

# Psychological Peculiarities of Styles of Professional Activity and the Level of Stress among Members of Election Commissions in Parliamentary Elections in Ukraine

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**Abstract:** *The results of the empirical study among the members of election commissions (N=112, age: 25–68 years) for Ukrainian parliamentary elections 2019 to study the styles of their professional activity and the level of stress are presented. The most pronounced style of professional activity is “Professional-perfectionist”, which contributes to the high productivity of members of election commissions. The work tasks at a polling station are best fulfilled by the person with a more pronounced style of professional activity “Formalist-bureaucrat”. It is undesirable to involve working at the polling station persons with high rates in the style of the professional activity of “Nihilist”. It has been found that the major psychological difficulties of working in election commissions are due to excessive psycho-emotional and psychophysical overload, to which some members of the commissions are not ready. This overload can cause them to experience certain mental stress, different levels of stress, their manifestation, and consequences. Although the majority of participants demonstrated a high degree of adaptability to stressful workloads, members of commissions should perform their duties at a highly professional level in extremely difficult circumstances, including at night and in a state of intense emotional stress. The results of the research should be taken into account during the organization of the election process and the holding of elections to central and local authorities. To improve it, it is advisable to organize and conduct early training and skills upgrading of members of election commissions. To do this, it is necessary to develop and implement training programs for the development of style peculiarities of professional activity, which will contribute to effective work in the election commission and overcoming psychological difficulties.*

**Keywords:** *parliamentary elections; election commissions; style of professional activity; stress; Ukraine.*

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## 1. Introduction

In the last decades, people's activity in political life is an important aspect of their social interests, which has attracted the particular attention of researchers (Cawvey et al., 2017; Friesen, 2019; James, 2020; Laanela, 2017). Modern democracy is determined by the nature of the organization of the electoral process: regular, well-organized elections are a prerequisite for the existence of the democratic political system (Clark & James, 2017; Elklit, 1999; Lijphart, 2012; Msila & Matjila, 2017; Pastor, 1999; Shevel, 2015). Political behavior of the human usually depends on various factors: socio-cultural and geographical environment, individual experiences related to the conduct of elections, socio-economic determinants, demographic indexes, ethnic indicators, and others (Elklit & Reynolds, 2002; Mondak et al., 2010). The management and delivery of elections is a core task for local government officials in many countries but often overlooked by research and policymakers (James, 2020; James & Clark, 2020).

Three rounds of elections took place in Ukraine in 2019, the last of which took place on July 21, 2019. In Ukraine, the subjects of the election process, except for voters, candidates, parties, and their observers are election commissions. Election commissions are special collegial bodies authorized to organize the preparation and conduct of elections, as well as to ensure the implementation of the electoral rights of citizens (Vyborchyy kodeks Ukrayiny, 2019, p. 14). District and precinct election commissions are temporary bodies created during the preparation and conduct of elections. The election commission may include citizens of Ukraine who have the right to vote in elections. Elected candidates, their proxies, party representatives, official observers, government officials, court and law enforcement officials cannot be members of election commissions. The election commission selects the chairman, deputy, and secretary of the election commission (Vyborchyy kodeks Ukrayiny, 2019, p. 15).

Concerns about electoral malpractice have been raised in many democracies in recent years because of errors made in the administration of elections by local election officials (James, 2013). Successful work of election administrations depends on the entire army of workers responsible for direct interaction with the population at polling stations (Boyko, Herron & Sverdau, 2014). The effectiveness of the work of the election commissions is of great importance as it determines the level of public confidence in the electoral process as a whole and, even, can have an impact on the election results (Clark & James, 2017; Herron, Thunberg & Boyko, 2015).

At the same time, only a small part of the research of the election process deals with the study of the psychological peculiarities of professional electoral management and psychological climate in the election commissions (Catt et al., 2014; Garnett, 2019; James et al., 2019; van Ham & Lindberg, 2015). The style characteristics of the activity and the psycho-emotional states of the heads and members of the election commissions at different levels during the preparation and holding of the elections are still poorly understood. Theoretical-empirical study of these psychological aspects will facilitate the selection of members of election commissions and the development of effective programs for their training and psychological support for the conduct of elections.

The study of the system of involvement of polling stations workers in the USA indicates that there is a problem of involvement of highly qualified workers if they are volunteering or paid low (Burden & Milyo, 2015). The empowerment of election officials and executives is usually overlooked, understated, or simply ignored (Maphunye, 2017). In Ukraine, members of election commissions are also involved as volunteers, or for a fairly symbolic fee, and work in groups for a rather limited period of time. Moreover, according to Ukrainian analysts, the voting procedure in the electoral legislation “is written without taking into account the basic physiological and psychological capabilities of the average citizen” (Vyborchyy kodeks Ukrayiny, 2019). Does such a recruiting system raise a number of questions as to how the efficiency of electoral management can be enhanced in the context of intense workload in the run-up to the election and on Election Day itself?

The results of American cross-national surveys indicate that the nature of human resources management practices has a significant impact on the performance of election commission members (James, 2019). Thus, the use of practices aimed at developing skills, increasing the motivation of workers leads to improved results of their work, reduces the level of stress, and reduces the number of those who wish to leave the position (James, 2019).

Ukrainian scientists presented a socio-psychological portrait of a member of a precinct election commission on the basis of the expert poll (Zhvaniia & Mahda, 2016). It was found that “the main motive for participating in the work of election commissions is monetary remuneration. For those members of the commissions who find themselves relatively stable in their political orientations, a strong motive is socio-political – to make elections fair and transparent” (Zhvaniia & Mahda, 2016). In general, the leading professional values for members of election commissions are the

desire for security, stability, and predictability of professional and personal life; maintaining balance, harmony between career and personal life; orientation on the realization of the main socially important values in own activity. At the same time, the lowest value for the members of the election commissions is the desire to solve unique problems, to overcome obstacles, to constantly be in the struggle; aspirations for career advancement, focus on integrating the efforts of other employees, managing different aspects of the organization activity; focus on creating new services (Zhvaniia & Mahda, 2016).

In the course of their professional activities, each person performs his or her duties in his or her own style. This style is expressed in the way in which the specialist approaches the fulfillment of their duties, whether he shows initiative and creativity, in which way he or she controls the results of his own activity. Working in the election commission requires not only a specific set of skills and competencies but also a certain style of activity (Hall et al., 2012). That is why the study of the styles of the professional activity of members of election commissions is of great scientific interest.

In 1925, Adler first used the concept of “style” in a psychological context. He understood the style as the peculiarities of human behavior that contribute to the compensation of the individual defects (physical, mental, and social) (Adler, 2000). Later, the term “style” was used by other psychologists to explain various psychological manifestations (Allport, 1961; Hall et al., 2012; Leterov & Aliksieiev, 2011; Moll, 2011; Royce & Powell, 1983; Tolochek, 2000). In 1961, Allport defined style as individual differences in expression, indistinct manner of behavior, reflecting the attitude of the individual to objects and subjects of life. He attributed to the style “instrumental” and “operational” by nature personality traits (ways and means of behavior), through which a person realizes their motives and goals (Allport, 1961). In 1983, Royce and Powell distinguish three lifestyles depending on the chosen strategy for achieving individual values: “altruistic”, aimed at serving people; “individualistic”, aimed at self-actualization, and the “Icarus like”, focused on creativity.

Traditionally, in social psychology, the problem of leadership (management) style is explored, which means the typical system for the leader of ways and techniques of influence on subordinates (Tolochek, 2000). The author recognizes the objective organization of the environment (components, conditions of work, interpersonal space) as the initial conditions of formation and expression of style phenomena. The style of the professional activity of a person under conditions of high psycho-emotional stress, psychophysical overload, great responsibility, and other stressful

factors becomes especially important and revealing (Prykhodko et al., 2020). A person can achieve high levels of work at the price of constant fatigue and stress (Melnik, Prykhodko & Stadnik, 2019). Chronic adverse functional states lead to the formation of negative emotional and personal traits. In 2011, Moll points to two main strategies of forming a positive internal assessment of professional activity success: “active life strategy”, ability to overcome oneself, and “adaptive strategy”, which, from the point of view of maximum revealing personal opportunities, self-realization, is no less effective than the first one.

Stressogenic, sometimes even extreme, factors impede the work of election commissions in modern Ukraine (Boyko & Herron, 2015; Ivanchenko et al., 2019; Shevel, 2015). This is quite natural since Election Day and the election campaigns that precede it have recently become very stressful for many Ukrainian citizens (Bevza, 2019). It is quite obvious that any individual feels natural striving to work in comfortable non-stressful conditions and with the most positive result of their own activities. But the complexity of life, derived from various problems that have both a wide range of determinants and an extensive set of manifestations (cognitive, behavioral, emotional, and physiological), does not permit to use of effective means of dealing with stress in order a person might be capable to reveal own mobilization resources and recreational potential for increasing a proper productive-energetic outcome (Prykhodko et al., 2019).

*Research hypothesis:* the styles of the professional activity of the members of election commissions, as a kind of typical pattern of combining their individual resources, level of professional development and external environment, which is sometimes quite stressful, directly influence the results of their activity in the preparation and conduct of elections.

*The goal of the research:* to determine the styles of professional activity among members of election commissions that most effectively fulfill their duties, as well as establish the main factors that negatively affect their work.

## **2. Materials and Methods**

### ***2.1. Participants***

112 members of the election officials (age: 25-68 years) who worked in the snap Ukrainian Parliamentary elections on July 21, 2019, took part in the empirical study. Data collection was organized over the internet two weeks after Election Day.

## 2.2. Instruments

Taking into account the specific nature of the organization of the electoral process at polling stations, difficult working conditions, and the intensity of workloads, psychodiagnostic of the styles of the professional activity of the election officials has been carried out in conjunction with the analysis of indicators of their stress. It was intended that such a design of the research would make it possible to prepare some recommendations on the organization of the electoral process at polling stations, effective management in view of the peculiarities of the psychological climate of the election officials.

The study used a specially designed questionnaire (Table 1) and psychodiagnostic techniques. The questioning and testing were conducted anonymously among all constituency subjects at the precinct and district election commissions that functioned during the elections in Odesa (Ukraine).

**Table 1.** Questionnaire “Socio-psychological characteristics of the organization and conduct of elections”

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Instruction: “Dear Respondent! In 2019, Ukraine held three rounds of elections. In order to develop proposals for improving the electoral process and introduce modern curricula for the effective preparation of election officials, we ask you to participate in the study of the socio-psychological characteristics of the organization and conduct of elections, as well as the personal characteristics of members of the election commission. The proposed survey is conducted anonymously.”

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1. Your age: \_\_\_\_\_.
  2. Gender: \_\_\_ male; \_\_\_ female.
  3. Education: \_\_\_ secondary; \_\_\_ medium special; \_\_\_ incomplete higher; \_\_\_ higher; \_\_\_ two higher.
  4. Sphere of main professional activity: \_\_\_ public service; \_\_\_ industrial production; \_\_\_ education and science; \_\_\_ services sector; \_\_\_ business; \_\_\_ I am temporarily not working; other \_\_\_\_\_.
  5. Position in the election commission \_\_\_\_\_.
  6. What, in your opinion, was psychologically difficult during the work of the election commission and the conduct of elections (the choice is not limited to one option):
    - lack of experience and/or competence to perform duties in the election
-

commission;

- high level of responsibility;
- excessive emotional stress and stress;
- isolation, inability to leave the polling station;
- tensions with other members of the commission;
- conflicts and misunderstandings with voters;
- conflicts with observers, proxies, media representatives, etc.;
- work at night, lack of adequate rest;
- physical overload;
- work in extreme mode and above normal;
- violation of the usual regimen and diet;
- feeling unwell;
- another answer \_\_\_\_\_.

7. What negatively affects the activities of election commissions and elections (the choice is not limited to one option):

- shortcomings in the selection of members of election commissions;
- untimely appointment of members of election commissions;
- shortcomings in the organization and preparation for the elections;
- low level of information and methodological support for the activities of election commissions;
- shortcomings of organizational and managerial communication;
- psychological reluctance of members of the commission to work in extremely difficult and stressful conditions;
- low level of managerial competence of the leadership of election commissions;
- deficiencies in the material and economic support of the activities of election commissions and elections;
- violation of the principle of collegiality and justice in the distribution of duties and remuneration;
- unhealthy moral and psychological climate in the team;
- poor organization of the procedure for obtaining counting protocols;
- another answer \_\_\_\_\_.

8. What will contribute to the successful work of election commissions and the conduct of elections (the choice is not limited to one option):

- experience and competence of commission members;
  - high organizational and leadership qualities and skills of heads of election
-

commissions;

- quality training (special training) for commission members;
  - transparency of the election process and absence of irregularities;
  - trust / friendly relations between members of the commission;
  - fair distribution of responsibilities among members of the commission;
  - ability to create comfortable working conditions, including taking time for rest and eating;
  - high motivation of the members of the election commissions, including proper remuneration;
  - another answer \_\_\_\_\_.
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The method “Professional activity styles” was used to evaluate the types of professional behavior (Lifterov & Aliksieiev, 2011). According to this method, respondents were rated on the following scales of professional activity styles:

1. “Professional-perfectionist” is a person who wants to do his job perfectly and wants to be perfect. With a pronounced style, such people are responsible enough employees, carefully adhere to all the recommendations, take into account all the details and nuances, often go towards and produce a wonderful, almost flawless result. However, it is often difficult for others to withstand their busy working mode, high criticality. They often experience mental exhaustion under the conditions of a large amount of work and the inability to keep them up to date. In the unspoken style, such an employee has a passive attitude toward the performance of their duties, without haste or fuss. Such people do not burden themselves with a large amount of work, clearly and independently separating important things from minor ones, without giving them particular importance.

2. “Formalist-bureaucrat” is an employee who performs his / her professional duties solely on the job description. With a pronounced style for such a person, the main thing is to work out their time and perform a certain amount of work. Typically, such an employee is low-initiative but disciplined, he or she is noted for conservatism, the cult of formal requirements and regulatory documents, the need for clear instructions, planning activities, and the availability of assigned functions. Indifference to the end result of their activities is observed. Such a person is not flexible enough to deal with people, does not take into account their individual abilities. With the unspoken style, such an employee shows uncompromising and stubbornness in significant moments of professional activity. Formalist-bureaucrat seeks to solve important matters quickly, showing activity and

independence. He/she often allows for clutter in the workplace, possibly even errors in the execution of business records, welcomes changes, and approves any innovations. In relations with colleagues, such a person is open and sociable.

3. “Creative innovator” is an employee who thinks, analyzes a situation, always looks for the optimal and original ways of solving a problem, and flexibly approaches any situation. With a pronounced style he/she can look at the situation from the unexpected side, is not afraid to express paradoxical ideas and wants to reach the goal, to see the results of his/her work. He/she has the courage to try new things and take risks to achieve the desired result. Such a person does not tolerate strict regulations and monotonous mode of work. However, this employee is rather unorganized: sometimes, when distracted by interesting details, he/she cannot do the main thing on time. With the unspoken style, one can see self-doubt, a tendency to uncertainty, and mood swings when solving problems. Such a person is able to spend effort on ordering, structuring, and achieving useful and rational actions. He/she is indecisive and cautious in new endeavors, weakly susceptible to emotional experiences.

4. “Philosopher-theoretician” is a person who discusses and seeks to solve problems from beginning to end; using ready-made knowledge obtained by other people, expressed in conceptual form, judgments, and conclusions. With a pronounced style, most often, to perform the work he/she uses a competent calculation of different combinations and the choice of the best option based on theoretical research. Such a person does not take on someone else’s belief, loves to reach on their own to the true cause of the situation. It becomes difficult to perform several tasks, to do things at once, especially in a hurry. With the unspoken style, one can see spontaneity and emotionality in actions, backed by new experiences and circumstances.

5. “Specialist practitioner” – such a person is associated with independence, practical orientation, inexhaustible energy, and optimism. With a pronounced style, he/she has the talent of coordinator of the efforts of colleagues, the ability and willingness to socially loyal communication with other people and at the same time the ability to go against the current. Such an employee has a tendency to risk, a desire to fight and win, a need for self-actualization and public recognition. The hallmark is activity – willingness to act in uncertainty. He/she is interested in performing routine, monotonous tasks, in the end, the result of which he or she is 100% confident. With the unspoken style, one can see low activity, moderation, and persistence at work. Such a person belongs to those people who do not

take a personal view of what is happening.

6. “Permanent conformist” is an employee who successfully adapts to any problems at work. With a pronounced style, he/she can at any time change plans for solving problems, if it is needed for achieving the goal, because he/she does not like to make in advance the most accurate plans that can make him or her hostage. Such a person believes that much more can be achieved if he/she is able to make adjustments to the plans on the move, as appropriate. This style is characterized by high communicability, plasticity, ability to perfectly establish a comfortable climate in the environment of colleagues. However, it is difficult for this person to exercise his/her will and perseverance while defending their own interests. His/her performance depends on their own and other's downturns and rises of mood. With the unspoken style, such an employee likes stability, moderation in the execution of work, adhering to their own schedule. Such a person is a supporter of clear business subordination, without subjective manifestations in interpersonal communication at work.

7. “Nihilist” – such a person has a somewhat superficial attitude towards their professional duties, needs constant control. With a pronounced style does not like strict procedures, thoughtless obedience to regulations and instructions. Such an employee tends to be distracted by insignificant details, ignoring the main tasks to accomplish the goal. He/she is stress-tolerant, especially when put in a situation of uncertainty. The low organization, lack of initiative, passivity, and cynical attitude to work are noted. With the unspoken style, the desire for consistency in the endeavors and deeds, the completion of the intended goals and tasks, is manifested. Such a person is responsible, meticulous, and accurate in business relationships.

The Lemyre-Tessier-Fillion (1988) scale was used to study stress feelings in somatic, behavioral, and emotional indicators of election commission members in the adaptation of Vodopianova (2009), designed to measure the structure of stress experiences.

### ***2.3. Procedure***

Statistical methods (correlation and analysis of variance) were used to increase the validity and reliability of the research results. They were used to measure random variables and justify the calculation methods over these values, as well as reveal correlation relationships (Pearson correlation coefficient), statistically significant differences (Student's t- criterion) between the studied mental and behavioral phenomena, as well as statistical intergroup, disperse analysis (ANOVA method). Mathematical-statistical

data processing was performed using the SPSS 14.0 application package.

### 3. Results

The survey results showed that the majority of the polling station members surveyed were women (77.5%). A large proportion of the respondents (45%) are respondents with one higher education, while 30% of respondents have more than one higher education. These results are easily attributed to the fact that 50% of the polled commission members are professional teachers, the second largest group is temporary unemployed (17.5%). For half the respondents, early Parliamentary elections were the first in their professional experience to work in election commissions. More than half of those polled who have held the post of chairman, secretary, or deputy chairman of the election commission has previous experience in the sphere, the other polling station members showed a reversed trend.

The respondents were asked to evaluate the working conditions and psychological discomfort they encountered while working at the polling station (Appendix A and Table 1). Thus, the most difficult during the work of the election commission, the respondents found the night mode of work and lack of adequate sleep (50%). The second most significant response was “high emotional tension and stress” (45%), followed by “lack of experience and/or competence” (37.5%). In addition, the following was psychologically difficult for election commission members: physical overload (35%); work in extreme mode and above normal (30%); high level of responsibility (22.5%); conflicts with observers, trustees, media representatives (20%) and other responses (all less than 20%).

Respondents were also asked to identify the qualities and skills required to serve as chairman, secretary, and members of election commissions (Appendix A and Table 2). Thus, according to the interview, the chairman of the commission should first of all be able to concentrate on problems and ways of solving them in critical situations, give instructions, orders in given conditions, and have positive emotions regardless of the nature of the situation, including being able to work without conflict in the team. Honesty, fairness, and high personal discipline were also considered essential qualities to chair the election commission.

**Table 2.** Comparison of averages on the scales of the method “Professional activity styles”, depending on the position in the election commission

Style of professional activity	Position in the election commission (group average)		Student's t-criterion
	Managerial positions	Other members	
“Professional-perfectionist”	5.85	5.8	0.096
“Formalist-bureaucrat”	2.9	4.1	-2.1*
“Creative innovator”	5.05	4.9	0.307
“Philosopher-theoretician”	5.45	5.6	-0.453
“Specialist practitioner”	5.4	5.6	-0.453
“Permanent conformist”	3.9	4.2	-0.765
“Nihilist”	1.25	2.7	-2.44*

Note: \* $p < .05$ .

According to the interview, the work of the secretary requires, in addition to the speed of paperwork and mathematical calculation, to be able to perform a monotonous and routine work, to be responsible for the task of working with a sense of duty. Interestingly, the response “sense of duty” was also quite popular in assessing the qualities required to serve as a commission member. According to the interviewees’ opinion, the commission member should be disciplined, honest, enduring and quickly adapt to new living conditions. Also, the status of chairman and secretary requires special professional and leadership skills. At the same time, the status of a member of the commission imposes, first and foremost, the obligation to adhere to certain moral-value directives and executive discipline.

From the above mentioned, the hypothesis follows: the professional style of persons holding managerial positions (chairman, deputy chairman, secretary) differs from the professional style of persons who perform the duties of ordinary members of the commission.

On the basis of the information about the peculiarities of professional style, it was decided to check whether the professional style of the commission members in leadership positions differs from the ordinary

members of the election commission. Table 2 shows the results of comparing average scores on individual scales of professional style in two groups of respondents (the first group includes respondents holding executive positions in election commissions, and the second group – other members of commissions).

In general, the studied groups differ little in the context of the analysis of the styles “Professional-perfectionist”, “Creative innovator”, “Philosopher-theoretician”, “Specialist-practitioner”, which are within the average expression in both study groups. The “Permanent conformist” style also has no significant differences and is poorly expressed by both chairmen and members of election commissions, which indicates a reduced ability to adapt to changing plans and tasks. Instead, both members of the election commissions and managerial personnel show stability and moderation in the execution of tasks, adhering to their own timetable and clear business subordination.

The most pronounced in both groups of respondents is the style of professional activity “Professional perfectionist”. This indicates that both the chairmen and the members of the election commissions during their work are striving to do their job as best as possible, carefully adhere to all recommendations, and invest much effort in solving the existing problems. At the same time, they may have a tendency to mental stress and exhaustion in the face of a large amount of work and the inability to have time to complete them at the proper level.

Statistically significant differences in styles of professional activity between the groups of chairmen and members of election commissions were established on the “Formalist-bureaucrat” and “Nihilist” scales. Lower figures on these scales showed the heads of election commissions. That is, unlike the ordinary members of the election commissions, the professional style of persons holding managerial positions is characterized by high organization, initiative, and meticulousness (according to the low indicators of the “Nihilist” scale). At the same time, according to the “Formalist-bureaucrat” scale, the chairmen of election commissions may, in some cases, make mistakes in the execution of business documents. They accept changes well, approve any innovations, but tend to be uncompromising, active, and independent in solving important issues. The statistically higher indicators on the “Nihilist” scale of the members of the election commissions indicate a certain tendency for them to be distracted by insignificant details, the need for external control, lower organization, and stress resistance.

The Lemyre-Tessier-Fillion scale diagnostic results revealed (Table 3) that the majority of the subjects (67%) showed high adaptability to stressful

workloads, while the other 33% experienced significant stress.

**Table 3.** The matrix of inter-correlations of mental stress on the Lemyre-Tessier-Fillion scale and the method “Professional activity styles”

Style of professional activity	Integral indicator of mental load (the Pearson correlation value)
“Professional-perfectionist”	0.028
“Formalist-bureaucrat”	-0.352*
“Creative innovator”	-0.060
“Philosopher-theoretician”	0.295
“Specialist practitioner”	0.295
“Permanent conformist”	0.007
“Nihilist”	0.347*

Note: \* $p < .05$ .

Thus, the expressed dominant style of professional activity “Formalist-bureaucrat” has an inverse relationship and correlates with the low levels of stress while working in the election commission. “Formalist-bureaucrat” is a type of worker who strives to work his or her time and perform a certain amount of work, as a rule, is a low-initiative, disciplined person, characterized by conservatism, the cult of formal requirements and regulatory documents, need for clear instructions, planning activities. That is, a display of formalism, discipline, unconditional adherence to the law and insufficient flexibility will cause low stress. Conversely, the uncompromising and stubbornness of members of election commissions in significant moments of professional activity, their desire to quickly solve important cases, while displaying activity and independence, cause high mental tension and high level of stress.

A directly proportional relationship was found between the style of the professional activity of “Nihilist” and the degree of stress. The more this type shows a superficial attitude towards his or her professional duties, low organization, absence of initiative, and passivity, the higher he will be stressed. In other words, the “Nihilists” are particularly acutely stressed and experiencing considerable psychological tension in difficult conditions of work in the election commission.

Our following important questions were: “Does the experience of the participants of the research influence the level of stress? Will the level of emotional experience and stress of the members of commissions who are participating in the election process for the first time differ significantly from those who already have some experience in the commission?” Thus, comparing groups of “experienced” and “inexperienced” participants in the electoral process using the Student’s t-test revealed that the feeling of stress according to the Lemyre-Tessier-Fillion scale does not differ in these groups. Therefore, the experience cannot be considered as a factor that determines the intensity of the processes of the feeling of stress by members of election commissions.

Also, respondents were able to rate relations with other members of the commission during their work at the polling station as “excellent”, “good”, “satisfactory”, or “bad” (Table 4).

**Table 4.** Descriptive statistics of the level of feeling stress on the scale of Lemyre-Tessier-Fillion according to the evaluation by the participants of interpersonal relations in the election commission

Group	Evaluation by the participants of interpersonal relations in the election commission	Average (M)	Standard deviation (SD)
1	“Excellent”	47.33	12.63
2	“Good”	83.55	31.18
3	“Satisfactory”	86.73	36.36

It is interesting that none of the respondents chose the latter option “bad”, so the results were divided into three groups: 50% of the participants described relations with other members of the team as “good”, 22.5% of participants gave them an “excellent” rating, and 27.5% rated relations as “satisfactory”. The average values of the feeling of stress for a group of participants who rated as “excellent” relations with other members of the commission were almost twice lower than those of participants who rated them “satisfactory”. The difference between those who rated the relationship at the polling station as “good” and “excellent” is also significant. This implies the need to test the hypothesis that the better the relationship between the members of the commission at the polling station, the less the level of stress. Due to the fact that the studied data satisfy the requirements for normality of distribution and homogeneity of dispersion,

the statistical method of intergroup dispersion analysis (ANOVA) was chosen. One-dimensional analysis of dispersion showed that the trend understudy is statistically significant ( $F = 5.49$ ;  $p = 0.008$ ), which in turn confirms our hypothesis.

Within the framework of the survey, the members of the commission expressed their proposals on improving the organization of work of election commissions and holding elections (Appendix, Table 3). In general, the majority of respondents believe that the recruitment process needs to be improved and that commissions should be formed in a timely manner; the formation of precinct election commissions should be completed no later than two weeks before the elections and be composed of competent staff. The respondents also pointed out the importance of conducting educational training for all members of the commission, not just for the managerial staff. According to some participants, the introduction of electronic vote counting and data entry into a single electronic database will greatly facilitate the work of commissions. Other popular recommendations include raising wages and addressing logistical support for election commissions.

#### **4. Discussion**

The results of the research showed that the respondents consider the style of professional activity “Professional-perfectionist” the most popular one, which generally contributes to the productivity of their work. But the overwhelming desire to do everything in the best way possible can cause stress and exhaustion for election commissioners. The inverse dependence of the style of professional activity “Formalist-bureaucrat” and the integral indicator of mental tension prove the regularity that the manifestations of excessive motivation, activity, independence, the desire to quickly solve important cases also cause high mental tension and stress. In general, this phenomenon of the dependence of activity efficiency on the level of activation was first investigated by American scientists Yerkes and Dodson (1908). The law of the “optimum of motivation” formulated by them has been confirmed in our study.

The revealed professional style of persons holding managerial positions differs from other members of election commissions, and it seems to us quite natural. The extremely high level of responsibility requires that the executives have special business and psychological qualities – initiative and uncompromising decision making; they must be able to react quickly to changes. This conclusion coincides with the results of a study of leadership

characteristics of polling station leaders (Hall et al., 2012). On the contrary, according to the participants of the research, the status of the commission member requires not so much special professional skills, but rather certain moral and psychological qualities, including being honest and disciplined, in their actions to be guided by a sense of duty. Involvement of members of commissions to work on a public basis creates certain moral requirements for persons holding such positions, who for a certain time become the embodiment of the electoral system. Therefore, it is desirable to involve highly motivated workers in the polling station. And for this, it is important to create comfortable working conditions, material and moral incentives for employees, etc. Our conclusions are confirmed by numerous studies of the features of elections in different countries (Basiru & Adesina, 2019; James & Clark, 2020; Lane & Humphreys, 2011; van Ham & Lindberg, 2015).

High adaptability to hard work in stressful conditions distinguishes members of election commissions with a pronounced style of professional activity “Formalist-bureaucrat”. They perform tasks more clearly, follow the procedure, and are generally more disciplined and stress-tolerant. It should be noted that in addition to the “Formalist-bureaucrat” style, the style compositions of the chairmen of election commissions also include a sufficiently pronounced style of professional activity “Professional-perfectionist” with necessarily low performance of “Nihilist” style.

It is least desirable to involve individuals with a distinctive “Nihilist” style of professionalism, not only because such people exhibit passivity, superficial attitude to their duties, but also because they are extremely unstable to work in conditions of considerable stress or uncertainty.

The results of the study show that members of election commissions feel stressed in the course of performance of their duties, regardless of whether or not they have previous experience at the polling station. The results of other studies show that, in addition to stress, members of election commissions sometimes experience psychological and even physical violence (Birch & Muchlinski, 2018; Lyons, 2004). This is typical for authoritarian and hybrid states, as well as for countries with unstable democracies (Debrah, 2011; Elklit, 1999; McAllister & White, 2015; van Ham & Lindberg, 2015). It is quite possible that regular changes in the legislation governing the electoral process cause additional load and stress for even experienced election commissioners. Other possible explanations are that the members of the election commissions are forced to balance the responsibilities of the polling station, their main job, and their personal life at the time of the election.

It is obvious that the problem of lack of experience and competence

of the members of the commission significantly influenced the efficiency of the election process management and the quality of the organization of work at the polling stations. The fact that training is organized for commission members only before the election and the formation of election commissions often does not complete even two weeks before the election, leads to the situation that a large number of employees do not have the opportunity to attend educational training organized for commission members. Such problems exist in almost all countries where the establishment and improvement of the electoral process take place (Herron et al., 2015). As one of the foremost mechanisms for improving elections, training is crucial to organizational performance enhancement (Hall, Quin Monson & Patterson, 2009). Generally incorporated in generic university or vocational institute courses globally, training is usually offered as a specially tailor-made module for polling officials in western countries (Maphunye, 2017). Even then, it rarely covers the severe conditions election officials regularly face, especially in countries with transitional democracies and hybrid regimes (Basiru & Adesina, 2019; Friesen, 2019; Garnett, 2019; Msila & Matjila, 2017; van Ham & Lindberg, 2015).

To reduce tension and stress, it is necessary to create a healthy psychological climate in the election commission, normalize relationships in the group. The better the relationship between the members of the commission at the polling station, the less the level of stress they feel. However, traditional psychological techniques for reducing conflict potential in the workforce encounter a number of obstacles related to the specifics of the election procedure. In addition, the workforce is formed in a very tight time frame, often unable to establish psychological and professional contact with colleagues who should work as a team. All this influences the speed and quality of the organization of work on Election Day.

We agree with the findings of the researchers that one of the ways to improve the electoral process is its technical improvement and automation (Elklit, 1999; Garrett & Jensen, 2011; Kimura, 2015). This will reduce the risk of election manipulation and corruption of officials, the “strategic rejection of falsified” ballots and their incorrect counting, in general, as much as possible limit the influence of the human factor on the electoral process and election results (Friesen, 2019; McAllister & White, 2015).

## **5. Conclusions**

The results of the research made it possible to identify the psychological peculiarities of styles of professional activity and the level of

stress of the members of the election commissions for Ukrainian parliamentary elections, as well as to identify certain shortcomings in the organization of the election process at the polling stations and to prepare appropriate recommendations. The most pronounced style of professional activity is “Professional-perfectionist”, which contributes to the high productivity of members of election commissions. But an excessive desire to do their best can cause them stress and exhaustion.

It has been found that the major psychological difficulties of working in election commissions are due to excessive psycho-emotional and psychophysical overload, to which some members of the commissions are not ready. This overload can cause them to experience certain mental stress, different levels of stress, their manifestation, and consequences. Although the majority of participants demonstrated a high degree of adaptability to stressful workloads, members of commissions should perform their duties at a highly professional level in extremely difficult circumstances, including at night and in a state of intense emotional stress.

The results of the research should be taken into account during the organization of the election process and the holding of elections to central and local authorities. To improve it, it is advisable to organize and conduct early training and skills upgrading of members of election commissions. To do this, it is necessary to develop and implement appropriate training programs for the development of style peculiarities of professional activity, which will contribute to effective work in the election commission and overcoming psychological difficulties.

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## Appendix A

### Results of polling of election commission members

Table A1. Respondents’ answers to the question: “In your opinion, what was the most psychologically difficult during your job in the election commission?”

Answer option*	Number of respondents who selected the chosen option as a percentage
Work at night, lack of adequate rest	50%
Excessive emotional tension and stress	45%

Insufficient experience and/or competence to fulfill their duties in the election commission	37.5%
Physical overload	35%
Work in extreme mode and above normal	30%
High level of responsibility	22.5%
Conflicts with observers, proxies, media representatives, etc.	20%
Tense relations with other members of the commission	10%
Isolation, inability to leave the polling station	7.5%
Abandonment of the usual food	6.5%
Conflicts and misunderstandings with voters in the course of performing their duties	5%
Feeling sick	5%

Note: \* Respondents could choose more than one option.

Table A2. Respondents' answers to the question: "What, in your opinion, most negatively affects the activity of election commissions and conduct of election?"

Answer option*	Number of respondents who selected the chosen option as a percentage
Disadvantages of recruiting members of election commissions	67.5%
Late appointment of members of election commissions	65%
The psychological unwillingness of commission members to work under extremely difficult and stressful conditions	47.5%
Disadvantages of material and economic support for the activity of election commissions and conduct of elections	37.5%
Miscounts in the organization and preparation for elections	37.5%
Low level of information and methodological support of the activity of election commissions	30%
Poor (not optimal) organization of the procedure of receiving protocols for the counting of votes	27.5%

The unhealthy moral-psychological climate in the electoral commission staff	22.5%
Breach of the principle of collegiality and fairness in the distribution of responsibilities and rewards	20%
Low level of managerial competence	20%
Disadvantages of organizational-managerial communication	17.5%

Note: \* Respondents could choose more than one option.

Table A3. Respondents' answers to the question: "In your opinion, what first of all contributes to the successful work of election commissions and the conduct of elections?"

Answer option*	Number of respondents who selected the chosen option as a percentage
High organizational and leadership skills and abilities of representatives of the election commissions leadership	77.5%
Experience and competence of the members of commissions	75%
High motivation of members of election commissions, including proper pay	72.5%
Fair distribution of responsibilities among members of the commission	50%
Trust/friendly relations between members of the commission	50%
Quality training (special training) for members of the commission	42.5%
Ability to create comfortable working conditions, including time for rest and meals	35%
Transparency of election process and absence of violations	32.5%

Note: \* Respondents could choose more than one option.

## References

- Adler, A. (2000). *Ponyat' prirodu cheloveka [Understand Human Nature]*. Sankt-Peterburg: Akademicheskiy proyekt. <https://www.rulit.me/books/ponyat-prirodu-cheloveka-read-79921-1.html>

- Allport, G. W. (1961). *Pattern and growth in personality*. New York: Holt, Rinehart & Winston. <https://psycnet.apa.org/record/1962-04728-000>
- Basiru, A., & Adesina, K. (2019). Electoral Reforms and the Administration of the 2015 General Elections in Nigeria. *Democracy and Security*, 15(3), 207–229. <https://doi.org/10.1080/17419166.2019.1643325>
- Bevza, O. (2019). Yak vberedty psykhyhne zdorov'ya pid chas vyboriv [How to Save Mental Health During Elections]. Retrieved April 11, 2020, from 24tv.ua website: [https://24tv.ua/health/yak\\_vberegti\\_psihichne\\_zdorovya\\_pid\\_chas\\_viboriv\\_n1133524](https://24tv.ua/health/yak_vberegti_psihichne_zdorovya_pid_chas_viboriv_n1133524)
- Birch, S., & Muchlinski, D. (2018). Electoral violence prevention: what works? *Democratization*, 25(3), 385–403. <https://doi.org/10.1080/13510347.2017.1365841>
- Boyko, N., & Herron, E. S. (2015). The effects of technical parties and partisan election management bodies on voting outcomes. *Electoral Studies*, 40, 23–33. <https://doi.org/10.1016/j.electstud.2015.06.008>
- Boyko, N., Herron, E. S., & Sverdun, R. (2014). Administration and management of Ukraine's 2014 presidential election: a systematic and spatial analysis. *Eurasian Geography and Economics*, 55(3), 286–306. <https://doi.org/10.1080/15387216.2014.986494>
- Burden, B. C., & Milyo, J. (2015). The Quantities and Qualities of Poll Workers. *Election Law Journal: Rules, Politics, and Policy*, 14(1), 38–46. <https://doi.org/10.1089/elj.2014.0277>
- Catt, H., Ellis, A., Maley, M., Wall, A., & Wolf, P. (2014). *Electoral Management Design*. Stockholm: International Institute for Democracy and Electoral Assistance. <http://www.eods.eu/library/IDEA.Electoral-Management-Design.pdf>
- Cawvey, M., Hayes, M., Canache, D., & Mondak, J. J. (2017). Personality and political behavior. In *Politics: Oxford Research Encyclopedias*. <http://oxfordre.com/politics/view/10.1093/acrefore/9780190228637.001.0001/acrefore-9780190228637-e-221#>
- Clark, A., & James, T. S. (2017). Poll Workers. In P. Norris & A. Nai (Eds.), *Watchdog Elections: Transparency, Accountability and Integrity* (pp. 1–32). New York: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780190677800.001.0001>
- Debrah, E. (2011). Measuring Governance Institutions' Success in Ghana: The Case of the Electoral Commission, 1993–2008. *African Studies*, 70(1), 25–45. <https://doi.org/10.1080/00020184.2011.557573>
- Elklit, J. (1999). Electoral institutional change and democratization: You can lead a horse to water, but you can't make it drink. *Democratization*, 6(4), 28–51. <https://doi.org/10.1080/13510349908403631>

- Elklit, J., & Reynolds, A. (2002). The Impact of Election Administration on the Legitimacy of Emerging Democracies: A New Comparative Politics Research Agenda. *Commonwealth & Comparative Politics*, 40(2), 86–119. <https://doi.org/10.1080/713999584>
- Friesen, P. (2019). Strategic ballot removal: an unexplored form of electoral manipulation in hybrid regimes. *Democratization*, 26(4), 709–729. <https://doi.org/10.1080/13510347.2019.1574755>
- Garnett, H. A. (2019). On the front lines of democracy: perceptions of electoral officials and democratic elections. *Democratization*, 26(8), 1399–1418. <https://doi.org/10.1080/13510347.2019.1641797>
- Garrett, R. K., & Jensen, M. J. (2011). E-Democracy Writ Small. *Information, Communication & Society*, 14(2), 177–197. <https://doi.org/10.1080/1369118X.2010.490558>
- Herron, E. S., Thunberg, M. E., & Boyko, N. (2015). Crisis management and adaptation in wartime elections: Ukraine's 2014 snap presidential and parliamentary elections. *Electoral Studies*, 40, 419–429. <https://doi.org/10.1016/j.electstud.2015.07.009>
- Hall, J., Barabas, E., Shapiro, G., Cheshire, C., & Mulligan, D. (2012). Probing the front lines: pollworker perceptions of security & privacy. Proceedings of the 2012 International Conference on Electronic Voting Technology/Workshop on Trustworthy Elections, 2. <https://bit.ly/2XmkyHb>
- Hall, T. E., Quin Monson, J., & Patterson, K. D. (2009). The Human Dimension of Elections. *Political Research Quarterly*, 62(3), 507–522. <https://doi.org/10.1177/1065912908324870>
- Ivanchenko, A., Ignatieva, I., Lefterov, V., & Timchenko, O. (2019). Personality traits as determinants of political behavior: Ukrainian electoral and voting tendencies. *Studia Politica. Romanian Political Science Review*, 19(3–4), 441–466. <https://bit.ly/393h3KY>
- James, T. S. (2013). Fixing failures of U.K. electoral management. *Electoral Studies*, 32(4), 597–608. <https://doi.org/10.1016/j.electstud.2013.07.013>
- James, T. S. (2019). Better workers, better elections? Electoral management body workforces and electoral integrity worldwide. *International Political Science Review*, 40(3), 370–390. <https://doi.org/10.1177/0192512119829516>
- James, T. S. (2020). *Comparative Electoral Management Performance, Networks and Instruments*. Abingdon, Oxon; New York: Routledge. <https://bit.ly/397b1t6>
- James, T. S., & Clark, A. (2020). Delivering electoral integrity under pressure: local government, electoral administration, and the 2016 Brexit referendum. *Local Government Studies*, 1–22. <https://doi.org/10.1080/03003930.2020.1719075>

- James, T. S., Garnett, H. A., Loeber, L., & van Ham, C. (2019). Electoral management and the organisational determinants of electoral integrity: Introduction. *International Political Science Review*, 40(3), 295–312. <https://doi.org/10.1177/0192512119828206>
- Kimura, M. (2015). Information and Communication Technology and election administration in the Philippines: an assessment of the nationwide automation of the 2010 and 2013 synchronized elections. *Philippine Political Science Journal*, 36(1), 54–72. <https://doi.org/10.1080/01154451.2015.1024693>
- Laanela, T. P. (2017). Beyond the Checklist: Addressing New Challenges in Election Observation Methodology. *Nordic Journal of Human Rights*, 35(4), 327–340. <https://doi.org/10.1080/18918131.2017.1400336>
- Lane, S. R., & Humphreys, N. A. (2011). Social Workers in Politics: A National Survey of Social Work Candidates and Elected Officials. *Journal of Policy Practice*, 10(3), 225–244. <https://doi.org/10.1080/15588742.2011.582809>
- Lifterov, V. O., & Aliksieiev, A. O. (2011). Psykhodiahnostychna metodyka «Styli profesynoyi diyal'nosti» ta dosvid yiyi zastosuvannya u ryzykonebezpechnykh profesiyakh [Psychodiagnostic Methods of “Styles of Professional Activity” and experience of its application in risky professions]. *Actual Problems of Becoming a Professional in Risky Professions*, 165–168. Kyiv: NYOU. <https://bit.ly/3omPtik>
- Lemyre, L., & Tessier, R. (1988). Mesure de Stress Psychologique (MSP): Se sentir stressé-e. *Canadian Journal of Behavioural Science / Revue Canadienne Des Sciences Du Comportement*, 20(3), 302–321. <https://doi.org/10.1037/h0079945>
- Lijphart, A. (2012). *Patterns of Democracy: Government Forms and Performance in Thirty-six Countries* (2nd ed.). New Haven: Yale University Press. <http://digamo.free.fr/lijphart99.pdf>
- Lyons, T. (2004). Post-conflict elections and the process of demilitarizing politics: the role of electoral administration. *Democratization*, 11(3), 36–62. <https://doi.org/10.1080/1351034042000238167>
- Maphunye, K. J. (2017). Straining without training? Capacity-related problems facing African election executives and officials. *International Journal of African Renaissance Studies - Multi-, Inter- and Transdisciplinarity*, 12(1), 55–75. <https://doi.org/10.1080/18186874.2017.1333282>
- McAllister, I., & White, S. (2015). Electoral Integrity and Support for Democracy in Belarus, Russia, and Ukraine. *Journal of Elections, Public Opinion and Parties*, 25(1), 78–96. <https://doi.org/10.1080/17457289.2014.911744>
- Melnyk, Y. B., Prykhodko, I. I., & Stadnik, A. V. (2019). Medical-psychological support of specialists' professional activity in extreme conditions. *Minerva Psichiatrica*, 60(4), 158–168. <https://doi.org/10.23736/S0391-1772.19.02025-9>

- Moll, Y. G. (2011). *Upravleniye kar'yeroy menedzhera [Career management manager]*. Sankt-Peterburg: Piter. <https://readli.net/upravlenie-kareroj-menedzhera/>
- Mondak, J. J., Hibbing, M. V., Canache, D., Seligson, M. A., & Anderson, M. R. (2010). Personality and Civic Engagement: An Integrative Framework for the Study of Trait Effects on Political Behavior. *American Political Science Review*, 104(1), 85–110. <https://doi.org/10.1017/S0003055409990359>
- Msila, V., & Matjila, L. (2017). The Management of Democratic Elections in Africa (MDEA) programme at the university of South Africa: Is this the right path towards African solutions? *International Journal of African Renaissance Studies - Multi-, Inter- and Transdisciplinarity*, 12(1), 76–90. <https://doi.org/10.1080/18186874.2017.1340004>
- Pastor, R. A. (1999). The role of electoral administration in democratic transitions: Implications for policy and research. *Democratization*, 6(4), 1–27. <https://doi.org/10.1080/13510349908403630>
- Prykhodko, I., Matshehora, Y., Bielai, S., Hunbin, K., & Kalashchenko, S. (2019). Classification of Coping Strategies Influencing Mental Health of Military Personnel Having Different Combat Experience. *Georgian Medical News*, 12(297), 130–135. <https://bit.ly/3pXxQ9d>
- Prykhodko, I., Yurieva, N., Timchenko, O., Fomenko, K., Kernickyi, O., Tovma, M., & Kostikova, I. (2020). What Motivates Ukrainian Women to Choose a Military Service in Warfare? BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 11(3), 36–53. <https://doi.org/10.18662/brain/11.3/108>.
- Royce, J. R., & Powell, A. D. (1983). *Theory of Personality and Individual Differences: Systems, Factors and Processes*. Prentice Hall. <https://bit.ly/3q3kqst>
- Shevel, O. (2015). The parliamentary elections in Ukraine, October 2014. *Electoral Studies*, 39, 159–163. <https://doi.org/10.1016/j.electstud.2015.03.015>
- Tolochek, V. A. (2000). *Stili professional'noy deyatel'nosti [Styles of professional activity]*. Moscow: Smysl. [https://www.rfbr.ru/rffi/ru/books/o\\_65875](https://www.rfbr.ru/rffi/ru/books/o_65875)
- van Ham, C., & Lindberg, S. (2015). When Guardians Matter Most: Exploring the Conditions Under Which Electoral Management Body Institutional Design Affects Election Integrity. *Irish Political Studies*, 30(4), 454–481. <https://doi.org/10.1080/07907184.2015.1099097>
- Vodop'yanova, N. Y. (2009). *Psikhodiagnostika stressa [Psychodiagnosis of stress]*. Sankt-Peterburg: Piter. <https://www.klex.ru/92o>
- Vyborchyy kodeks Ukrayiny [The Electoral Code of Ukraine]. (2019). Retrieved April 15, 2020, from zakon.rada.gov.ua website: <https://zakon.rada.gov.ua/laws/show/396-20>

- Yerkes, R. M., & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit-formation. *Journal of Comparative Neurology and Psychology*, 18(5), 459–482. <https://doi.org/10.1002/cne.920180503>
- Zhvaniia, T. V., & Mahda, H. V. (2016). Osobystisnyy sotsial'no-psykhologichnyy portret chlena vyborchoyi komisiyi (za materialamy pilotazhnoho ekspertnoho opytuvannya) [Personal social and psychological portrait of a member of the election commission (according to the materials of a pilot expert survey)]. *Suchasne Suspil'stvo*, 1(11), 57–75. <https://doi.org/10.5281/zenodo.51236>