Risk Assessment in Prisons
Theory and the Hungarian Practice

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The aim of this paper is to briefly present a theoretical background of risk assessment systems in prisons and their practice in Hungary. Besides presenting the theoretical framework, I will discuss the purpose and methodological framework of risk assessment for inmates and the main institutional approaches used in international practice. In the second part of the paper, I will present the national practice, its methodological specifics and institutional framework.

Keywords: prison, Hungarian Prison Service Headquarters, risk, risk assessment, predictive assessment tool

Introduction

One of the prominent areas of international prison research and development over the past decades has been the risk assessment of prisoners, its potential tools, effectiveness and areas of application. In the context of the Hungarian Prison Service, it was initiated by Act CCXL of 2013 on the Execution of Punishments, but prior to that, there was a decades-long need to classify prisoners in terms of their security risk (security risk, regime and execution grade). There have already been several major amendments in this area over the past decade, but the latest amendment to the law, which will come into force from January 2024, also places a strong focus on the importance of understanding, assessing and managing risk. This paper presents a brief theoretical background of risk assessment systems in general and the structure and practical operation of the Hungarian system.

Risk as a term is widely understood and used, so it is very difficult to find a single definition. Different (professional) fields around the world (whether market, economic, environmental, sociological or even political) use different definitions and, accordingly, different risk analysis systems and methodologies, such as in the fields of law enforcement and criminal risk analysis, but also in different (e.g. probation) fields of justice.

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The topic starts from the notion of risk, which, regardless of the sector, refers to something in the future, typically an event with a negative connotation, the probability of some kind of hazard occurring at some level of severity.\(^4\) In the field of corrections, the literature typically links the topic of risk analysis to the risk of recidivism of inmates,\(^5\) but the concept of risk, its analysis and assessment is embedded in a much broader conceptual framework. Prison operations can be subject to a myriad of risk factors, which are further differentiated by country-specific factors, organisational priorities, policy expectations and the nature of the prison population. Thus, in some cases the focus is more on the risk of recidivism, in others on the recidivism of specific target groups (e.g. radicalised, terrorist or sex offenders), or on suicide risks, or even drug use.

**Theoretical framework for risk analysis**

The most elementary condition for the functioning of prisons is the maintenance of control and order over inmates, which in the last century or decades has been naturally complemented by elements of human rights guarantees, and in developed countries by punitive objectives and social expectations such as the promotion of social integration, the provision of reintegration and therapeutic programmes adapted to the needs of the prisoner. In order to be able to fulfil these tasks of control and social (re)integration, prisons need to have relevant information on prisoners for their operation and their tasks.

The organisational need for prisons to know the prisoners under their supervision is a contemporary issue in the development of modern prisons and has been a central issue in the professional literature and empirical research on prison systems in Hungary for more than 100 years. This need and this professional task is independent of whether or not there is a specific regulation, procedure or instrument in a given era or country that specifically names the cognition process and the procedures that can be associated with it as risk analysis. After all, knowing which detainees are cooperative or dangerous was a well-understood interest of the detainees a hundred years ago.

The risk assessment system in prison organisations is about assessing risks as far as possible from their own professional point of view, which serve as a basis for the development of individualised intervention, management and security measures, and is therefore a decision-support activity involving a process of gathering and understanding information about prisoners, with the aim of classifying them, i.e. categorising them in relation to a risk.

\(^4\) Rausand–Haugen 2020.

The ‘risk analysis’ practice of modern prison systems since the end of the 19th century has focused on the professional experience of prison professionals. Committee decisions based on the professional experience and knowledge of prison officials play a decisive role in the risk assessment and classification of prisoners. This kind of committee-decision-based risk management is still a determining factor in the operation of some prison systems (including in the domestic prison system).

The theoretical literature on prisoner risk assessment systems and research on prisoner risk therefore goes back a long way, but modern risk assessment systems, as systematised procedures, are more recent. At policy and prison level, the classification of prisoners according to a methodology was already introduced in the second half of the 20th century,6 and international recommendations from the 2000s onwards have highlighted the importance of risk analysis. Notable among these is the Council of Europe’s Rec (2006)2 recommendation, the so-called European Prison Rules, which emphasises the need for risk assessment in both security and treatment areas. In other words, decisions on the conditions of detention should be based on the level of risk to the detainee (e.g. the imposition of a security measure or the choice of a targeted reintegration programme). They are also particularly relevant in areas where the risks and the weight of decision-making responsibility are paramount. Thus, the Council of Europe Recommendation on long-term prisoners [Rec(2003)23] and dangerous offenders [Rec(2014)3], as well as on sexual offenders [Rec(2021)6], also emphasises the importance of risk analysis.

In addition to policy and international expectations, infrastructure has provided the conditions for the development of modern risk assessment systems.7 Modern systems also differ from the methodology of 100 years ago in that the professional procedures also imply a standardised cognitive process. In comparison, IT solutions have provided the added value that has facilitated the development of risk analysis systems (as will be discussed later).

As a result of the above factors, the procedures and methods for the identification of detainees have also evolved considerably, and it is in this changing environment and as a result of this that the Risk Assessment and Management System and the Central Institute for Assessment and Methodology (hereinafter referred to as the KKMI), which guarantees its professional operation, were established and incorporated into Hungarian law. The Hungarian institutional system and its solutions are described in a separate chapter below.

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7 Blomberg et al. 2010.
Methodological background and management context of risk analysis

As I mentioned before, from the 19th century the risk analysis primarily based on unstructured professional decisions and assessments was carried out in the framework of a committee decision. However, this did not necessarily mean unfounded decisions, its main dysfunction was that it did not have a standardised background. In fact, modern risk analysis systems are only new in terms of the methods used and in the way the data are processed, compared with previous risk analysis.

There are many types of modern risk analysis systems and methodologies along the lines of how and what types of data are collected and how they are processed. There are basically two main practices in modern systems in terms of how data is collected and the methodological direction of their analysis.8

The first is the so-called actuarial method, which is a questionnaire-based solution with the advantage of speed and objectivity, and the disadvantage of not being suitable for processing specific information or information that is difficult to interpret in a questionnaire and typically based on static data. The term ‘actuarial’ itself implies that the method is mostly reminiscent of the practice of risk analysis in banking, based on a quantitative and practical impact assessment.

In a risk assessment system based on Structured Professional Judgement (SPJ), the practitioner evaluates risk factors on the basis of a structured and detailed set of criteria, in the form of a structured interview. The advantage is the high information content and the professional experience of the assessor, while the disadvantage is the time-consuming nature and the need for trained staff.

Modern risk assessment systems try to apply these two approaches simultaneously, complementing each other. In addition to the method of data collection, it is important to note the two types of data, static (non-variable, changeable, historical data) and dynamic (changing over time),9 the former being more relevant for insight, the latter for actual risk and of particular importance for management and intervention.

Based on the way data are collected and used, the literature typically distinguishes four stages of development (generations) of risk assessment systems.10 The first generation of systems correspond essentially to an unstructured professional decision making system, i.e. categorisation based on available documents that provide deep information content, but are mostly governed by procedural methodologies. In comparison, second generation systems emerged from the 1970s onwards, typically based on standardised questionnaires based on static elements, but mainly on static data. Third generation systems, in response to the disadvantage of the former, are now also based on dynamic factors, and are not based solely on available information, but also collect information on dynamic factors that are considered relevant on the basis of research evidence on the subject, which can also be used to

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8 Desmarais–Singh 2014.
identify intervention directions. Another important ‘generational’ difference is that these tests and analytical tools all have some level of empirical background, i.e. the factors and risk factors assessed are typically given on the basis of statistical background analyses, providing a kind of estimate or prediction of the level of risk. The difference between fourth-generation systems and third-generation systems is that they attempt to interpret risk factors in a broader sense and integrate the assessment of treatment and intervention needs.

Professional integration with management systems is a key feature of modern risk assessment systems. That is, the detection of risks makes sense primarily if they are accompanied by some kind of targeted risk management intervention. This intervention could be, for example, a safety measure, a safety risk classification, or a therapeutic treatment programme. As shown above, modern systems are fundamentally based on dynamic risk factors, on the assessment of criminogenic needs, which, due to their dynamic nature, can be changed over time with appropriate interventions. In this way, intervention systems can be developed and applied along the lines of the risk factors identified in the risk assessment.

**Risk analysis tools**

The range of risk analysis tools used is very broad; one of the most important aspects of their application is what they are aimed at, i.e. what risk they are intended to measure and what the professional output of the analysis is.\(^{11}\)

From a development perspective, two trends can be observed in the use of risk analysis tools/methodologies. The first is the development of tailor-made systems, which has the advantage of being adapted to the legal system, procedures and prison population of the country concerned. Such systems are the Swedish RBM-B, the Czech SARPO or the Hungarian assessment instrument. The other is when instruments are used under licence (with the same copyright conditions as any other psychological test). The advantage of this is that the research projects, which precede the development, have already been carried out by a prison system or research laboratory in one of the countries for several years, so that they are validated, statistically validated batteries, which have a considerable added value even in international comparisons and research with very large numbers of items. Several countries use a mixed model and make targeted use of licensed batteries in addition to their own risk analysis systems.

Generally speaking, a significant proportion of risk analysis systems focus on general downside risks and a minority on more narrowly defined risks. A distinctive part of the test batteries is the set of risk factors that are of high societal relevance.

\(^{11}\) James 2015.
and that go beyond the analysis and management practices of the prison service (such as radicalisation risk).

Within the direction of the analysis, i.e. the risk to be measured, there are two main aspects: the risk of behaviour within the institution (suicide, aggression, absconding, etc.) and the risk of committing crimes outside the institution, i.e. the risk of general or specific recidivism (e.g. sexual or other violent crimes).

Among the analytical procedures developed to assess the risks within prisons, i.e. internal risks, one can mention, for example, the SCOPE (Suicide Concerns for Offenders in Prison Environment) for suicide\(^\text{12}\) or the PYVS (Prison Youth Vulnerability Scale) developed for juvenile vulnerability (suicide, abuse).\(^\text{13}\) In relation to recidivism, the Canadian LSI-R (Level of Service Inventory-Revised) or the British system OASys (Offender Assessment System) should be mentioned.\(^\text{14}\)

**International institutional solutions for risk analysis**

The practical implementation of risk analysis, i.e. the organisational and institutional arrangements under which countries carry out the specific process, varies from country to country. The European practice of institutional arrangements for risk analysis systems can be seen primarily from the data of the European Organisation of Prison and Correctional Services (hereinafter referred to as EuroPris). The knowledge management system of EuroPris collects questions and answers from countries thematically and makes them partially public. Data on risk analysis was collected and published in 2017, 2019 and 2020,\(^\text{15}\) and on its organisational solution in 2020,\(^\text{16}\) for each country’s practices. Based on the data from these four data collections, I will now briefly describe the institutional arrangements for European practice and illustrate the main practical arrangements with some European examples.

In the practical implementation of the risk analysis, there were two important issues to highlight, namely the background to the development of the system and the way it is operated. One typical trend is to develop systems in-house (tailor made systems), the other is to systematically use tools under licence, but there are also mixed models. In terms of operation, several countries operate risk analysis systems at the level of individual prisons, others have centralised investigation/distribution/evaluation institutes, and there are also mixed solutions.

One approach is to carry out the risk analysis at the level of the detention facility, i.e. where the detainee is located. In this case, the analysis procedure is carried out by trained staff on the basis of a central methodology or procedure. The advantage


\(^{13}\) Tie–Waugh 1999.

\(^{14}\) Watkins 2011; Moore 2015.

\(^{15}\) EuroPris 2017; EuroPris 2019; EuroPris 2020a.

\(^{16}\) EuroPris 2020b.
is that the facility carrying out the assessment and the analysis is also the place of detention, so that, in addition to its logistical simplicity, it is also possible to assess the detainee more thoroughly and presumably over a longer period of time.

The other alternative is a centralised solution, where the risk analysis is carried out in a specialised reception/assessment centre. This has the advantage of concentrating the staff carrying out the analysis, thus concentrating knowledge and experience in a professional way, and allowing greater resources to be devoted to a more in-depth analysis of detainees. The idea is that at the beginning of the prisoner’s sentence, he/she is transferred to a central institution where the risk analysis is carried out and, on the basis of the results, transferred to the actual enforcement institution where he/she will serve his/her sentence. This role as a distribution facility means that, on the basis of the results of the assessment, prisoners are placed in the most appropriate place to respond to the security and detention risks assessed (e.g. security classification of the facility, type of work in the facility, family contact or special unit).

In several countries, a hybrid solution is used, where the risk assessment is, as a general rule, carried out in individual prisons and only a specific part of the prison population is dealt with by a central institution (for example, Sweden or Hungary). Examples could be sexual offences, certain priority cases of violent crime or the population involved in terrorist offences. It is important to note that the domestic practice described below falls mainly into this category.

The first example is Belgium, where the risk analysis is carried out in local prisons on a territorially dispersed basis and is intended to serve as a decision support tool in the areas of furloughs, electronic monitoring and parole. In practice, analytical tools and tests are widely used for violent offenders, sex offenders, or radicalisation, for example. Such tools include the VRAG (Violence Risk Appraisal Guide), Static-99, VERA-2R, sSVR-20 (Sexual Violence Risk), and HCR-20V3 (Historical Clinical Risk).

Sweden has developed a proprietary risk assessment tool (Risk-, Behov och Mottaglighetsbedömning RBM-B), which classifies prisoners into general, violent or violent sexual recidivism categories/grades (low/medium/high risk). The risk assessment is carried out on all prisoners, but for sentenced prisoners over 4 years, the risk assessment is already carried out in separate institutions, in particular for parole, furloughs and general institutionalisation.

The Czech Prison Service (like Sweden) has developed its own risk assessment procedure. The SARPO system started to be developed in 2003 and was finally extended to all Czech institutions in 2012. Risk analysis is also carried out locally in each prison.

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17 EuroPris 2017.
18 EuroPris 2017; EuroPris 2019; EuroPris 2020.
20 EuroPris 2020.
In Central and Eastern Europe, Croatia has the longest experience in risk assessment of prisoners, which has been the basis for national developments.\textsuperscript{21} Their risk assessment system has been in place since 1987 and is implemented by a central institute (Diagnostic Centre). All prisoners with a sentence of more than 6 months start serving their sentence at the central institute.

The above examples illustrate perfectly the breadth of the practical implementation of risk assessments. The way in which a country implements its risk assessment system depends to a large extent on the infrastructural possibilities, legal traditions and operational rationalities of the prison organisation concerned.

**National practice of risk analysis**

Risk analysis and treatment, as a conceptual pair, was introduced into the Hungarian practice by Act CCXL of 2013 on the Execution of Punishments. The specificity of the Hungarian system is that it is directed at the risk factors specifically defined in the legislation (at least it is necessary to be directed at those), it focuses primarily on internal, i.e. detention risks and has only a decision-supporting role.

The exclusion of risk analysis does not have the same legal consequences as in the practice of many other countries, i.e. the possibility of a conditional reduction or the imposition of a “security detention”. The risk analysis assesses the range of risks identified below, as required by law:

- escaping and attempted escape
- suicidal or self-harm
- executive role or activity in the prisoner subculture
- low, vulnerable, exposed, at risk role in the criminal or prisoner subculture
- psychoactive substance use disorder
- recidivism

Risk assessment is institutionally divided along two lines. For the majority of prisoners, the risk assessment is carried out locally by the prisons, while for the most serious category of prisoners, the risk assessment is carried out centrally, including the methodology of the prison practice, but complemented by other procedures. In case of high-risk sentences, the KKMI is responsible for the operation of the risk analysis. The domestic institutional arrangements for risk analysis are therefore evolving, but we have seen a basically dual structure in recent years:

For the largest proportion of convicted persons, risk analysis is carried out within the institutions, based on a central methodology and supported by a software backend.

\textsuperscript{21} Bogotyán et al. 2016.
For a defined group of convicts, however, risk analysis is carried out centrally, so that, taking into account the material gravity of the offence, sex offenders (rapists, child molesters) or, for example, qualified cases of homicide, prisoners with long sentences are transferred to the central, Budapest-based unit of the KKMI as soon as their convictions become final.

Under the law, risk assessment must be carried out for prisoners sentenced to more than one year and six months, but the practice is more widespread. In fact, a risk assessment is carried out for all prisoners and, irrespective of their detention status, for all persons (even those arrested) who are at serious risk of being detained, such as those who have committed or been the victim of a serious incident (assault, drug trafficking, etc.).

**Risk assessment tool and framework**

The tool for risk assessment is the Predictive Assessment Tool (PME), which is technically a software that provides a transparent framework for the questionnaires that form the basis of the risk analysis, for filling in the questionnaires, for collecting data and for visualising risk levels based on the answers to the questionnaires. The risk assessment involves different sections of the prison management (four different specialties) in the penitentiary institutions, independently interviewing convicts and entering data into the PME system. Although the four section load the data into the same software, they technically take four different questionnaires from the detainees:

- The registration section mainly provides information on criminal background, previous and current detention, for example, conviction details, recidivism information.
- The reintegration section mainly collects data on the prisoner’s contact, education, employment and financial situation, residential situation, history of substance abuse and other addictions.
- The health domain mainly provides information on the risk factors to be assessed, such as suicidal or substance-abusing history, mental illness, etc.
- The psychology domain has the longest questionnaire, which collects and assesses information on psychiatric history, suicide, self-harm, psychoactive substance use, and antisocial attitudes and aggressiveness of the prisoner.

The software has a modular structure, corresponding to four different questionnaires in the four areas of expertise, and the authorisation system has been developed at a complex, hierarchical level, taking into account the sensitive nature of the data. Thus, the registration discipline can only see its own data, while the reintegration discipline can see its own register, the health discipline can see the previous two in addition to its own, while psychologists can see data from all the other modules. The
risk analysis, i.e. the questionnaire according to the modules above, must be carried out for the first time when the prisoner is admitted, but in the case of certain events that may affect his detention (exceptional events, change of institution, etc.) the risk analysis must be carried out again.

**Methodological logic of the risk analysis**

The methodological logic of the domestic risk analysis system is very similar to the methodology of the options presented in the previous chapters, i.e. the system assigns a score to the answers to specific questions in the questionnaire linked to each risk, and these scores determine the level of risk. In this sense, PME is therefore essentially based on an actuarial methodology.

The questionnaire operates largely on the basis of self-reported responses from prisoners, but also includes questions on the professional judgement of the respondent. In its operation, it is most similar to a sub-version of the actuarial system described in the theoretical chapter, the adjusted actuarial system (with the possibility of professional deviation), in that the risk level assigned to the respondent on the basis of the questionnaire score can be adjusted by the respondent with a professional justification. Based on the point values, the risk level can be Low/Medium/High.

The four disciplines fill in four different questionnaires, each of which gives a risk level for each risk, i.e. technically four different risk assessments are carried out for four different disciplines. The aggregate score is always adjusted to the highest risk measured. To model the operation with a plastic example:

If a detainee conveys to the reintegration officer and the psychologist that he has never used drugs, the substance abuse risk level of the module they spend will be low. However, when the health module is taken, if the medical history of the individual reveals to the medical officer that the individual has a history of substance abuse or the detainee requires medication from the medical officer for acute withdrawal symptoms, the risk score will be high as a result. Because one of the disciplines measured a high risk, the detainee's final substance use level will be high.

The separate modular scoring principle has advantages and disadvantages. The main disadvantage is that the system does not use the full information potential in the risk assessment and scores itself methodologically “locked” along smaller, more narrowly-themed questionnaires. Its advantage is mainly to be understood in an organisational context. On the one hand, it is able to display a certain level of risk even if one or other of the disciplines is unable to interview the inmate for one reason or another. The other important argument is that risk analysis does not have its own dedicated staff, so it is carried out by colleagues in different areas, such as reintegration officers and psychologists, as part of their general activities, and therefore the delimitation of sensitive data must be done accordingly at the system level. The third
argument was the confidential nature of the data collection. In other words, the outcome and reliability of the risk assessment strongly depends on whether an appropriate trust situation can be established between the inmate and the staff, on the basis of which the report can be developed. The modular design of the assessment helps to ensure that this does not depend on a single respondent. So, to stay with the example, at least three different people have the opportunity to talk to the detainee about his substance use history and assess it from a risk perspective.

Overall, the national risk assessment takes into account the methodological framework of the systems presented earlier, but it is basically a tailor-made system, both in its professional framework and in its procedures, software background and PME. Its main characteristic is that it is primarily targeted at internal risks, with no direct legal consequences for the detainee. It has a modular structure from a specialised point of view and its function must support other professional activities in addition to risk analysis.

Summary

In the above, starting from the general definition of risk, I have tried to present the historical development of risk analysis, its role in law enforcement and in the professional work of the penitentiary system, international trends, and, in relation to all this, the Hungarian legal regulation and practical implementation.

The Hungarian system of risk analysis and management, having seen some elements of the literature review, can be placed in the framework of methods used in other parts of the world, and some of its elements were based on the study of specific foreign institutional examples (e.g. the practice in Croatia). The operation of the prison risk assessment system is determined by the possibilities offered by the legislation, so that analysis based on a digital basis, essentially based on dynamic and static data but supplemented by the professional insights of staff, and management by well-trained staff, work side by side.

In these systems, it is essential not only to incorporate static elements in terms of data, but also for the system itself to be reflective of its own results, able to evolve and develop continuously, with the involvement of the departments that oversee it. We cannot therefore speak of complete, closed systems, since their basic requirements are development, expansion and renewal, so the domestic system presented here cannot be regarded as a definitive construction either. Thus, the experience gained from the analysis and management systems must be repeatedly reviewed and incorporated into day-to-day operations.
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