnaire (Lazarus, 1999). The statistical analysis is conducted with the aid of the SPSS program. Research showed us a significant difference in coping strategies. Emergency employers tend to prefer social coping such as seeking of social support from others. Around 78.4% of participants tend to use maladaptive behavior strategies include dissociation, denial and escape. Attention on emotion (EI) has a significant level of positive correlation ($r_{xy}=0,688**$) with coping strategy denial and escape. Results of the statistical analysis allowed to establish that indicators of emotional intelligence are usually positive correlated with a choice of

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∗ Corresponding author. Tel: +0-000-000-0000; fax: +0-000-000-0000,
E-mail address: dannulya@gmail.com

productive coping-strategy: "positive revaluation", "self-control", "planning of a solution" and negative connected with a number of unproductive coping-strategy: "confrontation", "flight avoiding".

Keywords: Emotional Intelligence, Coping strategy, Stress.

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1. Introduction

Soviet and foreign psychologists conducted research of interrelation emotional and cognitive spheres of mentality, but rather active attention to this problem appeared in the last decade. This question was considered in works of such foreign researchers, as R. Bar-On (Salovey, 1995). Active discussion of problems of emotional intelligence, as "… sets of social and psychological features and abilities of the personality directed on understanding, control and management of emotions: personal and others" occurs also among the Russian researchers: I. N. Andreyeva, M. I. Dyachenko, A. V. Karpov, Lyusin (2004) M. A. Manoylova, A.S.Petrovskaya, V. A. Ponomarenko, N. V. Simbirtseva, A.I. Chebotar, etc. Kazakhstan scientists also engaged in research of emotional intelligence: S. M. Jakupov, A. A. Tolegenova et al (2007).

Coping strategy - is the conscious, rational, adaptive behaviour directed on elimination or psychological overcoming of a critical situation. The Coping is the variable depending on 3 factors – the identity of the subject, a real situation and conditions of social support and can be shown on behavioural, emotional and informative levels of personality functioning. Specifics of overcoming of the personality with a situation are influenced by a sex, age, social experience, belonging to a certain society. The psychological importance of a coping consists in effectively to adapt the person for requirements of a situation, allowing to seize it, to try to avoid or get used to them and thus, to extinguish negative, stressful action of a situation.

Researchers allocate strategies of coping behaviour:

1) Reformative strategy of coping - "the comparison going down" i.e., the person compares himself to the people who are in even more unenviable situation, "the comparison going up" when the person remembers his achievements in other areas, the "grief anticipation" allowing people to be prepared psychologically for possible hard tests.

2) Receptions of the adaptation – a widespread form is identification of the personality with people more successful, with the powerful organizations and associations.

3) Additional methods of self-preservation in situations of difficulties and misfortunes – belong technology of fight against emotional violations, the grindings of sight of the subject caused ineradicable negative events (for example: flight or leaving in a difficult situation).

Apparently, the emotional intelligence plays an essential role in the most widespread types of productive coping-strategies in stress overcoming. It is also important to note that the people having high emotional intelligence objectively come up against critical situations (the conflict, frustration, a stress, crisis) less often. It is connected with that they are capable to make more effective decisions because of the control of own emotions and management of emotions of others. As a rule, people with high rates of emotional intelligence more collected, and act in the situations preceding the critical more productively: often, in time having gathered, having mastered emotions, don't allow, for example, the conflict, approach of the situation involving crisis or a stress.

Coping, Coping strategy – it's that the person does to cope with a stress. The concept unites cognitive, emotional and behavioural strategy which is used to cope with inquiries of ordinary life. The close concept which is widely used and deeply developed at the Russian psychological school — emotional experience (see for example, F. E. Vasilyuk (1984).

The phrase emergency situations (emergency) strongly was included into life and

consciousness of the modern person. It is connected first of all by that the history of development of a terrestrial civilization and the modern world are inseparably linked with an emergency: earthquakes, floods, hurricanes, cold, a heat, the fires, explosions, accidents on production, wars, terrorism, hunger, epidemics, diseases are constant companions of the person. On our planet constantly something blows up, floods, sinks, burns, falls, is damaged, destroyed, thus people are injured and perish. The Emergency Situation (ES) — the situation in a certain territory which developed as a result of accident, a natural hazard, accident, natural or other disaster which can cause or caused, damage to human health or surrounding environment, considerable material losses and violation of conditions of activity of people.

Wrecking in a zone of an emergency situation is characterized by extremely high responsibility for performance of the office debt on rescue of life of people, animal, material values, and objects of economy from destruction in the defeat center. Performance of these major tasks demands high consciousness of a personal responsibility of each member of staff. At the same time, the sense of responsibility shouldn't suppress activity, induce to excessive care, hold down thinking. Fidelity to a professional duty, devotion to sacred business of protection and rescue of people, high self-discipline, absence of fear of the increased responsibility, honesty - those qualities which allow employees of an emergency to be worthy the responsibility of rescuers ennobled on them.

Professional activity of the employee of an emergency (rescuer) proceeds in the conditions demanding the developed self-control of mental states and behaviour. In everyday life and when performing office tasks the employee, owing to the importance for his certain situations, experiences these or those experiences. At the same time many office situations are characterized by need to control external display of these experiences, to overcome negative states, showing persistence and persistence on achievement of goals. His emotional and strong-willed sphere also acts as the regulator of concrete acts of behaviour of the employee.

In relation to activity of employees of emergency following strong-willed qualities of the personality could be applied:

- independence - orientation to own beliefs, knowledge and representations;
- determination - ability with little effort and fluctuations to make reasonable decisions;
- persistence - ability to the long tension of will, steadfastness in achievement of the purpose;
- ability to be self-controlled (endurance, self-control) - ability to dominate itself, the feelings, overcoming of the undesirable phenomena in itself.

2. Problem Statement

Emotional stability allows to cope more effectively with a stress, surely and coolly to apply the acquired skills, to make adequate decisions in the conditions of deficiency of time. Persons, steady against a stress, are characterized as active, not impulsive, persistent in overcoming of difficulties. Opposite to it emotionally unstable persons are egocentric, pessimistic, and irritable, perceive environment as hostile and have tendency to be accented on the irritants connected with danger. Emotional stability can be caused by motivation and level of claims on achievement of good results, and also a sign of emotional experience, its duration, and depth.

Thus, the whole complex of professionally important qualities is necessary for work as the rescuer, as individual and dynamic (speed of reaction, emotional stability etc.), and personal: courage, readiness for risk, determination etc. At the same time professional activity of staff of rescue and fire fighting services leads to development of their professionally important qualities: to development personal (resistance to stress; courage; social introversion).

Analyzing researches of psychologists about a role of emotional intelligence in structure of activity of employees of an emergency we came to the following conclusions:

- The problem of emotional regulation has the high importance and received broad consideration among local and foreign psychologists P.V.Simonov, K. Izard;
- EI as new system of diagnostics and a component of personal structure became very popular in recent years.

Mayer and Salovey allocate only four components of EI:

• Accuracy of an assessment and expression of emotions. Emotions are the signal of important events which occur in our world, both an inner world and external. It is important to understand precisely both the emotions, and emotions which are experiencing other people. This ability represents skills to determine emotions by a physical state and thoughts, by appearance and behaviour. Besides, it includes also ability precisely to express the emotions and the related requirements to other people.

• Use of emotions in cogitative activity. How we feel, influences how we think and of what we think. Emotions direct our attention to important events; they train us for certain actions and influence our thought process. This ability helps to understand how it is possible to think more effectively, using emotions. Operating emotion, the person can see the world from different corner and is more effective in solving problems.

• Understanding of emotions. Emotions are not casual events. They are caused by certain reasons, they change by certain rules. This ability reflects ability to define a source of emotions, to classify emotions, to distinguish communications between words and emotions, to interpret values of the emotions concerning relationship to understand complex (ambivalent) feelings, to realize transitions from one emotion to another and possible further development of emotion.

• Management of emotions. As emotions contain information and influence thinking, it makes sense to take them into account at creation of logical chains, the solution of various tasks, decision-making and a choice of the behaviour. For this purpose it is necessary to accept emotions regardless of, whether they are desirable or not, and to choose strategy of behaviour with their account. This ability belongs to ability to use information which emotions give, to cause emotions or to be discharged of them depending on their informational content or advantage; to operate personal and others' emotions.

3. Research Questions

However we didn't reveal the research devoted to the analysis of influence of emotional intelligence on the overcoming of a critical, stressful situation by staff of emergency services while emotional intelligence, in our opinion, promotes overcoming of difficulties, stress at the expense of the analysis and emotional control.

High levels of emotional intelligence allows an understand of the essence of emotions, and, having realized the need for change in the installations, the relations, to correct (to control) expression of own negative emotions concerning a stressor, new installations until emotional reaction begins to weaken (there will be a habit, acceptance of new installation).

When using unproductive coping-strategy we, on the contrary, can observe the low level of inclusiveness in process of overcoming of a stress of emotional intelligence. So, aggression, confrontation is, as a rule, not connected with the analysis of a situation, understanding, understanding of own purposes, emotions and so forth. Here emotions simply are issued, by analogy with steam from a teapot. Concerning avoiding strategy – it is about leaving from a problem, refusal of recognition of a problem situation.

4. Purpose of the Study

Purpose of study is an investigation of emotional intelligence and coping strategies in emergency situations emergency employees.

5. Research Methods

Research procedure:
1. T. Liri's test, - the diagnostics of the interpersonal relations (DIR);
2. "The big five" questionnaire of the personality - R. McCrae and P. Costa;
3. TMMS (The Trait Meta-Mood Scale) - a questionnaire of emotional intelligence;
4. NPU-1-anket of an assessment of level of psychological stability;
5. A questionnaire "Ways of behaviour overcoming" of Lazarus (1999) – a definition technique a coping of mechanisms.

Base of research: DChS quick and saving group of the Aktobe area of the Ministry of Emergency Situations of Republic of Kazakhstan.

6. Findings

As a result of the conducted research, respondents passed six tests, average data are given below (see Table 1).

Table 1. Descriptive statistics

	Average	Standard deviation
Age	32.0714	10.18645
NPU-1	13.0714	8.09049
Lie scale	7.0714	2.86797
Confrontation	8.3571	2.09788
Distancing	6.9286	2.20015
Self-checking	11.0714	3.70995
Search of social support	8.0000	2.71746
Acceptance of responsibility	6.4286	1.69680
Running away and avoiding	9.5000	2.56455
Planning solution	12.0714	3.36187
Positive revaluation	9.4286	3.22763
Extraversion	57.2143	8.66628
Attachment	50.0000	11.33409
Self-checking	57.7857	7.26613
Emotional stability	39.8571	9.06266
Expressivity	49.2857	7.84885
Domination	9.9643	4.56148
Friendliness	3.5571	2.60287
Restoration	35.5714	4.84711
Attention to own emotions	53.2308	9.46180
Clarity in perception of own emotions	51.1667	6.27887

As it shown at the table, average age of examinees is equal to 32 years. On the basis of the data specified in the table we can draw a conclusion that:

- the major part of employees of an emergency consist by the contingent of 20-30 years, that is 64,2%;
- 30-40 years make - 14,2%;
- 40-50 years make also 14,2%;
- 50-60 years make 7,1% that equals to one person (see Figure 1).
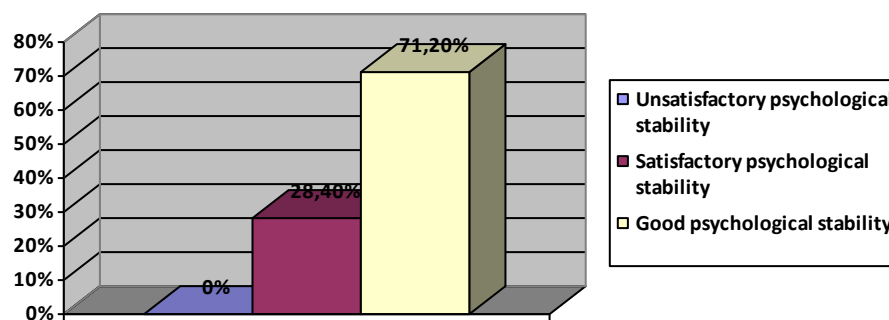
The comparative analysis of a scale of psychological stability shows that employees of an emergency are characterized by the following features.

- Unsatisfactory psychological stability-of 0%;
- Satisfactory psychological stability-28,4 of %;
- Good psychological stability-71,2 of %;
- High psychological stability-0 of %. (see Figure 1).

Figure 1 - Chart of a percentage ratio of psychological stability.

Strategy of planning of a solution assumes attempts of overcoming of a problem at the expense of the purposeful analysis of a situation and possible options of behaviour, elaboration of strategy of solution of the problem, planning of own actions taking into account objective conditions, last experience and the available resources. Strategy is considered by most of researchers as adaptive, promoting constructive permission of difficulties. Advantage of this strategy is possibility of purposeful and systematic permission of a problem situation, however at the same time weakness of this coping-strategy is expressed in excessive rationality, insufficient emotionality, intuitivism and spontaneity in behaviour.

Thus, on overcoming of this strategy the following results were revealed:

• Low level – 7,1%;
• The average level – 49,8%;
• High level – 42,8% (see Figure-2).
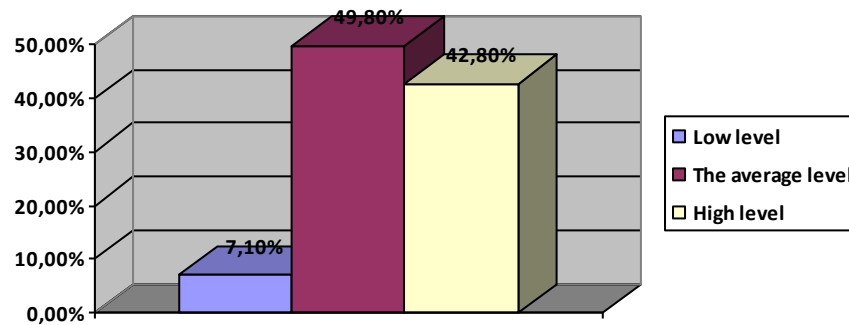
Figure 2. Chart of a percentage ratio of data in coping-strategy planning of a solution.

Strategy of positive revaluation assumes attempts of overcoming of negative experiences in connection with a problem due to its positive reconsideration, its consideration as incentive for personal growth. Focus on transpersonal, philosophical judgment of a problem situation, its inclusion in wider context of work of the personality on self-development is characteristic. Positive sides: possibility of positive reconsideration of a problem situation. Negative sides: probability of underestimation by the identity of opportunities of effective permission of a problem situation.

Thus, on overcoming of this strategy the following results were revealed:
- Low level – 14,2%;
- The average level – 64,3%;
- High level – 21,4% (see Figure-3).
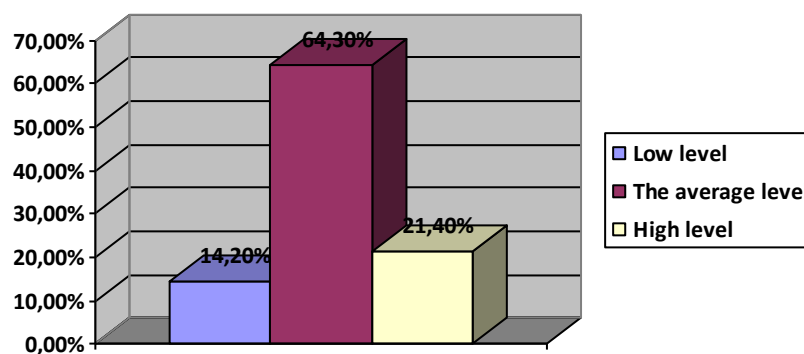
Figure 3 - Chart of a percentage ratio of data coping-strategy positive revaluation.

This subscale highly correlates with the scale of an assessment and expression of emotions entered by J. Mayer and P. Salovey. A theoretical basis of EI is statement of the processes happening to the personality own emotional states and as a rule allow it to understand attention better, to operate them.

We will pay attention to that circumstance that 28,5% of examinees experience difficulties in acceptances of that fact that they feel something. For employees of an emergency, representatives of a profession with high risk of threat of own safety it is characteristic expressiveness of a masculine features in behaviour. One of the basic rules of games of "big boys"

is low sensitivity to own emotional state. In communication by this circumstance it becomes clear the expressed requirement in social support.

According to Salovey and Mayers's idea (1995), EI it is connected with cognitive control and ability to management. However all this also indicates ability of the personality to an assessment, to change and improvement of own mood. All this is possible only at high rates of a scale of "restoration of mood".

42% of examinees have average on a scale of "restoration of mood" that testify to need of a certain social and emotional support in situations of high level of a stress.

58% of examinees can without any efforts change own mood. The mood which — is rather poorly expressed, but a long emotional condition of the person which has impact on all its mental processes, on all activity. The mood depends on an orientation, character, temperament, abilities, and experience of the personality. Any concrete event, pleasant or unpleasant news, good luck or failure in work, collision with surrounding people, and an illness can be the cause of change of mood. One mood could positively influence at the person, others, on the contrary, negatively. So, during study the joyful mood promotes fast and strong assimilation of knowledge, development of skills. The condition of uncertainty, indifference, and alarm slows down digestion of material and development of merits. Ability to control the mood, to find and acquire ways of its conscious correction acts as an important problem of education and self-education.

The statistical analysis of data showed that the scale of psychological stability is negatively connected with scale of lie. Thus, more nervously – mentally steady employees are inclined to give more objective answers. Significant correlation is: $r_{xy} = -0,554*$

Table 2. Correlation analysis of data

Coping-strategies	Acceptance of responsibility	Extraversion	Affection	Emotional stability	Expressivity	Friendliness
Confrontation				.731(**)		
Distancing		.598(*)				
Self-control		.464(*)				.717(**)
Social support	.817(**)		.537(*)		.667(**)	
Running away	.513(*)					
Revaluation	.821(**)				.635(**)	

* Correlation is significant at the 0.05 level (1-tailed).
** Correlation is significant at the 0.01 level (1-tailed).

The correlation analysis of data showed that the scale of search of social support is negatively connected with friendliness with other people. More adult employees aren't inclined to look for social support in comparison with younger.

Strategy of search of social support assumes attempts of solution of the problem due to attraction of external (social) resources, search of information, emotional and effective support. Expectation of attention, council, sympathy are characteristic focus on interaction with other people. Search for necessary information support assumes the request for recommendations to the experts and acquaintances owning from the point of view of the respondent. The requirement mainly for emotional support is shown by aspiration to be listened, to receive the empathetic answer, to share the experiences with someone. By search of mainly effective support the leading need is the help by specific actions.

As a result of research it became clear that the same scale highly correlates with strategy of acceptance of responsibility ($r_{xy} = .817$ (**)). Than more they look for social support, than more

they are inclined to be responsible. In turn coping-strategy of acceptance of responsibility assumes recognition by the subject of the role in emergence of a problem and responsibility for its decision, in some cases with a distinct component of self-criticism and self-accusation. By moderate use this strategy reflects aspiration of the personality to understanding of dependence between own actions and their consequences, readiness to analyze the behaviour, to look for the reasons of actual difficulties in personal shortcomings and mistakes. At the same time, expressiveness of this strategy in behaviour can lead to unjustified self-criticism, experience of sense of guilt and dissatisfaction. The specified features, as we know, are risk factor of development of depressions.

The correlation analysis of data showed that coping-strategy of search of social support is positively connected with affection (r_{xy} =.817 (**)). Affection defines the positive attitude of the person towards people. Interacting with others, such people try to avoid disagreements, don't like the competition, prefer to cooperate with people more, than to compete.

Search of social support coping-strategy is positively connected with expressivity (=0,667*.). Thus, the more the person looks for social experience, the more he trusts the feelings and intuition, than common sense, turns attention to the current daily affairs and duties a little, avoids routine work.

Strategy of acceptance of responsibility assumes recognition by the subject of the role in emergence of a problem and responsibility for its decision, in some cases with a distinct component of self-criticism and self-accusation. This strategy correlates with positive revaluation (r_{xy} =0,821 *) which assumes attempts of overcoming of negative experiences in connection with a problem due to its positive reconsideration, its consideration as incentive for personal growth. Thus, the responsibility is higher, the revaluation of own experience is higher.

The correlation analysis of data also showed that the extraversion positively correlates with strategy of a distancing (rxy =0,598 *). In turn the factor of an extraversion assumes the weakened control over feelings and acts therefore people with these factors happen are inclined to irascibility and aggression, and strategy of a distancing assumes attempts of overcoming the negative experiences in connection with a problem due to subjective decrease in its importance and degree of an emotional involvement into it.

Table 3. Correlation analysis of data

Characteristic of EI	Running away coping strategy	Factor 2 (Affection-Isolation)
EI (Attention to emotions)	.688(**)	
EI (Clarity in perception of own emotions)		.715(**)

   * Correlation is significant at the 0.05 level (1-tailed).
   ** Correlation is significant at the 0.01 level (1-tailed).

Strategy of running away and avoiding assumes attempts of overcoming by the identity of negative experiences in connection with difficulties due to reaction as evasion: denials of a problem, imagination, unjustified expectations, derivations, etc. At distinct preference of strategy of avoiding not constructive forms of behaviour in stressful situations can be observed: denial or full ignoring of a problem, evasion from responsibility and actions on permission of the arisen difficulties, passivity, impatience, tantrums, immersion in imaginations, an overeating, alcohol intake, etc., for the purpose of decrease in a painful emotional pressure. Strategy of running away and avoiding positively correlates with attention to own emotions.

Thus, having carried out the empirical analysis of research we came to a conclusion that more psychologically stable staff of quickly saving group is inclined to give more objective answers. The more they become elder, the less they look for support in other people. More adult employees aren't inclined to look for social support in comparison with younger. It is also possible to tell that than more they look for social support, that they are inclined to be responsible. The more

the person looks for social support, the more he trusts the feelings and intuition, than common sense, turns attention to the current daily affairs and duties, avoids routine work.

7. Conclusions

Results of the mathematical analysis allowed us to conclude that indicators of emotional intelligence are, connected with a choice of following productive coping-strategy: "positive revaluation", "self-control", "planning of a solution" and feedback is connected with a number of unproductive coping-strategy: "confrontation", "running away and avoidance". Also many indicators of EI and an integrated indicator of emotional intelligence are connected by feedback with coping-strategy "search of a social support" as this strategy reflects individual passivity in a solution. From this it is possible to conclude that expressiveness of indicators of emotional intelligence isn't simply connected with a choice of productive coping-strategy, but also such strategy in which personal activity in permission of a problem situation is supposed. Thus, the research hypothesis that the higher the level of development of emotional intelligence is, the higher the level of resistance to stress is completely was confirmed.

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