Original Papers

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Individual differences in police dog handlers

The Polish adaptation of the NEO-FFI inventory (see Costa & McCrea, 1989; 1992b; Zawadzki et al. 2007) was used in the present study to assess the personality of dog handlers. For diagnosis of the emotional intelligence, the Polish scale Popular Questionnaire of Emotional Intelligence was used (Jaworowska & Matczak, 2005). There were 601 participants out of the total estimated number of 1408 police dog handlers in Poland. The results were compared with normalization tests for the measures used. The personality profile and emotional intelligence of dog handlers differ significantly from general population. Described in the NEO-FFI terms, police dog handlers are characterized by very low neuroticism, slightly above average extraversion, slightly below average openness to experience, a little above average agreeableness, and very high conscientiousness. In terms of emotional intelligence, they demonstrate higher control and understanding of emotions. It seems that the results obtained in the study may become relevant for the recruitment and training of police officers.

Keywords: individual differences, police dog handlers, personality inventory, emotional intelligence

Introduction

The relationship between personality traits and career has been the subject of analysis since early stages of individual differences psychology (Cf. Klonowicz, 1980; Klonowicz & Sokołowska, 1993; Klonowicz & Zawadzka, 1988; Strelau, 1983), with interest peaking in the middle of the 20th century. The application of multivariate statistical analyses, such as hierarchical regression analysis, path analysis and structural modeling has prompted a revival of research into the relationship between individual differences and professional effectiveness and success. Uniformed services, such as the army and police, have always attracted particular attention. The search for reliable diagnostic tools has been stimulated by unique risk factors affecting these professional groups and potentially high costs of mistaken personnel decisions. Research on police officers has been particularly extensive (Detrick & Chibnall, 2006). A common problem found in many studies, however, is their lack of precision in defining professional groups. One example of this issue is treatment of all "police officers" as one group, despite the group's internal differentiation due to unique skills and demands associated with specific positions.

From psychological perspective, the group of police dog handlers is especially interesting. Dog handlers work systematically with their charges, training their dogs and taking care of them in order to enhance the animals' efficiency in police work. As is the case with other professions involving personal contact with animals, the characteristics of this group may be different from the general population or the population of police officers assigned to other duties. Of particular interest are those traits that are associated with emotional intelligence and perseverance, i.e. the characteristics that translate into effective functioning during extended periods of activity under a heavy workload.

The purpose of the present study was to determine individual characteristics of police dog handlers against the background of the general population. The measures used in the study i.e. the NEO-FFI and the emotional intelligence inventory, Polish version, were selected on the

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basis of the literature and data from international research. We expected to find differences in those personality traits that are particularly relevant in the context of effective social interaction and attachment.

Method

Procedure and participants

The research study was conducted under the agreement between the General Polish Police Headquarters and the Warsaw University of Life Sciences, as part of the grant from the Ministry of Science and Higher Education no. OTOOC 01230.

Participants were employees of Polish police working as dog handlers. According to the latest available official data (2005), this professional group was comprised by 1408 individuals (Rosół et al., 2005). They were employed in the following three divisions: prevention, crime intelligence and special forces. Both prevention and crime intelligence operate on the countrywide scale, with their organizational structure reflecting the administrative division of Poland. Thus, dog handlers were employed in 16 province police headquarters and county police headquarters (in ca. 90% of 379 counties in Poland). Due to ongoing reorganization in Polish police, the latter figure was difficult to determine precisely.

In 2006, 1500 sets of personality inventories were mailed by standard post to each province police headquarters, a number sufficient for all dog handlers to take part in the study. The sets of inventories were to be forwarded from province capitals to county headquarters and crime intelligence units in each province. Each set consisted of two inventories described below, as well as a demographics survey to obtain information needed to create a demographic profile of the study population. However, since the study was given a green light from General Police Headquarters under strict conditions of anonymity, demographic data were limited to participants' sex and age. Two weeks after the inventories had been sent, provinc\e headquarters were contacted by phone in order to confirm their receipt and inquire about the approximate date when the inventories would be completed and returned.

799 completed sets were returned, which amounts to 57% of the estimated number of police officers employed as dog handlers. Over 98% of respondents were men aged 19-51 years (mean =32.0, standard deviation = 5.69). 610 sets were complete (with no responses missing). Due to the small number of women, insufficient for the purposes of statistical analysis, the results of 9 women were excluded. In the end, 601 properly filled in and complete sets of inventories were qualified for analysis. Thus, the study sample consisted exclusively of professionally active men.

Due to the constraints imposed by the General Police Headquarters, demographics and the relationships between scores and particular employment location (province or county headquarters) and division (prevention or crime intelligence) were not analyzed.

Measures

Two personality measures were used to assess dog handlers.

For diagnosis of the 'Big Five' traits, the Polish adaptation of the NEO-FFI inventory was used (see Costa & McCrea, 1989; 1992b; Zawadzki et al. 2007). It is made up of 60 items with 12 for each scale, i.e. neuroticism, extraversion, openness to experience, agreeableness and conscientiousness (only general dimensions without their facets). The analyses have shown that the Polish version has satisfactory reliability and validity, comparable to the original version (Zawadzki et al., 1998/2007).

For diagnosis of the emotional intelligence the Polish scale named Popular Questionnaire of Emotional Intelligence (PKIE) was used (Jaworowska & Matczak, 2005). This questionnaire was constructed within the theoretical framework of Salovey & Mayer (1990). It consists of four subscales: Acceptance, Empathy, Control and Understanding, consisting of 15, 18, 11, and 10 items respectively. The analyses have shown that the tool has satisfactory reliability and validity (Jaworowska & Matczak, 2005).

Results

Scores in individual subscales of the NEO-FFI and PKIE were analyzed. The results obtained in normalization tests of these measures and in the dog handler population were compared. Student's t-test was used to analyze the significance of differences between means from normalization tests and dog handler tests. In addition, effect size was calculated using Cohen's *d*:

$$d = \frac{|\bar{x}_1 - \bar{x}_2|}{\sqrt{\dfrac{s_1^2 + s_2^2}{2}}}$$

The results are shown in Table 1.

Discussion

Data for the present study was collected from 601 professionally active male police officers employed as police dog handlers. Respondents completed two personality inventories: the NEO-FFI and PKIE. Their results were then compared with the results obtained by the authors of the two diagnostic tools in normalization

Table 1

Results of comparison between normalization groups (A- NEO FFI, B – PKIE) with the results obtained in the sample of police dog handlers.

A	Handlers (n=601)		Normalization group NEO FFI (n=973)		T-test	d (Cohen's formula)
Attribute	Mean	Std-Dev	Mean	Std-Dev		
Neu	14.27	6.73	20.94	7.67	t = -17.874 p< .0001	.93
Ex	30.93	5.30	27.38	6.84	t = 10.842 p< .0001	.58
Op	25.46	4.79	27.48	6.33	t = -7.178 p< .0001	.36
Agr	30.77	4.63	27.65	5.86	t = 11.712 p< .0001	.59
Sum	36.01	6.02	28.96	7.12	t = 21.028 p< .0001	1.07
B	Handlers (n=601)		Normalization group PKIE (n=109)		T-test	d (Cohen's formula)
Attribute	Mean	Std-Dev	Mean	Std-Dev		
PKIE	353.10	43.56	335.00	39.40	ns	
ACC	56.73	7.80	54.70	7.60	t = 2.555 p< .0116	.26
EMP	68.19	7.97	67.40	10.00	ns	
CTRL	39.60	7.18	32.70	7.40	t = 8.997 p< .0001	.94
UN	36.93	6.61	32.80	6.70	t = 5.933 p< .0001	.62

Table symbols: Neu – Neuroticism, Ex - Extraversion; Op – Openness to experience, Agr -Agreeableness, Con – Conscientiousness; PKIE – total score of Popular Questionnaire of Emotional Intelligence, ACC – Acceptance, EMP - Empathy, CTRL – Control, UN – Understanding.

tests. An interpretation of results obtained in the study must take into account several important limitations in the interpretation of study data. Participants were exclusively male, which puts obvious limits on generalization. It should also be remembered that no causal relationships can be inferred from the results. Police officers working as dog handlers volunteer for this particular role after completing basic police training. There are no additional recruitment or selection procedures applied at this stage. As such, undertaking the job as dog handler is the result of police officers' own preference. In addition, we had no information about the number of officers who start working as dog handlers but later quit this particular function. All respondents in the sample were active dog handlers. With the above limitations in mind, an attempt to construct a psychological profile of a police officer-dog handler was still possible. The frame of reference for the profile will be the normalization group for a given scale.

The characteristics of the study population are clearly distinct from those of the normalization sample, both for the NEO-FFI and PKIE. The profile of a police dog handler in terms of personality traits assessed in the study and PKIE can be summarized as follows. A typical representative of the group, described in terms of the NEO-FFI, scores very low in neuroticism, slightly above average in extraversion, slightly below average in openness to experience, a little above average in agreeableness, and very high in conscientiousness. This personality profile is particularly interesting in the context of the results obtained by Detrick and Chibnall (2006), who used the NEO-PI-R to assess novice police officers. They identified three groups of police officers scoring very high and low in training (top and bottom 10% of distribution in the study sample). As it turned out, police officers who performed best in training

and actual work were characterized by low neuroticism and high agreeableness, combined with high conscientiousness. What is particularly interesting is that the individuals who collected data for the present study often heard remarks suggesting that in terms of prestige, dog handlers were relatively low in the hierarchy of importance ascribed to various types of police work.

Equally interesting is the analysis of the results obtained in the emotional intelligence questionnaire. The scores that particularly differentiated dog handlers from the normalization sample were obtained for emotional control and understanding subscales. Dog handlers also scored higher for the "emotion acceptance" characteristic, but the relationship was relatively weak.

In order to appreciate the psychological significance of our results, it seems worthwhile to examine the specific demands placed on the police dog handlers. The job requires the handler to be very methodical with respect to the dog's training, to observe its behavior carefully, be prepared to overcome failure, accept delayed rewards, and deal with the emotional states of the dog, as well as his own.

It is important to bear in mind the aforementioned recruitment process for police officers-dog handlers is entirely voluntary. Thus, even though it is impossible to determine the direction of the relationship between specific professional demands placed on the dog handlers and their personality characteristics on the basis of our results, we can assume that the applicants have the personality traits described above or that these individuals continue in this job longer. Another possibility is that systematic work with a dog modifies human personality. It seems that measures related to emotional intelligence, understanding, acceptance, and control of emotions may be particularly sensitive to the training involved in working with dogs.

Conclusions

1. The personality profile of police officers who are dog handlers demonstrates unique characteristics which clearly distinguish it from the profile obtained in normalization tests of diagnostic measures used in the study.
2. The personality profile of police officers who are dog handlers matches the one described previously for police officers who perform best in their work.
3. It seems that our results may be relevant for the process of police officers' recruitment and training.

References

Detrick P & Chibnall J.T. (2006) NEO PI-R Personality Characteristics of High-Performing Entry-Level Police Officers. *Psychological Services , 3*(4), 274 –285 .

Jaworowska A., Matczak A.(2005). *Popularny Kwestionariusz Inteligencji Emocjonalnej (PKIE)*. [The Popular Questionnaire of Emotional Intelligence] Warszawa: Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego

Klonowicz, T. (1980). A person–environment fit at work: An attempt to evaluate the costs of adaptation. *Polish Psychological Bulletin, 11*(4), 249-255. Retrieved from EBSCOhost.

Klonowicz, T. (1982). Behavioral effects of noise: Reactivity, specific experience or both? Polish *Psychological Bulletin, 13*(3), 175-184. Retrieved from EBSCOhost.

Klonowicz, T., & Sokołowska, J. (1993). Everyday danger: Individual differences, accident perception, and safety behavior. *Polish Psychological Bulletin, 24*(1), 51-61. Retrieved from EBSCOhost.

Klonowicz, T., & Zawadzka, G. (1988). Reactivity and personal control over stimulation supply. *European Journal of Personality, 2*(1), 1-10. Retrieved from EBSCOhost.

Rosół A., Marciniak R., Haczuk M. (2005). *Koncepcje realizacji zadań z wykorzystaniem psów służbowych*. [Conceptions of task fulfillment with support of dogs] Warszawa: Komenda Główna Policji.

Salovey, P. & Mayer, J.D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality, 9*, 185-211.

Strelau, J. (1983). Temperament, personality, activity. London: Academic Press.

Zawadzki B. , Strelau J., Szczepaniak P., Śliwińska M. (2007). *Inwentarz Osobowości NEO FFI Paula Costy i R. Mc Crae. Adaptacja polska*. [The NEO FFI Personality Inventory by Paul Costa & R. Mc Crae. Polish adaptation]. Warszawa: Pracownia Testów Psychologicznych.