

Aggression in Prison Service Personnel and its Causation

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Abstract: Any work in total institutions, including correctional facilities and remand centres, requires special mental and physical qualifications; the personnel are exposed to stress, which, consequently, can lead to various aggressive behaviours.

In the article entitled: Aggression in Prison Service Personnel and its Causation its authors have put forward the following research problems:

1. Is there any association between the occupational stress level and the aggression level in Prison Service employees?
2. Is there any association between the level of family functioning and the aggression level in Prison Service employees?
3. Do the factors of dwelling place, workplace, seniority and the position in the chain of command affect dependence between stress, family functionality and aggression level in Prison Service employees?

In conclusion, dependences among the defined variables were shown, proving association between stress level and aggressive behaviours in relation to person's dwelling place and workplace, seniority and position in the chain of command as well as respondents' family functionality.

Keywords: Aggression, prison service, stress.

INTRODUCTION

Scientific research results on Prison Service activities are rarely published in the professional literature in Poland. This fact is thought-provoking, as the occupation in Prison Service has its own distinctive character. As J. Korczyńska wrote in her book (2004, p. 301): "prison guards are particularly exposed to stress in their workplace. In rankings of the most stressful professions they usually occur within the top ten. Some of these people do their duties in extremely complex and diversified stimulating conditions. In numerous cases limited stimulation situations (for instance keeping guard at a watchtower) interchange with situations demanding full mobilization (e.g. when attacked by a dangerous inmate)".

Any prison is a total institution, and the rules governing its daily activity do not always meet the needs of both the prisoners and their guards.

Consequently, there may occur an accumulation of potential and real emergencies (threats, disturbances, conflicts, strains), resulting in frustration and occupation-related stress, which in turn can lead to an increase of aggression level and aggressive behaviour.

A Prison Service employee has got – due to certain legal and organisational regulations – limited opportunities to

reveal his aggression overtly. It is possible, and even probable, that indirect aggression can take place, both relocated and symbolic. Hence for the aforementioned reasons we have considered the problem of aggression among Prison Service personnel to be crucial on both cognitive and practical levels. From various possible factors conditioning aggression was selected and taken into consideration *occupational stress level* as well as *family functionality level* (independent variables). We have also given consideration to such moderators (moderating variables) as workplace and dwelling place, seniority and chain of command. Dependent variable has been the *Level of declared aggressiveness*.

To understand the stress phenomenon we refer to the relational approach, in which any stress is seen as „disturbance or a sign of stability disturbance between resources /possibilities of an individual and external requirements” (Heszen, I., Sęk, H., 2008, p. 703.) The basic stressors are therefore overloads, contained in these requirements (both physical and mental) as well as various risk factors.

J. Strelau (1996, p. 92) describes stress as a state „... which is characterized by strong negative emotions, such as fear, anxiety and hostility”. Subjectivistic approaches assume that a perception of lack of balance between requirements and possibilities is necessary, as well as primary appraisal (harm/loss, threat or challenge), and secondary appraisal (Lazarus, R. S., Folkman, S., 1984, p. 19). Theories describing an association between stress and work are also based on the relational model (Cox, T.; Mackay, C.J., 1981;

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Doyle, Ch.; Slaven, G.; 2004). Being under stress at a workplace is understood as „an effect of some environmental stressors, perceived by an individual as exceeding her/his abilities to face them. Mere pressure is perceived as an acceptable dimension of duty, in contrary to any overexposure leading to the state of stress” (Doyle, Ch., Slaven, G., 2004, p. 153).

The other independent variable we have taken into account is a family factor, because – on one hand – family can support and make an individual relaxed, yet on the other hand it may escalate tension and emotional abreaction. This depends on the level of functionality/dysfunctionality of the family environment. Functional families are characterized by proper emotional and communicational exchange, steady borders, flexible structure and the right self-esteem of their members (Satir, V., 2000).

In reference (both theoretically and empirically) to D.H. Olson’s conception (1986, 1991; Gaś, Z., 1994), we acknowledge that indicators of family functionality are: cohesion (quality of emotional bonds, level of independence of each family member, shared interests etc.); adaptivity (ability to proper change of structure, roles and rules, especially in reaction to stress), and mutual understanding (unique familiar empathy, openness to someone else’s messages, adequate mutual perception). Family dysfunctionality level is determined by indicators of developmental disorders (routinisation of actions, helplessness under difficult circumstances), tendency to functioning within the familiar roles (pathogenic patterns of identity relations and stiffness of conduct) as well as family disintegration (difficulties in facing crises that enhance a feeling of danger).

Aggression is usually defined as „a behaviour directed towards inflicting suffering to another person, who is motivated to avoid it” (Wojciszke, B., 2003, p. 345). If the main goal of such an activity is to inflict pain, we deal with hostile aggression. If, however, causing suffering serves some other purposes, we face so called instrumental aggression. In the working conditions of a correctional facility the latter may become a means of pacification.

In the present paper we are using a notion of „aggression syndrome”, introduced by Z. Gaś (1980). It is an „aggregate of experiences, attitudes and behaviours, whose goal or effect (intentional or unintended) is to harm (directly or indirectly) another person or oneself” (Gaś, Z., 1980, p. 143). This means that the aggression syndrome determines the level of potential tensions (qualifications) rather than specific behaviours (their execution).

Aggressiveness in Prison Service personnel can be interpreted as a result of learning process (among others through modelling – Bandura A., 1973), and as part of the frustration-aggression hypothesis (Dollard, J.; Doob, L. W.; Miller, N. E.; Mowrer, O. H.; Sears, R. R.; 1939).

Factors that cause aggression at workplace such as a correctional facility include: provocations by the inmates (Bettencourt, B.A., Miller, N., 1996), accumulation of emotional stimuli during duty (Zillmann, D., 1987), special norms and social expectations leading to dehumanization of

inmates and judging them according to stereotypes (Zimbardo, Ph., 2008).

There are also other indirect factors, such as dwelling place, workplace, seniority and chain of command, that can affect intensity of the aggression syndrome.

In different regions of many countries (e.g. northern and southern states of the USA, northern and southern Italy) – due to civilisation, economical and cultural diversity – one can observe different norms, customs and acceptance for different behaviours, including the aggressive ones. Also, family traditions may differ a lot.

Poland, which is the setting of the present study, has been historically divided into so called Poland A (western part of the country, liberal, industrialised, open and modern) and Poland B (eastern part of the country, conservative, predominantly rural, based on tradition and catching up with the rest of the country). There are also distinctive differences in family life customs, attitudes to the post modernity issues (gender, abortions, problems of euthanasia and capital punishment). It has been presupposed that this factor can be of essential importance for the functionality of the respondents’ families, possibility of reducing stress at workplace because of diversified support systems, and – most of all – for the acceptance of various ways of showing aggression.

Seniority, too, can have some impact on person’s professional and familiar conduct: shorter period of employment, a lack of experience, higher stress and aggressiveness level, albeit the factor of burnout of senior employees can also stimulate manifestations of stress and aggression.

Different positions in the chain of command and, consequently, different assignments can cause a higher probability of aggressive behaviour in lower personnel, due to intensification of their stress.

MATERIALS AND METHODOLOGY

The present study was conducted in June 2014 on a group of sixty-two respondents, workers of the Polish Prison Service, from a number of correctional facilities and remand centres in Białystok (Poland B), Gorzów Wielkopolski and Międzyrzecz (Poland A). Because of the methodological requirements, equinumerous subgroups of thirty-one persons were selected, depending on workplaces and dwelling places (Poland A and B), seniority (up to ten years of service and more than ten years of service) as well as person’s position in the chain of command (executive crew – guards and officers).

The survey was based on three questionnaires that the respondent were being given in the presence of the researchers: Occupational Stress questionnaire (independent variable X1), Family Profiles questionnaire (independent variable X2), and PIAS-83 questionnaire (Psychological Inventory of the Aggression Syndrome; dependent variable Y).

The Occupational Stress Questionnaire has been created as our own tool for the purpose of the research. It consists of 25 statements that needed to be evaluated in terms of

intensity of emotional and cognitive states as well as behaviours in a 5-steps rating scale, pertaining to the following areas: respondent's reactions before beginning work, his/her attitude towards superiors/subordinates, his/her attitude to his/her colleagues, his/her attitude to inmates, respondent's reactions after finishing work.

The level of respondents' family functionality was examined with the psychological inventory called Family Profile, conceived by Z. Gaś (1994). It consisted of 86 statements and was based on D. H. Olson's Model Circumplex, containing six rating scales, three of which refer to positive dimensions of family functioning (cohesion - S, adaptivity - A, mutual understanding - WZ), while the other three – to its negative dimensions (family roles - RR, developmental disorders - TR, family disintegration - DR). Raw results are calculated according to the formula: PF (family functionality level) = (S + A + WZ)/(RR + TR + DR), and then the outcome is recalculated into the available sten scores.

The PIAS-83 is an inventory aimed at evaluating the aggression syndrome (Gaś, Z., 1980). It contains 83 statements pertaining to 10 categories: emotional (I) and physical (II) self-aggression, hostility (III), oblivious aggressive tendencies (IV), relocated aggression (V), indirect aggression (VI), verbal aggression (VII), physical aggression (VIII), aggression control – K, retaliation-oriented behaviours – O. The overall outcome of the raw scales I and II has given us the self-aggression indicator, while III-IV pertained to hidden aggression, and V-VIII showed aggression directed outwards.

The general level of aggression syndrome intensity is calculated according to the formula: SA = I + II + III + IV + V + VI + VII + VIII + O – K + 22. This tool has its own sten score scale, allowing the researchers to evaluate the syndrome intensity. In case of the authors' study – where the sten score scale was not used and only average results were taken into consideration – some modification has been made: the results of the scales III –VI had been taken cumulatively as pointing to indirect aggression, and the scores of VII – VIII had been recognized as typical manifestations of externalized aggression. $A = \pi r^2$

The mentioned results were processed for the use in some analyses, taking advantage of the following statistical procedures:

a) r_s Spearman's correlation coefficient between variables, according to the formula: $r_s = 1 - \frac{6\sqrt{d^2}}{N(N^2-1)}$ (Brzeziński, J.M.; Zakrzewska, M., 2008)

b) Student's t-test, used to determine if two sets of data are significantly different from each other $t = \frac{M_1 - M_2}{\sqrt{\frac{(N_1 - 1)S_1^2 + (N_2 - 1)S_2^2}{N_1 + N_2 - 2} \cdot \frac{N_1 + N_2}{N_1 N_2}}}$ (Góralski, A., 1974)

c) a formula for multiple correlation between dependent variable and two independent variables, used to determine the regression indicator:

$$R = \sqrt{\frac{r_{x_1y_1}^2 + r_{x_2y_1}^2 - 2r_{x_1y_1}r_{x_2y_1}r_{x_1x_2}}{1 - r_{x_1x_2}^2}} \quad R = (\text{Guilford, J.P., 1960}).$$

The purpose of the study has been to determine relations between occupational stress, the functioning of the families of Polish Prison Service personnel members and the aggression syndrome intensity.

The following research questions were put forward:

1. Is there any association between the occupational stress level and the aggression level in Prison Service employees?
2. Is there any association between the level of family functioning and the aggression level in Prison Service employees?
3. Do the factors of dwelling place, workplace, seniority and the position in the chain of command affect dependence between stress, family functionality and aggression level in Prison Service employees?

In relation to the above mentioned research questions the following hypotheses have been formulated:

1. There exists a significant statistical relation between the occupational stress level and the aggression level among Prison Service personnel: the higher occupational stress level, the higher aggression level.
2. There exists a significant relation between family functionality level and the aggression level: the higher family functionality level, the lower the aggression level.

As for the aforementioned moderation variables and their influence on the aggression level, we do not make any detailed predictions because of lacking clear-cut references as well as the explorative character of the research.

RESULTS

The research findings are presented in sequence complying with the above described variables (X1 – occupational stress level, X2 – family functionality level, Y – aggression syndrome level). Afterwards we have carried out an analysis of correlation.

In terms of the occupational stress level an average was recorded at $M = 75.08$ (the lowest score in a group was 38 points, the highest – 108 points; standard deviation $\delta = 22.88$); the highest stress level appears in the area of contacting the inmates ($M = 19.66$), while the lowest – in relations with colleagues ($M = 10.48$). As for the overall results it was found out that in the seniority subgroup there were significant statistical differences: occupational stress was higher in employees working up to ten years ($t = 2.17$; $p < 0.05$), while in workplace subgroups, dwelling place subgroups and chain of command subgroups these statistical differences were irrelevant.

In workplace subgroups as well as in dwelling subgroups no significant statistical differences occur in all areas analysed. In case of seniority, those working shorter for time have higher stress levels (stress before beginning work $t = 2.32$; $p < 0.05$; in relation to seniority ($t = 2.74$; $p < 0.01$; and especially in relations with inmates $t = 5.83$; $p < 0.01$). Executory personnel experience stronger stress than officers before starting work ($t = 2.81$; $p < 0.01$), in relations to

Table 1. Occupational Stress Level in Prison Service Employees (Average Results M).

Subgroups Stress Level	Workplace and Dwelling Place		t	Seniority		t	Significance Level	Position at Work		t	Significance Level	Total
	Poland A	Poland B		Up to ten years	Over ten years			Executory	Officers			
	M	M		M	M			M	M			
Before Beginning Work	16.84	14.28	0.52	16.28	12.86	2.32	p<0.05	16.10	13.04	2.81	P<0.01	1457
Towards The Chain of Command	15.04	15.36	0.27	16.82	1358	2.74	P<0.01	16.62	13.78	2.42	P<0.05	15.20
Towards The Colleagues	10.70	10.26	0.46	10.04	10.92	0.06	-	11.02	9.99	1.11	-	10.48
Towards The Inmates	20.86	18.46	1.68	23.86	15.46	5.83	p<0.01	22.94	16.38	7.82	P<0.01	19.66
After Finishing Work	15.84	14.50	1.26	14.42	15.92	1.35	-	18.18	17.16	3.13	P<0.01	15.17
Stress Level	77.30	72.86	0.77	81.42	68.74	2.17	p<0.05	79.86	70.30	1.67	-	75.08

inmates (t = 4.82; p < 0.01) as well as in relation to their superiors (t = 2.42; p < 0.05). Senior staff (officers) are characterised by a significantly higher level of stress after finishing work. (t = 3.13; p < 0.01) Table 1.

Family functionality level can be considered average because the calculated functionality level (FL) was M = 3.58 (which according to norms means 6 sten). Families living in Poland B have been found as more functional (M = 3.80; p < 0.01). The same was true for those employees who had been working longer (M = 10.04; p < 0.01) than their shorter counterpart. In addition, the factor of chain of command does not diversify the family functionality level in Prison Service personnel members.

Those living in Poland B are characterised by a higher cohesion level (t = 5.09; p < 0.01) and flexibility (t = 5.68; p, 0.01), yet also stiffness in terms of family roles (t = 7.62; p < 0.01). Families living in Poland A feature a higher communicational indicator and better mutual understanding (t = 5.98; p < 0.01), however also a higher disintegration indicator (t = 2.52; p < 0.05). Employees with longer seniority excel the younger ones in cohesion (t = 7.73; p < 0.01), flexibility (t = 10.95; p < 0.01) as well as mutual understanding and communication (t = 3.09; p < 0.01). The latter are also characterised by a higher family disintegration level (t = 4.94; p < 0.01). The families of the officers staff are "better" in terms of cohesion (t = 3.53; p < 0.01), flexibility (t = 2.53, p < 0.05) and communication (t = 3.49; p < 0.01). At the same time executory employees feature a higher level of developmental disorders (t = 3.49; p < 0.01) Table 2.

The average aggression syndrome was at M = 73.46 (δ = 16.84), which situates the average score on the level of 7 sten, and thus a little above average. There are no differences in the aggression syndrome intensity in subgroups identified according to workplace and seniority, while the aggression

syndrome level is significantly higher among executory employees than among officers (t = 8.73; p < 0.01). In various rating scales, a higher level of tensions and self-aggression is observed in subgroup Poland B (t = 2.35; p < 0.05), and so is the level of indirect aggression (t = 8.52; p < 0.01) and of outward aggression (t = 3.37; p < 0.01). Employees in the subgroup "Poland A" are characterised with a higher level of aggression control (t = 2.39; p < 0.05). Personnel with shorter period of employment considerably differ from others: they feature a higher level of self-aggression (t = 4.67; p < 0.01), and of indirect aggression (t = 3.95; p < 0.01), while – at the same time – their aggression control is significantly higher (t = 6.90, p < 0.01). Those working longer than ten years strikingly more often reveal an outward aggression (t = 12.94; p < 0.01). In relation to chain of command, we verify a higher level of self-aggression in executory employees (t = 5.42; p < 0.01), a higher level of indirect aggression (t = 15.63, p < 0.01) as well as more frequent retaliation-oriented behaviours (t = 11.86; p < 0.01). Officers have shown considerably higher scores in terms of outward aggression (t = 6.48; p < 0.01), yet also aggression control skills were better (t = 3.96; p < 0.01) Table 3.

In order to determine relationships between occupational stress level, family functionality level and the respondents' aggression level, the following statistical calculations were made.

Correlation coefficients and aggression indicator show that in subgroup „Poland A” there are stronger associations between occupational stress levels and the aggression syndrome (r = 0.581): the higher stress level, the higher aggression indicator, even though these groups do not significantly differ in statistical terms in terms of stress level). In subgroup "Poland B" correlation coefficient is r = 0.326. Taking into account the seniority factor we claim that the aforementioned relationships consider predominantly employees with longer length of career (r = 0.696) than those

Table 2. Family Functionality Level in Prison Service Employees (Average Results M).

Subgroups Family Functionality Level	Workplace end Dwelling Place		t	Significance Level	Seniority		t	Significance Level	Chain of Command		t	Significance Level	Total
	Poland A	Poland B			Up to ten years	Over ten years			Executory	Officers			
	M	M			M	M			M	M			
Cohesion	22.16	28.42	5.09	P<0.01	20.46	30.12	7.73	p<0.01	23.12	27.46	3.53	P<0.01	25.29
Flexibility	23.62	29.19	5.68	P<0.01	21.14	31.66	10.95	P<0.01	25.17	27.63	2.54	P<0.05	26.40
Communication	22.24	16.68	5.98	P<0.01	18.02	20.90	3.09	P<0.01	17.88	21.06	3.40	P<0.01	19.46
Family Roles	31.36	40.96	7.62	P<0.01	35.54	36.78	0.91	-	38.18	34.14	3.16	P<0.01	36.16
Disintegration	14.48	11.67	2.52	P<0.05	15.17	11.07	4.94	P<0.01	14.42	13.66	0.69	-	13.12
Developmental Disorders	14.56	13.96	0.70	-	15.02	13.50	1.85	-	14.86	11.82	3.49	P<0.01	14.26
Family Functionality Level	3.07	4.10	3.80	P<0.01	2.26	4.90	10.04	p<0.01	3.26	3.90	0.61	-	3.58

working shorter than ten years ($r = 0.246$). Also, executory personnel show some dependency between those variables ($r = 0.558$) more frequently than officers ($r = 0.384$). Positive correlations between stress and aggression were found in each comparison sheet Table 4.

Dependency between family functionality level and aggression has been revealed in considerably more obvious manner in subgroup Poland B ($r = - 0.668$) than in the parallel one ($r = -0.185$). Similarly, in employees with longer

period of career ($r = - 0.704$) than in those working shorter ($r = - 0.148$). In subgroups identified by the position in chain of command, the higher level of dependency pertains to lower personnel members ($r = - 0.526$) than to officers ($r = - 0.326$). As for this group, considered as a whole, correlation coefficients between the variables have turned out to be average: $r = 0.471$ (for the relationship between stress and aggression), and $r = - 0.426$ (for the relationship between the family factor and aggression) Table 4.

Table 3. Intensity of the Aggression Syndrome in Prison Service Employees (Average Results M).

Subgroups Aggression Level	Workplace end Dwelling Place		t	Significance Level	Seniority		t	Significance Level	Chain of Command		t	Significance Level	Total
	Poland A	Poland B			Up to ten years	Over ten years			Executory	Officers			
	M	M			M	M			M	M			
Self-aggression	9.63	12.03	2.35	P<0.05	13.26	8.40	4.67	p<0.01	13.46	8.20	5.42	P<0.01	10.83
Indirect aggression	13.16	19.71	8.52	P<0.01	32.26	18.40	3.95	P<0.01	36.16	14.25	15.63	P<0.05	25.43
Outward aggression	18.43	21.68	3.37	P<0.01	13.96	26.14	12.94	P<0.01	16.94	23.16	6.48	P<0.01	20.05
Retaliation-oriented behaviour	11.82	13.06	0.35	-	13.25	11.63	1.08	-	17.72	7.16	11.86	P<0.01	12.24
Control	18.51	16.08	2.39	P<0.05	21.12	13.46	6.90	P<0.01	15.35	19.23	3.96	P<0.01	17.29
Aggression syndrome	74.53	72.40	0.51	-	73.61	73.31	0.07	-	91.38	55.54	8.73	P<0.01	73.46

Table 4. Relationships between the Variables.

Subgroups X ₁ -Stress X ₂ - Family Y - Aggression	Workplace and Dwelling Place		Seniority		Chain of Command		Total
	Poland A	Poland B	Up to Ten Years	Over Ten Years	Executory	Officers	
	M	M	M	M	M	M	
RX ₁ - Y	0.581	0.326	0.246	0.696	0.558	0.384	0.471
RX ₂ - Y	0.185	-0.668	-0.148	-0.704	-0.526	-0.326	-0.426
RX ₁ - X ₂	0.416	-0.157	0.046	0.212	0.038	0.029	0.129
R ²	0.341	0.514	0.088	0.808	0.545	0.167	0.427
R	0.598	0.717	0.297	0.889	0.738	0.409	0.654

The calculations have proven that the said variables unequally explain the influence of the both independent variables on the dependent variable. It is particularly true in case of employees working up to 10 years (89% result variances pertaining to aggression), lower staff (74% of the variance) and Poland B (72% of the variance). The aggression level is least associated with the stress level and family functionality in the group of employees with shorter period of career (30% of the variance). Considering the whole group researched, coincidence of the independent variables explains 65% of the result variances for the aggression syndrome.

DISCUSSION

Admittedly, the overall aggression syndrome level in Prison Service employees have not turned out to be considerably high in the group of respondents as a whole, and the diversity of results in subgroups was insignificant as well (except for the seniority – lower personnel feature a much higher aggression level). However, some peculiar results warrant careful interpretation.

Higher results of self-aggression, of indirect aggression and of outward aggression found in subgroup Poland B are probably linked with social consent to aggressive behaviours in traditional communities. A higher level of aggression control, characterising employees from Poland B can be explained by a deeper absorbance of ruling norms and standards that regulate professional lives.

A higher level of outward aggression, typical for employees with longer period of work, can be a result of their experiences and habits (standards demanding not to take advantage of excessive aggression had not been effective during the time they started career); also, their burnout level might be higher, which leads to frustration. Employees with shorter periods of work consider the standards of not using violence or aggression as something natural. It does not protect them from tensions (higher self-aggression) or indirect aggressiveness, combined with intense emotions control. Executory personnel members feature a higher self-aggression and higher indirect aggression level as well more frequent retaliation-oriented behaviours, which is probably associated with their work conditions, i.e. direct contacts with inmates. Officers' attitudes are characterized by a higher level of outward

aggression with simultaneous aggression control. It can simply mean a higher level of assertiveness in that subgroup, where respondents were usually better educated and had deeper awareness of social norms.

Relationship between occupational stress and aggression can be recognised as moderate, nevertheless more visible in case of the subgroups: Poland A, seniority and executory positions. This can stem from a different attitude to work (professional life for people living in Poland B is not an essential factor regulating every day activity), and burnout (which is probably more serious in employees of higher seniority); it leads directly to frustration and current work loads (executory personnel). Consequently, one can state that relationships between a higher stress level and a stronger aggression syndrome pertain mainly to those subgroups.

In terms of family factor, strength of relationship between variables is also moderate, except in an inverse direction: the higher level of family functioning, the lower aggression level. It especially concerns the subgroups: Poland B (family is a dominating social value there), employees working for longer periods (larger stabilisation and significance of the family life), as well as executory personnel (who can more often focus on family lives without burdens associated with responsibilities at work).

Relationships between independent variables have turned out insignificant, apart from the subgroup Poland A – which means that the influence of the professional life on respondents' families, and the other way round, appears here much stronger than usual.

In light of the result of the present study, one can conclude that the hypotheses have been supported.

CONCLUSION

1. There is a moderate relationship between stress level and aggression level (the higher stress level, the stronger aggression syndrome), which is revealed in the subgroups of employees dwelling in more modernised areas, in employees with longer periods of career and among lower personnel rather than in other subgroups.
2. There is a moderate relationship between family functionality level and stress level (the higher family functionality level, the lower aggression syndrome level), which is revealed in the subgroups of employees living in

the more conservative areas of the country, in employees with longer periods of career and among lower personnel rather than in other subgroups.

3. The factors measured in the study, such as dwelling place, seniority, chain of command etc., explain the variance of the aggression levels. Its intensity and diversity occur in higher degree in the subgroups of employees living in more traditional and conservative parts of the country, among those who work as well as lower personnel members for longer periods.

CONFLICT OF INTEREST

The authors confirm that this article content has no conflict of interest.

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REFERENCES

- Bandura, A. (1973). *Aggression: A Social Learning Analysis*. Englewood Cliffs, N.J.: Prentice Hall Inc.
- Bettencourt, B.A., & Miller, N. (1996). Gender Differences in Aggression as a Function of Provocation: A Meta-Analysis. *Psychological Bulletin* 119, 422-447.
- Brzeziński, J.M., & Zakrzewska, M. (2008). Methodology. Basics of Methodological and Statistical Research in Psychology. In: Strelau, J., & Doliński D, (Eds.). *Psychology. Academic Textbook* vol. 1 (pp. 175-302). Gdansk: GWP.
- Cox, T., & Mackay, C.J. (1981). A Transaction Approach to Occupational Stress. In: Corlett, E. N., & Richardson J. (Eds.). *Stress, Work Design and Productivity* (pp. 91-113). H. Chester: Wiley and Sons.
- Dollard, J., Doob, L.W., Miller, N.E., Mowrer O.H., & Sears, R.R. (1939). *Frustration and Aggression*. New Haven: Yale University Press.
- Doyle, CH., & Slaven G., (2004). The Relationship Between Negative Activity and Adverse Reactions to Stressors. In Strelau J., (Ed.), *Personality and Extreme Stress* (pp. 141-166). Gdansk: GWP.
- Gaś, Z. (1980). Psychological Inventory of the Aggression Syndrome. *Przegląd Psychologiczny (Psychological Overview) 1*, 143-157.
- Gaś, Z. (1994). *Addictions*. Warsaw: WSiP.
- Góralski, A. (1974). *Methods of Description and Statistical Inference in Psychology*. Warsaw: PWN.
- Guilford, J.P. (1960). *Basic Statistical Methods in Psychology and Pedagogy*. Warsaw: PWN.
- Heszen, I., & Sęk, H. (2008). Health and Stress. In: Strelau, J., & Doliński, D., (Eds.). *Psychology. Academic Textbook* vol. 2, (pp. 681-734). Gdansk: GWP.
- Korczyńska, J. (2004). Temperamental Risk Factor for Burnout on the Example of the Prison Service. In: Strelau J., (Ed.). *Personality and Extreme Stress* (pp. 317-342). Gdansk: GWP.
- Lazarus, R.S., & Folkman, S. (1984). *Stress Appraisal, and Coping*. New York: Springer – Verlag.
- Olson, D.H. (1986). Circumplex Model VII: Validation studies and Faces III. *Family Process* XV, 337-351.
- Olson, D.H. (1991). Commentary: Three-dimensional (3-D) Circumplex Model and revised scoring of FACES III. *Family Process* XXX, 74-79.
- Satir, V. (2000). *Peoplemaking*. Gdansk: GWP.
- Wojciszke, B. (2003). *Man Among Men*. Gdansk: GWP.
- Zillman, D. (1987). Cognition – excitation interdependencies in aggressive behavior. *Aggressive Behavior*, 51-64.
- Zimbardo, P.h. (2008). *Lucifer Effect*. Warsaw: PWN.

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