

**UNIVERSITY OF PUBLIC SERVICE**  
**Doctoral School of Law Enforcement**

**AUTHOR'S SUMMARY OF THE DOCTORAL (PHD) DISSERTATION**

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**Health behaviour, burnout, mental health – responses of police trainees to  
occupational stress**

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## **Description of the scientific problem**

Nowadays, the preparation of the youth for the police officer field takes place at different levels. Those who are interested in the field by the age of 14 can study in high schools in Internal affairs and law enforcement specialization classes, however, this study does not provide other professional police qualifications than the possibility of specialized graduation and the security guard qualification. Following high school graduation various paths lie ahead of those preparing for the police officer field. They can become Lieutenant as a career starter by graduating from the Faculty of Law Enforcement at the University of Public Services, or by attending the formal education of law enforcement technical school they can obtain acquire the profession of a police officer. For the latter, there are other, non-formal educational options as well. Due to the length of my research, it primarily focused on students attending two-year long formal education, and later as a result of the changes in the length of the education, students attending the one-and-a-half-year programme were involved too.

In Hungary, the police officer training is thoroughly regulated. It falls under the scope of legal regulations (Act CXC of 2011 on National Public Education, Act CLXXXVII of 2011 on Vocation Training and later Act LXXX of 2019 on Vocation Education and Training, and Act LXXVII of 2013 on Adult Education), and the current interests of the police decide on certain issues – for example how many police trainees can be admitted to the law enforcement schools, or when they are appointed to the probationary staff –, although in the latter case the Act XLII of 2015 on the Service Status of Professional Members of Law Enforcement Agencies, Article 49 (4) may serve as a reference: it declared the earliest time of the appointment for a probationer police officer and now this date is the successful completion of their first school year.

The majority of the participants in the officer training start their two-year (or different length, as one-and-a-half-year) studies at a law enforcement school in the country immediately after graduation, thus at a very young age of 18-20 years and due to the duration of the training, they graduate and become professional police officers at a very young age. As today's police trainees are members of Generation Z, one of the characteristics of this age group is that they live an accelerated life, while their psychological maturation is significantly delayed (Tari, 2011), therefore, abrupt decisions and potential harm from the work environment are likely to have a much quicker impact on the lives of police trainees. This is also suggested by the results of some research, which suggests that police officers with shorter service have poorer mental health than older officers (Williams, Chiarrochi & Patrick Deane 2010; Husain, 2014), and feel their work is more stressful (Johnson et al., 2005). However, we also find that police officers in training have better mental health than the general population (Ghazinour, Lauritz, Du Preez,

Cassimjee & Richter, 2009), and they are less stressed and frustrated than those who have been in the police force for a long time (Violanti, 1993; Kohli & Bajpai, 2006; Szabó, 2009).

There has been and continues to be a lot of research on organizational stress in police work, not only in the international field but also in the Hungarian context. Thanks to this research, we know that long working hours, lack of work-family balance, overwork, staffing problems, the atmosphere at work, and the boredom of certain activities are sources of stress in police work (Szabó, 2009; Kapade-Nikham, Shaikh, 2014; Fridrich, 2015). However, we do not have data on the extent to which police trainees have confronted these factors during police training and how demanding it is for them to cope with both service and schooling at the same time.

Given the factors involved in occupational stress and burnout, it is not surprising that prolonged work stress can also lead to burnout and this link is supported by a number of research findings (e.g.: Schaufeli & Greenglass, 2001; McCarty, Zhao & Garland, 2007; Hajduska, 2012). The profession of police is in many ways at risk of burnout, as several of the classic risk factors are present for law enforcement personnel (which can also be a source of stress):

- long working hours (12-hour services, which may be longer depending on the day's events, but not shorter);
- overload (a general understaffing problem);
- extremes of social perception, uncertain prestige (Mészáros, 2010; Bali, 2011);
- earnings, financial dignity – different levels of earnings in different departments, even for people in the same job, and overtime and standby time allowances can further exacerbate pay differentials;
- stressful work (Anshel, 2000; Euwema, Kop & Bakker, 2004; in the Hungarian context Futóné Kartai, Vizinger & Andrási, 2009; Szabó, 2009; Malét-Szabó & Szatmári, 2012);
- the (mis)encounter of the “romantic” image of the police at the time of choosing a career with reality during the first traineeships (Mészáros, 2010; Bali, 2011).

A fair amount of research into police burnout is now available (non-exhaustive e.g.: Netherlands – Kop, Euwema & Schaufeli, 1999; South-Africa – Wiese, Rothmann & Storm, 2003; Sweden – Berg, Hem, Lau & Ekeberg, 2006 és Backteman-Erlanson, Padyab & Brulin, 2013; Portugal – Querós, Pereira & Martins, 2012; Queirós, Kaiseler & da Silva, 2013; Queirós et al., 2020; Spain – De la Fuente Solana, Aguayo Extremera, Vargas Pecino & Cañadas de la Fuente, 2013), although nowhere near as much as in the field of health workers and teachers.

In Hungary, the number of studies that deal with police burnout is still negligible, however, there is slow progress in this area and results are gradually emerging (e.g.: Ambrusz, Borbély & Malét-Szabó, 2022). But this is not surprising: usually, the primary focus of research is to thoroughly explore the workplace stressors in a given country, and only then, many years later, do studies on burnout emerge (Kop et al., 1999; Kapade-Nikam & Shaikh, 2014).

When looking at stress and burnout, we should not forget certain mental health indicators: the relationship between stress to anxiety and coping, and the relationship between burnout and depression, is inescapable in this topic. Studies on the anxiety levels of police officers have shown that not only depressive symptoms but also anxiety can increase as a result of different traumatic events (Bowler et al., 2016), and police officers are generally characterised by lower levels of anxiety, both at recruitment (Ghazinour et al., 2009) and later, compared to the general population (Storch & Panzella, 1996), although some research suggests that male police officers have higher levels of trait anxiety (Acquardo Maran, Varetto, Zedda & Ieraci, 2015). Several research findings on depression suggest that it is associated with stress (Gershon, Lin & Li, 2002; Berg et al., 2006, Wang et al., 2010), poorer quality of sleep (Slaven et al., 2011), and exposure to traumatic events increases the likelihood of its occurrence among police officers (Wang et al., 2010; Plieger, Melchers, Montag, Meermann & Reuter, 2015; Bowler et al., 2016).

Among police officers, alcohol consumption and smoking habits are fairly commonly studied – usually concerning stress or other illnesses – but this is not the case for their physical activity habits. The background to this is probably due to social expectations of police officers in terms of fitness. International research findings suggest that higher levels of stress among police officers are associated with more frequent alcohol consumption (Smith, Devine, Leggat, Ishitake, 2005; Violanti et al., 2011), and among male police officers with increased smoking intensity (Smith et al., 2005; McCarty et al., 2007). There is relatively little research on the importance of physical fitness for police officers, such as the study by Bissett, Bissett and Snell (2012).

We do not have any official data on how these habits among the police force compared with the average in Hungarian society, but studies have already been carried out on this in a police force or police unit (Cséplő, Balla & Tigyiné Pusztai, 2017; Mácsár, Bognár & Plachy, 2017).

The relationship between occupational stress, health behaviours, mental health and burnout has not been the subject of comprehensive research, but more information is available on the relationship and interrelationships between the individual components.

In light of all this, we know that the persistence of stress at work has an impact on both physical and mental health – this is already included in Job Demand Control Model by Karasek –, and it can increase the occurrence of certain health-damaging behaviours or lead to burnout. This is not surprising when you consider the effects of occupational stress on people: physical (e.g. cardiovascular diseases), behavioural (alcohol, smoking, other substance use), psychological (depression, anxiety, apathy), and mental (concentration problems) (Marks et al., 2005; Lovelace, Manz & Alves, 2007; Szabó, 2009; Taylor, 2018).

The research process – and therefore its goals – was transformed in the process by the COVID-19 pandemic in the spring of 2020. Due to the global nature and specificity of the epidemic, research has also been carried out on police officers, who have been deployed worldwide to ensure compliance with lockdown and quarantine arrangements (Farrow, 2020). Overlooking the results of surveys about police officers we can say that though the main streams of the results show in direction, we can find a mixed picture in some details. Summarizing the results of these studies we can say that in addition to a clear increase in the incidence of anxiety disorders, an increase in the proportion of depressive symptoms and stress levels also emerged (Grover, Aho, Dua, Mehra & Nehra, 2020; Stogner, Miller & McLean, 2020; Frenkel et al., 2021; Huang, Bodla & Chen, 2021). For this reason, factors related to the performance of duties during the pandemic were also examined in my research, after a part of the sample became involved in it.

### **Hypotheses for research**

Hypothesis 1: The worse health behaviours, or

- a) less frequent physical exercise
- b) increased smoking and stronger smoking motivations
- c) increased alcohol consumption
- d) and a lower level of health orientation

are associated with higher levels of burnout, occupational stress, depression, anxiety, and emotion-focused coping strategies.

Hypothesis 2: The different experiences of the probation lead to statistically detectable differences in both burnout and some components of occupational stress, but no statistical differences in health behaviours between the different grades.

Hypothesis 3: The experience gained during the training period is associated with a deterioration in indicators of burnout, work-related stress, and mental health, as well as changes in health behaviour: physical exercise becomes less frequent, the number of cigarettes smoked per day increases among smokers, the motivational base for smoking becomes stronger, alcohol consumption becomes more frequent, and health orientation indicators deteriorate.

Hypothesis 4: The fears and life changes experienced during the COVID-19 outbreak and the intensification of their impact on service delivery were associated with increased burnout, occupational stress, and poorer mental health.

### **Research objectives**

The original objective of the research was to investigate the psychological effects of the coincidence of the two-year officer training and the probationary year – i.e. dual status – in two approaches:

- for the second academic year, in September 2015 and July 2017, for the probationary police officers, the vast majority of whom have a border police qualification, to assess the psychological and mental stress experienced during the probationary year and its impact on health behaviour patterns;
- examining the psychological and mental stress and health behavioural effects of schooling experiences at several points in the training period: induction, end of the first year, end of the second year – period of professional exams.

As a result of the situation in the spring of 2020 – the COVID-19 pandemic – the second approach has to be modified: the psychological impact of events during training for one-and-a-half and two-year officer trainees, in two approaches:

- examining the psychological and mental stress and health behavioural effects of schooling experiences at several points in the training period: induction, end of the first year, end of the second year – period of professional exams in February 2020 among the police trainees in one-and-a-half year training;
- examining the issues related to COVID-19 among those taking the June 2020 professional exams.

## Research methods

The research involved both cross-sectional and longitudinal design on a police psychology topic, using questionnaires.

The test battery used in the research includes the following questionnaires:

- sociodemographic questions (sex, age, place of residence, marital status, earnings conditions, probationary place)
- questionnaire to measure burnout: Maslach Burnout Inventory (Hungarian version)
- questionnaires about stress:
  - examining occupational stress: Occupational Stress Questionnaire for Law Enforcement Services (in Hungarian: Rendvédelmi Szervek Munkahelyi Stressz Kérdőíve, abbreviated as RMSK)
  - examining the actual level of stress: Perceived Stress Scale (abbreviated as PSS)
- questions about health behaviours – 3 areas:
  - physical exercise: frequency, duration, use of performance boosters and dietary supplements
  - smoking status, number of cigarettes smoked per day, attitudes towards quitting, smoking motivations (Wisconsin Inventory of Smoking Dependence and Motives short form, Hungarian version, abbreviated as WISDM-37)
  - frequency, intensity, and circumstances of alcohol consumption
- examining the motivational base for a healthy lifestyle: Health Orientation Scale (Hungarian version)
- questionnaires about mental health:
  - current level of depression: Center for Epidemiological Studies Depression Scale (CES-D, Hungarian version)
  - coping with stress: Lazarus Ways of Coping (LWC, Hungarian version)
  - anxiety trait: Trait and Trait Anxiety Inventory – Trait Anxiety (STAI-T, Hungarian version)
  - joint measure of depression and anxiety: Hospital Anxiety and Depression Scale (HADS, Hungarian version)
  - reaction for frustration: Frustration Discomfort Scale (FDS, Hungarian translation)
- questions about police work during the first wave of the COVID-19 pandemic.

Some questionnaires are not used in all data collection points:

- the PSS and the HADS only from June 2018 data collection (Study 1, Group 2 and Study 2), as the 2016 experience has shown the need for these;
- the RMSK and MBI were not included in the first measurement point of Study 2 because their measurement at entry into the organisation is not yet relevant due to lack of experience of being in the organisation. However, it becomes relevant for the 2019 and 2020 data collection points;
- questions about police work during the first wave of the COVID-19 pandemic were only included for the June 2020 graduates.

Except for the last data collection point, data were collected on paper in a group format. The last data collection was carried out online due to the COVID-19 pandemic. The sample was accessed by personal contact. For the first study, data were collected after the end of the professional exams, in preparation for the graduation ceremony (June 2016 and June 2018), while for the second study, data were collected at several points in time: at the start of the police studies, at the beginning of the first academic year, in connection with the competency test in the school (September 2018), then at the end of the first academic year (June 2019), and at the end of the second academic year (February 2020 for trainees in the one-and-a-half-year programme and June 2020 for trainees in the two-year programme).

The participants were police trainees in one of Hungary's law enforcement schools in the one-and-a-half-year and two-year programmes.

The first study included those who passed the professional exams in 2016 and 2018 (in the two-year programme). Among the 2016 graduates, 145 trainees participated in the survey, of whom 121 completed the test battery in full and a further 17 completed it incompletely but to a partially usable level for the analysis. For the year 2018, 94 trainees undertook the complete test battery. The questionnaires were completed on paper, in the presence of the psychologist conducting the study.

For the year 2020, 92 of the two-year trainees completed the test battery in September 2018, and 76 in June 2019 – 4 of whom did not participated at the first assessment point, and a significant number of drop-outs were discharged during the first academic year and were no longer members of the force. In their case, the last measurement point was originally scheduled for June 2020, after the professional exams, but it was finally carried out in May and June 2020, and a total of 33+1 trainees completed the test batters (at least partially). Among the participants of the one-and-a-half-year programme, 39 trainees completed the test battery in September 2018 and June 2019. In their case, the survey was carried out at the beginning of February 2020, after the written professional exam, and 34 trainees were received.



The data were analysed using the IBM SPSS 20 and 26 software packages.

### **A concise summary of the studies carried out**

In the study carried out in the year 2016 and year 2018 (subsection 3.3.1.), I analysed the relationship between health behaviours and burnout, occupational stress and mental health and compares the results of the two years. The result showed a mixed picture of the relationship between health behaviours and burnout in this study, with significant differences between the groups in the regularity of physical activity, smoking intensity among smokers and frequency of alcohol consumption. In addition, there were significant associations with several components of burnout along scales of smoking motivation and health orientation.

The results of the studies on the relationship between occupational stress and health behaviours typically showed significant differences in several points along the RMSK scales for the health behaviours variables examined in the year 2018 – the most statistically significant differences were for the frequency of regular physical activity and alcohol consumption. However, smoking motivation and health orientation indicators tended to show significant correlations with the RMSK scales in the year 2016, although there were several points of similarity between the year groups' scores for health orientation.

When looking at the relationship between health behaviours and mental health, only a few mental health scales among the two studied years (2016 and 2018) showed significant differences between the different groups in relation to physical exercise. The same could be said for smoking status, smoking intensity and alcohol consumption, but typically different indicators and scale groups were found to be more pronounced for different Years. Smoking motivation and mental health indicators showed a significantly higher proportion of the year 2016 showing a significant association, and a similar trend was observed for the measured factors of health orientation.

Comparing the two Years, there were significant differences between the two Years in terms of the indicators examined, typically along the scales of the tests used to measure burnout, occupational stress and mental health.

There were significant differences in health behaviours between the two years in terms of the regularity, frequency and occasional duration of physical activity and the frequency of alcohol consumption. For smoking motivation, the differences were not statistically significant for all scales, but for health orientation, there were significant differences between the two years on all indicators.

The results of the study for the year 2020 are presented for the first two measurement points (subsection 3.3.2.), and for the end-of-training results (subsection 3.3.3.). For the data collected at the beginning and at the end of the first academic year. The focus of the analyses was on the relationship between health behaviours and burnout, occupational stress and mental health, and the differences between the measurement points.

In terms of health behaviours, burnout showed significant differences between groups only among smokers, according to the number of cigarettes smoked per day. There was only one single point of association between smoking motivation and burnout, while with health orientation several points: at least one burnout scale indicated a significant degree of association.

Interesting differences were observed for the factors related to occupational stress between the two measurement points: while at the first measurement point, there were some significant differences between the groups of factors examined for the individual factors of the RMSK (only these were included at that time), at the end of the first academic year there was a predominance of factors related to the workload already applied at that time, and fewer statistically significant differences for the individual factors. The same trend was observed related to smoking motivation and health orientation. In the case of perceived stress, the results were compelling: for the clustering (frequency, intensity) questions on health behaviour, no significant differences were found at any of the measurement points. For smoking motivation, no significant covariates appeared at the beginning of the training, but significant covariates appeared at the end of the first school year. More statistically significant covariates appeared at the first measurement point for health orientation.

For the examined indicators of health behaviours and mental health, physical activity showed the most significant differences between the two groups at the first measurement point. Smoking showed more significant differences over time, and similar trends were observed for alcohol consumption frequency (with a reverse trend for heavy drinking). In terms of smoking motivation, significant correlations emerged at the beginning of the training, mainly for the coping and frustration management scales, while at the end of the first year, significant correlations along the depression-anxiety line became stronger, with coping indicators fading into the background, and frustration management almost disappearing. In terms of health orientation, the two measurement points showed a fairly similar picture, although, in June 2019 there were slightly fewer cases of a significant relationship between the mental health and health orientation variables.

Between the two measurement points, the results showed significant differences for individual factors of RMSK, for some coping mechanisms and some frustration management variables. At the same time, for health behaviours, there were significantly more participants who did not show any change along the tested variables, and this was also the case for smoking motivations. On the other hand, several of the factors examined for health orientation indicated statistically significant differences between the measurement points.

The results obtained at completion (subsection 3.3.3.) are unique, as due to the COVID-19 pandemic the online data collection of two-year trainees in May-June 2020 resulted in a significantly higher dropout rate than the face-to-face data collection of one-and-a-half-year trainees in February 2020. As a result of these special circumstances the aims of the study were modified: while the sample of one-and-a-half-year trainees was tested in a similar way to previous measurements – comparing health behaviour with burnout, stress, mental health and changes from previous measurement points – the focus shifted to the issues related to the COVID-19 pandemic among two-year trainees.

Among the February 2020 graduates, the only significant differences between the groups in health behaviours and burnout were in physical exercise frequency and smoking status, with respect to one burnout factor each. At the same time, smoking indicators did not show any statistically significant association. The factors examined in relation to health orientation showed a relationship with aspects of burnout (Depersonalization and Emotional exhaustion) at several points.

For health behaviour and occupational stress, there were very small significant differences across factor groups, and for smoking motivation, there were minimal statistically significant associations with the indicators of work-related stress. In the case of health orientation, however, there were also higher proportions of significant associations for some health orientation factors compared to previous measurement points – although not for all the examined health orientation indicators.

When examining the relationship between health behaviour and mental health, several indicators showed significant differences along smoking status – this was the only area where the prevalence of statistically significant differences increased among the examined health behaviour items, with the other areas showing less or almost the same prevalence compared to the previous ones. There was a negligible significant association with smoking motivations at this measurement point, and there were proportionally fewer statistically significant associations with health orientation.

The comparison of the three measurement points yielded a number of interesting results. Some factors of burnout and occupational stress were only included at the second and third measurement points, and the almost eight full months between the two measurements (June 2019 and February 2020) also showed significant differences along several indicators, with the last measurement point typically showing worse scores. In addition, when examining the results of all three measurement points, there were significant differences between measurement points for individual factors of RMSK, some mental health-related indicators (depression, some coping mechanisms, and some components of frustration management). For health behaviours, there were some significant differences: in the use of performance boosters and some health orientation factors.

Among the June 2020 graduates, the different fears related to participation in pandemic management were typically most associated with organisational characteristics, the self-observed changes were associated with health status, depersonalization, and scales related to coping with frustration and distress to a statistically significant degree.

The factors influencing duties showed significant associations with several scales of the RMSK, with burnout only at a few points, and with coping styles and indicators of frustration and distress.

In addition, regarding police activities specific to the COVID-19 pandemic, there were fewer significant differences between those who carried out official home quarantine inspections and those who did not, compared to those who were on service at border crossing points.

### **Summarised conclusion**

**Hypothesis 1** focused on the relationship between health behaviours and burnout, occupational stress and mental health.

**Hypothesis 1/a**, less frequent physical exercise would be associated with higher levels of burnout and job stress, was found to be true at only a few points, while the association with higher levels of depression, anxiety and emotion-focused coping strategies also showed variable results and was not consistently found in all studies.

Based on **hypothesis 1/b**, the association of more frequent smoking, and stronger smoking motivations with higher burnout and job stress was present only partially and not at all measurement points. The association with higher levels of depression and anxiety was mainly fulfilled along with smoking motivations as was the association with higher levels of emotional-focused coping.

**Hypothesis 1/c**, which hypothesized that more frequent alcohol consumption would be associated with higher levels of burnout and occupational stress, higher levels of depression and anxiety and more emotion-focused coping strategies, was also partially met across measurement points (most strongly among year 2018).

**Hypothesis 1/d** stated, that poorer indicators of health orientation would be associated with higher levels of burnout and occupational stress, higher levels of depression and anxiety, and higher levels of emotion-focused coping strategies were found to be essentially true for some burnout and occupational stress factors, as well as for indicators measured about mental health – i.e. depression, anxiety and emotion-focused coping.

According to **hypothesis 2**, different experiences of probation will result in statistically detectable differences in both burnout and some components of occupational stress, while no statistically significant differences in health behaviour will be found between different Years. The hypothesis was tested among the year 2016 and year 2018 graduates, for which the first half of the hypothesis, i.e. the hypothesis on burnout and occupational stress, was found to be essentially true, while the hypothesis was not always true for the different indicators measured for health behaviour.

According to **hypothesis 3**, experiences during the training period are associated with deterioration in indicators of burnout, work-related stress and mental health, and changes in health behaviour: physical activity becomes less frequent, the number of cigarettes smoked per day increases among smokers, the motivational base for smoking is strengthened, alcohol consumption becomes more frequent, and health orientation indicators deteriorate. A group of trainees, who completed the one-and-a-half-year programme, tested the hypothesis in the year 2020. For burnout and occupational stress, the hypothesis was found to be correct along several indicators, but for health behaviour, it was fulfilled for certain health orientation indicators.

**Hypothesis 4**, that the fears and life changes experienced during the first wave of the COVID-19 pandemic and the intensification of their effects on service delivery increased burnout and occupational stress, and were associated with poorer mental health, was also only partially true in the sample of trainees in the two-year programme in June 2020, at the same time, the small sample size means that the result should be treated with caution.

### **New scientific results**

1. In my series of studies, I undertook the first attempt in Hungary to investigate the effects of the experiences of police officer training from a psychological perspective. Since the bigger part of the police staff are police officers, it is worth paying special attention to

those in training, because it can help to ensure effective long-term performance if the police officer who complete their training starts full-time police work in a better psychological state.

2. Next to this, the approach is new in what is intended to compare more years. This approach can make it possible to gain better insight into the factors, along with these two Years being much more different in contrast to their similarities.
3. The longitudinal research is new among police trainees because a survey of the studied psychological characteristics from this aspect is not completely part of the psychological aptitude tests where the focus of the psychologists stand in other aspects.
4. Despite the limitations of the study, the survey of questions about COVID-19 in this special group is also new, because to our current knowledge, the group of police trainees was not studied elsewhere.

### **Recommendations for the practical use of research results**

The results of this research could provide support primarily for the psychologists who are working in law enforcement schools, and the teachers and class teachers in these schools, in what are the points which require more attention during training like health awareness, stress management and mental health.

Not negligible either is the importance of health awareness integrated more deeply into the training – law enforcement schools can also play a key role in this as the professionals are involved in the day-to day training of the concerned target group.

In addition, it is certainly worth reflecting on the results of longitudinal research on the importance of effective stress management and the perennial conflict between training and practical experience. In the longer term, it would certainly be worthwhile to examine these issues thoroughly in relation to the various types of training (for example both in the case of school-based and non-school-based training), involving a large sample, and then, in the light of the relevant results and experience, to incorporate changes at the appropriate points in the training. I believe, that designing and incorporating changes in training along these aspects could help to ensure that those who complete the training are psychologically fitter and thus better prepared to start police service, which in the longer term could be important for retention. In addition to this, the results of the present research also showed a tendency that psychologists in Hungarian Police regularly experience during the periodic aptitude test: respondents who give the actual ratings as defined by the text in the Job Satisfaction Survey block of the RMSK may have higher scores on the relevant scales of the questionnaire, although they do not

necessarily feel more burdened by the factors indicated in the items than their peers. The emergence of this problem in the present research raises the issue of the renewal and revision of the RMSK. In the long run, this could be an important factor for primary care and periodic aptitude examinations, since the use of a more accurate questionnaire based on national experience would be helpful and supportive in the important task of psychologists in the field of police organizational stress.

Concerning these last two issues, the KLIR system<sup>1</sup>, which administratively supports the work of primary care providers, can provide considerable basis and help, as it contains a lot of data, both longitudinal and cross-sectional, which can be helpful in the analysis of these factors.

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<sup>1</sup> KLIR system: the Two-stage Integrated Aptitude Testing System (abbreviated as KLIR) introduced by Decree No. 45/2020 (XII.16.) on the suitability assessment of professional staff and law enforcement administrative staff employed by certain law enforcement agencies under the Minister of the Interior, where the results of the aptitude test are also recorded online by primary care staff.

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### **Publications connected to the topic of the dissertation**

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- Ambrusz, A., Borbély, Zs., & Malét-Szabó, E. (2022). A kiégés vizsgálata a Szabolcs-Szatmár-Bereg Megyei Rendőr-főkapitányság hivatásos állományában [An examination of burnout among police officers of the Szabolcs-Szatmár-Bereg County Police

### **Book chapters**

- Borbély, Zs., Fridrich, A. C., & Tózsér, E. (2018a). A XXI. század biztonsági kihívásai a rendőrségi szervezeti kultúrában [Security challenges of the 21st century in police organizational culture - generations in the organization]. In Gaál, Gy. & Hautzinger, Z. (Szerk.), *Pécsi Határőr Tudományos Közlemények XX. – A XXI. század biztonsági kihívásai* [Border Guard of Pécs Scientific Publications XX. – Security challenges of the 21th century ] (pp. 97–102). Magyar Hadtudományi Társaság Határőr Szakosztály Pécsi Szakcsoportja. [http://www.pecshor.hu/periodika/XX/borbely\\_fridrich\\_tozser.pdf](http://www.pecshor.hu/periodika/XX/borbely_fridrich_tozser.pdf)
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- Borbély, Zs. (2019). A munkahelyi stressz és a rendőrtanulók [Occupational stress and police trainees]. In Baráth, N. E. & Mezei, J. (Szerk.) *Rendészet – Tudomány – Aktualitások. A rendészettudomány a fiatal kutatók szemével [Law Enforcement-Science-Updates - Law*

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Borbély, Zs. (2020). Megküzdés kapcsolata a próbaidős rendőri munka során megélt stresszel, illetve egészségmagatartási szokásokkal [Coping in relation to experienced stress and health behaviours during probationary police work]. In Baráth, N. E. & Pató, V. L. (Szerk.) *A haza szolgálatában. Konferenciakötet [In the service of the homeland. Conference presentations.]* (pp.118-126). Doktoranduszok Országos Szövetsége. [http://real.mtak.hu/107230/1/A\\_haza\\_szolgalatabanBTT.pdf](http://real.mtak.hu/107230/1/A_haza_szolgalatabanBTT.pdf)

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### **Recension**

Borbély, Zs., Cielezky, P., Éberhardt, G., Pesti, T., Schmidt, L., Veprik, Z., & Vizvári, F. (2021). Nemzetközi Rendészeti Figyelő I. [International Law Enforcement Monitor I.] *Belügyi Szemle*, 69(2), 285-303. <https://doi.org/10.38146/BSZ.2021.2.6>

### **Other publications**

Farkas, J. & Borbély, Zs. (2018). Önismeret [Self-awareness]. In Haller, J. & Farkas J. (Szerk.) *Pszichológia a közszolgálatban I. [Psychology in Public Service I.]* (pp. 97-115.) Dialóg Campus Kiadó.

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## **Professional academic curriculum vitae of the candidate**

**Name:** Zsuzsanna Borbély

**Place and time of birth:** Mór, 19 November 1985

### ***Employment***

2019 – present: Airport Police Directorate, Human Administration Service, Health and Psychology Subdivision, psychologist

2018 – 2019: Somogy County County Police Headquarters, Human Administration Service, Health and Psychology Group, psychologist

2014 – 2018: Körmend Law Enforcement School, psychologist

### ***Education***

2017 – 2021: University of Public Service, Doctoral School of Law Enforcement, part-time PhD training

2015 – 2017: Eötvös Loránd University, Faculty of Education and Psychology, programme of postgraduate specialist training in counselling psychology, crisis psychology specialzitaion

2004 – 2012: Eötvös Loránd University, Faculty of Education and Psychology, psychologist with Clinical and health psychology and Life-course guidance and counselling obligatory programmes; in addition teacher of psychology

### ***Languages***

English – language exam, intermediate level (B2)

German – language exam, intermediate level (B2)

### ***Teaching experience***

2022: lecture on “Psychology of Law Enforcement” at BA in Law Enforcement Program in the University of Public Service Faculty of Law Enforcement (Department of Behavioural Sciences and Law Enforcement)

2019: lectures on “Social and Communication Skills” at BA in Law Enforcement Program in the University of Public Service Faculty of Law Enforcement (Department of Behavioural Sciences and Law Enforcement)

2014 – 2018: Körmend Law Enforcement School – *Social and Communication Skills* for police trainees, firefighter trainees and district officers; lectures in D.A.D.A.



training; *Psychology, communication* training for ESR-112 emergency dispatchers

### ***Conferences and presentations***

- 29 June 2017, Pécs – *International scientific conference “From Saint László to modern Hungarian police science”*. Participation and presentation on “*The psychological consequences of the management of the migrant situation among the police personnel on duty*” together with Johanna Farkas and Erzsébet Tőzsér
- 27-29 September 2017, Balatonlelle – joint psychological conference of the Academic Council of Home Affairs and the Office for the Protection of the Constitution “*The road to fulfilment - challenges and development opportunities in the light of generational differences*”. Participation and presentation of the research “*Examination of the organizational culture of a county police headquarters*”, together with Andrea Fridrich and Erzsébet Tőzsér
- 8-9 November 2017, Budapest – “*Society and National Defence*” conference. Participation and presentation on “*The impact of the Temporary Border Control on the family life of border guards*” together with Andrea Fridrich and Erzsébet Tőzsér
- 1 December 2017, Zalakaros – II International Scientific Conference on Tourism and Security. Presentation on “*Customer Service Approach in Organizational Culture*” with Andrea Fridrich and Erzsébet Tőzsér
- 4 May 2018, Miskolc – “*I serve my country!*” academic conference. Presentation on “*Specific stressors and organizational culture*”.
- 28 June 2018, Pécs – International academic conference “*Security Challenges for the 21st Century*”. Participation and presentation on “*Security challenges of the 21st century in the police organizational culture - generations in the organization*” together with Andrea Fridrich and Erzsébet Tőzsér
- 7 November 2018, Budapest – “*The multi-coloured face of security*” international academic conference. Presentation on “*Health behaviour, mental health – differences in the experienced work-related stress*”
- 21 November 2018, Budapest – “*In the service of the homeland*” conference. Participation and presentation on “*Health behaviours, mental health – gender differences in occupational stress*”.
- 25 April 2019, Budapest – conference “*Law Enforcement-Science-Updates - Law Enforcement through the Eyes of Young Researchers*”, University of Public Service Faculty of

Law Enforcement. Participation and presentation on “*Occupational stress and police trainees*”

22 November 2019., Budapest – “*In the service of the homeland*” conference. Participation and presentation on “*Coping in relation to experienced stress and health behaviours during probationary police work*”.

10 December 2020, Budapest – online conference “*Law Enforcement-Science-Updates - Law Enforcement through the Eyes of Young Researchers*”, University of Public Service Faculty of Law Enforcement. Participation and presentation on “*Health behaviours, stress and police trainees.*”

23 April 2021., Budapest – online, the conference “*Law Enforcement-Science-Updates - Law Enforcement through the Eyes of Young Researchers*”, University of Public Service Faculty of Law Enforcement. Participation and presentation on “*Occupational stress and the first wave of COVID-19 pandemic among police trainees.*”

7 May 2021 – international online conference „*CEPOL Research & Science Conference*”. Presentation on „*Mental health of police trainees during the first wave of COVID-19 pandemic*”

### ***Applications***

1 June 2017 – 31 May 2018: application in the framework of KÖFOP-2.1.2-VEKOP-15-2016-00001 priority project “Development of public services for good governance”, as a member of the Ludovika Research Group 2016/131/NKE-RTK “Investigation of the organizational culture of a county police headquarters” (contract number: NKE/3299-1/2017), the organization of research at the Komárom-Esztergom County Police Headquarters