LUDOVIKA UNIVERSITY OF
PUBLIC SERVICE

DOCTORAL SCHOOL OF MILITARY SCIENCE

MAJOR JACINT SZILARD JASZTRAB M.D.

Analysis of the components of military medical career attrition in Hungary

Summery of PhD thesis

TOPICAL SUMMARY

Thesis Supervisor

Lt. Gen. Laszlo Sved M.D.

2024.

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DEFINITION OF THE SCIENTIFIC PROBLEM

Due to the specificity, complexity and interdisciplinarity of the military medical profession, it is not possible to completely disregard the problems of the domestic health care system and the specificities of the defence sector operating in an international federal framework when examining career drop-outs and shortages of supplies. At the same time, however, military health is a specific area that cannot be addressed by standard generic measures or by human resources management that addresses the challenges of everyday life. In close connection with this, the basic problem of the steady decline in the number of military doctors is not surprising. The reasons for this are varied and include a lack of applicants for vacant posts, many being deployed on mission or otherwise not serving in their corps (e.g. residency training). There is also the continuing problem of providing medical medical and health care for domestic military training, border and occasional disaster (flood) protection and other military tasks, which places an increasing burden on the fewer and fewer colleagues still in the system. This situation is complicated by the international obligations and commitments arising from the country's membership of NATO, in particular the tasks carried out by the Hungarian contingents, which require adequate military medical capacities. The current trend therefore suggests that urgent measures and interventions are needed to ensure the maintenance and replenishment of the military medical corps, which, in my opinion, can be based on scientific methods. In this respect, it is important to note that, neither in the professional nor in the scientific framework, military medicine, as a specific field of defence, is not backed up by the literature and research that would provide the structural and human resource management measures that it deserves and that would make the practice of military medicine viable in the long term. An example is the military scholarship system as one of the pillars of the training system, which has been dysfunctional for many years.

The recruitment and retention of medical and paramedical staff and emigration are also a serious problem in most NATO countries, so it is not only our country that is affected by this negative trend.

The importance of my research and the applicability of its results is further strengthened by the fact that for years there has been no accepted model for the career of military doctors, although it has been developed several times and published in the journal Honvédarzt, which was more of a model, it has not been accepted.

In today's various military operations, in armed conflicts and wars in different parts of the world, military medicine has a combat support function as a key and important factor in the success of the war. As a consequence, the combat effectiveness and combat readiness of the Hungarian Defence Forces is constantly deteriorating due to the increasing demobilisation and emigration of military doctors and the shortage of troops.

In addition to the above, a general phenomenon is that more qualified colleagues are leaving for foreign countries or civilian posts or going to work in the competitive sector, so that the military doctors still in the system are also left to carry out the tasks of colleagues who have already been demobilised.

By analysing the reasons for these negative trends, by presenting the options for improvement and our alternatives, and by outlining a possible career model, I will try to contribute to the scientific basis that I have already lacked above, and which I hope and assume will help to achieve, rather than to find, a definitive solution.

RESEARCH OBJECTIVES

Military medicine or military medicine is an interdisciplinary speciality of medicine that draws on the experience of war and armed conflict and preparation for war, rather than on the evidence base of medicine. Military doctors have played a crucial role in this for millennia.

My aim is to demonstrate this, also through a presentation of the history of military medicine, by recalling the important events and personalities that have contributed to the development of universal medicine, and by showing what military doctors have done and what their presence and their personality guarantee the scientific achievements and value of future medicine.

There has always been a shortage of military doctors, since their work and their duties have always revealed a discrepancy between the number of injured people to be treated, the equipment needed to treat them and the time needed to intervene to keep them alive. This is an understandable reason, but my aim is to demonstrate that there are factors beyond these that exacerbate these shortages, especially in the course of training and daily life. One of the main methods used to find evidence is a survey of military doctors still in the system and leaving the profession for various reasons.

To the objectivity of the former, it is my hypothesis that, as I have formulated in the hypotheses, the state of civilian health care in a given society, the need for human resources and the training system associated with it are closely linked. This link has been considerably strengthened by the ubiquitous value of the trained doctor. Nowadays, the shift towards private health care has a significant draining effect.

In my opinion, since legal regulation and legal protection, stress, recruitment, human policy and financial factors play a prominent role in this situation, my aim is to look at these as one of the keys to the solution.

In the North Atlantic Treaty countries, as well as in the most developed countries, recruitment and retention of health professionals is a problem. I am looking at this area with the aim of seeing if there are any solutions or options that could be adapted to the Hungarian situation.

In light of this, the main objective of my research is to firstly provide scientific evidence to support the drafting of a new career model for military doctors and to draw attention to the shortage of military doctors, as this is also affecting the combat capability of the armed forces, and to help develop concrete steps by proposing updated solutions to the situation. I would also like to create the possibility of carrying out further similar studies to monitor the effectiveness of the measures introduced.

RESEARCH HYPOTHESES

In this dissertation I intend to prove the following hypotheses in relation to the objectives:

1. I hypothesize that the emigration and the continuous decline in the number of military doctors are not only due to existential reasons, but also to a number of problems affecting the military organization and the university training system, which could be addressed by introducing a career model that would respond proportionally to the previous ones.

2. I assume that, based on a comparison with the market-based civilian sector, the level of benefits, mission opportunities and the challenges and interest of a military career play a relevant role in the career choice of military doctors.

I also assume that the stress factor is a crucial factor in the negative perception of military medicine, which is directly linked to the constantly deteriorating and outdated equipment, medical overload, the reduction in non-salary benefits, the abolition of early retirement, and the rigidity of the position and promotion opportunities in the military hierarchy.

4. With regard to military medical career drop-out, I hypothesise that the existence of domestic capital-intensive pharmaceutical companies and private health care job opportunities abroad and at home can be identified as a relevant and demonstrable disincentive, which is closely correlated with the amount spent on military and civilian health care compared to other developed countries.

5. I assume that other NATO countries are demonstrably less affected by shortages of doctors in civilian and military services because they have taken serious steps to improve staffing and promote career retention in a timely manner. Their examples and solutions can help improve the situation at home

6. I assume that high job satisfaction is associated with reduced career drop-out rates and longer career retention. Satisfied workers are more likely to stay in their jobs for longer, thus reducing the drop-out rate. This positive effect can have a positive impact on the stability, efficiency and effectiveness of the service.

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Military medicine or military medicine is an interdisciplinary speciality of medicine that draws on the experience of war and armed conflict and preparation for war, rather than on the evidence base of medicine. Military doctors have played a crucial role in this for millennia.

1 My aim is to demonstrate this, also through a presentation of the history of military medicine, by recalling the important events and personalities that have contributed to the development of universal medicine, and by showing what military doctors have done and what their presence and their personality guarantee the scientific achievements and value of future medicine.

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value of the trained doctor. Nowadays, the shift towards private health care has a significant draining effect.

In my opinion, since legal regulation and legal protection, stress, recruitment, human policy and financial factors play a prominent role in the current situation, my aim is to focus on these as a key element of the solution.

5. Recruitment and retention of health professionals is a problem in the North Atlantic Treaty countries, as well as in the most developed countries. I will look at this area with the aim of seeing if there are any solutions or options that could be adapted to the Hungarian situation.

6. In light of the above, the main objective of my research is firstly to provide scientific evidence to support the drafting of a new career model for military doctors and to draw attention to the shortage of military doctors, which is also affecting the combat capabilities of the armed forces, and to help develop concrete steps by proposing updated solutions to the situation. I would also like to create the possibility of carrying out further similar studies to monitor the effectiveness of the measures introduced.

RESEARCH METHODS

I have based much of my research on primary methods. As a part of these, and as a novelty, I interviewed doctors who had already been discharged from the army, who could give a credible picture of the reasons for their discharge and also give their personal opinions. In addition, I summarised the results of the employee satisfaction questionnaires conducted by the Quality Development, Management and Safety Department of the North Pest Central Hospital-Honvédkórház, which also provided useful information on the researched topic, and briefly presented the results of a similar survey conducted by the former MH Directorate of Defence Health. I have compared the data obtained with research on civilian career abandonment and emigration and have used quantitative and qualitative methods to support my scientific conclusions and recommendations through the application of the following specific research methods:

Separately, I investigate, through retrograde analysis, the background and motivation of career choice and motivation in the military and in medicine and military medicine, and the differences between the two careers - since career choice and recruitment represent the opportunity for succession. The specificities of the military medical career are described, based on an analysis of the available authoritative literature.

My research is based primarily on a review and secondary analysis of the authoritative national and international literature on the subject, looking at aspects relating to the legal environment, stress and personnel, and also analysing inductively the solutions proposed by NATO countries.

I contacted demobilised military doctors by letter and collected data using a questionnaire method and a personal interview, using primary research methods. To process the responses, I used tabular comparisons and analyses, following the themes of research on military career abandonment;

I analysed the results of the satisfaction questionnaires using qualitative methods and then compared them with civilian research results on similar topics to formulate my findings.

SUMMARIZED CONCLUSIONS

The results of the research presented in the dissertation have confirmed that at present, both the retention of health professionals and the guidance of new professionals into the military health careers, as well as the provision of health care for military tasks, are serious problems in the Hungarian Defence Forces.

Prior to the change of regime, the introduction of military scholarships and the drafting of conscripts from military service had led to a nearly 80% staffing of the army medical service in the much larger People's Army. This rate gradually declined with the change of regime, and declined thereafter, despite the fact that the size of the army had also shrunk to a fraction. After the change of regime, the biggest changes were the accession to NATO and the European Union, the introduction of the reserve system, the completion and then loss of the modern Defence Hospital and the continuous Defence Hospital closures and reorganisations, which are one of the biggest sources of stress due to the uncertainty factor.

The analysis of the motivations for career choice is of particular importance for the future of military medicine. The 2015 study by Márta Pákozdi and Zsolt Fejes, PhD, investigated career choice in military medicine in the Hungarian Defence Forces, in which 120 participants took part. The research found that personal relationships played a role in nearly 60% of career choices, while recruitment played a role in more than 10%. The following factors contribute to the choice of a career in military medicine: higher prestige (officer rank, working in a military hospital), housing

allowance, service pension (since abolished), reduced nursery care, attraction to military service, university support through a scholarship system, adequate salary and a secure livelihood guaranteed by the Defence Forces. Other literature suggests that family and parental example, helpfulness to others, patriotism, community service and relatively early commitment play a significant role. In addition, researchers highlight the importance of a secure livelihood.

Social esteem and real prestige are closely linked to the attractiveness and retention of career choices. The medical professions (family doctor, surgeon, paediatrician) are at the top end of the scale, while the military is in the upper middle. However, a survey shows that public confidence in the military has declined, with 75 per cent of the population saying they would not serve in the military under any circumstances, and 69 per cent not even as civilian employees. The low number of people enrolling in the highly subsidised training programme for military doctors is an indication of the downward trend in the military medical profession.

I consider it important to examine the role of stress, which is higher than average for both professions (burnout, mobbing, overtime, workload, conflicts between profession and family and child-rearing, etc.), and is exacerbated by the insecurity of existence caused by the constant restructuring and reorganisation.

In order to facilitate recruitment, the Lázár Mészáros scholarship and the Ferenc Flór scholarship have been reintroduced, which are available to those choosing the basic specialisation in Defence, Disaster Management and Civil Protection Medicine and Aero-medicine. Military recruitment has also been modernised, with the addition of elements such as presentations, information sessions for students facing a career choice, participation in educational exhibitions and the reorganisation of the sports base. Applications are simplified by the fact that they can now be made online. The launch of a reserve system, involving the retired doctors who participated in my research, will also help to fill gaps.

After the regime change, the Hungarian defence and health sectors were also underfunded. The budget of the Hungarian Defence Forces has been on an upward trajectory with NATO accession and the introduction of the Zrínyi 2026 Defence and Military Development Programme. The aim of the programme is to modernise the Hungarian Defence Forces, to significantly increase the capabilities of the armed forces, to acquire modern equipment and to improve the training and living conditions of soldiers. New combat vehicles, aircraft, helicopters and modern weapon systems will be procured under the programme. There will also be a strong emphasis on developing

the domestic defence industry and strengthening international military cooperation. The programme also includes the modernisation of the military health system.

However, the public health sector has remained underfunded until today. Although medical wages have been regularised over the last three years, private health care is gaining ground. Accession to the European Union has also brought resources to the health sector, but has also contributed to the migration of health workers. However, analysis of NAV, employment and health registration data shows that, contrary to what is claimed in the media, the 'shortage' of doctors is not due to emigration from abroad, but primarily to inactivity (pensions, childcare allowance) and secondarily to domestic labour market exit (pharmaceutical companies, education, private healthcare). The rate of medical migration is also decreasing year by year. The claim that there is a shortage of doctors in Hungary is also untrue. Since 2001, the number of doctors in Hungary has increased over the past decades, reaching 3.9 per 1,000 inhabitants, exactly the same as the EU average. The problem is that most of the doctors included in the statistics are now working in the private health sector and there is still a significant shortage of nurses and specialist staff, which means that doctors are also being asked to perform tasks that would be the responsibility of nurses, administrators or secretaries.

Since the change of regime, the National Defence Medical Service has also undergone continuous reorganisation, which has led to the transfer of the National Defence Hospitals out of the National Defence Forces. The number of military doctors has been reduced from 168 in 2013 to 100 in 2024, of which 18 are team doctors. Meanwhile, our NATO role requires us to provide medical care for two operational brigades in addition to missions and home exercises.

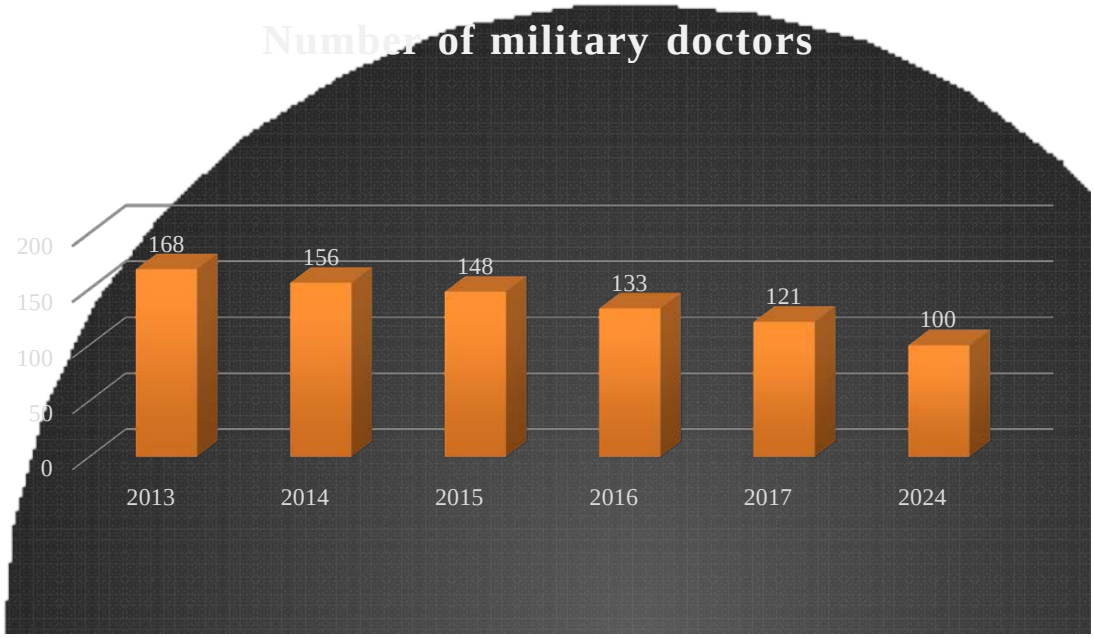

Figure 1. Reduction in the number of military doctors in the MH Medical Centre. Source: Major Zsolt Pető, MH EK VEI. Survey and MH EK Personnel Department..

The previously mentioned Márta Pákozdi and Colonel Dr. Zsolt Fejes analysed the drop-out of military health careers in Hungary. In contrast to my research, they examined the intention to demobilise in the case of still active personnel. The reasons for this varied by gender and included inadequate financial and benefit support, lack of appreciation, denial of early retirement, problems with promotion and career development, health reasons, difficulties in meeting military fitness requirements, working conditions and (hospital) overwork. In contrast, civilian health facilities offer more favourable conditions.

According to the 2015 survey, emigration of military doctors mainly affected young doctors under 40 with less than 5 years' service, who were fluent in languages, had a specialist qualification and were often planning to obtain further qualifications. The exodus did not stop and nine years later, doctors aged between 40 and 65 with between 6 and 15 years' service, most of whom were contract doctors, were also leaving the profession, and were also well trained and had several specialist qualifications. A comparison of the two surveys shows that nearly 40% of the discharged have more than one specialist qualification and 50-60% have at least one specialist qualification.

Most retired doctors are qualified in occupational medicine and/or general practice, which is exactly what is needed in understaffed doctors' surgeries.

The reason for demobilisation was not force restructuring, as only a quarter of respondents left the armed forces for this reason. In 2015, 65% of demobilisations were due to unfavourable financial and social conditions, while in 2024 this percentage fell to 12.5%.

In 2015, the most common reason for leaving was lack of career opportunities, even more than insufficient pay. By 2024, both figures had fallen significantly, with lack of promotion in rank and rank, stress and conflicts with colleagues and bosses being the main reasons cited by most people. In both surveys, many did not renew their contracts after they had expired.

The majority of demobilised workers undertook missionary service, often more than once. In the 2024 study, there were no demobilised colleagues who had not participated in a mission abroad.

Half of respondents have not received any help with housing, nor have they received any specific training or support in the last 2-3 yeawere demobilised, although they did not apply for it very often. After demobilisation, their housing was generally managed and they lived in owner-occupied housing.

All had a job, except for one person who planned to work abroad in 2015 to learn a language. Currently, they continue to work either full-time or as self-employed, most of them on permanent contracts.

In 2015, lack of career progression and conflicts with colleagues were the reasons most cited for leaving. In 2024, however, it was private healthcare at home that attracted most leavers, rather than working abroad.

Many respondents had tried to find work in the armed forces and law enforcement. Some stayed in the Hungarian Defence Forces as contractors on part-time contracts or as civil servants, while others started their own businesses or found work in hospitals.

In 2015, the majority of demobilisers did not continue to work for the Hungarian Defence Forces, but 31% of them did. By contrast, in 2024, only one of the demobilisers remained in the reserve, all others having left the armed forces.

The majority of demobilisers already had a professional examination and 31% of them applied for a new professional examination in 2015. In the subsrs. They also did not receive any support when they

equent survey, more older colleagues with a vocational examination responded, so no one was planning to take another vocational examination.

Motivations for choosing a military career in 2015 included challenges, officer rank and dual career, as well as higher pay than civil servants and the possibility of missionary service.

Missionary service was both an attraction and a disincentive. Although many chose the military for this reason, the pressure of missions also caused family and career problems. The medical profession requires lifelong learning, so ensuring professional development and preventing promotion was also an important factor.

In 2024, those who chose a career in military medicine were attracted by the top pay, missionary service and the opportunity to work in the Defence Hospital. Expectations included better pay, promotion and a predictable career path, as well as opportunities for development and experience.

Factors that kept them on track included competitive salary, career development, faster promotion, adequate equipment and working environment, and a good and reliable boss. Abolishing the compulsion to serve on mission and solving the problem of distance between home and work were also important.

The majority of demobilisers did not regret their decision and in 2015 almost half of them would not recommend military medicine to their medical graduates. By 2024, this proportion had improved considerably, with 75% of them now recommending them.

Thus, the responses obtained differed somewhat from the literature and other research on the topic, which did not survey discharged service members, and also differed from research involving US military medical fellows. In that research, the most attractive factors were, in order, patriotic duty, active duty experience, combat, status, financial compensation, travel, adventure, experience, military benefits and other opportunities. While combat and military deployment, family life, military life (uniforms, customs and courtesies, living on base, etc., military benefits) also ranked first among the deterrents. Which is quite interesting, since these are the specifics of the military profession. However, similar to my research, the issue of military postings appears as both a positive and negative factor, which on the one hand can be seen as an adventure, a challenge, an experience, an extra financial income, but at the same time can disrupt family life and work in private practices undertaken. Also, both sides are equally concerned with the issue of financial rewards, which, although higher than civilian earnings (currently only 6%), are not competitive

with the earnings potential of private health care providers. Furthermore, I should mention that my research findings change over time and as circumstances change. For example, in the repeated research the role of stress has increased, only career issues of finances and leadership problems have matched the results from ten years earlier.

There is also a significant shortage of doctors and nurses in the health systems of NATO member countries, particularly in rural areas and in specialties requiring high levels of expertise. Recruitment and retention of military medical personnel is also a problem in other NATO countries, and the situation is monitored every two years and recommendations for solutions are developed.

During my research, I was confronted with the heavy workload of hospital staff and the difficulty of meeting the annual physical fitness test due to the work schedule. A serious problem is the lack of conditions to achieve military physical fitness, as well as the provision of domestic deployments and border duties.

The provision of adequate housing and financial support, as well as adequate provision for a military career and pensions, would also be a significant retention factor. The organisation of mission tasks should take into account the ability to mobilise younger, independent military doctors and the problems of an uneven deployment system.

Poor organisational communication and opinions not being taken into account in decision making are problems, which my quality assurance research has confirmed. The problem is exacerbated by the fact that employees report problem areas year after year, but there has been little change, which has a negative impact not only on motivation and retention, but also on the achievement of organisational goals and efficiency.

Overall, the shortage of military health personnel is serious and worsening, and will get worse without appropriate action.

In my research, I was able to confirm the first four hypotheses and partially confirm the fifth, and the results helped me to develop recommendations.

NEW SCIENTIFIC FINDINGS

The new findings of this research are summarised below, in line with the hypotheses formulated:

1. I conducted the first survey and investigation on the issue of career abandonment of military doctors after the settlement of medical salaries between 2020 and 2023. I found that, compared to civilian doctors' earnings, a mere six per cent increase in comparison to civilian civil servants' earnings is not enough in itself to halt the steady decline in the number of military doctors over the years. In ten years, the total number of active military doctors has fallen by 60%, which the 'loss' of the Defence Hospital in 2023 is already clearly not helping. According to my surveys, lack of professionalism, lack of promotion in rank and grade, stressful workplace, unpredictable on-call system were among the decisive reasons for the demobilisation. My research suggests that the causes of the shortage of military doctors are complex and should be addressed in a complex way. This includes more effective recruitment of specialist medics, increasing employee satisfaction, reducing workplace stress and introducing a more attractive and predictable career model for military doctors that can be tailored to the individual. I have developed concrete proposals to address these challenges.
2. One of the big unforeseen "surprises" of my thesis was the refutation and proof of the claims made in the media that there is a shortage of doctors in Hungary, the main reason for which is the migration of doctors abroad. In fact, "stylistically" there are more doctors working in Hungary than 30 years ago, and the number of doctors per 1000 people has increased and is in line with the European average. This is somewhat nuanced by the fact that KSH counts the number of doctors including dentists, but the trend is upwards, not downwards, and EU statistics show this, although the exact number of active doctors is not known, despite the fact that it could be derived from the digital care space. In addition, the number of doctors leaving the country is decreasing year on year, which is confirmed not only by data from the former EEKH (Health Licensing and Administration Office) and the National Directorate General of Hospitals, but also by NAV and state administration data on employment. My research also shows that 60% of them do not want to work abroad in 2015 and 86% in 2024. The real sucking effect is now private healthcare, whose total number of hours already equals the total number of hours of publicly funded care. Other domestic job opportunities also have a significant crowding-out effect, the most important of which are pharmaceutical companies and education. The real problem is the differential

understaffing, i.e. the shortage of specialist staff. Discharged military doctors have also continued to work in private health care or in general practices.

3. In my research, I focused on the stress level of military doctors, unlike previous studies with similar aims. In the 2015 research, no one had yet reported that their previous assignment was particularly stressful. In 2024, 50% of the respondents already considered their previous job as particularly stressful, with the added stress of conflict with bosses and subordinates, increased workload, and uncertainty due to constant reorganisation.
4. I have focused on and analysed the trends in the career attrition of military doctors in the health services of NATO member countries. I found varying but similar negative trends, but I also found that where steps were taken to reduce the shortage, there was an improvement, while where not, there was stagnation or deterioration. This situation also affects the combat readiness of individual Member States, which has led to the development of a proposal for a solution, which I have adapted to the domestic situation, with specific proposals for solutions, which I believe could help to further develop the career model for military doctors and could support the importance of its introduction.

5. For me, the shocking experience and finding was the second analysis of the employee satisfaction survey. Despite the fact that, practically year after year, colleagues identify, year after year, exactly the factors that should be in place to make employees more satisfied, such as - regular and transparent communication, competitive salary, providing development opportunities, work-life balance, training of managers, developing teamwork, etc. - at a low level, action should be taken, but year after year it does not happen, despite the fact that they indicate it.

OFFERS

Recent years' reorganisations and reforms in the armed forces have also significantly changed the situation of military health in Hungary.

On the one hand, the new law on the status of the Hungarian Defence Forces brings significant changes in the personnel policy of the Hungarian Defence Forces. Among the most important changes is the restructuring of the pay system, in which the previous salary scale with specific salary levels is replaced by a scaled pay scale. This means that the exact amount paid to

soldiers will be determined by their commander within a given range. There will also be more leeway for termination of employment on the basis of performance evaluation. The law abolishes the professional and contractual status, replacing it with a single new status, which is concluded with soldiers for a fixed or indefinite period. Other changes include a change in the ranks and a reduction in the number of allowances to three types: military intelligence, artillery and special duties. With the abolition of the law on the status of employees, the regulations are to be rewritten at the level of government regulations, which could lead to a major overhaul of labour law, work organisation and financial rules. In this context, it is questionable to what extent the new rules will be favourable for the members of the staff, as there have been a significant number of resignations in the Hungarian Defence Forces recently. Nearly 3,000 soldiers are reported to have indicated their intention to leave, which poses a serious challenge to the military, especially in the context of the rejuvenation and recruitment drive. The seriousness of the problem is demonstrated by the fact that military leaders are conducting intensive recruitment campaigns and introducing new benefits to make service more attractive. [2]

Also a huge change is the abolition of the Defence Hospital as a military element, which provided ROLE 3 and 4 level care for soldiers and is also necessary for NATO commitments. This is a decidedly negative move, as my research suggests that many young people undertook military medical service in exchange for a job in the Defence Hospital. The solution could be the British model, where, with proper legal regulation, civilian doctors are being recruited to fill military medical posts. This means that they keep their civilian jobs and work and undertake military service as reservists for a fixed period for extra pay, or they try to lure team doctor places to the military in competition with civilian and domestic private healthcare providers, which looks like a questionable venture with the current 6% higher pay and little other benefits, as both civilian and private healthcare employment means much less strings attached and lower expectations (for example, no annual physical fitness assessment).

In addition, Hungary has pledged to offer NATO a heavy weapons brigade, which will form one of the three brigades of the Hungarian Defence Forces, in addition to the medium and special purpose brigades. The move is part of the new military doctrine adopted last year to modernise and strengthen the Hungarian armed forces. So it is also necessary to fill these units with medical personnel, in addition to the existing unfilled team medical posts.

PROPOSALS TO INCREASE THE ATTRACTIVENESS OF A CAREER IN MILITARY MEDICINE:

Based on the results of my research, the number of military doctors has been steadily decreasing since the change of the system, therefore I make the following proposals to stop and reverse this process:

INCREASE EMPLOYEE SATISFACTION

Based on my research, I would consider it very important to increase employee satisfaction. In the annual surveys, year after year, colleagues have indicated the areas they find most problematic, yet no real change has been made beyond some attempts at team building and some improvements to the working environment.

Increasing staff satisfaction would improve staff performance, create a better working atmosphere, improve patient care and satisfaction, and reduce staff turnover. Moreover, as most people choose a career in military medicine through personal contacts (60% of applicants), it would also have a positive impact on this.

It was mentioned by colleagues in the survey every year:

- recognition and appreciation
- support for professional development
- promotion
- the working environment
- competitive pay and attractive benefits, with adequate on-call allowances
- management support and communication,
- feedback on assignments and work performance

Other important factors include:

- ensuring work-life balance
- job autonomy.

My research showed that the Hungarian Defence Forces as an employer competes in the labour market not primarily with foreign hospitals and job opportunities, but with domestic state and civilian health care providers, and therefore it is important to change the former rigid workplace climate and recruitment system and make the military health service more attractive, which can only be achieved by increasing employee satisfaction.

I propose to reduce the uneven mission workload, as my research shows that several demobilised army medical colleagues have never been on a mission, while those who have been demobilised are regularly sent out afterwards.

On the basis of my research, I have shown that there are a number of motivational factors whose effects may be ambivalent depending on the context, although the lay public opinion attributes simple causal relations to them. Such motivational factors, both positive and negative, include, for example, the question of salary and the possibility and obligation of serving in missions abroad. There is therefore no one-size-fits-all model of a career in military medicine, which must be tailored to the individual. In other words, it is important to assess individual ambitions and preferences, as some military doctors see the possibility of gaining experience abroad and working abroad for a shorter period as a positive opportunity, while others see it as a constraint. Similarly, the level of pay was attractive to some compared to higher civil service salaries, while others considered it low.

My research has clearly shown that, in addition to financial motivation, it is equally important to educate doctors and help them acquire practical knowledge, so it is particularly important to provide training and appropriate practical education and training to keep them in the profession.

PROPOSALS FOR SHORT, MEDIUM AND LONG-TERM SOLUTIONS

The conditions must be created and the model for a career in military medicine, already published in 2010, must be introduced. This is based on a 4-stage career in military medicine:

- scholarship years at university,
- residency period until obtaining a degree,
- a few years of service as a team doctor to acquire military medical skills,

- and a period of 'fulfilment', when the army doctor can decide what he or she wants to do in the future (e.g. hospital, team or organisational management).

Key points:

- Putting the defence scholarship scheme on a new footing;
- Contracting with graduate medical students and residents;
- Based on the above stages, a career would start with a minimum of 3 years in the team service, where the appropriate military medical routine could be acquired, and then, after transfer to the central unit, the doctor could decide whether to continue working in the organisational planning area, in the clinical unit or in the team medical service;
- For troops, 20 professional days per year are provided to develop medical skills, but this should be complemented by military medical training to gain military experience at home and abroad (mission exercises, training in NATO expert teams and at the NATO Centre of Excellence in Military Medicine, possibility of mid- and senior-level positions in military medicine at home and abroad);
- Make careers in military medicine attractive through competitive salaries, housing and family support, career advancement and training support;
- It would be important to assess individual career needs and skills and to support and monitor the career development of ambitious colleagues.

Recruitment and retention in the Defence Health Careers

To address the staffing problems, I consider the following concrete measures necessary:

- It would be important to manage recruitment in an individualised way. Military recruitment schemes are not applicable to military medical recruitment, and should be modified and personalised.
- Shorten the administrative process of recruitment to a maximum of 2 months (currently the time needed to set up and authorise a staffing site and to conclude a contract can sometimes exceed one year);
- Make the reserve system attractive to doctors, dentists, psychologists, paramedics and health professionals (e.g. extend the career allowance to health workers who apply to

become reservists). The current problem is that the difference between the salary of doctors and the reserve allowance means that their salary drops significantly during active reserve service;

- A one-off allowance should be introduced when you get dressed;
- There should be a requirement to provide staffing space and payroll for residents and reservists, so that when active military doctors are called up from the reserve system, a colleague called up from the reserve system or a resident colleague can be provided for the period of the call-up;
- Active and targeted recruitment and outreach through the press and job search sites would be important. Students should be made aware of defence expectations and career opportunities while still at medical school. Currently, vacancies are not properly advertised and promoted. There are no articles in medical journals about careers in military medicine, no job advertisements, and little is said at civilian conferences;
- (At present, the staffing of specialists is 50%, which jeopardises the daily performance of military duties, the IT background is outdated, there is no internet connection for the troops to the hospital databases, tools and equipment are outdated, consumables are insufficient).

Career promotion

- I consider the following key actions to be necessary to promote the career model, with a focus on keeping the military doctor on the career path:
- Extraordinary promotions for high performers and those working in shortage occupations could also help to alleviate the shortage of professionals;
- Budget cuts have reduced participation in NATO, EU, V4 professional bodies by 70% in the last 10 years. However, multinational operations require the acquisition of experience in these fields and the possibility of working in these organisations for shorter or longer periods of time;
- It would be worthwhile to renew, strengthen and extend the MH system of chief medical officers (central and team psychology, health promotion system to increase its professional recognition, further development);

- If the appointment of middle and senior managers could be linked to the completion of NATO and EU health permanent posts, the filling of these mission posts could be ensured (one major, one lieutenant colonel, one colonel, one general and three non-commissioned officers);
- It would be important to allow for easier horizontal career movement between troops, hospital, missions and permanent (NATO, EU) foreign service posts of the same professional level. At present, moving from the troop level to the hospital is very difficult and requires the permission of the commander of the local troops, which are facing a severe shortage of doctors.

Jövedelem kiegészítés

My research has disproved the claim that migration abroad is the main cause of the shortage of doctors. Currently, private healthcare at home is the biggest drain. So it is in this area that we need to be competitive in terms of financial reward, which the current 6% higher allowance is not enough. In this context, based on the research findings, I consider the following measures necessary:

- In order to mitigate or address the sucking effect, it is proposed to allow for the current part-time work, with flexible working hours that take into account the requirements of the part-time work.
- I also consider it necessary to examine the conditions under which team physician posts could be filled (part-time contracts, reserve GPs) by GPs with an occupational health certificate, and, as has been done in the past, the conditions under which team physicians could work in a GP district.
- In terms of benefits and salary arrangements, I propose the following options:
- Upgrading to a higher pay grade, based on the Australian example;
- Financial recognition of overtime and overtime work (increase in overtime, on-call and standby allowances, extra allowances for those who work extra administrative work, such as MH Chief Medical Officers);
- introducing positive rewards and allowances to promote fitness for military service (e.g. financial support for fitness passes and healthy food purchases for those in better than average physical and health condition).

I also believe that measures to support the family are important, given the higher than average female-to-male ratio in the military health profession:

- Reimbursement of nursery and crèche costs during the period of secondment and training;
- Flexible working hours to fit in with the opening hours of the nursery;
- Provision of childcare in the event of overtime (e.g. flooding);
- Providing a job for the spouse (e.g. in an administrative job to replace a worker who has reached retirement age).

These measures can create more predictable and competitive conditions for both family and professional services, which can not only reduce the crowding-out effect but also fill vacancies.

Proposals for education and training discounts

In order to address the staffing problems and to create the conditions for a quality supply of new doctors, I make the following proposals for measures affecting the educational structure:

- For most doctors, and especially for newly graduated residents, it is important to learn, gain the necessary professional experience and obtain a specialist qualification. It is therefore essential to assess and provide individual learning and career opportunities for young colleagues. The severity of the situation is illustrated by the fact that, for example, young surgical trainees at St John's Hospital surgery unit have resigned because they could not operate enough and the remaining staff were left with too many on-call duties.
- By providing financial support for the acquisition of specialised examinations and qualifications and by granting working time allowances, the shortage of doctors in professions important to the Hungarian Defence Forces (e.g. defence and disaster medicine, aviation medicine, occupational medicine) could be reduced.
- Further retention would be provided by basic allowances for vocational exams and special allowances for military specialisation. These are the specialised examinations and training courses of the Hungarian Defence Forces required for the performance of military duties: preventive medicine, public health, occupational hygiene, radiation hygiene, clinical

microbiology, public health-epidemiology, laboratory medicine, aviation medicine, defence medicine, disaster medicine and occupational health,

- Equally important is the support for scientific research and the acquisition of scientific degrees (increasing the number of doctoral students from 10 to 15, and supporting research and providing the time for it).
- In addition to the existing conferences provided by the HH, it would be important to promote individual learning by supporting further training, providing access to professional journals available online for a fee.
- Colleagues who undertake foreign service and extra duties should be allowed to enrol in paid domestic training courses.
- An incentive could be the enrolment of those working in shortage occupations in long-term (6-12 months) training abroad, so that the experience gained could be used later in Hungarian military health.
- In order to carry out missionary tasks, it would be important to support the acquisition of language exams and their upgrading to a higher level during working hours in the framework of intensive training. This would also mean an increase in income after successful completion of the exam through a system of language allowances.

The need for a change of mindset

Based on my research, I would consider it important to work, because every year they mention what colleagues would consider important in their response to the questionnaire, and yet there has been no change. In recruitment and retention, a priority is to support medical training, ensure career progression, reduce workplace conflict and provide a secure workplace where employees feel comfortable, rather than the stress of constant restructuring and reorganisation. The downsizing process since 2013 has not stopped, so the current strategies will have to be changed, as every year there are fewer and fewer doctors serving in the Hungarian Defence Forces.

THE PRACTICAL APPLICABILITY OF RESEARCH RESULTS

I would like to note that the survey could be continued with the questionnaires given at the time of decommissioning, so that the impact of the measures taken could be measured and could

also complement the annual employee satisfaction survey. In addition, it would in any case be appropriate to continue the survey with questionnaires sent to team doctors who have left or are planning to leave. The survey, which will be repeated in 2024, already showed the impact of the measures taken in almost 10 years, but also indicated higher stress levels due to the successive changes and uncertainty.

The authors (Major Márta Pákozdi in 2015 and Dr. Colonel Zsolt Fejes, based on an article I wrote on the same topic) called for the promotion of career retention by increasing appreciation, financial benefits and allowances, restoring early retirement, improving career development opportunities in the fields of promotion, medicine and the military, and reducing health risk factors, changes in eligibility requirements, improved working conditions, reduction of overwork, individual choice of mission assignment, promotion of further education, introduction of flexible forms of employment and a structured career model.

Individual satisfaction could increase the prestige of the military medical profession, which would have a positive impact on recruitment. Thus, it can be concluded that the network of relationships, the military family members serving in the family and the image they provide is the most important form of recruitment. The result also supports the importance of placing more emphasis on the greater appreciation and satisfaction of soldiers and military doctors working in the army, as this would have a positive impact on the entry into the military medical profession. Furthermore, it would be important to promote other modern forms of advertising (advertisements, Internet platform).

The results are broadly in line with our own research findings presented earlier, however the strength of the correlation has been better explained in this survey. Although the population surveyed differed, as in this case, in addition to the doctors still in the system, I also surveyed the medical officers and non-commissioned officers in the system, whereas in my own research I only surveyed the doctors who had already been discharged. Therefore, the two studies complement each other and can serve as a baseline study to analyse the impact of the measures introduced in the future and to develop a career model for military doctors and military health careers that meets modern challenges.

The aim of my research is to increase the prestige of the career of a military doctor since the change of the system, because during my years of service I have experienced the - in many

cases preventable - career abandonment of my military doctor colleagues. So far, the decline has not been halted.

THE AUTHOR'S LIST OF PUBLICATIONS ON THE SUBJECT

1. Jasztrab Jácint Szilárd: Katona-egészségügy helye és szerepe a missziós tevékenységekben (http://old.biztonsagpolitika.hu/documents/1282752313_jasztrab_jacint_katonaegeszsegugy_a_misszios_tevekenysegekben_-_biztonsagpolitika.hu.pdf)

2. Jasztrab Jácint Szilárd: A Magyar Honvédség missziós egészségügyi biztosításának tapasztalatai. Új missziós kihívás – A harci (extrém) stressz (http://old.biztonsagpolitika.hu/documents/1282752307_jasztrab_jacint_a_mh_egeszsegugyi_biztositasa_harci_stressz_-_biztonsagpolitika.hu.pdf)

3. Then, Mária and Szentmihályi, Klára and Jasztrab, Szilárd (2016) Jó egészséget I. kötet, Kozmeo egészségesnek lenni, a természet erejével. Underground Kiadó és Terjesztő Kft, Budapest. ISBN 978-963-12-5792-2 (http://real.mtak.hu/46375/)

4. Jasztrab Jácint Szilárd, Schandl László o.ezds, Ph.D. címzetes egyetemi docens: Mely Faktorok felelősek az egyes antipszichotikumok elhízást okozó hatásaiért? in: Honvédorvos 2008. (60) 1-2 szám

5. Jasztrab Jacint Szilárd: A harci stressz egészségkárosító hatása a katonai szolgálat alatt. In Társadalom és Honvédelem, Katonaszociológia-különszám (szerk.: Dr.habil Kiss Zoltán László), 2012. XVI. évfolyam 1-2. szám, 294-301.

6. Jasztrab Jacint Szilárd: Magyar Honvédség Honvédkórház állományába tartozó dolgozók válaszainak elemzése, (Szervezeti kommunikáció, Humán Stratégia 2012" elnevezésű empirikus kutatás)

7. Magda Eleonóra - Szentmihályi Klára - Jasztrab Szilárd - Then Mária: Citromfű a tudományos ismeretek tükrében Olaj és szappan (56. évf. 2. sz. / 2007, http://www.matarka.hu/cikk_list.php?fusz=27278&nyelv=eng)

8. Jasztrab Jácint Szilárd: Új katonai humán stratégia és karrier modell elemzése katonaorvosi szempontból in: http://biztonsagpolitika.hu/publikaciok-2012/dr-jasztrab-jacint-szilard-uj-katonai-human-strategia-es-karrier-modell-elemzese-katonaorvosi-szempontbol (aug 24, 2012)

9. Jasztrab Jácint Szilárd, Schandl László: Munkavédelem sajátosságai a Magyar Honvédségben (www.biztonsagpolitika.hu)

10. Jasztrab Jacint Szilárd: Stressz szerepe a katonai pályaelhagyásban (Társadalom és Honvédelem)

11. Jasztrab Jacint Szilárd, Schandl László o.ezds, Ph.D.: Stresszel való megküzdés orvosi szemmel

12. Dr. Jasztrab Jácint Szilárd: Katonaorvosi pályaválasztás és pályaelhagyás motivációi (Honvédségi szemle, 2018. 146. évfolyam, 2. szám – p 101-114.)

Idegen nyelvű kiadványban megjelent cikk

13. Effect of employee's satisfaction on attrition of military officers at HDF Military Hospital (AARMS, befogadó nyilatkozat)

PROFESSIONAL-SCIENTIFIC CURRICULUM VITAE

Dr. Jácint Jasztrab Szilárd Major General, Adjunct Professor

Hungarian Defence Forces, Medical Centre, Disposal Staff

general practitioner, occupational health care specialist

PhD training course

- 2024 - Modification of the title of the thesis: analysis of the components of military medical career drop-out in Hungary
- 2023 - Workshop debate
- 2019 - Change of thesis supervisor: Dr. László László Svéd, Lt. Gen.
- 2015- Absolute Doctorate
- 2012- Change of topic: Resign from a military medical career
- 2008- Doctoral Candidate, MH I Honvéd Warship and Artillery Battalion. Thesis: the effect of combat stress on soldiers' combat performance. Thesis supervisor: Dr. László Schandl, Brigadier General Medical Doctor

Studies

- 2010: specialist examination in family medicine
- 2007: Occupational Health Examination
- 1997-2003: Semmelweis University, Faculty of General Medicine
- 1993-1997: Nagy Sándor József High School, Budakeszi

Jobs and posts

- 2011: MH Health Centre
- 2009-2011: MH Defence Medical Centre
- 2009: adjunct professor
- 2003-2009: MH 1st Bombardier and Artillery Regiment

Awards of distinction

- 2017: peacekeeping medal, cash prize
- 2016: Service Medal for the Management of Migration Crisis
- 2007, 2010, 2018: Peacekeeping Medal

Language exams

- 2017: basic level Spanish language
- 2012: advanced level English language

Nicosia, August 2024. 16.

Maj. Jacint Szilard Jasztrab M.D.
Hungarian Defence Forces,
Disposition Staff