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Early Detection and Targeted Prevention of The Risk of Violence Against Children Using Artificial Intelligence: A Case Study of the "Mahalla Criminogenic Risk Profile" Platform

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Abstract: This article examines the potential of artificial intelligence (AI) in the early detection and targeted prevention of violence against children, with particular emphasis on the application of digital technologies in community-based crime prevention. It explores the legal, organizational, and technological foundations for identifying factors that may increase the risk of violence against children and developing preventive interventions based on timely data analysis. Particular attention is paid to the concept and practical application of the "Mahalla Criminogenic Risk Profile" platform as an innovative digital tool for assessing criminogenic risks at the local community level. The study considers how AI-based analytical mechanisms can process relevant information, identify potential risk indicators, detect emerging patterns, and support the development of targeted preventive measures by authorized institutions. It also highlights the importance of interagency cooperation among law enforcement bodies, social protection institutions, educational establishments, and local self-government bodies in ensuring the effective protection of children. Furthermore, the article addresses key challenges associated with the use of AI, including personal data protection, confidentiality, algorithmic bias, transparency, and the prevention of unjustified profiling. The study argues that AI should serve as a decision-support mechanism rather than replace professional assessment and human judgment. The proposed approach contributes to strengthening early intervention mechanisms, improving the effectiveness of child protection policies, and developing a proactive, data-driven system for preventing violence against children.

Keywords: Artificial intelligence, violence against children, early detection, targeted prevention, criminogenic risk assessment, Mahalla Criminogenic Risk Profile, predictive analytics, child protection, digital technologies, crime prevention, personal data protection, interagency cooperation.Violence against children often occurs within the family and immediate social environment, remaining unreported to law enforcement agencies in a timely manner because the victimized child experiences fear, dependency, or fails to fully grasp the nature of the act committed. In such cases, merely applying legal measures after the violence has already occurred fails to fully safeguard the child's rights and interests. Therefore, there is a growing need to establish a targeted prevention system based on a comprehensive study of the criminogenic, social, economic, and psychological risk factors within the child's family and mahalla, their regular assessment, and the early detection of signs of violence.

Introduction: The pilot implementation of the "Mahalla Criminogenic Risk Profile" smart information-analytical platform—initiated by an order from the Head of the Bukhara Regional Department of Internal Affairs to assess the criminogenic situation in mahallas and introduce digital technologies into crime prevention—creates new opportunities in this area. The platform is designed to consolidate data on demographics, at-risk individuals, crimes, administrative offenses, citizen appeals, and social prevention measures into a single digital environment, automatically analyze criminogenic factors, generate AI-driven criminological

diagnostics, and develop targeted preventive recommendations. Utilizing these capabilities to assess the risk of violence against children enables the early identification of families and children at high risk of abuse, facilitates individualized interventions, and allows for regular monitoring of prevention outcomes.

Violence against children is a complex, multifaceted, and largely hidden socio-legal phenomenon.

It is not limited to harming a child's life and health, but also infringes upon their sexual integrity, honor, dignity, free development, and the fulfillment of their basic vital needs. The World Health Organization defines child maltreatment as all forms of physical or emotional ill-treatment, sexual abuse, neglect, negligence, and commercial or other exploitation of a person under the age of 18, resulting in actual or potential harm to the child's health, survival, development, or dignity [1]. This approach makes it possible to evaluate violence not only as a situation where specific harm has already occurred, but also as a dangerous act or omission that could potentially harm the child.

This same broad approach is enshrined in national legislation. Pursuant to the Law of the Republic of Uzbekistan No. ZRU-996 "On the Protection of Children from All Forms of Violence" dated November 14, 2024,

Article 3, violence against children is recognized as an intentional act or omission that infringes upon a child's life, health, sexual integrity, honor, dignity, and other legally protected rights, causes or may cause physical or mental suffering, and contravenes their basic needs. The law defines physical abuse, sexual abuse, psychological abuse, neglect, exploitation, and harassment (bullying) as distinct forms of violence [2]. In this respect, it is incorrect to associate violence against children solely with active aggressive behavior; omissions—such as depriving a child of necessary food, medical care, education, safe living conditions, and adult care—also fall within the legal definition of violence.

Physical violence manifests as hitting, kicking, pushing, burning, tying, leaving a child in a dangerous situation, or exerting other influence that threatens their life or health. The specificity of this form lies in the fact that its external signs—such as injuries, bruises, burns, bone fractures, or other medical symptoms—are relatively easy to identify. However, due to views based on the acceptance of corporal punishment as a "method of upbringing," some cases of violence may not be considered an offense by family members or even by the child themselves. O.M. Doroshenko characterizes physical violence as a form of cruel treatment that intentionally inflicts physical pain or bodily harm on a child, and such impact can lead to disability or even death [3].

Psychological abuse is expressed in the systematic abuse of a child, humiliation, intimidation, threats, rejection, isolation from others, groundless criticism, or the denial of their feelings. It is one of the most difficult forms of violence to detect, as it leaves no physical trace. According to O.M. Doroshenko, periodic or systematic psychological influence slows down the normal development of a child's personality, forming neuroses, fears, depression, low self-esteem, and difficulties in social adaptation [3]. The World Health Organization also indicates that childhood violence causes short-term and long-term consequences, such as post-traumatic mental disorder, anxiety, depression, and decreased educational outcomes. Prolonged intense stress can negatively affect a child's nervous and immune systems, as well as the healthy development of the brain. Therefore, the social danger of psychological violence is determined not by the lack of external symptoms, but by the continuous and profound impact on the child's personality.

Sexual violence includes the involvement of a child in sexual acts using their age, vulnerability, dependence on an adult, or lack of sufficient knowledge. The child's external consent to such actions does not preclude their evaluation as violence. Because the child, due to the characteristics of his age and mental development, does not have the ability to give free and conscious consent, fully understanding the content, consequences and danger of sexual relations. O.M. Doroshenko also notes that sexual intercourse between an adult and a minor is considered violence, even if the child expresses external consent [3]. In the dissertation materials dedicated to the investigation of sexual crimes against minors in the LawTheses database, it is noted that in 88% of cases, the grounds for initiating criminal proceedings were the application of the victim's representative, and in 9% of cases, the appeal of other citizens [4]. This indicates that the child's ability to independently apply to a law enforcement agency is objectively limited, and the reporting activity of external actors is important.

Failure to meet a child's basic needs or to provide care is also an independent form of abuse. It is expressed in the failure to provide a child with food, clothing, safe housing, medical care, education, supervision, love, and emotional support. However, it is necessary to distinguish between the fact that the family is objectively in a difficult socio-economic situation and the intentional lack of parental care. According to Law No. ZRU-996, failure to provide care means that a parent or a person caring for a child, despite having the necessary opportunities, knowledge, and skills, as well

as access to appropriate state, medical, educational, and social services, fails to meet the child's basic needs, leading to impairment of their healthy development [2]. Consequently, when assessing this form, it must be determined not only whether the child's needs are not met, but also whether the responsible person has the opportunity and obligation to provide them.

It is necessary to explain the economic impact on children separately from a scientific and legal perspective. Law No. ZRU-996 does not list "economic violence" as an independent form. However, its content manifests within the framework of non-satisfaction of the child's basic needs and the exploitation of the child for economic purposes. Engaging a child in begging, hard or forced labor, misappropriating their income or property, and using their labor to prevent them from receiving an education are manifestations of economic exploitation. Therefore, in the article, it is more accurate to define "economic violence" not as an independent legal form, but as an impact of a violent nature manifested in neglect and economic exploitation, which corresponds to national legislation.

An important feature of domestic violence against children is its high level of concealment. Since the family is a relatively closed social environment protected by the inviolability of private life, the harassment and violence committed within it remain outside the scope of external observation. The World Health Organization notes that violence against children often remains hidden, and only a certain portion of affected children access formal support services. O.M. Doroshenko also points out that the cruel treatment of children in the family is usually well concealed. As indirect symptoms, the author cites a child's delay in psycho-emotional development, a lack of healthy attachment to parents, depressive states, neuroses, behavioral changes, and difficulties with social adaptation [3].

The reason for the concealment of violence is, firstly, the fact that the offender is close to the child or a person they trust; secondly, the child's material and domestic dependence on the offender; thirdly, the fear of the family breaking up or being blamed; fourthly, the lack of awareness of the illegality of the committed act; fifthly, the ignorance of the subjects and methods to which one can appeal. A child's speech capabilities, age, and mental development also influence their ability to consistently describe what happened. Especially if the abuser threatens the child with threats such as "no one will believe you," "your family will break up," or "you will be the one to blame," the child's likelihood of reporting is further reduced. Therefore, the absence of an appeal cannot be taken as evidence of the absence of violence.

J. Belsky emphasizes that it is insufficient to explain the causes of child abuse solely by the personal characteristics of the parents, suggesting its analysis within the framework of four interconnected levels: the developmental history of the individual, family relationships, the local social environment, and general cultural structures in society [5]. According to its ecological model, violence occurs not due to a single cause, but as a result of the combination of several risk factors related to the child, parents, family, and social environment. O.M. Doroshenko also notes that the risk of violence increases when factors such as a parent's alcoholism or drug addiction, criminal experience, unemployment, financial hardship, constant family conflicts, a lack of knowledge about child-rearing, and the fact that the parents themselves were subjected to childhood violence coexist [3]. At the same time, none of these factors imply that violence will inevitably occur; they are merely risk indicators indicating the need for specialized study and preventive assistance.

The above shows that organizing anti-violence activities solely on the basis of responding to the committed offense is insufficient. In the traditional reactive approach, information usually reaches the subject of prevention after the child has been harmed. Early prevention requires a comprehensive assessment of regular family conflicts, past cases of violence, drastic changes in a child's behavior, school absences, unexplained injuries, neglect, and other risk indicators, without waiting for injuries or other serious consequences. Law No. ZRU-996 also mandates the state to create effective mechanisms for identifying and preventing cases of violence, reporting them, verifying facts, rehabilitating victims, and restoring their rights [2].

Thus, the specific features of violence against children are manifested in the following: its coverage of various actions and omissions; the fact that forms of violence are often combined with each other; the child's high victimhood due to age and dependence on adults; the concealment of violence committed in a family environment; the child's limited ability to report independently; the prolonged duration of harm and the increased likelihood of violence due to the combination of several risk factors. These features indicate the need to base the prevention system not on the "incident occurred - action taken" model, but on the "risk factor identified - risk level assessed - targeted preventive measure determined - result monitored" model. This forms the theoretical basis for early detection of the risk of violence by combining data on the child, family and social environment on the "Mahalla Criminogenic Risk Profile" platform.

Violence against children occurs not under the influence of a single factor, but as a result of the interaction of risk factors related to the personal, family, and social environment. According to J. Belsky's ecological model, it is insufficient to explain its causes solely by the personal characteristics of the perpetrator; a comprehensive assessment must be made of the parents' childhood experiences of violence, an unhealthy family environment and constant conflicts, a lack of pedagogical and legal knowledge regarding child-rearing, financial difficulties, unemployment, social isolation, the parents' addiction to alcohol or drugs, their mental state, and the child's lack of supervision [1]. O.M. Doroshenko also notes that the risk of child maltreatment increases when several factors are present simultaneously, such as low income, a parent's lack of a permanent job, family conflicts, criminal experience, substance abuse, and ignorance of upbringing methods [2]. In modern conditions, these factors are being supplemented by digital risks such as online bullying, sexual harassment, the dissemination of harmful information, and online child harassment. However, each risk factor should be evaluated not as evidence of violence, but as a warning sign indicating the need for an in-depth study of the family and the child's situation. The child's fear of reporting violence, financial and psychological dependence on the abuser, fear of family breakdown, and not knowing where to turn contribute to the concealment of these acts. In this regard, it is advisable to analyze risk factors on the "Mahalla Criminogenic Risk Profile" platform not individually, but taking into account their mutual compatibility and repetition.

The legal basis for protecting children from violence in Uzbekistan consists of the Constitution, the Convention on the Rights of the Child, the laws "On Guarantees of the Rights of the Child," "On the Prevention of Offenses," and "On the Protection of Children from All Forms of Violence," as well as other regulatory legal acts in this field. Law No. ZRU-996 defines the legal content of physical, sexual, and psychological violence, neglect, exploitation, and bullying against children, and provides for an assessment of the life situation of a child who has been a victim of violence or is at risk of it, determining the level of risk, and developing a child protection plan [3]. The current prevention system includes general measures—improving the legal culture of the population and creating a safe environment; special measures—targeted work with families and individuals at high risk; individual measures—implementing a protection and assistance plan for a specific child and family; and victimological measures—reducing the child's risk of victimization and creating opportunities for safe reporting. The tasks of the National Agency for Social Protection, internal affairs bodies, education and health authorities, mahalla and other entities are interconnected and should form a single chain of actions for receiving a report of violence, preliminary assessment of the child's safety, issuing a protection order if necessary, providing medical and psychological assistance, and immediately sending an appeal to the authorized body. Therefore, the "Mahalla Criminogenic Risk Profile" platform should not replace the existing legal mechanism, but rather serve as an information and analytical tool for decision-making and interdepartmental cooperation between authorized entities.

Although the legislation defines the main mechanisms for protecting children, in practice, cases of violence remain hidden, data are stored scattered across different agencies, and the ability to quickly compare them with one another is limited, which negatively affects the effectiveness of prevention. The World Health Organization notes that violence against children often remains hidden, and only a certain portion of affected children seek formal assistance services [4]. In some cases, although the prevention inspector, school, medical facility, mahalla and social services each have separate information about the child or family, this information is not combined into a single risk picture; as a result, a targeted electronic account of children and families at risk is not fully formed, and signs of violence are detected after a severe outcome has occurred. Furthermore, when communicating with a child, the child's age, mental state, and opinion are not always sufficiently taken into account; there is a lack of clear and confidential communication channels for the child; and practical algorithms regarding which signs, to whom, and within what timeframe the educator and medical worker must report are not uniformly applied. The effectiveness of preventive measures is often measured by the number of interviews or activities conducted, while qualitative indicators such as reducing recidivism, restoring child safety, and eliminating risk factors in the family are not fully taken into account. These problems indicate the need to shape the platform not only as a database but also as a comprehensive system that integrates risk indicators, monitors response timelines, and evaluates results.

In the practice of foreign countries, the prevention of violence against children is mainly based on the principles of early risk assessment, interagency information exchange, and the provision of child-friendly services in one place. In particular, the Barnahus ("Children's Home") model used in European

countries unites the police, prosecutor, medical worker, psychologist and social service specialist around the interests of the child, preventing repeated questioning of the child in different institutions; communication is conducted by a specially trained specialist in a child-friendly and safe environment. The World Health Organization and UNICEF's INSPIRE approach identifies law enforcement, changing social norms, creating a safe environment, supporting parents, strengthening the economic stability of families, providing victim response services, and developing children's life skills as interconnected strategies to reduce violence [5]. In developed systems, school and medical staff are trained to identify signs of violence, and a mechanism for reporting to the competent authority is activated in the event of reasonable suspicion; hotlines, web portals, and confidential online communication channels are created for children. An important aspect of this experience for Uzbekistan is not the complete copying of the foreign model, but the assessment of risk based on unified criteria, protecting the child from repeated psychological trauma, providing early socio-psychological assistance to the family, and coordinating all responsible entities through the "Mahalla Criminogenic Risk Profile" platform.

Based on the results of the analysis, it is proposed to create a "Child Safety Profile" module within the "Mahalla Criminogenic Risk Profile" platform and to maintain a secure electronic address accounting of individuals prone to violence, children at risk, and families in accordance with legislative requirements. The module should define low, medium, high, and extremely high risk levels based on indicators such as past domestic violence and conflicts, a protection order, parental preventive registration, a child's school absence, abrupt behavioral changes, repeated bodily injuries, neglect, and reports from schools and medical institutions. At the same time, the automatic analysis should serve as a recommendatory basis for a comprehensive assessment by a competent specialist, rather than a final legal decision. For educators and medical workers, it is advisable to implement the "symptom detection - emergency child safety assessment - reporting to the authorized body within the specified timeframe - entering information into the platform - recording the result of the measures taken" algorithm, create the opportunity for children to report free, simple, and confidential information via phone, mobile application, and web portal, and create an individual protection and prevention plan indicating the responsible entities and deadlines for each high-risk case. Effectiveness should be assessed not by the number of measures taken, but by specific indicators such as the speed of response to the message, the proportion of identified dangerous situations, the reduction of repeated violence, the elimination of risk factors, and the return of the child to a safe environment.

The results of the study show that the prevention of violence against children should not be limited only to responding to the committed offense, but should be a continuous preventive process based on the preliminary identification of risk factors related to the child, family and social environment. In this regard, it is proposed to implement a comprehensive mechanism through the "Mahalla Criminogenic Risk Profile" platform, consisting of stages such as "early detection - data collection in a unified digital environment - comprehensive risk assessment - prompt notification of authorized entities - ensuring the child's emergency safety - targeted work with the family - implementation of an individual protection plan - monitoring of results." This mechanism allows for a transition from merely recording cases of violence to their forecasting and early elimination, and from fragmented interagency activities to coordinated data-driven management. It is advisable to test the platform's "Child Safety Profile" module first in the "Olim Khodjaev" mahalla of Bukhara, scientifically evaluate its results based on established indicators, and gradually implement mechanisms deemed effective in other mahallas.

REFERENCES

1. World Health Organization. Child maltreatment. 8 May 2026. WHO расмий манбаси.
2. Ўзбекистон Республикасининг 2024 йил 14 ноябрдаги ЎРҚ–996-сон “Болаларни зўравонликнинг барча шаклларидан ҳимоя қилиш тўғрисида”ги Қонуни. LexUZ.
3. Дорошенко О.М. Жестокое обращение с детьми как социальная проблема // Психология и педагогика служебной деятельности. – 2019. – № 4. – С. 32–36. КиберЛенинка.
4. Яковлева С.В. Расследование изнасилований малолетних: дисс. … канд. юрид. наук. – Москва, 2004. LawTheses.
5. Belsky J. Child Maltreatment: An Ecological Integration // American Psychologist. – 1980. – Vol. 35, No. 4. – P. 320–335. DOI: 10.1037/0003-066X.35.4.320. PubMed.