

Beata Maria Nowak,
Sławomir Grzesiak,
Maja Zawadzka

Perception of transdermal alcohol concentration monitoring system by polish prison officers

Postrzeganie transdermalnego monitoringu pomiaru stężenia alkoholu przez funkcjonariuszy polskiej Służby Więziennej¹

The presence of technologies monitoring some manifestations of human activity has become a permanent part of social life. In the case of the prison system, the employed technology usually find application in areas related to the security of the penitentiary unit and the personal security of the prison staff and detainees. Technological progress is providing more and more opportunities, including remote monitoring of alcohol concentration levels. The implementation of such solutions to the Polish prison system requires professional preparation of the penitentiary personnel. For the purposes of the research project entitled “Pilot of a program implementing the transdermal alcohol concentration monitoring system (TMSA) in prisoners who were granted a temporary permit to leave the penitentiary unit in connection with the undertaken external employment in the system without an escort or with a pass”, specialized training was conducted for officers of the Prison Service, during which prison officers’ readiness and openness to new solutions were also tested. The results of these explorations are described in the article. The identified attitudes of prison officers are a positive prognosis for the implementation of the TMSA technology to the Polish prison system.

Key words: transdermal alcohol monitoring, new technologies, prison system, polish penitentiary system, social readaptation, prevention.

¹ Wkład każdego z autorów w przygotowany tekst kształtuje się na takim samym poziomie.

Obecność technologii monitorujących niektóre przejawy aktywności człowieka na stałe wpisała się w życie społeczne. W przypadku więziennictwa użytkowana technologia znajduje zwykle zastosowanie w obszarach związanych z bezpieczeństwem jednostki penitencjarnej oraz bezpieczeństwem personalnym kadry Służby Więziennej i osadzonych. Postęp technologiczny stwarza coraz to większe możliwości, w tym, w zakresie zdalnego monitorowania poziomu stężenia alkoholu. Implementacja takich rozwiązań do polskiego systemu penitencyjnego wymaga profesjonalnego przygotowania kadry penitencjarnej. Na potrzeby projektu badawczego pt. „Pilotaż programu wdrażającego system transdermalnego monitorowania stężenia alkoholu (TMSA) u skazanych, którym udzielono czasowego zezwolenia na opuszczenie jednostki penitencjarnej w związku z podejmowanym zatrudnieniem zewnętrznym w systemie bez konwojenta lub udzieloną przepustką”, przeprowadzono specjalistyczne szkolenie adresowane do funkcjonariuszy Służby Więziennej, w trakcie których sondowano również gotowość i otwartość kadry więziennej na nowe rozwiązania. Wyniki tych eksploracji zostały opisane w artykule. Zidentyfikowane postawy funkcjonariuszy SW są pozytywnym prognostykiem dla wprowadzenia technologii TMSA do polskiego więziennictwa.

Słowa kluczowe: transdermalny pomiar alkoholu, nowe technologie, więziennictwo, polski system penitencyjny, readaptacja społeczna skazanych, prewencja.

Introduction

New technology developments affect many areas of community life, and the monitoring of certain manifestations of human activity has become an established worldwide trend. In the prison system, it is primarily used to prevent any prohibited behaviour, and is carried out by means of mobile devices. Poland and many other states maintain electronic monitoring systems, that track the location of individuals covered by the system, but it is only recently that mobile devices have been providing increasingly more information on the condition of the monitored persons' bodies. Some of this information is used to maintain safety, not only of the monitored persons, but also of those with whom they interact. The alcohol concentration level in a person's body constitutes such a significant

piece of information, as it is extremely important, due to the individual and social risks related to alcohol abuse and a strong link between alcohol abuse and criminal behavior.

Over the last few years, technological progress has provided ever greater number of opportunities for remote monitoring of alcohol concentration levels. Personal mobile devices deploy a transdermal alcohol monitoring method, which determines alcohol concentration level by measuring it in sweat or sweat vapor. The US² is a pioneer in this area, where legal regulations are already in force, and allow remote alcohol monitoring of specific target groups³. In Europe, however, the transdermal alcohol monitoring system has been successfully deployed in the penitentiary and probation systems of the United Kingdom⁴ and the Netherlands⁵, whereby the Netherlands drew heavily from the British experience in incorporating monitoring tags into the national system of justice⁶.

Transdermal alcohol concentration monitoring system in Poland

In 2021, Academy of Justice initiated a scientific reflection directed at establishing the validity and applicability of the transdermal alcohol concentration monitoring within the Polish penitentiary system, conventionally naming it the “transdermal alcohol concentration monitoring system (TMSA)”, and subsequently commenced a research project named “Pilot of a program implementing the transdermal alcohol concentration monitoring system (TMSA) among convicted felons, who were granted work

² P. Kirby, *Reducing alcohol-related crime electronically*, “Federal Probation”, vol. 65(2), 2001, 42-44, pp. 42.

³ A.S. McKnight, J.C. Fell & A. Auld-Owens, *Transdermal alcohol monitoring: Case studies*. (Report No. DOT HS 811 603). Washington, DC: National Highway Traffic Safety Administration, 2012, 1-136, pp. 10, 98-99.

⁴ L. Bainbridge, *Transferring 24/7 sobriety from South Dakota to South London: the case of MOPAC'S Alcohol Abstinence Monitoring Requirement Pilot*, “Addiction”, vol. 114, Issue 9, 2019, 1-10, pp. 1, 8, DOI:10.1111/add.14609.

⁵ See: Website of the Ministry of Justice and Security in the Netherlands, Alcohol-monitoring alcohol bracelet introduced nationally, 2020, <https://www.government.nl/latest/news/2020/05/18/alcohol-monitoring-ankle-bracelet-introduced-nationally/> [access: 1.08.2022].

⁶ M. Boone, M. van der Kooij & S. Rap, *Current Uses of Electronic Monitoring in Netherlands*, Universiteit Utrecht, Utrecht, 2016, 1-99, pp. 42, 86, https://www.uu.nl/sites/default/files/country_report_netherlandsfinal.pdf/ [access: 11.08.2022].

release from the prison unit without an escorting officer or a temporary release”, funded by the Victim and Post-Penitentiary Assistance and Support Fund – Justice Fund⁷.

Main objective of the project was to gain knowledge on the potential use of TMSA for the purposes of the Polish prison system. The research was conducted on the premises of the District Inspectorate of the Prison Service in Lower Silesia province. The study included 60 convicted offenders serving a prison sentence for the first time and repeat criminals who were detained in the half-open penal institutions as part of the programmed rehabilitation system and enjoyed temporary work releases due to employment outside the prison premises.

To ensure implementation of the project’s objectives, it was necessary to conduct a series of information activities and to train prison officers in transdermal alcohol concentration measurement and monitoring. As part of the study, competency training was carried out for education and security personnel directly involved in correctional and security activities in connection with the return of convicted offenders from a temporary release.

The training was attended by 23 officers from 5 prison units of the said Lower Silesia district, who were selected through the analysis of statistical data collected from the Central Board of Prison Service⁸, regarding the biggest number of temporary releases granted to the sentenced prisoners⁹. The study was attended by the prison officers exercising direct supervision over the implementation of the research project in the prison units that they were initially assigned to (coordinating project activities in the selected prison units).

Representatives of the Regional Inspectorate of the Prison Service in Wrocław and the Penitentiary Bureau of the Central Board of Prison Service were also present at the training. Training was carried out on the premises of the Regional Inspectorate of the Prison Service in Wrocław between 22.09.2021 and 23.09.2021. Two training sessions were carried out, each one lasted 6 hours and was led by 4 persons – 2 representatives of the project team and 2 representatives of the SCRAM

⁷ See: Website of the TMSA project, <https://www.swws-tmsa.pl/pl/> [access: 29.07.2022].

⁸ Bureau of Information and Statistics, based on Detained Persons Register, as of 20.07.2021.

⁹ District Inspectorate of the Prison Service in Wrocław (since 1.12.2021 r. Regional Inspectorate of the Prison Service in Opole): Correctional Facility No. 1 in Wrocław (5 persons), Correctional Facility No. 2 in Wrocław (5 persons), Correctional Facility in Strzelin (3 persons), Correctional Facility in Kłodzko (4 persons), Remand Centre in Dzierżoniów, Satellite Prison in Piława Dolna (6 persons).

company, delivering the TMSA technology and monitoring the results of the measurement. It should be noted that the good practices of SCRAM SYSTEMS¹⁰ company in charge of production and operation of the equipment, include providing appropriate (tailored to specific needs) training for persons implementing the new technology in specific justice areas (e.g., judicial system, prison service, probation). Therefore, competency training conducted by SCRAM SYSTEMS constituted an important factor during the implementation of TMSA technology in the US¹¹, Australia, New Zealand¹², the United Kingdom and the Netherlands.

Participants were presented with background information on the research project, other countries' experiences with this type of monitoring, electronic tags, and the company carrying out the monitoring and data analysis services, as well as the TMSA technology itself and its character in the context of other forms of alcohol concentration measurement¹³. The prison officers were also taught necessary knowledge and skills in terms of basic operation of TMSA system, i.e., the installation and removal of the measurement tags, data acquisition, analysis and interpretation of results, and tag maintenance procedures, to reduce the risk of project failure. The training addressed both theory and practical aspects of use of transdermal alcohol concentration monitoring technology. Theory comprised of presentation of the content on the construction and operation of transdermal alcohol concentration monitoring devices. Some important elements related to the preparation of convicted offenders to participate in the program were presented, i.e. motivation and brief intervention aimed at maintaining sobriety (ethical and psycho-pedagogical aspects of supporting device users).

The practical part featured participants assembling and disassembling the measuring devices and conducting a simulated data transfer between the device and the control panel. At the end of the training, an evaluation of the training was conducted, together with anticipatory research

¹⁰ SCRAM SYSTEMS, <https://www.scramsystems.com/scram-international/gb/> [access: 10.08.2022].

¹¹ E. Bell, K. Loveland, *Evaluating the 24/7 Sobriety Program, A report for the Montana Highway Patrol*, "Loveland Consulting", Montana, 2018, 1-16, pp. 6.

¹² See: State of Nevada Substance Abuse Working Group Protocol, Washington 2014, 1-11, pp. 3-4, https://ag.nv.gov/uploadedFiles/agnv.gov/Content/Hot_Topics/Issue/2014-05-27_Minutes_SAWG.pdf [access: 9.08.2022].

¹³ See Website of the TMSA project, <https://www.swws-tmsa.pl/pl/wiecej-aktualnosci/154-aktualnosci/100-realizacja-projektu-miedzynarodowej-wspolpracy-szkoly-wyzszej-wymiaru-sprawiedliwosci-wraz-ze-scram-systems-international> [access: 10.08.2022].

regarding the possible applicability of TMSA technology in the Polish prison system.

Training of prison officers in the field of testing the applicability of new technologies within the prison system was essential, as the abovementioned officers engage in direct interactions with detainees and support them in sobriety, not only during their imprisonment, but also when they are released from the prison unit. Prison officers have specific professional experience and knowledge regarding the psychosocial behavior of convicted offenders, whose crime causes were directly related to alcohol, and can offer valuable advice on how to optimize the execution of a prison sentence with the application of TMSA technology.

Understanding the problems of the target group, to which TMSA tags apply, is particularly important considering risk factors. In the case of offenders with alcohol problems, there are a number of unfavorable factors, i.e., an unstable life situation, poor education and difficulties in understanding expectations. Therefore, it is necessary to ensure that personnel operating TMSA technology are provided with knowledge and skills required to properly communicate information, clearly acquaint inmates under their care with the nature of the monitoring tags and motivate them towards positive change. For it has been proven that familiarizing programme participants with the concept of the transdermal alcohol concentration monitoring system considerably improves statistics on maintaining sobriety and reduces the risk of failing to complete the programme¹⁴. Countries employing TMSA technology emphasize the importance of education and arrangement of appropriate volume of practical training for the officers involved in the implementation and operation of the new technology. Training in this area is primarily focused on presenting the objectives, goals and technical and operational aspects of implementing the monitoring equipment. This ensures operational integrity and efficiency in the implementation of TMSA technology, which is adapting to the particular prison unit, justice or probation system¹⁵.

The methodological assumptions of the presented excerpt from the Polish pilot study were dictated by the exploratory aspect of the research project. They were implemented based on a qualitative strategy. The

¹⁴ P.R. Margues & A. Scott Mc Knight, *Evaluating Transdermal Alcohol Measuring Devices, Final Report*, National Highway Traffic Safety Administration, Washington 2007, 1-96, pp. 86.

¹⁵ R. Robertson, W. Vanlaar, H. Simpson, *Continuous Transdermal Alcohol Monitoring: A Practitioner's Guide*, Traffic Injury Research Foundation, Canada 2007, 1-49, pp. 5, 9.

survey was conducted after the training. It addressed the evaluation of the training and assessment of the solutions presented by the transdermal alcohol concentration monitoring in the implementation of tasks by the prison officers¹⁶. The study employed a diagnostic survey method, a technique of an interview and an interview questionnaire, incorporating a metric and a core section on the evaluation of training and the assessment of transdermal alcohol concentration monitoring, its strengths and weaknesses and the needs for implementation by the prison officers participating in the training.

The aim of the research was to answer the following research questions:

1. How do the participating prison officers (of the security and penitentiary departments) perceive the applicability of TMSA technology for the implementation of the prison service tasks?
2. What limitations to the implementation of TMSA in the Polish prison system do the surveyed prison officers (of the security and penitentiary departments) recognize?

Results and research findings

The research group consisted of prison officers (n=23 individuals) – 10 women and 13 men. The trained prison personnel included wardens of the penitentiary (5 individuals) and security departments (4 individuals), as well as inspectors of the security department (2 individuals), educators (7 individuals) and psychologists (5 individuals). Respondents were characterized by extensive professional experience, with an average seniority of more than 13 years (one respondent had been working as a prison officer for 21 years). Almost all respondents had a master's degree, and only two respondents had a vocational degree. For almost half of the respondents, the place of residence was a city with a population of between 20,000 and 100,000. One in five respondents resided in a municipality with a population of more than 500,000. Three prison officers resided in municipalities with population of up to 20,000, and the same amount resided in rural areas. The smallest number of participants (2 respondents) resided in the cities of between 100,000 and 500,000 residents.

¹⁶ Article 2 of Act of 9 April 2010 *on the Prison Service* (Dz. U. of 2021, item 1064 as amended).

The evaluation part of the survey addressed the trainees' evaluation of individual elements of the training, such as the content delivered, methods of conveying information, practical training, clarity of statements, information and educational materials provided and a general framework of the training. The particular elements of the training were evaluated on a 5-point Likert scale, where the aggregate of all elements resulted in an average evaluation score of 90%. The elements indicated have been positively evaluated by the respondents.

Concerning the surveyed officers' opinions on the applicability of TMSA technology, nearly all, as many as 21 respondents, recognized the importance of the implementation of this type of technology in the Polish prison system for the optimization of the imprisonment, especially in the field of correction and protection, whereas two respondents indicated that the applicability of the said technology in the Polish prison system should be confirmed by the findings of scientific research.

It is worth noting that respondents drew particular attention to how the device operates and how it collects information (13 respondents), as well as "the design of the device itself" (F-9) and "innovative nature of the device, practical examples, traceability and sensitivity of the device" (F-16). In every second response, the respondents also referred to the practical part of the training, indicating positive surprise, e.g. "the simplicity of assembly and how to download data" (F-22), "how to attach and read the device" (F-14), "how to assemble and operate, how to interpret parameters" (F-19) Technological innovation of alcohol monitoring was also pointed out: "the way the device operates, method of data analysis and monitoring" (F-15), "monitoring of detainee's behavior" (F-5). During the training, the officers have shown great interest in the raised issues and in the adaptation and implementation potential of TMSA technology, which is also supported by their survey responses, e.g. "it's amazing to use it in the other countries" (F-18).

The respondents recognized applicability of the TMSA technology in two areas of their work:

1. The first related to the preventive use of monitoring tags for convicted offenders temporarily leaving prison units in the form of temporary releases, out-of-prison schooling¹⁷ or external employment (19 re-

¹⁷ Article 91(3) of the *Executive Penal Code* of 6 June 1997 (Dz. U. [Polish Journal of Laws], item 53 as amended).

spondents). Prison officers in favour of the possibilities presented by TMSA technology suggested that “it would be an effective instrument to control detainees away from the prison unit” (F-8) and¹⁸ “it would be specifically useful in case of temporary releases” (F-12), as well as “to keep detainees sober while away from the unit” (F-5). The respondents believe that this technology would “help to obtain data on an ongoing basis” (F-10) and “provide value added in terms of verification of the convicted offenders’ behavior during their work release from the prison unit without an escorting officer” (F-19). The majority of officers, in addition to the control aspect, also emphasized the preventive aspect, in which the technology “can be helpful in the implementation of addiction prevention measures to the convicted offenders” (F-18), can “help to maintain sobriety” (F-5), it would be “another instrument to enable and investigate the deficits of a free person” (F-6) in terms of “monitoring and encouraging sobriety on a temporary release” (F-11).

2. The second area identified by respondents was related to respondents’ perception of the potential of this solution and the possibility of its application outside the penitentiary field, in probation (4 respondents). Respondents pointed out, e.g. that TMSA: “does no harm, while it also may also help the convicts after release (F-14), “It is aimed towards those who were released from the prison” (F-2), and “it will prove useful when the Court grants conditional early release or prison leave” (F-22). The respondents recognize the applicability of TMSA technology primarily in terms of preventive and control aspects, pertaining both to the conditional early release of the convicted offenders as well as to their stay outside of the prison. They also express their optimism about the applicability of the technology in question to other areas of society.

It should be concluded that most respondents were favorable towards the possibility of implementing TMSA technology into the Polish prison system. However, other applications of this technology were also suggested.

¹⁸ For the purpose of the respondents’ data anonymization, the codification of the survey questionnaires was introduced. It was done by adding a letter designation (F-prison officer) in brackets and assigning an ordinal number, based on the analysis of the research material, e.g. (F-1).

Respondents were also interviewed about the anticipated opportunities for TMSA technology to support prison and correction officers.

In terms of assisting educational work, 14 respondents indicated the applicability of TMSA in relation to, e.g.:

- a) penitentiary activities carried out by the officers towards detainees with drinking problem, e.g.:
 - “benefits in terms of the effectiveness of social rehabilitation activities, in form of the individualized activities, preventive measures” (F-16),
 - “this device can support the education service in social rehabilitation activities as well as have an impact on alcohol prevention” (F-16),
 - “it can assist in the implementation of activities aimed at preventing addiction, verification of whether someone stays sober and identification when the addicted persons start drinking again” (F-18);
- b) self-checking the convicted offenders’ sobriety, e.g.:
 - “the device can support detainees’ motivation to stay sober” (F-8),
 - “motivate towards non-drinking attitude” (F-11),
 - “it can help detainees to decide in favor of seeking treatment, it will make them aware that they may have an alcohol problem that they have not recognized before” (F-14),
 - “it increases awareness of alcohol abuse and the consequences that follow” (F-17),
 - “is assists detainees to preserve effects produced in course of therapeutic activities, thus helping detainees to control themselves, to maintain abstinence” (F-18);
- c) monitoring and controlling the convicted offenders’ behaviour in terms of compliance with the legal provisions applicable to the execution of an imprisonment, e.g.:
 - “benefits of their ongoing education work and during referrals for out-of-prison employment” (F-4),
 - “safeguard against alcohol abuse” (F-21),
 - “detainees with an alcohol problem” (F-20),
 - “it provides a way to check how a detainee behaves without supervision” (F-3); “it tests detainees for alcohol consumption” (F-19).

However, with regard to TMSA technology’s assistance to the security work of prison officers, 12 respondents identified issues related to control

of the detainees during their temporary release. The respondents pointed out the following benefits of TMSA technology:

- a) Better control of alcohol consumption by detainees, e.g.:
 - “facilitating control of detainees’ abstinence from alcohol as well as more new findings related to the alcohol consumption by detainees” (F-9),
 - “greater extent of alcohol consumption detection during penitentiary isolation” (F-9),
 - “reduction and prevention of alcohol consumption” (F-6),
 - “greater control over detainees and faster detection of those who are under influence will, in my opinion, reduce or eliminate the issue with alcohol” (F-13),
 - “technology could assist by providing real-time information about the alcohol consumption of detainees” (F-10);
- b) Improved security level, e.g.:
 - “security of detainees, officers and personnel. Reducing the number of convicted offenders who consume alcohol during their imprisonment” (F-19),
 - “maintaining discipline” (F-5);
- c) Preventive nature of alcohol concentration measurement in combination with detainees tracking feature, e.g.:
 - “as a preventive measure, it would help to reduce prison overcrowding” (F-17),
 - “Fewer detainees in prisons, fewer returns from temporary releases under the influence of alcohol” (F-23),
 - “information as to which detainee on a temporary release is under the influence” (F-14).

In their responses, the respondents also indicated that they would “expand their knowledge of how working convicts are functioning and how they maintain their sobriety” (F-1), which they believed would “help to eliminate those who deceitfully claim to maintain abstinence during employment” (F-3).

It is worth noting that in evaluating the benefits of applicability of TMSA to convicted offenders, there were only two skeptical reviews out of 23 respondents, with one respondent indicating that “it’s too early to evaluate it” (F-1), while the other response was negative: “it’s not developed enough to help the prison service, it won’t in any way make the officers’ work easier, on the contrary, it will make it more difficult”

(F-2). While the first response may indicate caution in anticipating the implementation of TMSA technology in prisons, it is possible to conclude from the second that there is some resistance to the developments in prison system modernization.

Most respondents acknowledged the potential of TMSA technology to support prison system officers in their education and protection work. Their statements suggest a complementarity between preventive measures carried out by correctional educators and protective and control measures performed by security officers. The respondents believe that the implementation of TMSA technology in the Polish prison system presents more advantages than difficulties in its implementation and operation. The respondents also pointed out the apparent abstinence that sometimes occur in conditions of penitentiary isolation. This pertains to the convicted offenders who, in connection with the various forms of temporary releases, consumed alcohol in quantities and at times that rendered it impossible for the prison service to detect its concentration in the convicted offender's bloodstream upon return to the prison unit. TMSA implementation in the Polish prison system would eliminate such situations. The surveyed officers suggested that monitoring tags would be the right tool to verify the attitudes and behaviour of detainees that are temporarily out of institutional control.

The respondents' answers regarding the perception of TMSA technology as a tool to support the process of rehabilitation and social inclusion of convicts in terms of consolidating attitudes towards sobriety are complementing the information on the benefits of the possible incorporation of TMSA technology into the Polish prison system. The opinions of respondents clearly indicated the anticipated advantages of TMSA technology for the processes of prison rehabilitation and social inclusion of the convicted offenders (19 individuals). The surveyed prison officers expressed belief that use of the TMSA tags:

- “can voluntarily motivate detainees to behave better” (F-5),
- “could be an effective preventive method” (F-8),
- “or a good method of ensuring “compliance with applicable legal provisions, guidelines, orders, and regulations” (F-19),
- and “will effectively affect the way detainees behave following their release” (F-16).

It was stressed that “detainees; awareness that they are being monitored and supported in maintaining sobriety can eventually produce

genuine motivation to stay sober” (F-23). An opinion was also expressed that “it is difficult to evaluate the permanence of this change, but I think it can support the process of social rehabilitation and readaptation” (F-7).

Participants of the study positively evaluated the applicability of TMSA technology for rehabilitation carried out under prison confinement conditions, as well as for preparing convicts to leave the prison unit. Obviously, the analysis of the effectiveness of this kind of solution should take place during its application. However, the quoted responses show a positive attitude of the prison officers to the possible application of transdermal alcohol concentration monitoring to convicted offenders in the prison units, as well as the expectations of those executing prison work in this regard.

Summary

Based on the presented research findings, it can be concluded that Polish officers enthusiastically perceive the possibility of implementing this new technology and its applicability in penitentiary work.

The respondents among the training participants recognize the applicability of this technology for both educational and security work, and indicate that the technology, should it be introduced, will present real opportunity to support their work. The officers count more benefits than difficulties in TMSA associated with the operation of the monitoring devices. They evaluate alcohol concentration monitoring device as a reliable tool to verify the behaviour of detainees that were granted temporary release and are currently not subject to any institutional control. Respondents believe that the TMSA can also constitute a form of support for convicted offenders in terms of their self-control, which favors the preventive, rehabilitative or educational measures aimed at them. Respondents also believe that TMSA provides powerful support in preparing convicts with alcohol problems to leave the prison unit and enhances their chances for successful social inclusion.

The observations of the prison officers, their positive opinion on the applicability of TMSA technology in penitentiary service and their receptiveness to this innovation present a good prognosis for the possible implementation of transdermal monitoring of alcohol concentration in the Polish prison system.

In conclusion, it should be noted that the adaptation of new technology to the Polish correctional and probation system presents a genuine opportunity to streamline existing solutions for prevention of repeated crime. However, the implementation of new technologies in such a critical area as justice system should be preceded by a research-based identification of needs and capacity for adaptability. This is particularly difficult regarding the popularization of such solutions within the correction and penitentiary field (e.g. monitoring of domestic violence offenders, monitoring during probation, therapeutic monitoring)¹⁹.

¹⁹ See: B.M. Nowak and others., *Possibilities of adapting the transdermal alcohol concentration monitoring system (TMSA) to Polish legal and social environment*, Warsaw 2020, https://swws.edu.pl/wp-content/uploads/2021/02/Ekspertyza_TMSA.pdf [access: 9.02.2021].

Reference list:

- Bainbridge L. (2019). Transferring 24/7 sobriety from South Dakota to South London: the case of MOPAC'S Alcohol Abstinence Monitoring Requirement Pilot, "Addiction", vol. 114, Issue 9, 1-10, DOI:10.1111/add.14609.
- Bell E., Loveland K., Evaluating the 24/7 Sobriety Program, A report for the Montana Highway Patrol, "Loveland Consulting", Montana 2018, 1-16.
- Boone M., Kooij M. & Rap S., *Current Uses of Electronic Monitoring in Netherlands*, Universiteit Utrecht, Utrecht, 2016, 1-99, pp. 42, 86, https://www.uu.nl/sites/default/files/country_report_netherlandsfinal.pdf [access: 11.08.2022].
- Hobson Z., Harrison A. & Duckworth L. (2018). *Alcohol Abstinence Monitoring Requirement, A review of process and performance from Year 2*, MOPAC Evidence and Insight, London, 1-29.
- Kirby P. (2001), Reducing alcohol-related crime electronically, "Federal Probation", vol. 65(2), 42-44.
- Margues P.R. & Scott Mc Knight A., *Evaluating Transdermal Alcohol Measuring Devices, Final Report*, National Highway Traffic Safety Administration, Washington 2007, 1-96.
- McKnight A.S., Fell J.C. & Auld-Owens, A. (2012). Transdermal alcohol monitoring: Case studies. (Report No. DOT HS 811 603). Washington, DC: National Highway Traffic Safety Administration, 1-136.
- Nowak B.M. and others. (2020). *Possibilities of adapting the transdermal alcohol concentration monitoring system (TMSA) to Polish legal and social environment*, Warsaw 2020, https://swws.edu.pl/wp-content/uploads/2021/02/Ekspertyza_TMSA.pdf [access: 9.02.2021].
- Robertson R., Vanlaar W., Simpson H., *Continuous Transdermal Alcohol Monitoring: A Practitioner's Guide*, Traffic Injury Research Foundation, Canada 2007, 1-49.
- Executive Penal Code of 6 June 1997 (Dz. U. [Polish Journal of Laws] of 2021, item 53 as amended).
- Act of 9 April 2010 on the Prison Service (Dz. U. of 2021, item 1064 as amended).

Webography:

- Bureau of Information and Statistics, based on Detained Persons Register/ [access: 20.07.2021].
- SCRAM SYSTEMS, <https://www.scramsystems.com/scram-international/gb/> [access: 10.08. 2022].

State of Nevada Substance Abuse Working Group Protocol, Washington 2014, 1-11, pp. 3-4, https://ag.nv.gov/uploadedFiles/agnv.gov/Content/Hot_Topics/Issue/2014-05-27_Minutes_

SAWG.pdf [access: 9.08.2022].

Website of the Ministry of Justice and Security in the Netherlands, Alcohol-monitoring alcohol bracelet introduced nationally, 2020. <https://www.government.nl/latest/news/2020/05/18/alcohol-monitoring-ankle-bracelet-introduced-nationally/> [access: 1.08.2022].

Website of the TMSA project, <https://www.swws-tmsa.pl/pl/> [access: 29.07.2022].