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Selected psychiatric and environmental factors influencing the incapacity to work in the police force in relation to gender

Sławomir Krzemiński, Antoni Florkowski

Summary

Aims: To evaluate the causes of incapacity for continued work in the police force due to health issues and to see whether there are any differences related to gender.

Materials and methods: An analysis of certification which confirmed incapacity to work and medical records of 130 patients with documented mental disorders who require more than 5 years of psychiatric treatment. The study uses a structured sociodemographic and medical questionnaire designed specifically for this purpose.

Results: The mean age of the group was 48 years for women and 44 years for men. Years of service of women was mostly 21 to 25 years and more, whereas seniority of men was between 21 and 25 years. The period of treatment in psychiatric health clinics was longer for women. The most common cause for incapacity for work was chronic neurotic disorders (87.69% of women and 98.41% of men).

Conclusions: The results of this study indicate that in the analysed sample of police officers the main cause of incapacity to work were chronic neurotic neurasthenic disorders. Length of service as well as age of police officers at the time of retirement from the police force was higher for women. Neurotic disorders often coexisted with somatic disorders, among which were hypertension and degenerative disorders of the spine. Neurotic and neurasthenic disorders qualified the individuals to the third-level disability category owing to their service in the police force.

police, medical evaluation, incapacity to work, years of service

INTRODUCTION

Serving in the police force involves protecting the lives and property of citizens and exposes police officers to a cumulative effect of numerous stressful situations [1]. The main factors that cause increased emotional stress in this group are organizational and operational stressors, such as being overloaded with responsibilities, bearing the legal and disciplinary consequences of any mistake made on duty, being part of a hierarchical and autocratic management model, having problems with balancing work assignments with family life, being in a state of constant danger to one's health and life, and the feeling of being constantly on standby [2,3]. The police officer's everyday functioning requires making high-impact decisions, often involving violence and sometimes even the use of firearms. Police officers are exposed to life

Sławomir Krzemiński[1], Antoni Florkowski[2]: [1]Lesser Poland Regional Medical Commission of the Ministry of the Interior and Administration in Krakow, Poland;, [2]Podhale State College of Applied Sciences in Nowy Targ, Poland.
Correspondence address: krzemek@onet.eu

and health threats, suffering and death. They are tasked with helping individuals that present with desperate behaviour and for conveying difficult information to close family members of the deceased [2,3]. In addition, an increasing number of complaints against police officers are related to abuse of power and other forms of non-regulatory behaviour that occurs during interventions. This forces the officers to constantly be in control of their emotional state [1,2]. Shift work or changeable working hours lead to deterioration of sleep and rest quality, which increases the amount of physical injuries while being on duty [5].

The need to maintain constant vigilance largely affects the experienced safety of the police officer and their partner, as well as other dependents, which may result in the officer's suspicion and distrust towards their family [1]. Such an attitude together with excessive emotional self-control may create problems in interpersonal relationships, limit openness towards their loved ones and create a tendency to withdrawal.

The working conditions of serving in the police force, including the often strained professional relationships within the organization, excessive pressures from the superiors and instrumental treatment when evaluating subordinates' work according to quantitative criteria, combined with unsatisfactory salary, have a negative impact on the cumulative negative emotions. This, accompanied by lack of support [6], may lead to pathological behaviour in officers. Specific working conditions require detailed medical and psychological examinations in order to adequately select candidates who are fit for duty. This ensures that only candidates presenting with positive personality and intellectual traits are hired.

The aim of this study was to assess the incapacity for work in the police force for health-related reasons and to demonstrate any differences in relation to gender that were found by the Lesser Poland Regional Medical Commission in Krakow, Poland [7] in men and women declared unfit for duty and whether gender influences the seniority and the cause of incapacity for service.

MATERIALS AND METHODS

Randomly selected cases of 130 police officers, 65 women and 65 men, who were examined for the first time between 2013 and 2014 and declared unfit for service were used. Due to a considerable disproportion in the number of male officers in this study group, all records of female officers from this time period were used and the same number of male records of the 398 male subjects selected consecutively in alphabetical order.

The study uses a structured sociodemographic and medical questionnaire designed specifically for this study. Based on this research tool, sociodemographic data and medical information regarding illness duration and the type and duration of treatment were collected. Medical evaluation was performed based on the medical examination and medical records including medical certificates and records confirming at least 12-month-long treatment period. The results of the study were analysed with Statistica 10. Variables were compared with the chi square test. Values of $p<0.05$ were considered statistically significant.

RESULTS

Table 1. Characteristics of the studied groups

Variable	Women		Men		Total		Statistical analysis
	N-number of patients	%	N-number of patients	%	N-number of patients	%	
AGE							$\chi 2$=9.205 df=3 p<0.05
< 35	1	1.53	1	1.53	2	1.53	
35-44	18	27.69	30	46.15	48	36.92	
45-54	38	58.46	31	47.69	69	53.07	
>54	8	12.30	3	4.61	11	8.46	
Average	48.20 SD± 6.42		44.40 SD±5.60		46.66 SD±6.10		

YEARS OF WORK							
<15	9	13.84	3	4,61	12	9.23	χ^2=29.522 df=3 p<0.001
16-20	7	10.76	22	33.84	29	22.30	
21-25	24	36.92	31	47.69	55	42.30	
> 25	25	38.46	9	13.84	34	26.15	
Average	23.98 SD±6.10		21.74 SD±4.74		22.86 SD±5.41		
EDUCATION							
Secondary education	49	75.38	53	81.53	102	78.46	χ^2=1.120 df=1 p not specified
Higher education	16	24.61	12	18.46	28	21.53	
MARITAL STATUS							
Single	8	12.30	4	6.15	12	9.23	χ^2=6.068 df=5 p not specified
Married	42	64.51	47	72.30	89	68.46	
Divorced	9	13.84	7	10.76	16	12.30	
Widowed	1	1.53	0	0	1	0.76	
Separated	0	0	1	1.53	1	0.76	
Co-habiting	5	7.69	6	9.23	11	8.46	
PLACE OF RESIDENCE							
Village	12	18.46	9	13.84	21	16.15	χ^2=6.022 df=3 p<0.001
City < 50,000 people	6	9.23	22	33.84	28	21.53	
City 51–100,000	5	7.69	14	21.53	19	14.61	
City > 100,000	42	64.61	20	30.76	62	47.69	
RANK							
N Non-commisioned officer	5	7.69	4	6.15	9	6.92	χ^2=6.022 df=3 p – not specified
Warrant officer	39	60.00	49	75.38	88	67.69	
Junior officers	7	10.76	5	7.69	12	9.23	
Senior officers	14	21.53	7	10.76	21	16.15	

N – standard

The results of the analysis presented in Table 1 indicate that the examined group can be considered relatively young compared with the general population of pensioners. The age of the women in the study ranged from 28 to 58 years, and the mean age was 48.20 SD +/ – 6.42. The age of men ranged from 28 to 58, with mean age 44.40 SD +/ – 5.60.

The greatest number of women fit in the 45–54 age range. For men, the greatest number was in the 35–44 and 45–54 ranges. The presented results are statistically significant.

Regarding job seniority, women with 21–25 years of service and 25 years plus, as well as men with 21–25 years of years of service, were most numerous. This was statistically significant.

The group was dominated by individuals with secondary education: 75.38% of women and 81.5% of men (where a bachelor's degree and a master's degree were considered higher education). The results show that there were no statistically significant differences between men and women when it comes to education.

The percentage of individuals that were married is worth noting: 64.61% of women and 72.30% of men. The current marital status and not the past relationships were evaluated. The causes of this phenomenon were not analysed, however, McCoy's research [8] confirms that divorce is not common in this occupational group. Results of marital status show that there are no statistically significant differences. Analysis of the place of residence showed that 64.1% of women lived in cities over 100,000 residents and men were most likely residents of cities with up to 50,000 in population (33.84%) and cities over 100,000 (30.76%).

Significant statistical differences were noted between male and female police officers.

When analyzing the individual adherence towards specific ranks the results show that 60.00% of women and 75.38% of men had the rank of *warrant officer*. No statistically significant difference was found.

Table 2. Psychiatric treatment

Variable	Women		Men		Total		Statistical analysis
	N-number of patients	%	N-number of patients	%	N-number of patients	%	
Stationary and outpatient treatment							
Stationary and mental health outpatient clinic	8	12.30	7	10.76	15	11.53	χ^2=4.921 df=3 p n.s.
Day hospital ward and mental health clinic	43	66.15	51	78.46	94	72.30	
Mental health outpatient clinic	11	16.92	5	7.69	16	12.30	
Not in treatment	3	4.61	2	3.07	5	3.84	
Treatment period (years)							
< 5	9	13.84	11	16.92	20	15.38	χ^2=14.625 df=3 p<0.01
5-15	35	53.84	47	72.30	82	63.07	
5	18	27.69	5	7.69	23	17.69	
Not in treatment	3	4.61	2	3.07	5	3.84	
Diagnosis							
Neurotic disorders: neurasthenia	57	87.69	62	95.38	119	91.53	No statistical significance was calculated due to low variable indicators
Personality disorder	1	1.53	0	0	1	0.76	
Somatic illness	7	10.76	3	4.61	10	7.69	
Qualification of medical committee decisions							
I disability group in connection with the police service	1	1.53	1	1.53	2	1.53	No statistical significance was calculated due to low variable indicators
II disability group in connection with the police service	3	4.61	0	0	3	2.3	
III disability group in connection with the police service	57	87.69	64	98.46	121	93.07	
I disability group beside the point with the police service	2	3.07	0	0	2	1.53	
II disability group beside the point with the police service	2	3.07	0	0	2	1.53	
Comorbid somatic illness							
Hypertension	19	29.29	29	44.61	48	36.92	χ^2=19.573 df=5 p<0.01
Spinal pain syndrome	5	7.69	8	12.30	13	10.00	
Spondyloarthrosis	20	30.76	5	9.23	26	20.00	
Ischemic heart disease	3	4.61	2	3.07	5	3.84	
Peptic ulcer	0	0	21	3.07	2	1.53	
Other	9	13.84	7	10.76	16	12.30	

N – norm standard

The results presented in Table 2 indicate that the respondents most often received psychiatric treatment in day-care departments of psychotherapy and/or psychiatry, as well as in mental health clinics and specialized medical practices dealing with psychiatric disorders. Overall, 66.15% of women and 78.46% of men were hospitalized at least once in day-care psychotherapy departments. There were no statistically significant differences between types of psychiatric treatment. Day-care departments were most often used by the group. They enabled patients to modify pharmacological treatment and psychotherapy (the data regarding the type of psychotherapy were not available). Treatment most commonly lasted from 5 to 15 years prior to leaving the police force and was observed in 53.84% of women and 72.30% of men. A statistically significant difference was shown regarding the duration of psychiatric treatment, with a clear dominance of women, especially those in treatment for over 15 years.

A high prevalence of chronic neurosis is noticeable,2 which was the leading diagnosis when declaring incapacity to work in the police. Statistical significance was not calculated due to low values of other variables. If the officer is declared incapable to work due to an illness from the list of diseases and disabilities that figure in appendix no. 2, journal of laws 05.206.1723, which are connected to service in the police and qualify as a disability, then this results in financial gratification as the officer is considered to have become disabled while on duty.

Based on psychiatric and psychological analysis and a thorough analysis of medical records, the medical committee qualified 87.69% of women and 98.41% of men for the category 3 disability and therefore unfit for further service. The remaining evaluated officers were qualified to the first and second disability group because of other illnesses. Statistical significance was not calculated due to low indicators of other variables.

The data in Table 2 show that some of the representatives of the group also suffered from somatic diseases, which were taken into account while determining the incapacity to work in the police. Women mostly suffered from degenerative diseases of the spine (30.76%) and hypertension (29.23%). Men mostly suffered from hypertension (44.61%). There are statistically significant differences with regard to coexisting diseases, however, the mean age of evaluated women was higher.

DISCUSSION

Difficulties in professional functioning of members of uniformed services, who suffered from neurotic disorders causing incapacity for further service, have been documented in literature. Evaluation diagnosis compliant with the list of diseases and disabilities from 2014 slightly differs from the ICD-10 classification (annotations to paragraph 78 with a clinical presentation of neurosis, lists neurasthenia as first [9]). The stressful character of service in the police force causes officers to begin psychiatric treatment after a few years of professional activity. Officers who are assigned to a specific disability group as a result of working in the police forced are granted a financial benefit amounting to 15% of their base retirement pension. It is well known that police officers and other uniformed services represent a high-risk occupational group with regard to non-psychotic mental disorders [10-13], particularly neurotic neurasthenic disorders. According to Volanti, organizational stressors are stronger than operational stressors [3]. Stress may be related to lower mean life expectancy in officers. Differences are more significant in younger age groups [14]. Metabolic syndrome and atherosclerosis [5,15] are more prevalent than in the general population and the risk of death from cardiac incidents is caused among others by the neuroendocrine reaction and increased activity of the sympathetic system [16]. Stressors present during the service and shift work decrease the quality of sleep by influencing the morning cortisol peak [17] and influencing the hypothalamic-pituitary-adrenal axis. By providing proper support during service and modifying the workload to the officer's capabilities, work satisfaction can be increased [6]. Organizational stress: work–family conflict, lack of societal support, high demands, an excess of responsibilities, difficulties with taking holidays as well as operational stress related to the tasks characteristic for the position are related to the deterioration of mental and physical health [18]. A study carried out in the Netherlands on 3,881

police officers did not show that psychiatric disorders were more common among police officers than in the population of bank and supermarket employees [19]. It should be noted, however, that the research carried out by these authors dealt with the health status of the officers and not the empirical assessment of this population as a group of increased risk of psychiatric disorders. police officers must fulfil high physical fitness and health requirements, which are monitored from the start of service. They are selected in the recruitment process, which the study group of policemen and policewomen also had to pass.

In this study, most of the examined males and females (80.76% total) had a documented history of over 5 years of psychiatric treatment for neurosis. Neurasthenia symptoms were clearly dominating. The main complaints were exhaustion, persistent sleep disorders, excessive irritability and low emotional self-control. Increased diagnosis of neurasthenic disorders compared with the general population in the representatives of the uniformed services is well known to psychiatrists and psychologists observing other uniformed services and compared to epidemiological studies the condition was often overdiagnosed in e.g. professional soldiers [20]. Currently in publications, the term "neurasthenia" is episodic, and is more likely to be synonymous with chronic fatigue syndrome [21]. However, it should be borne in mind that in the current DSM-5 classification as in previous DSM-IV, DSM-III neurasthenia did not occur at all. Neurasthenia is included in ICD-10, but not in ICD-11. Therefore, it is time to prepare new regulations for uniformed services in which neurasthenia will no longer be diagnosed.

As our study shows, neurotic disorders with neurasthenia symptoms linked to stress, which were diagnosed in 91.53% of cases altogether, were the main cause of further incapacity to work in the police force. These disorders were reported in 87.69% of women and 95.38% of men. As a consequence of this diagnosis, officers were found to be incapable of further service in the police force and were assigned to the third disability group. This applied to 93% of the group, 87.69% of women and 98.46% of men. According to current regulations of the Ministry of the Interior and Administration in Poland, when qualified for the third group, the officer is totally incapable to perform any police service, however, they can perform other work not related to the police. With regard to this, there were no differences during the time period analysed. The third disability group has no counterpart in the Social Insurance Institution (ZUS). ZUS grants disability pensions only, if the person who has been granted disability partially or completely lost their ability to earn through professional work and does not show any prospects of ever regaining that ability even after retraining. In our study group, a small percentage of officers also suffered from comorbidities, which in most cases were not the direct cause of inability to serve, however, they were taken into account by the medical committee. Neurotic disorders were the main diagnosis accompanied by hypertension (36.92%) and degenerative degeneration of the spine – 20% of cases. Hypertension was more common in men (44.61%) than in women (29.23%). There are no publications on the epidemiological assessment of incapacity for further police service in the available literature, so we have not been able to confront our findings with other studies. Finally, it is worth emphasising that the majority of the studied group were in the working age group between 45 and 54 years (53.07%) and 35 to 44 years (36.92%). An analysis of the seniority of the examined officers showed that 42.30% had 21–25 years of experience. The results encourage us to perform further research, in which the seniority of female officers as well as age at the moment of resignation is higher than in the studied group of men. At the recruitment stage women went through the same process as men, however, we did not examine whether they had occupied similar positions. As we agree with the results of other researchers, that organizational stressors are more significant than organizational stressors, with regard to mental health, the study group should be extended and other factors should be examined.

In accordance with the applicable regulations [22] including the amending act about retirement benefits of those who joined the police force after 2013, they acquire retirement rights not after 15 years, as previously, but after 25 years of service. This problem does not concern the studied group, however, considering the in-

creased frequency of psychiatric disorders diagnosed in the studied population, the health condition of police officers could deteriorate due to extension of the minimum service duration. Personality disorders were the cause of incapacity to work only in one subject in the study group (<1%), although at the recruitment stage the candidate must undergo mandatory psychological and psychiatric tests. This case was not, however, taken into account when forming conclusions.

We are aware of the limitations of the study due to the insufficient number of people surveyed. This prompts us to carry out further research in this are on a much larger population.

CONCLUSIONS

1. The results of the conducted research indicate that in the analysed population of officers the main cause of incapacity for further police service was chronic neurasthenia.
2. Long-term neurasthenia syndrome among the study group was more common among men (95%) than women (88%).
3. Years of service and age of female officers that are leaving the police force are higher than in men.
4. Neurotic disorders coexisted with somatic diseases, including hypertension, more commonly diagnosed in men, and degenerative disease of the spine, more commonly diagnosed in women.

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