

Examination of the Organisational Culture of the Disaster Management On-duty Staff and Its Effect on the Psychological State of the Staff

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Introduction: No scientific research has been conducted so far among the staff of the County Operations Management Department under the County Police Department of the National Directorate General of Disaster Management of the Ministry of the Interior, but their work is of paramount importance in protecting citizens. The focus of this study is to examine the correlations between the culture of the organisation and the psychological state of the staff.

Aims: In our comprehensive research, we set the goal of learning about the organisational culture of the county police department and its impact on the general condition of the subordinate staff (motivation, conflict management, physical symptoms).

Methods: The research was conducted using the method of written questioning and a questionnaire in addition to the literature review. The data collection took place between 19 September and 5 December 2024, using Google Forms. A total of 347 people completed the questionnaire nationwide, 84% of the total personnel at that time. The questionnaire examined the relationships between Quinn's competing values organisational culture model and motivation, conflict management and physical symptoms in several dimensions. The data obtained were processed with the IBM SPSS Statistics 25 programme, using descriptive and statistical analyses designed to explore relationships selected in accordance with the rules of research methodology.

Results: The organisation under study strongly emphasises rule-following and regulation-based operating methods, which makes the dominance of hierarchical culture likely. The respondents did not perceive the different culture

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types as sharply distinct dimensions, but as a unified organisational culture. The most marked difference between the types of organisational culture is in the level of motivation, while the dimensions of conflict management are less sensitive to cultural characteristics. The difference between the groups in terms of extrinsic–intrinsic motivation was significant [$F(4;342) = 3.51$; $p = 0.008$]. The highest average score was achieved by those working in a team culture ($M = 3.69$; $SD = 1.20$), while the motivation of those belonging to a hierarchy culture was lower ($M = 3.18$; $SD = 1.37$). Organisational culture is closely related to psychosomatic and physiological strain. There was a significant difference between the groups on the overall scale of physical complaints [$F(4;61.12) = 3.52$; $p = 0.012$]. The most favourable value was shown by those working in a team culture ($M = 4.80$; $SD = 5.53$), while the highest value was measured in the adhocracy-type organisation ($M = 11.08$; $SD = 11.34$).

Conclusion: The organisational culture of the county police department under study is characterised by the dominance of hierarchical and task-oriented values, while the dimensions of innovative (adhocracy) and market or corporate culture are present at a lower level. It was found that the hierarchical and rule-based organisational structure can reduce the intrinsic motivation of employees but does not necessarily directly increase the level of stress or conflict. The team-oriented culture, on the other hand, showed the most favourable motivational pattern, which supports the positive psychological effects of a cooperative and supportive organisational environment. The on-duty staff of the disaster management department not only serves the organisation and citizens as professional law enforcement staff but also gives citizens a sense of security 24 hours a day, to which their complete physical, spiritual and mental health is just as important as an acceptable organisational culture for the entire staff.

Keywords: disaster management on-call service, organisational culture, motivation, conflict management, physical symptoms

Introduction

Organisations with a hierarchical structure operate differently from market-based companies in many respects, but it is important to note that in both chains there are people through whom the system works, who carry out the declared tasks. Managing this human factor is a particularly difficult task in the life of an organisation operating along subordinate–superior relationships, but it requires even greater attention, taking into account the continuous, dynamic changes that characterise our society.

The organisational structure of the National Directorate General of Disaster Management of the Ministry of the Interior (hereinafter: BM OKF) clearly reflects its scope of activity, the given organisational units were established according to the tasks to be performed, within which the work processes are typically organised into inspectorates and departments. The focus of this study is the personnel performing the national main

duty service of disaster management. In connection with the performance of operational management tasks, Decree 49/2011 (XII. 20.) of the Ministry of the Interior on the Service Regulations of the Staff of Professional Disaster Management Bodies and Civil Protection Organisations, as an interpretative provision, Section 2.r) defines the concept of on-call service as follows:

“A news-on-call, on-call, and main on-call service established to receive reports of fires, damage, and other extraordinary events and to take the necessary measures, to ensure constant contact with cooperating bodies, to notify bodies and persons authorised and obligated to take action, and to inform managers – in a shift service schedule – operating continuously without interruption.”

In our country, a Call Receiving Centre has been established in Miskolc and Szombathely, where call handlers (operators) receive calls coming through the emergency numbers (free-dial numbers 104, 105, 107, 112 that provide access to emergency services), pre-filter, process and forward them to the necessary direction, as an organisational unit established to perform general police tasks [Government Decree 361/2013 (X. 11.) on the Competence and Tasks of the Body Receiving Emergency Calls and on the Detailed Rules for the Performance of Its Tasks, para. 1 section 4, 7]. Depending on the nature of the emergency call, the organisational emergency units provided by the disaster management, ambulance services and the police participate in taking further measures, ensuring the prompt and professional handling of the caller's emergency call.

In all counties (and in the capital), the Disaster Management Directorates (a total of 19 county and 1 capital directorate are located in the organisational structure of the Ministry of the Interior) and the County Main Emergency Departments operate as territorial bodies. These departments operate the County Main Emergency Department, the Disaster Management Operations Service and the Operations Management Department of the Directorate, and coordinate and manage the on-duty activities of the given local body.

Organisation and organisational culture

Since the on-call staff is a unit of the BM OKF organisation, the specific features of the bureaucratic organisational culture characteristic of organisations with a hierarchical structure can be found in this organisational unit as well. Organisations are “systems made up of people and objects that pursue a permanent goal and have a formal structure and expedient rules. Another important characteristic of an organisation is that its members join it voluntarily, can leave it freely, and that organisational and individual goals may differ from each other” (DOBÁK-ANTAL 2016: 483).

The group that makes up an organisation can provide the following advantages for the organisation as a whole:

- the group has more knowledge and information together than each member individually
- problem-solving is possible from multiple perspectives

- better understanding of decisions, because the group participates in making decisions
- acceptance of participation is greater, if the group members have participated in the problem-solving process, they feel greater responsibility for implementing decisions

In addition to the advantages, Bakacsi (2015) also drew attention to the disadvantages, which he saw in the following: uncertain responsibility, conformity, group pressure, individual dominance, social hanging out, winning an argument or problem solving.

Organisational culture is a system of shared values, beliefs and habits, which, in interaction with the formal structure, form behavioural norms. The culture of an organisation has a significant impact on the functioning of the organisation and its effectiveness. According to Kotter–Heskett (1992), a strong organisational culture is a fundamental characteristic of high-performing organisations. A strong organisational culture is one in which the prevailing norms are widely accepted by the organisation's members. Denison (1990) attributed several positive effects to a strong culture, such as a high degree of identification with the organisation's goals, increased motivation, the development of learning competencies and the goal-directing role of shared values.

We distinguish different types of organisational culture created by the organisation, for example, mechanical and organic according to Slevin and Covin, power, task, role and personality culture according to Handy's grouping, clan or supportive culture according to Quinn's model, adhocracy or innovation-oriented, open culture, company or goal-oriented, rational culture and hierarchy or rule-oriented, bureaucratic culture (KISS–CSILLAG 2014).

Organisational culture plays a decisive role in both the organisation's innovation processes and the behaviour of its employees. Organisational culture creates a system of norms that can, on the one hand, orient employees towards innovative, creative behaviour and on the other hand, inhibit the development of new ideas. When can we say that an organisation's culture is innovation-friendly? If it supports risk-taking, encourages knowledge sharing, democratic decision-making, recognises creativity, does not stigmatise mistakes, and is open to change. Organisational culture is largely a system created and maintained by top managers, who determine the organisation's values, strategy, communication and expectations that appear as behavioural norms in everyday operations. A good leader is able to build a culture that supports creative thinking, cooperation, continuous learning and initiative (SZCZEPAŃSKA-WOSZCZYŃSKA 2015).

Characteristics of a bureaucratic organisation

Law enforcement agencies are part of public administration, which means that we consider them bureaucratic organisations. What characterises the bureaucratic model?

- its management is centralised
- precise and strict division of labour
- elaborated rules down to the smallest detail

- there is a sharp separation between managers and subordinates
- the relationship between managers and subordinates is impersonal (KLEIN 2021)

Kovács (2009) lists the following as the characteristic features of law enforcement culture: professionalism, command-and-control leadership based on a top-down, hierarchical system, conflict avoidance, suppression of criticism, preference for stability over flexible operation, strong control and formalisation. Pirger already emphasised in his 2015 study that innovativeness would be essential in the modern environment. An empirical research was conducted among the professional staff in Győr-Moson-Sopron county (printed questionnaires were filled out by the respondents between May and June 2014), in which 700 professionals participated, involving four law enforcement agencies (police, disaster management, penitentiary and National Tax and Customs Office). In terms of disaster management, the Győr-Moson-Sopron County Disaster Management Directorate and its branches (Sopron, Mosonmagyaróvár, Kapuvár, Győr and Csorna) participated in the survey. The most important finding of the study is that there is a difference between the perceived and desired cultural values, of which the level of managerial empathy, the social sensitivity of the manager, the issue of reward and the degree of willingness to innovate are highlighted.

Resistance to innovation impairs both the flexibility and efficiency of the organisation. The adoption of new technological trends is slow, modern protocols are rejected, the “this is how we are used to” operation strongly dominates, and managerial resistance to changes can be observed. Organisations lack regular feedback, joint post-evaluations, and the experiences of events are not incorporated into future operations. In addition to identifying the problems, the authors also outline solution proposals, in which the organisation of joint trainings and education programmes plays an important role, as well as the strengthening of informal relationships and the development of a common digital information system, which could also shape the organisational culture. Developing organisational culture is a basic condition for effective disaster management operations (ABDEEN et al. 2021).

The psychosomatic impact of organisational culture on staff members

The first encounter of law enforcement personnel with psychology occurs during the aptitude test, the compliance with which is a condition for the establishment of a service relationship. Para. 2 section 1 of Decree 45/2020 (XII. 16.) of the Ministry of the Interior on the Aptitude Testing of Professional Staff and Law Enforcement Administrative Staff Employed by Certain Law Enforcement Agencies under the Supervision of the Minister of the Interior defines aptitude test as follows:

“An examination of a member of the professional staff, an applicant for the professional staff, and an applicant to a law enforcement educational institution, the purpose of which

is to determine whether the person examined meets the general aptitude requirements for professional service or the specific requirements for the duties to be performed in the given service position, and whether he or she is suitable for performing activities involving increased workload and stress.”

The law already stipulates that the candidate must be able to bear increased workload as a basic condition for suitability. The competency test is also part of the suitability test, in which the psychological suitability test is part of the regulation prescribes a suitability test, focusing on basic competence, management competence and leadership competence. The health, psychological and physical suitability category requirements that all professional staff members must meet are referred to as minimum requirements by the law. The suitability test is carried out by a law enforcement psychologist.

The service relationship of members of the professional staff is regulated in detail by Act XLII of 2015 on the Service Relationship of Professional Staff of Law Enforcement Agencies, which covers professional members of all law enforcement organisations and other designated organisations, such as the Parliamentary Guard, foreign law enforcement bodies and antiterrorism bodies. In addition to the basic principles of the service relationship, the act also discusses in detail, among other things, the subjects of the service relationship, its specific nature, its content, modification, termination, classification and promotion, the system of salary, benefits, expense reimbursements, discounts and subsidies. Psychological suitability appears in several points in the law. One of the general conditions for advancement within the system is the existence of health, physical and psychological fitness. Only those who have the professional and law enforcement knowledge and leadership competencies necessary for a leadership position and whose health and psychological condition also make them fit to perform their leadership duties can enter a leadership position.

Understanding the psychological characteristics of law enforcement personnel is essential for the effective functioning of such organisations. The challenges of the work environment, which include constant stress, unpredictability and decisions that often affect human lives, require special mental strength and adaptability from employees. The psychological characteristics of law enforcement personnel are shaped by many factors. These characteristics include stress management skills, decision-making strategies, empathy, communication skills, leadership skills and teamwork. In addition, the unique psychological characteristics of law enforcement personnel are also influenced by the job title, length of service, individual experiences and working conditions:

“In order to perform law enforcement work effectively and sustainably, it is also essential for someone to have the psychological characteristics that enable him to maintain his physical and mental health despite the increased psychological strain caused by the work he does” (MALÉT-SZABÓ 2020).

The mental health and well-being of law enforcement officers is of paramount importance. Continuous stress, trauma and pressure at work can lead to serious long-term mental health problems, such as burnout, post-traumatic stress disorder (PTSD), sleep disorders,

and alcohol and drug addiction. Therefore, law enforcement agencies should place a high emphasis on maintaining mental health, managing stress and improving well-being at work. As Farkas (2018) puts it,

“supplementing the knowledge of public servants with psychological knowledge can help them understand the dynamic processes taking place in the organisation, which can lead to more efficient operation of the organisation. In the course of performing their duties, public servants make decisions – in some cases, they can exercise public authority and apply coercion – that can affect not only the life of the individual, but also the lives of smaller and larger communities in society. Their tasks are diverse, their decisions can be far-reaching, so their social responsibility is exercised at a higher level than average, therefore mastering the fundamental laws of human behaviour becomes particularly important for their professional development” (FARKAS 2018: 13).

Presentation of partial results of an empirical study

Study conditions

The research was carried out among the on-duty staff of the disaster management using the method of written questioning and a questionnaire. An online questionnaire containing 37 questions was sent to all county directorates and the capital directorate using Google Forms, which was completed by 347 people between 15 September 2024 and 5 December 2024, with nationwide coverage, 84% of the total on-duty staff at that time.

Hypothesis, objective, methodology

According to one of the assumptions of our research, the organisational culture of the county police department is strongly service- and task-oriented, which has a negative impact on the general condition of the subordinate staff (stress tolerance, conflict management, well-being, motivation). Our research goal was to get to know the culture and norms of the county police department as an organisational unit, based on the opinions of the staff who make up the organisation. Furthermore, our goal was to explore the connections between organisational culture and the general condition of the staff, looking for correlations that can be developed for both the staff and the organisation through organisational development. The questionnaire examined the connections between Quinn's competing values organisational culture model and motivation, stress, conflict management, burnout, organisational workload and emotional exhaustion in several dimensions. The comprehensive model developed by Quinn and his colleagues can be used in both competency testing and culture testing. The model is based on the fundamental recognition that people in general and leaders in particular often have to meet conflicting goals and expectations. These pairs of opposites were placed along two axes, one axis showing flexibility and control, the other axis showing inward and outward pairs of opposites. From this, the four leadership models and the corresponding organisational and corporate

cultures emerge. Below the four organisational cultures identified is presented, each with three characteristic values (KLEIN–KLEIN 2020: 732–735):

1. Team culture (supportive model)
 - respect for people
 - cultivation of workplace communities (togetherness)
 - commitment to the company, loyalty
2. Adhocracy (innovation-oriented model)
 - innovation, creativity
 - connection with the environment (integration)
 - appreciation of environmental and natural values
3. Company culture (goal-oriented model)
 - planning ahead
 - resource management
 - performance orientation
4. Hierarchy culture (rule-oriented model)
 - regulation, formalisation
 - communication
 - organisation, control

The questionnaire contains 36 statements, for which the respondent had to indicate the extent to which he or she agreed or disagreed on a scale from 1 to 5 (1 means: “I completely disagree”, 5 means: “I completely agree”). The results obtained were summarised based on an evaluation key, which resulted in the respondent achieving the highest score among the four cultures based on the values provided.

The data obtained during the survey were processed using the IBM SPSS Statistics 25 programme. One-sample t-test, one-way analysis of variance (ANOVA) and repeated measures ANOVA were used to test the hypothesis, Levene’s test was used to test the homogeneity of variance, and Greenhouse–Geisser correction was used in case of violation of sphericity. Post hoc comparisons were performed using the Bonferroni and Games–Howell procedures. Paired sample t-test was used to test the differences between paired variables.

Sample presentation

The total number of respondents was 347, 97.7% of whom were men (N = 339), and only 2.3% were women (N = 8). In terms of age distribution (diagram x), the highest proportion of the respondents was between 45–59 years old (56.2%, N = 195). 33.7% of the respondents were between 35–44 years old, while 7.2% were between 25–34 years old. Only 6 people (1.7%) were between 18–24 years old and 4 people were over 60 years old, accounting for a total of 1.2% of the sample.

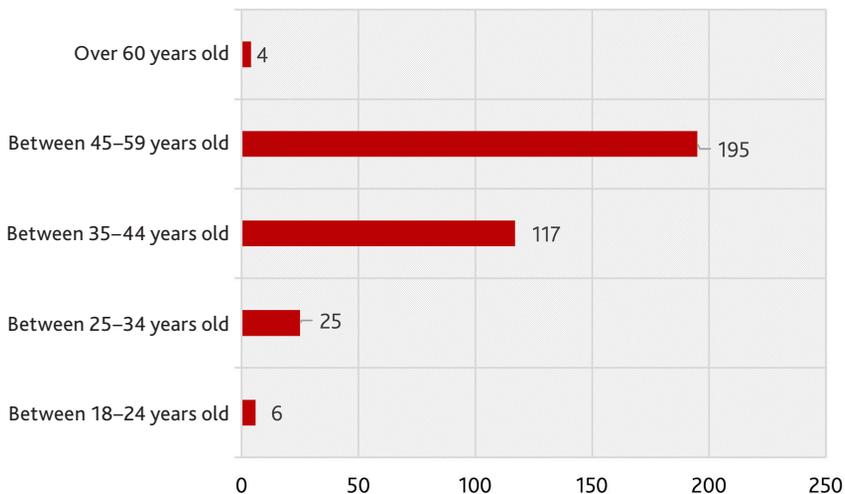


Figure 1: Distribution of firefighters participating in the survey (N = 347)
 Source: compiled by the authors

In terms of generation, we can state that more than half of the on-call staff of the disaster management department belong to Generation X (56.2%), followed by Generation Y (33.7%). The number of Generation Z and Boomers in this job is not typical.

In terms of educational qualifications, it can be said that more than half of the respondents have a college or university degree (56.5%, N = 196). 36.6% (N = 127) hold this job with a high school diploma, while 6.9% (N = 24) hold a vocational high school diploma.

The number of years spent at the organisational unit is shown in Figure 2.

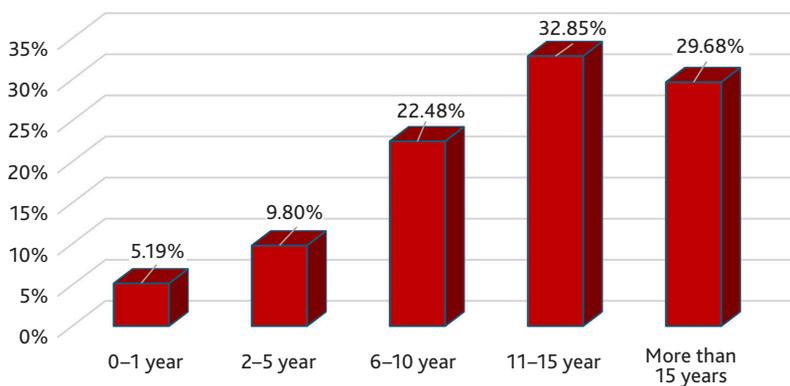


Figure 2: Distribution of answers to the question “How many years have you been working on the Board of Directors?” (N = 347)
 Source: compiled by the authors

The majority of respondents have more than ten years of service behind them (32.85%, $N = 114$), and the number of those who have worked on call for more than 15 years is outstanding (29.68%, $N = 103$). 22.48% of those who completed the questionnaire (78 people) have served in this organisational unit for between 6 and 10 years. Only 34 people (5.19%) started working in this position in the past year, and 9.8% of respondents (18 people) stated that they had been working here for between 2 and 5 years.

Partial results of the organisational culture study

In the research, we examined the extent to which the organisational culture of the county police department can be considered service- and task-oriented, and how this type of culture can affect the general psychological state of the subordinate staff. As a starting point, we analysed the perceptions regarding the everyday operation of the organisational unit (Figure 3).

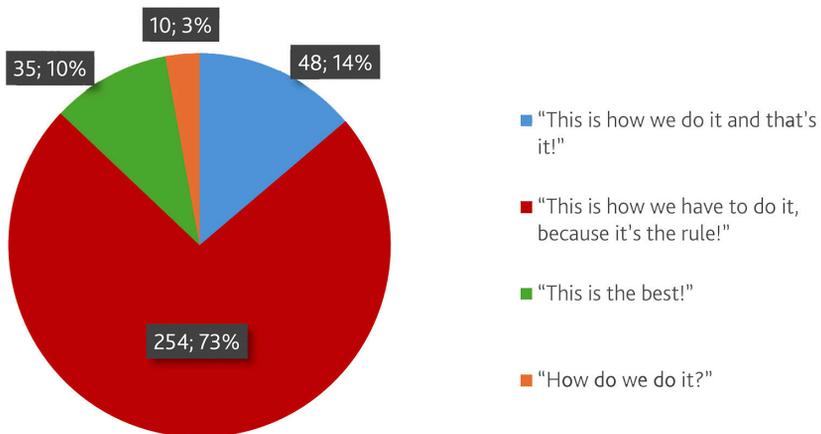


Figure 3: Distribution of responses to the question "Which sentence is most characteristic of the daily operations of your organisational unit?" ($N = 347$)

Source: compiled by the authors

When asked "Which sentence is most characteristic of the daily operations of your organisational unit?", 73.2% (254 people) of the respondents chose the alternative "This is how we have to do it, because it's the rule!", while 13.8% (48 people) chose "This is how we do it and that's it!", 10.1% (35 people) chose "This is the best!" and only 2.9% (10 people) chose "How do we do it?". The distribution of the answers was therefore extremely asymmetric, which was also confirmed by the Kolmogorov–Smirnov test assuming a uniform distribution as the null hypothesis ($Z = 10.003$; $p < 0.001$). This suggests that the organisation strongly follows the rules and regulations, which makes the dominance of the hierarchical culture likely.

The relationships between organisational culture types (team, adhocratic, corporate and hierarchical culture) were examined using Pearson's correlation coefficient. The results showed an extremely strong, positive correlation between the variables: the coefficients fell in the range of $r = 0.74-0.79$ ($p < 0.001$ in all cases). This suggests that the respondents did not perceive the different culture types as sharply distinct dimensions, but as a unified organisational culture.

Table 1: Correlation matrix of variables measuring each culture dimension

	Team culture	Adhocracy	Company culture	Hierarchy culture
Team culture	1.000	0.770	0.789	0.765
		(< 0.001)	(< 0.001)	(< 0.001)
Adhocracy		1.000	0.746	0.763
			(< 0.001)	(< 0.001)
Company culture			1.000	0.758
				(< 0.001)
Hierarchy culture				1.000

Source: compiled by the authors

From a content perspective, the expected opposite relationship in Quinn's competing values model (e.g. Team \leftrightarrow Hierarchy, Adhocracy \leftrightarrow Corporate culture) did not prevail. The high concordance between the culture types indicates that the work and management style in the examined organisation takes place within a unified, regulated and hierarchical framework, which led to the homogeneity of the culture perception. Overall, the correlation matrix shows that the culture variables are not empirically separated from each other but rather form a coherent cultural construct. Based on Quinn's organisational culture questionnaire, we classified the respondents according to what they consider the organisation's culture to be most like. Based on the results, half of the respondents (173 people, 50%) believe that hierarchical culture is the most characteristic of the organisation, while nearly every fifth respondent considers team culture to be characteristic (65 people, 19%). Fewer people described the organisation as an adhocracy (24 people; 7%), and the least people viewed their organisation as a company culture (14 people; 4%). Based on the evaluations of 71 people (20%), several cultures are characteristic of the county police department under study.

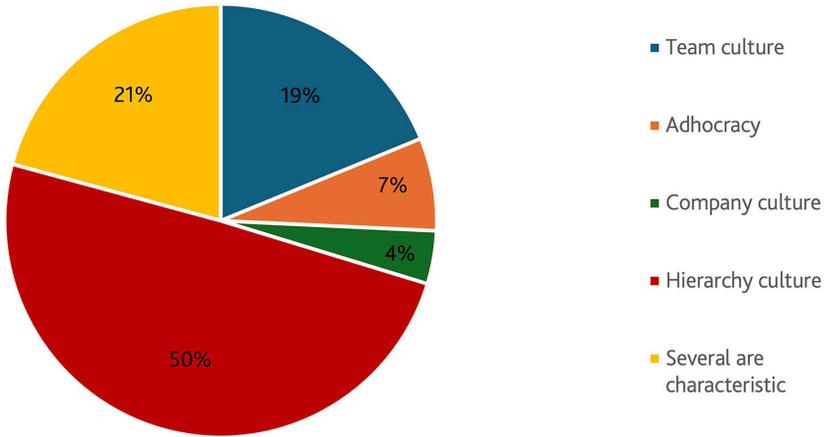


Figure 4: Assessment of organisational culture according to Quinn's categories (N = 347)
 Source: compiled by the authors

To compare the mean values of the four organisational culture types (team, adhocracy, firm, and hierarchy culture), we performed a repeated measures analysis of variance (RM-ANOVA) based on Quinn's competing values model. The analysis showed a significant main effect between culture types, $F(2.97, 1028.21) = 106.81, p < .001, \eta^2_p = .236$, indicating a larger than medium effect size. This means that there is a statistically significant difference between the different dimensions of organisational culture.

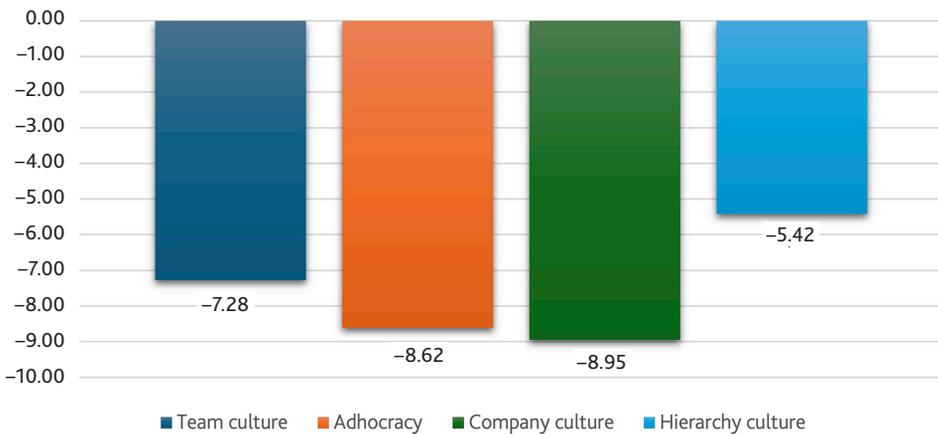


Figure 5: Average value of individual dimensions of organisational culture (N = 347)
 Source: compiled by the authors

Based on descriptive statistics, hierarchy culture ($M = -5.42$; $SD = 5.65$) had the highest value (i.e. the least negative), while company culture ($M = -8.95$; $SD = 6.01$) and adhocracy ($M = -8.62$; $SD = 5.55$) had the lowest mean scores. Team culture ($M = -7.28$; $SD = 6.45$) had the mean score in between.

According to pairwise comparisons with Bonferroni correction, hierarchy culture was significantly different from all three other culture types ($p < 0.001$ in all cases). Furthermore, the mean score of team culture was significantly higher than the values of adhocracy ($p < 0.001$) and company culture ($p < 0.001$); however, there was no significant difference between adhocracy and company culture ($p = 0.819$).

These results indicate that the organisational culture of the examined county police department is characterised by the dominance of hierarchical and task-oriented values, while the dimensions of innovative (adhocracy) and market or company culture are present at a lower level. Team orientation is relatively stronger, but still weaker than hierarchical organisational logic. This pattern is consistent with the hypothesis that organisational operation is more service-, task- and rule-oriented, which, according to later analyses, may have an adverse effect on the psychological well-being and motivation of the staff.

Partial results of the study of the relationship between motivation, conflict management and organisational culture

A one-way analysis of variance (ANOVA) was used to examine whether differences in the dimensions of motivation and conflict management were associated with different cultural orientations among respondents classified by organisational culture type. Based on the Levene test, homogeneity of variances was achieved for most variables ($p > 0.05$), except for workplace stress [$F(4;342) = 4.32$; $p = 0.002$], so the Welch correction was applied for this variable.

Table 2: Evolution of the motivation and conflict management scales as a function of perceived organisational culture

Scale	Organisational culture	N	M	SD	Levene (F, df1, df2, p)	ANOVA (F, df1, df2, p)
Extrinsic–intrinsic motivation	Several are characteristic	71	2.82	1.64	1.996	3.509
	Team culture	65	3.69	1.20	4.000	4.000
	Adhocracy	24	3.00	1.35	342	342
	Company culture	14	3.43	1.65	0.095	0.008
	Hierarchy culture	173	3.18	1.37		

	Several are characteristic	71	5.58	2.54	0.871	1.144
Conflict management – competitive	Team culture	65	5.62	2.82	4.000	4.000
	Adhocracy	24	5.75	2.72	342	342
	Company culture	14	6.00	2.00	0.481	0.335
	Hierarchy culture	173	5.08	2.57		
Scale	Organisational culture	N	M	SD	Levene (F, df1, df2, p)	ANOVA (F, df1, df2, p)
Conflict management – problem solver	Several are characteristic	71	6.66	1.59	0.413	0.530
	Team culture	65	6.83	1.50	4.000	4.000
	Adhocracy	24	6.75	1.65	342	342
	Company culture	14	6.14	1.79	0.799	0.714
	Hierarchy culture	173	6.68	1.68		
Conflict management – compromise seeker	Several are characteristic	71	6.93	1.98	0.761	2.353
	Team culture	65	7.80	1.96	4.000	4.000
	Adhocracy	24	6.88	1.85	342	342
	Company culture	14	7.14	2.32	0.551	0.054
	Hierarchy culture	173	7.46	1.81		
Conflict management – avoidant	Several are characteristic	71	5.42	1.89	1.003	1.689
	Team culture	65	4.94	2.08	4.000	4.000
	Adhocracy	24	5.92	1.72	342	342
	Company culture	14	5.36	1.39	0.406	0.152
	Hierarchy culture	173	5.60	2.02		
Conflict management – adaptive	Several are characteristic	71	5.41	1.85	1.402	0.922
	Team culture	65	4.82	2.29	4.000	4.000
	Adhocracy	24	4.71	2.49	342	342
	Company culture	14	5.36	2.02	0.233	0.451
	Hierarchy culture	173	5.19	2.22		

Source: compiled by the authors

The difference between the groups regarding extrinziK–intrinsic motivation was significant [$F(4;342) = 3.51; p = 0.008$]. The highest mean score was achieved by those working in a team culture ($M = 3.69; SD = 1.20$), while the motivation of those belonging to a hierarchy culture was lower ($M = 3.18; SD = 1.37$). This suggests that a team-oriented, collaborative environment has a more favourable effect on intrinsic motivation, while a rule-based, hierarchical structure is more characterised by extrinziK motivation. Adhocracy and company culture showed intermediate values ($M = 3.00–3.43$), which suggests that in innovative but less stable environments, the direction of motivation may fluctuate.

No statistically significant difference ($p > 0.05$) was found for any of the conflict management styles, although descriptive statistics show slight patterns. The competitive

style was lowest in the hierarchical culture ($M = 5.08$; $SD = 2.57$), while it was slightly higher in the corporate culture ($M = 6.00$; $SD = 2.00$), which may indicate that competition is more accepted in market-oriented organisations than in hierarchical structures.

There was also no significant difference in problem-solving and compromise-seeking conflict management styles ($p = 0.714$; $p = 0.054$, respectively), but those working in team cultures achieved slightly higher scores ($M = 6.83$; $SD = 1.50$; $M = 7.80$; $SD = 1.96$, respectively), which may indicate a stronger commitment to group cooperation and joint decision-making. In the case of hierarchy cultures, these values were slightly lower ($M = 6.68$; $SD = 1.68$; $M = 7.46$; $SD = 1.81$, respectively), which may indicate a limited willingness to compromise as determined by the formal rule system.

There was no significant difference in the dimensions of avoidant and adaptive conflict management ($p = 0.152$; $p = 0.451$, respectively), although according to the descriptive values, employees in adhocracy cultures use an avoidant strategy more often ($M = 5.92$; $SD = 1.72$), which may reflect the avoidant coping tendencies of the uncertain, changeable organisational environment.

The results show that the most marked difference between the types of organisational culture is in the level of motivation, while the dimensions of conflict management are less sensitive to cultural characteristics. This confirms the part of the hypothesis that hierarchical and rule-based organisational structures can reduce employees' intrinsic motivation, but do not necessarily directly increase the level of stress or conflict. Team-oriented cultures, on the other hand, showed the most favourable motivational pattern, which supports the positive psychological effects of a cooperative and supportive organisational environment.

Partial results of the study of the relationship between physical complaints and organisational culture

The overall scale of physical complaints and the analysis of the subscales formed from it by factor analysis examined whether there were differences in the appearance of somatic symptoms among employees belonging to different organisational cultures. Based on the one-way analysis of variance (ANOVA), significant differences were found in several dimensions, which supports the relationship between organisational culture and physical and mental strain.

Table 3: Development of the main and subscales of physical complaints as a function of perceived organisational culture

Scale	Organisational culture	N	M	SD	Levene (F, df1, df2, p)	ANOVA (F, df1, df2, p)
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Physical complaints	Several are characteristic	71	8.80	12.48	6.943	3.522
	Team culture	65	4.80	5.53	4.000	4.000
	Adhocracy	24	11.08	11.34	342	61.118
	Company culture	14	7.36	9.12	0.000	0.012
	Hierarchy culture	173	7.50	9.32		
Scale	Organisational culture	N	M	SD	Levene (F, df1, df2, p)	ANOVA (F, df1, df2, p)
Physical complaint – Psychosomatic	Several are characteristic	71	0.22	1.32	9.946	5.049
	Team culture	65	-0.28	0.36	4.000	4.000
	Adhocracy	24	0.31	1.20	342	59.877
	Company culture	14	0.00	0.96	0.000	0.001
	Hierarchy culture	173	-0.03	0.93		
Physical complaint – Musculoskeletal	Several are characteristic	71	0.04	1.07	2.702	1.794
	Team culture	65	-0.22	0.77	4.000	4.000
	Adhocracy	24	0.31	1.09	342	60.969
	Company culture	14	-0.07	0.97	0.030	0.142
	Hierarchy culture	173	0.03	0.90		
Physical complaint – Cardiovascular symptoms	Several are characteristic	71	0.35	0.54	3.134	1.902
	Team culture	65	0.24	0.33	4.000	4.000
	Adhocracy	24	0.51	0.49	342	62.606
	Company culture	14	0.23	0.36	0.015	0.121
	Hierarchy culture	173	0.30	0.44		
Physical complaint – Stomach and intestinal symptoms	Several are characteristic	71	0.30	0.51	4.571	2.603
	Team culture	65	0.15	0.23	4.000	4.000
	Adhocracy	24	0.33	0.46	342	61.541
	Company culture	14	0.29	0.35	0.001	0.044
	Hierarchy culture	173	0.25	0.39		
Physical complaint – Muscle and joint symptoms	Several are characteristic	71	0.44	0.56	8.762	3.749
	Team culture	65	0.25	0.26	4.000	4.000
	Adhocracy	24	0.52	0.54	342	61.285
	Company culture	14	0.31	0.43	0.000	0.009
	Hierarchy culture	173	0.39	0.46		

Physical complaint – Sleep problems	Several are characteristic	71	0.42	0.59	3.157	1.256
	Team culture	65	0.24	0.42	4.000	4.000
	Adhocracy	24	0.42	0.55	342	61.531
	Company culture	14	0.29	0.47	0.014	0.297
	Hierarchy culture	173	0.32	0.48		
Physical complaint – Sexual problems	Several are characteristic	71	0.25	0.52	7.163	3.296
	Team culture	65	0.09	0.26	4.000	4.000
	Adhocracy	24	0.38	0.56	342	60.07
	Company culture	14	0.32	0.72	0.000	0.017
	Hierarchy culture	173	0.23	0.47		
Physical complaint – Addictions	Several are characteristic	71	0.30	0.54	11.740	3.385
	Team culture	65	0.06	0.24	4.000	4.000
	Adhocracy	24	0.27	0.51	342	62.025
	Company culture	14	0.14	0.31	0.000	0.014
	Hierarchy culture	173	0.15	0.38		
Physical complaint – General symptoms	Several are characteristic	71	0.36	0.51	4.892	2.834
	Team culture	65	0.20	0.30	4.000	4.000
	Adhocracy	24	0.50	0.56	342	60.282
	Company culture	14	0.39	0.50	0.001	0.032
	Hierarchy culture	173	0.31	0.41		

Source: compiled by the authors

There was a significant difference between the groups on the overall scale of physical complaints [$F(4;61,12) = 3.52$; $p = 0.012$]. The most favourable value was shown by those working in the team culture ($M = 4.80$; $SD = 5.53$), while the highest value was measured in the adhocracy-type organisation ($M = 11.08$; $SD = 11.34$). The hierarchical culture ($M = 7.50$; $SD = 9.32$) and the company culture ($M = 7.36$; $SD = 9.12$) showed intermediate values, suggesting that flexible or highly structured work environments both increase the frequency of physical complaints, while a supportive, team-oriented organisational climate has a protective effect.

Among the scales created by factor analysis, the differences were also significant in case of the psychosomatic factor [$F(4;59,88) = 5.05$; $p = 0.001$]. Team culture also showed the lowest mean value here ($M = -0.28$; $SD = 0.36$), while adhocracy ($M = 0.31$; $SD = 1.20$) and company culture ($M = 0.00$; $SD = 0.96$) represented higher values. This pattern indicates that a stable, cooperative workplace environment reduces the psychological appearance of physical stress symptoms, while more unstable, innovation-oriented operation is associated with increased psychosomatic burden.

In case of musculoskeletal complaints, the ANOVA result [$F(4;342) = 2.70$; $p = 0.030$] showed a weak but significant difference, the highest value occurred in the adhocracy group ($M = 0.31$; $SD = 1.09$), while team culture employees reported fewer such

symptoms ($M = -0.22$; $SD = 0.77$). This suggests that the continuous need for adaptation and change in work rhythm in the innovative environment may cause increased physical strain.

Based on the thematic breakdown of physical complaints, several specific areas also showed significant differences. Gastrointestinal symptoms [$F(4;61.54) = 2.60$; $p = 0.044$], musculoskeletal symptoms [$F(4;61.29) = 3.75$; $p = 0.009$], sexual problems [$F(4;60.07) = 3.30$; $p = 0.017$], addictions [$F(4;62.03) = 3.39$; $p = 0.014$] and general symptoms [$F(4;60.28) = 2.83$; $p = 0.032$] all indicated significant differences. In these cases, team culture was the most favourable (lowest means), while adhocracy and company culture showed the highest values. Hierarchical culture remained in an intermediate position, but its values approached the unfavourable range in almost all dimensions of physical symptoms. This pattern also reflects the physical–physiological consequences of task- and rule-oriented functioning, which can be interpreted as the combined effect of persistent stress, lack of exercise and a low sense of control.

No significant differences were found in the case of cardiovascular symptoms ($p = 0.121$) and sleep problems ($p = 0.297$), suggesting that these symptoms appear more as a general stress reaction than as a specific effect of the culture type.

Summary

As a leader of an organisation, it is necessary to constantly monitor the world around us, to look for cause-and-effect relationships, good and better solutions. In order to stay afloat in this rapidly developing world, it is essential to develop ourselves, as well as the skills of employees and subordinates (such as problem recognition, efficiency, time management, stress tolerance, etc.), which should be part of strategic management. Organisations with a hierarchical structure are organisational formats where the individual levels – in a well-defined hierarchy – are in a management and supervisory relationship with each other. The essence of this arrangement is that it clarifies decision-making processes, the division of responsibility and power, and work processes. The advantage of hierarchical organisations is that responsibility and management can be distributed clearly and effectively. Clarity and systematisation can help in efficient operation and the achievement of goals. However, they may have the disadvantage that communication is often slow and cumbersome, and bureaucracy and formality may hinder flexibility and quick decision-making. The results presented in this study overall support the hypothesis that the organisational culture of the county police department is predominantly hierarchical, rule- and task-oriented. This type of culture has a moderately negative impact on employee motivation, while causing less marked differences in stress and conflict management styles. Compared to team-oriented and collaborative organisational forms, the hierarchical structure supports less internal commitment, independent initiative and creative problem solving, which may lead to a decrease in the organisation's adaptability and psychological flexibility in the long term. Overall, the results of physical complaints confirm that organisational culture is closely related to psychosomatic and physiological strain. Hierarchical and adhocratic modes of operation are associated with a higher

incidence of stress-related physical symptoms, while team culture appears as a stabilising and health-protective factor.

The emergency response service is a vital element of every nation's disaster management system. It is essential that this organisational unit has a prepared, reliable and efficient staff who can respond quickly and effectively during emergencies and extraordinary events, contributing with their work to the rapid elimination of damage events, minimising their consequences, and participating in saving human lives by reacting in time, making appropriate decisions, and initiating the necessary and justified intervention chain for the elimination of the given event. Staff members working in this field not only provide citizens with a sense of security 24 hours a day but also serve the organisation and citizens as professional law enforcement personnel. Therefore, it deserves special attention to what extent the staff members reflect the characteristics of the organisational culture in their own general and psychosocial states, and possibly in physical and emotional symptoms.

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