STRUCTURE OF BASAL PSYCHICAL SELF-REGULATION AND PERSONALITY INTEGRATION IN RELATION TO COPING STRATEGIES IN DECISION-MAKING IN PARAMEDICS

Erika JURIŠOVÁ¹, Ivan SARMÁNY-SCHULLER²

¹Constantine the Philosopher University, Department of Psychology
Kraskova 1, 949 00 Nitra, Slovak Republic
E-mail: ejurisova@ukf.sk

²Constantine the Philosopher University, Department of Psychology
Kraskova 1, 949 00 Nitra, Slovak Republic
E-mail: isschuller@ukf.sk

Abstract: The aim of the study was to find: 1) the relationship between the basic components of the basal mental personality integration (cognitive, emotional, regulatory and adjusting variability), factors of general personality variability (general mental arousal, motoric dynamics) and styles of coping with decisional conflict in decision-making (vigilant, hypervigilant behavior, buck-passing and procrastination) in paramedics, 2) stability, or variability of occurrence of identified relationships among paramedics with different length of experience. Sample: 134 paramedics, age: 22 – 51 years, AM = 33.22, SD = 6.26. Methods: Melbourne Decision-Making Questionnaire, MDMQ (Mann et al., 1997), Questionnaire SPARO (Mikšík, 2004). Results: Significant relationships between components and factors of mental integration (emotional and regulatory invariability, lower mental arousal) were found. Their integration forms a “calm, mentally stable and resilient personality type” and the choice of hypervigilance and defensive, avoidance strategies: procrastination and buck-passing. Results are interpreted within the context of the personality concept “basal psychical self-regulation and integration” of Mikšík (2004), the theory of conflict by Janis and Mann (1977) with regard to the specific research set (working in stressful conditions, team character of work and typical personality characteristics of paramedics: performance orientation and high need for praise). Apparently, to understand the behavior styles of paramedics in decision-making it is necessary to consider the aforementioned occupational and social aspects.

Key words: coping strategies (styles, patterns) in decision-making, personality, psychological regulation, decision-making, paramedics

Decision-making processes are one of the most significant activities in human life. The meaning of decision-making is present especially in the fact that the quality and results of these processes have a significant

influence on the effectiveness of functioning of our personal and occupational life. Our work is based on the opinions of Orasanu and Connolly (1993), who say that from the psychological aspect, decision-making is perceived as a series of cognitive operations of the person making decisions on one hand, and on the other hand, in addition to cogni-

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tive processes, elements from the environment enter the decision-making process in a specific time and place. Similarly, Narayan and Corcoran-Perry (1997) consider decision-making to be an interaction between the problem to be solved and the person solving it in the context of a specific environment. Kamhalová (2011) mentions that coping strategies, perception of risk, attachment style, age and gender are factors that have, according to recent results, the strongest effect on naturalistic decision-making. Thus, the aim of our study is to identify the *relationships between selected personality characteristics and the predisposition to use a certain style (pattern) of coping with a decisional conflict in paramedics*. The occupation of a paramedic belongs to the so called “stressful professions” which place specific demands on the individual’s ability to cope with a certain quality and intensity of mental demands (i.e., when a certain structure of personality characteristics acts as one of the key criteria of success or failure). Paramedics make their decisions in a dynamic, constantly changing environment, under conditions of fuzzily defined problems, while having to deal with difficult to obtain or missing information, considerable risk and time pressure.

The research study is based on works that indicate the effect of personality factors determining the choice of optimal decisions in professionals and they are demonstrated on the quality and performance in the given profession. For example, Mikšík (2004) emphasizes several personality profile characteristics in persons (professional drivers) with a tendency of risky decision-making in stressful situations: a) lower self-regulation of personality and internal control related to decreased anticipation and responsibility,

with carelessness and a tendency to rely on chance; b) emotional arousability and instability, immediate liability to emotional effects of situational psychic context, non-regulated emotionality; c) decreased emotional adaptation variability, situational disorientation, loss of self-confidence and disintegration of an integrated approach to a “surprising” situation development (related to a disturbance in learned skills), tendency to follow rigid schemes of response behavior. In another study, Karlík (In: Mikšík, 2009) found in a set of detective agency employees that in case of determining professional success, the best assessment was achieved by individuals with a “mentally stable, calm and resilient type” profile characterized by high cognitive dynamism, emotional stability, anticipatory regulation of behavior and strong adjustability. The same personality profile was found by Mikšík (2009) in persons with the ability to cope with the demands of serving in life threatening situations as soldiers on missions. Pilárik (In: Jurišová, Pilárik, 2012) found in a group of female paramedics that advantageous decision-making in the Iowa Game Task was negatively related to zones of emotional intelligence - awareness of emotions, emotional agility and results of emotional intelligence. Kamhalová, Halama, Gurňáková (2013) used a typological approach to the study of factors related to decision-making of health-care professionals. They identified four types based on the use of individual styles of emotional regulation and variables of well-being (social, physical, emotional, cognitive and sexual well-being) and ill-being (depression, anxiety, hostility, somatic symptoms and cognitive ill-being), and compared them to decision-making styles and subjective degree of decision-making effectiveness. They found that the

highest subjective degree of effectiveness and vigilance occurred in types with the highest cognitive and behavioral engagement. On the other hand, low subjective degree of decision-making effectiveness, together with high hypervigilance, buck-passing and procrastination occurred in types with low frequency of using all styles of emotional regulation, especially when related to high ill-being.

While the effect of personality on performance quality in the cited research has been studied, e.g., from the perspective of the tendency to risk, adaptation ability, performance quality, assessed by an independent observer on the scale “excellent, good, average, bad” from the perspective of the IGT score, our aim was to capture the personality predisposition for the preference of individual coping strategies in decision-making that describe the adaptive and maladaptive styles (patterns) of behavior in decision-making as they affect professional performance, i.e., from the perspective of socio-psychological theory of decision-making. Coping signs are described in the conflict model of Janis and Mann (In: Mann et al., 1997). The theory is based on the idea that stress arising during decision-making under, for example, time pressure or under changing conditions is the main determinant of failure in achieving high quality decisions. Extremely low or high levels of stress result in incorrect information processing, mean level of stress, on the other hand, provides for vigilant information processing (Horan, 1977). According to Mann et al. (1997), too much or too little stress during decision-making results in 5 basic signs of coping, 4 of which often result in making faulty decisions: 1) Unconflicted adherence – the decision maker ignores information about the risk of

loss and decisions and continues in the current situation development, 2) Unconflicted change – the decision maker adapts without regard to the new situation development, 3) Defensive avoidance – stress level is high and conversion of new possibilities is prematurely limited. The decision maker escapes the conflict by using procrastination, buck-passing, and rationalization. 4) Hypervigilance – is similar to panic – although a good solution may exist, the decision maker feels s/he has not enough time for its execution. Stress level is high, present is high emotional excitation, limited attention and the final alternative is chosen quickly without a careful consideration of possible outcomes. Pilárik and Sarmány-Schuller (2005) found that increased anxiety leads to increased rate of buck-passing, procrastination and hypervigilance in decision-making. 5) Vigilance is careful search for the relevant information by considering all alternatives before making a decision – often leads to an effective decision. It is related to a low level of stress (Horan, 1977).

Our interest in the study of coping strategies in decision-making in paramedics is built on the argument that the key aspects of the theory of conflict is closely related to the paramedic profession. 1) Antecedent conditions determining the choice of a particular coping strategy: a) knowledge about the drawbacks (risks) of the individual alternatives, b) hope that a better alternative will appear, c) faith that there is enough time to search and consider before a decision has to be made – they often may be absent due to the conditions under which paramedics make decisions and 2) sources of stress in decision-making like disconcertion from personal, material and social losses, disconcertion from losing one's reputation and self-

esteem if the decision is wrong – they are a possible source of endangering the basic needs of paramedics resulting from their personality profile. According to Mitchell and Everley (2003), typical personality characteristics of paramedics are: orientation to detail, consistency, even obsessive-compulsive features, need to manage, willingness to undergo high risk, high need for stimulation, high resilience, strong need for immediate praise, orientation towards action, inability to say “no” and internal motivation. Strong performance orientation, focus on professional success and strong need for immediate praise (by colleagues and social praise) take an important place on the paramedics’ scale of needs.

In order to find personality correlates of adaptive and maladaptive coping strategies in decision-making, we approach personality through the concept of “basal system of self-regulation and psychical integration of personality” introduced by Mikšík (2004). According to Mikšík (2003), a determining factor for the study of a personality’s mind is the understanding of its basis as a specifically integrated and internally dynamically organized and structured entity of an individual’s spiritual life, all in the context of internal and external determinants of its creation and representations. Personality cannot be characterized only by motivation and abilities structure, it is necessary to also consider its attention to given means and forms of interaction and conditions of existence. Temperament models are based on its understanding within the biologically determined organization of mind. This approach keeps the traditional meaning of the general term “temperament” and determines ways to incorporate dynamic self-regulation of interactional activities of personality into the

basal system of self-regulation and mental integrity (Mikšík, 1985).

Basal system of self-regulation and mental integrity of a personality is one of the key personality structures. It is the unity of in-born and acquired strategies that an individual uses to dynamically cope with different situational complexes throughout his/her practical life. It is a subjectively marked quality of attention to a given form of interaction with the environment. It depends on this basal mental self-regulation which life circumstances, contexts or demands are optimal for a given individual or for which ones s/he does not have sufficient disposition (i.e., leads to various degrees and intensity of the disintegration of his/her mental state and internal and external actions). It characterizes specific self-regulation mechanisms and manners and forms or experiences and activities that modify the interaction between the individual and life’s reality in the immediate and potential sense of the word. In terms of content, it is a specifically structured complex, an alloy of four mutually independent components (cognitive, emotional, regulating and adjusting) that determines an individually characteristic dynamics of living and reacting, mental processes and states, ways and styles of personality interaction activities. In all the components, a dynamic aspect asserts itself at the continuity from a maximal stability (inactivity, rigidity, invariability), through a quite well-balanced (from a normal distribution at a comparable population point of view, an average) value, to a maximal variability (mobility, dynamics, plasticity, instability) in two mutually independent, qualitatively different aspects: mental (internal) spontaneity, excitability (arousal), and motoric (external) dynamics, reactivity (Mikšík, 2003).

Research Goal

The first part of the analysis concentrates on determining the relationships among basic components of *basal psychic integration of personality* (cognitive variability, emotional variability, regulating variability and adjusting variability), *factors of general variability of personality* (mental/internal spontaneity and motoric/external dynamics) and *choice of coping strategy in decision-making* (vigilant, hypervigilant, buck-passing and procrastination) in paramedics. The second part of the analysis will focus on finding *stability, or variability of occurrence of identified relationships in paramedics with different length of experience*.

METHOD

Participants

Participants were 134 part-time college students, major: paramedic. Age: 22 – 51 years, AM = 33.22, SD = 6.26. Length of professional work experience (paramedic): ranging between 2 and 28 years, AM = 11.08, SD = 6.23. Proportion of men (n = 74) and women (n = 60).

Method

Participants were administered the following questionnaire instruments:

1. *Questionnaire SPARO* (Mikšík, 2004). It is a 300-item questionnaire focusing on the study of subjectively marked level, structure and dynamic of basal system of self-regulation and mental integrity of a personality. It covers:

a) *basic components of basal psychic variability* (Table 1)

b) *basal factors of general variability* (Table 2)

c) *other personality traits, integrated to overall dimensions*: normality, optimal level of stimulation, tendency to risk taking, effective integration, relational dimension, correctiveness and self-assertion.

The presented research focused on the basic components of basal psychic variability and basal factors of general variability. Correlation of cognitive, emotional, regulatory and adjusting components in personality profile decides the final structure of its basal (determining) psychic variability. Understanding of these correlations leads to predictions as well as revelations of possibilities and ways to optimize the personality profile in relation to determined interactional demands and relations.

2. *Melbourne Decision-making Questionnaire, MDMQ* (Mann et al., 1997; Slovak version Sarmány-Schuller). The questionnaire is based on the theory of conflict by Janis and Mann (1977) and analyzes coping patterns used by individuals if faced with difficult life or occupational decisions. The 22-item questionnaire identifies the factor *assessment of self as decision maker*, in the sense of effective decision-making ability, and four behavior styles in situations of decision-making conflict: a) *vigilant behavior* (VIG): careful search for relevant information, real assimilation of information and careful consideration of all alternatives before making a decision. This is an adaptive, optimal form of decision-making, related to a low stress level; b) *hypervigilant behavior* (HYP): in its extreme position it is a rushed, anxious style of decision-making related to high emotive stress; c) *buck-pass-*

Table 1. Basic components of basal psychic variability

Component	Minus pole (invariability)	Plus pole (variability)
Cognitive variability (KO) is related to cognitive functions, affecting and processing of a complex of situational variables.	Trend towards interactions with a more stable environment, cognitively poor, or „low throughput“ of cognitive capacity for dynamic capturing and processing of situational variables	Tendency towards change, trend to high quality, dynamics and variability of intensive external stimuli in their complex definition and processing
Emotional variability (EM) is related to experiencing the interactions with environment and situational changes, covers dynamics of emotions and their consequences in cognitive and behavioral areas.	Emotional stability, emotional constancy, decreased emotivity, low experience dynamism	High emotional arousability, tendency to experience situational stress, tensions, sensitivity for situational changes (emotional interactions)
Regulating variability (RE) is related to regulation functions of cognitive modality, quality of self-regulation and managing of activities.	Constant inclusion of future possible effect into the decision-making processes, activities and behavior systems (so called anticipatory behavior regulation)	Characteristic low level of counterfactual thinking for existing interaction activities, or lower self-regulations of situationally purposeful behavior
Adjusting variability (AD) is related to the process of adaptation and handling new facts, conditions, activities and circumstances of life.	Adjusting rigidity, individual tends to constantly follow his/her own approaches, activities, behavior patterns (i.e., not adapt oneself but adapt to oneself), maladaptive tendency	Tendency to answer situational variables with adaptation activities (either purposeful dispatch, or on principles of submissivity)

Table 2. Basal factors of general variability

Factor	Minus pole (invariability)	Plus pole (variability)
General level of mental (internal) spontaneity (MS)	Low mental (internal) arousability, spontaneity, low situational excitedness as in „arousal“, low behavioral tendency to dynamic interactions	Behavioral tendency to dynamism in interactions, attachment with intensive mental excitation, or high situational excitedness as in „arousal“
Motoric (external) dynamics (MD)	Tendency to find peace in high emotional arousability, regulation and adaptation	Search for changes with smaller regulation restrictions and high emotional and adjustment rigidity

ing (BP): decision-making is passed to others and responsibility is refused, insecurity in decision-making; d) *procrastination* (PRO): avoidance of decision-making as long as possible, postponing of the decision, tendency to “indecision”. For pur-

poses of the study, the instructions were modified and the participants were asked to give their answers about the decision-making process within the context of decision-making in work situations (decision-making during intervention).

RESULTS

Correlations between Components and Factors of Basal Psychical Self-Regulation and Personality Integration and Coping Strategies in Decision-Making

The bivariate analysis in the first step determined significant, negative correlations between emotional variability, regulating variability and mental spontaneity, all in relation to maladaptive styles of decision-making. According to the identified correlation coefficients, higher cognitive variability ($r =$

.174) and motoric dynamics ($r = .180$) are related to hypervigilant behavior. Implementation of adaptive decision-making – vigilant behavior – disclosed a positive correlation to regulating variability ($r = .174$) (Table 3).

Next we focused in detail on the assessment of the correlations' power. Test statistics F testing the hypothesis about the pointlessness of all predictors (KO, EM, RE, AD, MS, MD) was rejected in the case of *hypervigilant behavior* ($p < 0.000$) and *procrastination* ($p < 0.000$). Personality factors accounted for 20.4% hypervigilance variability and 17.4% procrastination variability (Table 4).

Table 3. Correlations between scales of psychic variability and decision-making styles ($n = 134$) (Pearson's r)

	Vigilant behavior	Hypervigilant behavior	Procrastination	Buck-passing
Cognitive variability	-.121	.174*	.114	.116
Emotional variability	-.043	-.415**	-.313**	-.284**
Regulating variability	.174*	-.177*	-.297**	-.076
Adjusting variability	-.058	-.070	-.030	.036
Mental/internal spontaneity	.000	-.222**	-.224**	-.070
Motoric/external dynamics	.029	.180*	.121	.160

* $p < 0.05$; ** $p < 0.01$

Table 4. Results of regression analysis for dependent variables: VIG, HYP, BP, PRO and independent variables: KO, EM, RE, AD, MS, MD

Model	R	R ²	R ² adj.	F	p
Vigilant behavior	.274	.075	.031	1.715	.123
Hypervigilant behavior	.452	.204	.167	5.441	.000***
Procrastination	.417	.174	.135	4.462	.000***
Buck-passing	.303	.092	.049	2.138	.053

Legend: R – coefficient of multiple correlation, R² – index of determination, R²adj. – adjusted index of determination, F – value of the tested statistics for the overall F-test, p – significance for the whole F-test

*** $p < 0.000$

A multiple regression analysis, following our control of indirect influences among the studied base components of personality structure on the styles of decision-making, disclosed that in comparison to others the

components emotional and regulating variability have the strongest influence on procrastination. With hypervigilant behavior, apparently the strongest influence is emotional variability (Table 5).

Table 5. Estimates of regression coefficients

Model		B	SD	Beta	t	p
Hypervigilant behavior	Constant	13.218	1.224		10.800	.000
	Cognitive variability	.078	.052	.137	1.512	.133
	Emotional variability	-.152	.040	-.359	-3.753	.001**
	Regulating variability	-.076	.057	-.121	-1.327	.187
	Adjusting variability	-.048	.066	-.061	-.738	.462
	Mental/internal spontaneity	-.035	.086	-.041	-.412	.681
	Motoric/external dynamics	-.013	.078	-.017	-.170	.859
Procrastination	Constant	13.503	1.236		10.923	.000
	Cognitive variability	.066	.052	.117	1.269	.207
	Emotional variability	-.099	.041	-.237	-2.427	.017*
	Regulating variability	-.170	.058	-.273	-2.937	.004**
	Adjusting variability	-.004	.066	-.005	-.061	.952
	Mental/internal spontaneity	-.018	.087	-.022	-.216	.829
	Motoric/external dynamics	.003	.079	.005	.050	.960

*p < 0.05; **p < 0.01

Figure 1. Variants ("types") of basal psychic integration of personality according to Mikšík (2003)

According to Mikšik (2003), precisely the correlation of emotional and regulating variability components is the basis for determining the variants (“types”) of basal psychic integration of personality (Figure 1). Basic interaction tendencies are characterized by verbal denomination of the individual variants, their potential and problems in regard to different types and demands of situations they are faced with, i.e., for what an individual is predisposed and for what not, what is optimal and what is disintegrating for him/her, in what regard, what s/he seeks and pre-

fers, how s/he behaves, in what regard and under what circumstances signs of mental disintegration appear.

Results of the multivariant comparison of occurrence of the four variants (“types”) of basal psychic integration of personality in individual decision-making styles support the differences in the usage level of maladaptive decision-making styles among participants with different levels of emotional and regulating variability. Significantly highest score was observed for the “*calm type*” (Table 6).

Table 6. Comparison in styles of decision-making from the perspective of 4 variants of basal level of psychic integration of personality (One-Way ANOVA)

Types of basal psychic integration of personality		n	AM	SD	F	p
Vigilant behavior	Calm type: EM– RE–	43	8.56	2.02	1.529	.210
	Aroused type: EM+ RE+	29	9.03	2.29		
	Experiencing type: EM+ RE–	32	7.94	1.74		
	Reactive type: EM– RE+	30	8.57	2.01		
Hypervigilant behavior	Calm type: EM– RE–	43	12.65	1.85	9.488	.000***
	Aroused type: EM+ RE+	29	10.69	2.11		
	Experiencing type: EM+ RE–	32	10.66	1.73		
	Reactive type: EM– RE+	30	11.33	1.79		
Procrastination	Calm type: EM– RE–	43	13.12	1.73	5.324	.002**
	Aroused type: EM+ RE+	29	11.38	1.84		
	Experiencing type: EM+ RE–	32	11.94	2.06		
	Reactive type: EM– RE+	30	11.97	2.13		
Buck-passing	Calm type: EM– RE–	43	14.49	2.27	6.180	.001**
	Aroused type: EM+ RE+	29	13.00	2.19		
	Experiencing type: EM+ RE–	32	12.31	2.36		
	Reactive type: EM– RE+	30	13.00	2.33		

p < 0.01; *p < 0.000

Occurrence of Correlations between Personality Variables of Psychic Variability and Decision-Making Styles in Paramedics with Different Length of Work Experience

Table 7 presents an outline of significant correlations between personality dimensions and decision-making styles determined by bivariate analysis in the individual groups.

Paramedics with the shortest work experience (< 5 years) display hypervigilant decision-making in the case of adjusting rigidity ($r = -.381$; $p < 0.05$), when an individual tends to permanently keep to his/her own approaches, activities and behavior schemes.

Participants in the group with 6-10 years of work experience show a starting tendency

toward hypervigilance when related to emotional invariability ($r = -.410$; $p < 0.05$), represented by emotional stability, belief in one's self-efficacy and decreased emotivity. At the same time, we find in participants of this group that they tend to pass on responsibility with high cognitive variability that is related to complex characterization and processing of intensive external impulses.

The studied variables of psychic variability have the most significant influence on the quality of the decision-making process in the group of paramedics with 11-15 years of work experience. Our results show that the most significant influence on the occurrence of the studied maladaptive decision-making forms is emotional invariability, regulating invariability as well as decreased internal psychic excitedness, as in arousal (correlative coefficients are in Table 7).

Table 7. Correlations (significant only) of psychic variability variables and decision-making styles in paramedics with different length of work experience (Pearson's r , Spearman's ρ)

	Length of work experience of rescuer				
	< 5 years n = 35	6 – 10 years n = 37	11 – 15 years n = 28	16 – 20 years n = 24	21 – 28 years n = 10
Cognitive variability		(BP) $r = .496^{**}$			
Emotional variability		(HYP) $r = -.410^*$	(HYP) $r = -.537^{**}$	(HYP) $r = -.466^*$ (BP) $r = -.420^*$	
			(PPO) $r = -.507^{**}$		
			(BP) $r = -.461^*$		
Regulating variability			(HYP) $r = -.468^*$		(HYP) $\rho = -.664^*$
			(PPO) $r = -.432^*$		
Adjusting variability	(HYP) $r = -.381^*$				
Mental / internal spontaneity			(HYP) $r = -.442^*$		(HYP) $\rho = -.727^*$
Motoric / external dynamics			(BP) $r = .571^{**}$		

Legend: VIG – vigilant behavior, HYP – hypervigilant behavior, PRO – procrastination, BP – buck-passing

* $p < 0.05$; ** $p < 0.01$

Professional paramedics with 16-20 years of work experience display in the decision-making process a prevailing influence of emotional invariability on the occurrence of hypervigilance ($r = -.466$; $p < 0.05$) and passing of responsibility ($r = -.420$; $p < 0.05$).

Professional paramedics with the longest work experience (21-28 years) show hyper-vigilant decision-making in regulating invariability ($p = -.664$; $p < 0.05$) related to anticipating regulation of behavior and decreased level of psychic arousability, spontaneity ($p = -.727$; $p < 0.05$).

DISCUSSION

The findings present personality aspects leading to maladaptive styles of coping with decision-making conflict in the studied set of paramedics. They indicate a significant relationships between *emotional and regulating invariability* (as components of basal psychical integration of personality) and *lower mental excitedness, spontaneity* (as a factor of psychical personality integration) and *the choice of maladaptive behavior styles in decision-making (hypervigilance and defensive, avoidance strategies: procrastination and buck-passing)*.

Our findings are in contradiction to the findings of other authors (Mikšík, 2004; Karlík, In: Mikšík, 2009; Pilárik, In: Jurišová, Pilárik, 2012). Reasons for these differences are apparent in two fields: 1) in *the construct of coping strategies in decision-making* which is based on the theory of conflict of Janis and Mann (1977) and 2) in *the specific features of the research set in regard to the paramedic profession*. Although all professions studied in the cited studies (professional driver, detective, and soldier on a mission) have one common denomina-

tor – work in stressful conditions – there are many aspects in which these professions differ (e.g., scope of competences, legitimate possibility of buck-passing to another person, individual vs. team performance...).

We pose the following question: Why did the studied paramedics with a personality type defined as “calm (mentally stable, resilient) type”, characterized by emotional stability, emotional consistency, low emotiveness, low dynamics of experiencing situational contexts and, in terms of regulation, by constant inclusion of possible future effects into the decision-making processes, into activities and behavior systems (by the so called anticipation behavior regulation) and lower psychological excitedness – i.e., by a type predisposed to high quality performance, *demonstrate a tendency to maladaptive styles of behavior in decision-making?*

An explanation presents itself in the sources of stress in decision-making from the aspect of the theory of conflict and typical personality characteristics of paramedics and the resulting needs (strong need for professional success and strong need for praise). When these needs are met, the aforementioned factors become significant sources of subjective well-being, and on the contrary, endangering or failing to meet these needs results in subjective ill-being and stress in the work of paramedics (Kupková, 2003; Šeblová, Kebza, 2005; Večeřová-Procházková, 2005). On a sample of 123 paramedics, van der Ploeg and Kleber (2003) found that risk factors originating in the social aspect of the working environment, especially the lack of support from the team leader and from colleagues as well as failing communication are all behind chronic occu-

pational stress.¹ Straková (1999) came to a similar conclusion. Thus, presence of the aforementioned needs (the *need of performance and the need of praise*) on one hand, and the stressors described by the theory of conflict (*disconcertion from personal, material and social losses, disconcertion from the loss of reputation and self-esteem if the decision is wrong*) on the other, may be the explanation for the relationship between paramedics and a personality profile predisposed to high quality performance and the choice of hypervigilance and defensive, avoidance strategies (procrastination and buck-passing). Simultaneously, conditions under which paramedics make their decisions (whether from the aspect of the physical environment, or from the aspect of emotional and social stress) provide for the absence (at various degree) of antecedent conditions that determine the choice of a particular coping strategy (knowledge of risks of individual alternatives, hope that a better alternative will be found, faith that there is enough time to search and consider all alternatives before the final decision is due).

¹ The work in paramedic crews (with and without a doctor on board the ambulance) is a specific form of interpersonal relationships, with a mutual influence of two or more personalities in a given space and time, with clear objectives, organization forms and material conditions. Relationships between individuals on such teams are based on mutual critical respect and on the condition that every one of them positively understands and accepts the goals and methods of a professional intervention (Hlaváčková, Průša, 2000). According to Rapčíková (2007), the highly focused and coordinated work of all team members is essential for saving human lives. Maintaining the scope of competences, effective work in stressful situations, adequate interpersonal relations, fulfilling responsibilities when delivering a patient to other medical professionals are important aspects that shape the complex frame of the paramedic profession.

The results show two variants of processing stressors that result from the theory of conflict in situations of intervention in paramedics characterized by a calm (composed) personality type: 1) choice of hypervigilance and 2) defensive, avoidance strategies.

1) In case of *hypervigilance* the paramedic is feverishly searching for a solution and due to the time pressure chooses a solution that provides immediate relief and eliminates time pressure (resulting from the strong need for professional performance that is also a question of reputation and self-esteem in the team and from the impending material, personality and social losses), but at the same time, is accompanied by dismissal of consequences of the decision due to the lack of attention.

The question is what other intervening variables may paradoxically lead to the preference of hypervigilance in the decision-making process in paramedics with a personality type predicting a high quality performance. These relations appear to be a significant "pattern" of behavior in paramedics with 11 – 15 years of experience, i.e. during the time of their professional expertise. Long-term success in the work of paramedics, often carried out in difficult conditions, under time pressure and impending danger, can lead to the decrease in self-reflection with a tendency for overconfidence.² These factors –

² Examples of the EM scale items = emotional variability (SPARO questionnaire, Mikšík, 2004): "I usually gain confidence only after a long and hard preparation time. I need more self-confidence quite often. I lack self-confidence. I admire those who can keep their self-control in unexpected situations, because I usually lose my head. Sometimes I find my knowledge useless, because I am not a quick thinker. I feel tension whenever I have a more responsible work. The higher the responsibility of the work, the harder it is for me to make a decision". On the + pole is high emotional arousability, on the – pole emotional stability.

lower self-reflection and overconfidence – have an effect on the ability to rationally orientate, focus on the activity at hand, and make full use of their intellectual capacity and abilities which may be demonstrated in their behavior during decision-making.

In the process of decision-making, overconfidence leads to the irrational belief that the decision maker's knowledge is better than it really is, and that his/her predictions are exact. Such behavior can be observed in, for instance, the comparison of working styles between paramedic "novices" and "experts". Only a few minutes into the primary examination and after determining the first symptom, experienced paramedics tend to make a diagnosis and follow with the subsequent procedures without a secondary examination. They make quick generalizations and conclusions about "the state of the affair". This is also the result of selective abstraction, where from one detail they arrive at an incorrect whole. Such behavior can be observed in experts not only during routine interventions, but also in novel, unusual situations, e.g., in competitions of paramedic crews where simulated situations are solved (where excessive effort to cope with stress, stemming from the possible loss of collegial reputation and self-esteem if the decision is wrong, can result in maladaptive, hypervigilant behavior), but also in real life situations. On the contrary, "novices" more often conduct both examinations; they are more thorough and vigilant and as a result arrive at a more effective result. Belsky and Gilovich (1999) define overconfidence as an "ego trap". The illusion of knowledge and control (or management) is a significant psychological factor leading to overconfidence. In paramedics, the illusion of control is related to overestimating the power of their own ac-

tions, i.e., they feel they have control over the results of often uncontrollable situations, and to the belief that they know more than others. According to Baštecká (2005), ego inflation, belief in one's own great power, fills individuals with self-confidence and influences their decisiveness. However, this form of self-confidence may be blind and decisiveness may be based on a wrong power estimate.

Moreover, medical professionals in general and especially paramedics experience a feeling of professional failure when confessing their emotions related to work. They are afraid of professional stigmatizing and therefore they use counterproductive coping strategies. Anglo-American literature describes this as the "John Wayne Syndrome", i.e., the generally accepted image of rescuers as invulnerable, operational, emotionless persons, always perfect in solving critical situations (Šeblová, 2004).

2) The results further show the relationship between paramedics characterized by a calm (mentally stable, resilient) personality type and the choice of defensive, avoidance strategies. Within the theory of conflict, procrastination and buck-passing (together with rationalization) are perceived as maladaptive coping strategies in decision-making. Paramedics behaving this way, however, will not achieve the desired result – the elimination of concern for personal, material and social losses, loss of reputation and self-esteem if the decision is wrong, as it does not result in meeting the needs of the paramedic, an "expert" with 11 – 15 years of experience in particular – which is strong performance orientation and strong need for praise. One explanation offers the interpretation of results in regard to context in which the coping strategies in decision-making are used. Paramed-

ics constitute one part of the integrated rescue system. During intervention, paramedic crews without a doctor in the ambulance can consult their procedures with a doctor from a different ambulance or a doctor on duty in the operation center of the rescue service. From the aspect of stress, Mikšík (2009) perceives situations where the person is not sufficiently experienced as the most difficult. Novice paramedics, but often even experts chose defensive, avoidance strategies in decision-making, especially in specific situations, e.g., CPR (cardiopulmonary resuscitation) of a child, treating severe burns, large-scale and serious traffic accidents, etc., that prove highly stressful for paramedics. Thus, in this respect procrastination and buck-passing is a highly logical decision-making style, representing a possible optimal decision for the paramedics, made based on their patience during the decision-making process. It represents effectiveness in decision-making in highly stressful situations while trying to solve unclear and unstructured problems, without being afraid of losing one's reputation and self-esteem. The study of Šeblová and Kebza (2005) confirmed the significance of the possibility, and especially legitimacy, of consulting a procedure with another expert, leading to a subjective defense against possible failure, as paramedics participating in their research indicated that not being able to consult their decision is one of the main stressors.

Our results show that there is a thin line between adaptivity and maladaptivity. The appropriateness (optimality or adaptivity) of use of a particular style of coping in a decision-making problem depends on the character of the task to be solved and peculiarities of the situation. An important role in understanding the choice of hypervigilance

and defensive, avoidance strategies (procrastination and buck-passing) in paramedics is played by socio-psychological aspects (collegial support in decision-making situations and coping with stress, individual needs and high expectations in regard to one's own person and profession).

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ŠTRUKTÚRA BAZÁLNEJ PSYCHICKEJ SEBAREGULÁCIE A INTEGRÁCIE OSOBNOSTI VO VZŤAHU K STRATÉGIÁM ZVLÁDANIA V ROZHODOVANÍ U ZDRAVOTNÍCKYCH ZÁCHRANÁROV

E. Jurišová, I. Sarmány-Schuller

Súhrn: Cieľom štúdie bolo zistiť: 1) vzťah medzi základnými komponentmi bazálnej psychickej integrovanosti osobnosti (kognitívna, emočná, regulačná a adaptačná variabilita), faktormi všeobecnej variability osobnosti (všeobecná psychická vzrušivosť, motorická hybnosť) a štýlmi zvládania decizívneho konfliktu pri rozhodovaní (vigilantné, hypervigilantné správanie, presúvanie zodpovednosti a prokrastinácia) u zdravotníckych záchranárov, 2) stabilitu, resp. variabilitu výskytu identifikovaných vzťahov u záchranárov s rôznou dĺžkou praxe. Výskumná vzorka: 134 zdravotníckych záchranárov, vo veku 22 – 51 rokov, AM = 33,22, SD = 6,26. Použité metodiky: Melbourne Decision Making Questionnaire, MDMQ (Mann et al., 1997), dotazník SPARO (Mikšík, 2004). Výsledky: Zistili sme významné vzťahy medzi komponentmi a faktormi psychickej integrovanosti (emočnou a regulačnou invariabilitou, zníženou psychickou vzrušivosťou), ktorých integrácia vytvára „pokojný, psychicky vyrovnaný a odolný osobnostný typ“ a voľbu hypervigilancie a obranných, vyhýbavých stratégií: prokrastináciou a presúvaním zodpovednosti. Výsledky interpretujeme v kontexte koncepcie osobnosti „bazálnej psychickej autoregulácie a integrovanosti“ Mikšíka (2004), teórie konfliktu Janisa a Manna (1977) s prihliadnutím na špecifickosť výskumného súboru (výkon práce v exponovaných podmienkach, tímový charakter práce a typické osobnostné charakteristiky zdravotníckych záchranárov: orientácia na výkon a vysoká potreba ocenenia). Ukazuje sa, že pre pochopenie štýlov správania sa záchranárov pri rozhodovaní je potrebné brať do úvahy uvedené pracovné a sociálne aspekty.